TASK FORCE REPORT

RE-STRATEGISING THE ECONOMY AND MOBILIZING RESOURCES FOR EQUITABLE AND SUSTAINABLE DEVELOPMENT

January 2025

Final Draft

Task Force Report on

Re-strategising the Economy and Mobilizing Resources for Equitable and Sustainable Development

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Recommendation Highlights

Introduction

The proposed recommendations outline a strategic framework to guide the interim government of Bangladesh in addressing pressing challenges and facilitating economic growth, social development, and environmental sustainability. Considering public service inefficiencies and environmental concerns, there is a critical need for targeted interventions that can create lasting change.

These highlights comprise well-researched initiatives drawn from various sectors, selected for their immediate feasibility and potential to resonate with public interests. The focus on pilot projects aims to develop scalable models for broader reforms in the future, signalling the government's commitment to urgent economic transformations. By fostering collaboration with citizens and youth groups, these initiatives will enhance transparency and accountability, contributing to a more inclusive environment.

In summary, these recommendations are designed to act as a catalyst for meaningful change, laying the groundwork for a resilient and progressive society while addressing pressing issues affecting the daily lives of citizens.

Case Pilots

1. **Public Hospital Reform:** We recommend selecting a specific public hospital in Dhaka for comprehensive reform, as highlighted in Chapter 14. This initiative would involve appointing qualified hospital administrators in place of generalists and establishing a new governing board. Additionally, implementing a real-time monitoring dashboard will facilitate the collection of user complaints, and grant Youth and Citizen Groups online access to key performance indicators. Crucially, the user feedback data can be used to drive continuous improvements in service delivery, quality and performance.
2. **Rural School and Clinic Reform:** Similarly, we propose initiating a pilot project focused on reforming a rural government school along with a Community Clinic. While the foundational principles align with those for the public hospital, this initiative will be tailored to address the unique challenges and scale of rural educational and healthcare environments.
3. **Reform of the Bangladesh Road Transport Association (BRTA):** The approach for reforming the BRTA will mirror those proposed for other sectors. Here, robust performance monitoring and the integration of user feedback will be essential. Additionally, we will establish Youth and Citizen monitoring groups to utilize real-time data, ensuring transparency and accountability in this reform process.
4. **Revitalizing the Buriganga River:** The Buriganga River is on the brink of extinction, and urgent action is imperative for the survival of both the river and Dhaka. The government must send a decisive message affirming its commitment to this critical undertaking. If necessary, emergency legislation should be enacted to facilitate

immediate, unimpeded action for this project. Leadership should come from a dedicated Minister or Advisor, supported by a strong technical and legal team. Given the expected resistance from vested interests, it is vital to seek special judicial dispensations to avert potential sabotage. With rivers granted the right to life under the law, this emergency response would be fully warranted. Let the restoration of Dhaka begin with its rivers.

5. **Reforming a Ministry:** It is strongly suggested that an entire ministry of the government be taken up on a pilot basis to establish a monitoring and evaluation system that will serve to generate critical key performance indicators in real-time to allow the top leadership to quickly review performance of projects and programmes being carried out under its and different departments, directorates, divisions. This is a critical gap that allows wastage and inefficiencies to continue unbridled. A move to close this gap would mark a major improvement in governance.

New Institutions

1. **Establishing a Center of Global Excellence:** There is an urgent need to set up at least one Center of Global Excellence for postgraduate teaching and research focused on STEM (Science, Technology, Engineering, and Mathematics), Engineering, and ICT/AI (Information and Communication Technology/Artificial Intelligence) on the outskirts of the city within the next five years. This centre will not only enhance the local education landscape but also aim to attract international scholars and researchers. If successful, it could serve as a prototype for future expansion into other disciplines such as Environmental Science, Renewable Energy, and Biotechnology across various locations in Bangladesh. By learning from successful models such as the Indian Institutes of Technology (IITs) and other renowned institutions worldwide, we can develop a framework that prioritizes innovation, research, and quality education, thereby positioning Bangladesh as a regional hub for advanced research and study.
2. **Reassessing Bangladesh Biman:** For over half a century, Bangladesh Biman, the national airline, has failed to meet modern aviation standards and performance benchmarks. Its continued existence has largely depended on serving a captive market of migrant labourers, many of whom have reported poor service and inadequate services. To ensure that Biman becomes a competitive player in the airline industry, the government must establish clear and measurable performance targets. Should Biman consistently fall short, we propose creating an entirely new airline—tentatively named Bangladesh Airways—utilizing half of Biman's existing assets, but managed by an independent, world-class management company. This dual-structure approach allows both airlines to target distinct markets and routes and foster healthy competition. If either airline fails to meet performance standards over a designated period, it must be permitted to exit the market, ensuring accountability and efficient service for travellers.
3. **Establishing the Centre for Social and Behavioural Change Communication and Research (CSBCC&R):** The establishment of an independent center dedicated to

Social and Behavioural Change Communication and Research is essential in addressing the fragmented nature of current efforts in this critical area. Presently, various departments handle communication initiatives without a cohesive strategy, leading to inefficiencies and missed opportunities. The CSBCC&R would centralize these efforts, providing a structured platform for both traditional media and digital communication strategies. This centre would focus on modernizing communication approaches, employing evidence-based strategies to engage communities effectively. By merging traditional methods such as community workshops and meetings with contemporary digital campaigns utilizing social media and online platforms, the CSBCC&R would create a unified and impactful communication strategy to drive social change, attitudes, norms and practices.

4. **Creating a Regulatory Reform Commission (RRC):** to address the pervasive issue of over-regulation and bureaucratic red tape that hinder business growth and foreign investment, the establishment of a Regulatory Reform Commission (RRC) is imperative. This body will be tasked with continuously monitoring, evaluating, and streamlining the rules and regulations affecting all aspects of economic governance, including business operations, taxation, and trade. The RRC will actively identify regulatory inefficiencies, such as excessive paperwork, burdensome compliance requirements, and the discretionary powers of authorities like the National Board of Revenue (NBR) and the Customs Department. By flagging these challenges to the government and relevant ministries, the RRC can advocate for reforms that facilitate a more conducive business environment. This initiative has the potential to dramatically enhance the ease of doing business in Bangladesh, making it an attractive destination for both domestic and foreign investors.
5. **National Board of Revenue (NBR) Oversight Committee:** A high-powered committee should be immediately constituted with proportionate representation from the private sector, civil society, and government to assess, evaluate and recommend to the Chief Advisor, how NBR should be restructured to remove inconsistent, arbitrary, and discriminatory policy/regulatory barriers related to customs, VAT and taxes. Policy innovations from NBR (like back-to-back LC and the bonded warehouse system) transformed the RMG industry. Such innovations need to be continuously encouraged, instead of just focusing on revenue collection.

Urban Transport Initiatives

1. **Implementing Automatic Traffic Signalling:** Introducing an automatic traffic signalling system is a fundamental requirement for any major city worldwide, yet attempts to implement such a system in Dhaka have historically faced challenges, often collapsing due to resistance from vested interests. Effective traffic management is crucial for alleviating congestion and improving the overall flow of vehicles and pedestrians on the roads. This initiative should be regarded as a "low-hanging fruit" because it is both actionable and capable of yielding immediate benefits. By utilising advanced traffic signal technology and data analytics, we can ensure that traffic lights

respond to real-time conditions, thereby establishing a much-needed discipline to Dhaka's chaotic transportation network. This investment in infrastructure would not only enhance daily commutes but also contribute to overall urban development and improved quality of life for residents.

2. **Transitioning to a Single-Operator Bus Franchise:** The current model of public transport in Dhaka, characterised by multiple ownership of bus services, has led to significant confusion and chaos on the roads, directly impacting public safety and convenience. To remedy this, a transition to a single-owner bus service franchise that brings all the fragmented owners together as one provider, has been recommended as a way to end urban bus transport chaos. This should be marked by a move to put drivers on a fixed salary rather than on a commission. This will enhance public transport efficiency, increase ridership, and create a reliable, user-friendly public transport system that better meets the needs of the urban population.

Manufacturing, Investments, Exports and FDI

1. **Cherry-Picking Winners:** To advance export diversification in Bangladesh, two strategic policy approaches are sometime discussed: the first is to create a favourable regulatory environment that facilitates the natural emergence of successful industries/companies; the second, and a more targeted approach, is to actively "cherry-pick" high-potential firms and provide them with essential policy, financial, and technical support. Evidence from recent successes in East Asian countries suggests that cherry-picking has yielded significant results. We advocate for this approach by identifying the most promising non-RMG (Ready-Made Garment) export performers among almost 1,500 entities currently exporting a minimum of $1 million annually. By focusing our support on these select companies, we believe that a few could be nurtured to become substantial players in the market, thus contributing to broader economic growth and diversification.
2. **Enhancing the One Stop Service (OSS) System:** The much-discussed One Stop Service (OSS) designed to expedite investment proposal approvals remains an essential component of improving Bangladesh's investment climate. However, its efficiency needs substantial improvement. Currently, the process involves four different entities, creating bureaucratic delays and complexity for investors. We propose consolidating all responsibilities under a single authority—specifically BIDA (Bangladesh Investment Development Authority). This streamlined structure would enhance accountability and provide clear guidance for investors navigating the system. Additionally, integrating the PPP Authority’s functions within BIDA would further simplify the investment landscape. A separate OSS focused on Micro, Small, and Medium Enterprises (MSMEs) is highly recommended to ensure that the sector receives the tailored attention it requires to foster growth.
3. **Encouraging FDI in the Health Sector:** The recent closure of the Indian medical market has accentuated the urgent need for high-quality healthcare within Bangladesh. To address this demand effectively, liberalizing FDI in the tertiary health sector is

essential. Although this idea has faced resistance from vested interests in the past, it is now imperative for the government to revisit the idea. Allowing foreign investments will significantly benefit local communities by providing access to quality medical services without the need for expensive medical tourism abroad. Additionally, fostering competition in the healthcare sector will lead to better services, facilitate skills transfer among local healthcare providers, and establish vital backward and horizontal linkages with international and local health networks. The time has come for this market to be liberalised.

4. **FDI in Technical and Vocational Education:** The technical skill level of the workforce is a critical constraint to the country's economic growth. FDI into technical and vocational education could make a huge difference to the quality of the labour force. Establishing or upgrading polytechnics that can award internationally recognized "foreign" certifications will elevate the perception and quality of technical education. This will address some of the bottlenecks in acquiring essential technical skills, thereby improving employment prospects and increasing wages for graduates. A viable approach could involve converting existing polytechnics into colleges under the National University framework, allowing them to offer a two-year BA (Tech) degree. Such changes would not only help to upgrade the quality of education but also equip students with the necessary competencies required in a rapidly evolving job market. These measures will have a strong, much needed, 'gentrification effect' on the skilled- labour market.
5. **Pursuing Economic Diplomacy for Enhanced Market Access:** To ensure that Bangladeshi goods, services, and skilled labour gain greater access to broader international markets, a proactive approach to economic diplomacy is needed. This includes aggressively pursuing both bilateral and multilateral Free Trade Agreements (FTAs) that have, until now, seen limited progress. Effective economic diplomacy requires not only skilled diplomats, but also robust communication campaigns tailored to potential partner countries. For Bangladesh, this means broadcasting comprehensive programs across various media platforms, including satellite television and social media, and in multiple languages, such as Chinese, Hindi, Korean, Japanese, English, and Russian. Additionally, leveraging cultural exports like music and film can enhance the country's soft power internationally. Given the strength of the Ready-Made Garment (RMG) industry, Bangladesh can also capitalize on building its fashion industry to create new brands, and tap into global trends in fashion design.
6. **Seizing Opportunities for Skilled Labor Exports:** Several emerging economies are actively exploring avenues to import skilled labour to address severe labour shortages at home in sectors such as industry, healthcare, and services. Japan and South Korea are looking to Bangladesh as a potential source of skilled workers due to their declining and aging populations. These countries are not only interested in hiring local talent, but they are also open to establishing training programs within Bangladesh to enhance skill standards prior to granting work visas. This initiative presents a

significant opportunity for Bangladesh to develop its human capital while simultaneously addressing global labour shortages. Such collaborations could create pathways for skilled migrants to find meaningful employment abroad while contributing to the local economy, representing a win-win scenario.

7. **Revitalizing Special Economic Zones (SEZs):** Special Economic Zones (SEZs) have garnered considerable political and media attention in Bangladesh; however, actual progress toward their establishment and full operationalization has been meagre. The upcoming critical phase involves selecting a handful of SEZs and ensuring they deliver meaningful results in terms of attracting investment, fostering foreign direct investment (FDI), and promoting exports. Historically, several reasons, such as bureaucratic hurdles, inadequate infrastructure, and unclear policies, have hindered the successful execution of SEZs. It is imperative that the government address these issues head-on to streamline the process and establish clear precedents for attracting investment.

Crosscutting Actions

1. **Leveraging Digital and AI Technology Across Sectors:** A major strategic emphasis is required within key sectors such as education, health, agriculture, and public institutions to facilitate the widespread adoption of digital and artificial intelligence (AI) technologies. For instance, employing satellite sensing technology can enable effective crop early-warning systems to improve agricultural practices, while distance education can ensure that learning continues uninterrupted regardless of geographical barriers. By integrating these advanced technologies, we can enhance quality, efficiency and access across multiple sectors, ultimately improving outcomes for the entire population.
2. **Reducing the Digital Divide:** A critical strategy to utilize digital and AI technologies effectively is to bridge the existing digital divide. This involves reducing data costs, increasing access to affordable smartphones—implemented with appropriate safeguards for age-specific content—and fostering the growth of a robust domestic software and hardware ICT industry. By promoting widespread digital access, we can empower citizens, enhance digital literacy, and stimulate innovation within the ICT sector.
3. **Reforming the Planning Process:** Bangladesh's planning process has faced significant challenges that have led to inefficiencies and a lack of coherence in policy implementation. Reforming this process is of utmost urgency, as detailed in Chapters 8 and 14. This reform initiative requires a comprehensive thrust in governance practices, monitoring and evaluation (M&E) frameworks, and improved policy-making processes. Additionally, project implementation arrangements and inter-departmental coordination must be enhanced to ensure that development goals are met effectively and efficiently.
4. **Professionalisation of Leadership Positions:** It is crucial for the government to assign qualified technocrats to leadership positions within technical departments,

divisions, and institutes, rather than appointing generalists who may lack necessary expertise. This shift away from archaic practices will ensure that leadership is informed and capable of making critical decisions relevant to their fields. The immediate benefits of such a strategic change could include improved project outcomes, better service delivery, and heightened accountability within public institutions.

5. **Combating Everyday Extortion:** A recurring and significant issue faced by citizens in accessing public services—such as purchasing train tickets or obtaining passports—is the prevalence of extortion. This deeply entrenched problem extends beyond public services into markets, transportation systems, and construction sites. To address this urgent concern, we strongly recommend the establishment of an independent "Anti-Goon Squad." This dedicated unit could operate within the public sector or be outsourced to private security firms, provided there are robust safeguards to prevent misuse. Moreover, monitoring and oversight by Youth and Citizen groups must play a central role in ensuring the squad's effectiveness. Continuous fine-tuning and adjustments to its operational procedures will be necessary to keep the initiative responsive to emerging challenges.
6. **Improving Government Efficiency:** There is substantial scope for efficiency gains within government operations, particularly given reports of high waste levels. Strategies to enhance operational efficiency may include transitioning to paperless offices, minimizing ceremonial and protocol-related expenses, reducing unnecessary construction of facilities, and limiting the frequency of meetings to save time and resources. Identifying and implementing these 'minor adjustments' collectively can result in significant improvements in government efficiency.
7. **Implementing NID-Based Open Data Platforms:** Establishing open data platforms based on the National Identity (NID) system—similar to India's Aadhar card—can revolutionize service delivery across numerous sectors. These platforms can facilitate access to finance, efficient distribution of subsidies, social protection programs, tax compliance, bank account openings, and meeting Know Your Customer (KYC) requirements. This digital intervention has already been tested successfully in other contexts and promises to have a transformative, economy-wide impact.
8. **Establishing Emergency Reserves:** To bolster food security, Bangladesh currently maintains reserve stocks of food commodities. We recommend expanding this approach to include additional security reserves for essential goods such as diesel, fertilizers, and edible oils—all of which are prone to price volatility due to reliance on imports. While long-term strategies, such as transitioning to solar and wind energy or increasing local production of edible oil seeds, are vital, establishing in-country security reserves can provide more immediate stability in pricing and supply.
9. **Removing political influence from the banking sector:** A powerful vested interest group has played pivotal role in weakening the sector for decades. This needs to be dismantled. The Bangladesh Bank must be allowed to function independently, as per the Bangladesh Bank Amendment Bill 2003. A single individual or group of

individuals should not be allowed to obtain majority ownership of more than one commercial bank. No new bank licenses should be given out on political grounds. Use of public funds to recapitalise poorly governed commercial banks needs to stop. An exit policy for troubled banks should be formulated to protect the depositor interest.

Miscellaneous Actions

1. **Utilizing Degraded Lands for Solar Energy:** Despite land scarcity in Bangladesh, there remain significant amounts of degraded and unused land available in both private and public sectors. Identifying and repurposing these lands for solar parks could enhance renewable energy production. The Tea Garden Association has already put forward a proposal that warrants further investigation. Additionally, rooftop solar installations in urban areas could be incentivized through net metering, contributing to effective energy generation and consumption.
2. **Exploiting Existing Gas Fields:** Considering the current severe gas crisis, which is exacerbated by foreign exchange constraints, a relatively straightforward solution lies in exploring and exploiting existing gas fields to tap into additional reserves that are likely to be present. This initiative can be efficiently undertaken by BAPEX (Bangladesh Petroleum Exploration and Production Company Limited) at a relatively low cost. By focusing on maximizing the output from existing fields, Bangladesh can alleviate some of the immediate pressures caused by the gas crisis, reduce reliance on imports, and support the energy sector's stability while longer-term energy solutions are developed.
3. **Regulating Sand Extraction:** Sand extraction is critical to meeting the demands of the construction industry; however, it has also sparked significant environmental concerns. The government previously enacted the Balumahal Act of 2010 to regulate sand extraction and prohibit activities in sensitive areas like riverbeds, residential zones, and tea gardens. Unfortunately, unregulated and illegal sand mining has persisted, leading to severe erosion, water pollution, and disruption of the natural hydrology of rivers. It is imperative to scientifically identify and establish appropriate sand mining areas while enforcing stringent regulations to curb malpractice. This approach not only protects environmental integrity but also addresses the grievances of local communities affected by irresponsible sand extraction.
4. **Streamlining Public Service Call Centres:** The proliferation of numerous call-centre numbers dedicated to public services—both general and emergency—creates confusion and inefficiency for citizens seeking assistance. To enhance efficiency and response times, we recommend consolidating these services into two central numbers: one for general inquiries and another for emergencies. Additionally, incorporating AI technology into these systems can increase operational efficiency, reduce wait times, and improve overall user experience. By optimizing this service, the government can better serve its citizens and streamline communication processes.
5. **Establishing a "Dhaka Haat" for SMEs:** To promote small and medium enterprises (SMEs), the government should consider setting up a "Dhaka Haat," modelled after

Delhi's successful handicraft market, which operates year-round to showcase SME products. This venue can provide a dedicated space for local artisans and small businesses to display and sell their goods, fostering economic growth and encouraging entrepreneurship. Managed under the aegis of the SME Foundation, this initiative would not only enhance visibility for local products but also support capacity building within the SME sector.

6. **Re-Categorizing SMEs (Also Labelled as MSMEs):** The vast and diverse grouping of small and medium enterprises (SMEs) also labelled as micro, small, and medium enterprises (MSMEs) lacks an organic justification and must be re-categorized. Each category within the SME spectrum faces distinct challenges and opportunities, which should be recognized to ensure that policy support is effective and appropriately targeted. Without addressing this need for re-categorization, policy initiatives risk concentrating assistance on larger enterprises within the sector while neglecting smaller firms that may require tailored support to overcome their unique barriers. A targeted approach will ensure that all SMEs, regardless of size, receive the necessary assistance to thrive.

Conclusion

The actions and recommendations presented serve as an initial roadmap for economic reform, embodying a vision for a transformed Bangladesh that is responsive to its people's needs. By prioritizing impactful projects in healthcare, education, and governance, the interim government can restore trust in public institutions and create momentum for sustained progress.

Pilot projects will provide valuable insights, enabling iterative improvements and broader implementation in future reforms. The use of digital and AI technologies, along with the establishment of institutions promoting excellence and regulatory reform, will enhance Bangladesh's competitive position globally.

Ultimately, these recommendations call for a shared responsibility between government officials and citizens to build a better future. With strong leadership and strategic planning, Bangladesh can turn challenges into opportunities, fostering a prosperous, equitable, and resilient nation for current and future generations.

Introduction

K A S Murshid

(Chairman of the Task Force)

The July 2024 uprising led by students and youth culminated in the abrupt fall of the Sheikh Hasina government on 5 August 2024 and the installation of an interim government headed by Nobel Laureate Professor Muhammad Yunus. One of the first things that the new government has done is to set up a number of commissions to reform the country in major sectors, including the Electoral Reforms Commission, Police Administration Commission, Judiciary Reform Commission, Anti-Corruption Reform Commission, Public Administration Reform Commission, Constitution Reform Commission, and a White Paper Commission on the State of the Bangladesh Economy.

The White Paper Commission was set up with the goal of taking stock of the economy and reviewing its performance so that it can serve as a baseline for the new government, going forward.

The apex body in charge of planning in Bangladesh is the Ministry of Planning (MOP). The Ministry felt that the masses desired to see the rise of a new Bangladesh imbued with the ideals of equality, prosperity, and good governance.[1] It was thus felt imperative to review, re-strategize and rethink economic development priorities, policies, approaches, methods and interventions. The Task Force was urged to identify immediate and short-term, pragmatic and actionable measures that could be undertaken right-away (i.e. "Low Hanging Fruits") and longer-term options that deserve urgent, sustained initiation. The aim of this Task Force is to develop policy recommendations for economic reforms and identify development pathways, policies and programmes that would be aligned with the vision of a new, youth-inspired Bangladesh.

Contextual Background

The last 50 years has seen Bangladesh emerge out of the ashes to a position of hope, guarded optimism and sustained growth. This is reflected in various metrics related to poverty, gender, labour markets, real wages, and demographic, health, and educational indicators. Bangladesh's development narrative soon drew international attention and accolades from development experts, including the likes of Amartya Sen. The impressive development outcomes resulted from a complex process involving multiple stakeholders such as farmers, NGOs, government, development partners, women, and entrepreneurs, whose creativity, initiative, responsiveness, hard work and resilience played out over several decades. At one point, the Sheikh Hasina government developed an alternative, ahistorical narrative that claimed all glory for Sheikh Hasina, her party and the ruling

[1] Official note on establishment of Task Force, dated September 2024.

regime. The exaggerated narrative attempted to give the impression that the country's development journey would push on unabated irrespective of the appalling state of governance, and the unabated rise of a crony-criminal class that has weakened the foundations of the economy and left the banking-financial infrastructure deeply wounded.[2]

While all past governments must share blame for the above state of affairs, the last 15 years saw an acceleration of bad policies, further erosion of governance, a wilful tendency to disregard or even subvert rules, regulations and guard-rails, and an unbridled rise in the power and influence of crony and criminal capital whose purveyors had become entrenched in the governing infrastructure, including Parliament. The massive amount of money laundering and capital flight, such as that documented in the White Paper, was an inevitable outcrop of systematic misrule. The blatant manner in which these operations were carried out displays a mindset with poor sensitivity to popular opinion or civil voices, and very little sense of accountability.

The distorted narrative of growth by the previous regime has also triggered an extreme reaction in some quarters which refuse to acknowledge that any significant development has happened in the country. Such a position fails to acknowledge the enormous effort made by millions of Bangladeshis since independence to improve their living conditions in the midst of great odds.

Given this backdrop, the new, Yunus-led government installed after the July 2024 Uprising, finds itself in a quagmire. On top of the economic crisis characterised by depleted foreign exchange reserves, high inflation, diminished food and energy security, we see growing social unrest, weakened law and order, and a population still on the edge, waiting patiently for positive outcomes to emerge from the chaos.

The commissions and task forces established by the new government (and given just 3-4 months to submit their reports) stems from the concern that basic change is urgently needed. But these, nevertheless, require a degree of preparation, and time to discuss, review and rethink. Excessive haste would be counterproductive and may even permanently damage reform prospects. At the same time, it is worthwhile to remind ourselves that the window for reforms may be quite limited, given that the political-economic space available to the interim government is unlikely to be prolonged much beyond a year.

The hope is that the reform agenda developed by this taskforce can be taken up for implementation immediately. In particular, we have tried to suggest some 'low-hanging fruits' that can be harvested quickly, while others that are deemed to be high priority could at least be initiated within the tenure of the interim government. In some cases, we have advocated case pilots to be initiated, supported by a continuous M&E system reinforced with a user feedback loop. Positive outcomes from this initial phase would

[2] See Murshid, K.A.S. (2023).

create a demonstration effect, and show the public what is possible, and thus create pressure on the next government to continue with the reforms. It would also help if, in the meantime, youth and citizen groups can be sufficiently organised to carry out advocacy and engage in activism in support of reforms.

Methodologically speaking, the commission and taskforce-led approach to developing a policy/reform agenda is instructive. Given that it crucially depends on embedded knowledge already extant in the professional community, it may indeed be a time and cost-saving, as well as an effective approach, going forward. The incorporation of a participatory approach based on extensive stakeholder consultations allowed the Task Force to take on board vital feedback which is rare in government policy making. If taken seriously, an approach that systematically builds-in a transparent feedback-loop in policy making could redefine how we do development policy in countries like Bangladesh.

Several recurring themes were voiced in these consultations that need to be articulated upfront and repeated as often as needed: (a) absence of coordination across ministries and departments as each operate in a silo, sometimes with overlapping mandates; (b) planning and implementation process has become emasculated with planning reduced to carrying out 'requests' made by politically powerful forces, and now needs to be fundamentally revived and reformed; (c) lack of accountability and a poor performance culture has distorted the incentive system in government such that emphasis is more on project approval than project implementation; and (d) excessive rules and regulations and indiscriminate application of discretionary powers has left economic governance in shambles and the private sector in deep agony. There is an urgent need to reduce and streamline regulations to keep it to a minimum and prevent what many have been labelled as oppressive and counterproductive rules – blocking initiatives, investment decisions, FDI, and entrepreneurship. At the same time, good regulations need to be enforced well so that social and environmental safeguards are maintained.

The Task Force has also been mandated to help develop an independent indigenous development agenda. The assumption is that such an agenda would better reflect the priorities, aspirations and needs of the population than if it were to be left primarily in the hands of non-State entities or a bureaucracy-dominated, enfeebled planning system.

Purpose of the Task Force

Vision: Establish a framework for a comprehensive, human development cantered, welfare-oriented development strategy based on sound institutional foundations.

Goals: Develop a short to medium term strategy and a set of actionable policy recommendations and interventions that are most pressing in the current context, centred on regaining stability, improving public service delivery, streamlining policies constraining food and energy security, and sustainable, diversified growth. This agenda-setting exercise has the benefit of being homegrown, which is likely to improve national ownership and policy buy-in. It would also be easier for development partners to align support with national priorities.

Putting Human Beings at Centre Stage: Towards a Conceptual Framework of a Human Welfare Driven Strategy

Economic development has increasingly moved away from a narrow focus on growth to a multidimensional approach, conceptualised as "a process of creating and utilising physical, human, financial, and social assets to generate improved and broadly shared economic well-being and quality of life."[3]

Greenwood, D. and Richard Holt (2010, pp. 3-4) distinguish economic development from economic growth on the premise that economic development is a "broadly based and sustainable increase in the overall quality of living standards of individuals within a community". Such an understanding incorporates income, comforts and services available to an individual, community or society reflected in a set of well-considered metrics based on economic, societal, political, and environmental matters. Measures of growth such as per capita income do not automatically correlate with improvements in the quality of life. The UNDP has proposed four factors requiring particular attention as these affect individual choice: empowerment, equity, productivity, and sustainability.[4] Others - especially by Asian and European proponents have argued that infrastructure-based development in transportation, education, healthcare and housing are a prerequisite to sustainable economic expansion (e.g. Firzli and Nicholas, 2013). Ghose (2019) puts the difference between economic growth and economic development succinctly: “Economic development is economic growth with employment…That is why development strategies cannot be just growth strategies. They must be ‘growth with employment’ strategies.” His emphasis on employment is derived from the premise that “improvement in material conditions occurs when people are engaged as both producers and consumers in a process of economic expansion.”[5]

In its broadest sense, policies of economic development encompass four major arenas:

(a) Broad objectives such as price stabilisation, employment, and sustainable growth (through monetary and fiscal policies, regulation of financial institutions, trade and tax policies).

(b) Provision of Public Goods such as infrastructure, health services, education, law and order, and economic parks and zones.

(c) Employment generation and retention through specific investments in education and skills development, training, incentives to industry, especially to Micro, Small and Medium (MSME) industries, and promotion of agricultural, and rural development.

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[3] Seidman, Karl F. (2005) Economic Development Financing, Thousand Oaks: Sage Publications, P.5

[4] UNDP (1995), Human Development Report, 1995, New York: Oxford.

[5] Ghose, Ajit Kumar (2019), Employment in India, Oxford University Press, New Delhi, 2019.

(d) Enhancement of productivity in the economy through technological upgrading and learning, and exploitation of economies of scale by large enterprises.

There are many such models discussed in the literature, including famously, in Amartya Sen's human capabilities approach based on the idea of freedom to achieve well-being. This has generated new paradigms such as the human development approach or human well-being approach. A core difference between Sen and others is the former's attribution of individual agency in combination with the social, economic and political environment and opportunities faced, that determines individual welfare.[6]

While the above trend in the literature is a distinct advancement on the growth-structural adjustment cum social protection literature, it has not gone far enough towards making a policy dent in the context of most developing countries.

It is important to put forward a clear, holistic vision of development that needs to put the human being at centre stage, with policy, institutional reforms, and interventions across sectors and crosscutting spheres, working in concert to promote human welfare. This is the fundamental criteria against which to assess economy-wide performance. Such a vision requires the adoption of human development targets that will be revisited and updated at regular intervals.[7]

However, crosscutting sectors that require a 'whole of government' approach need to be recognised as basic, fundamental enablers of human development. These include, for instance, a massive push in digital technology and ICT-led development in sectors like health and education; food and energy security to promote stability; and economic and institutional governance reforms to galvanise investment, employment and growth.

A Guide to the Report

The report is organised into 17 chapters, excluding the 'Introduction', and consists of two broad components: Part I entitled, Sectoral Discussions (Chapters 1-7) that reviews sectoral and sub-sectoral performance and identifies core policy challenges, while Part II focuses on major "Cross-Cutting Themes" (Chapters 8-17) that need special attention to boost economy-wide efficiency and performance.

At the very outset of this report, we have highlighted 32 of the most important policy recommendations from literally hundreds that have been articulated in the different chapters. This provides a quick feedback on the salient observations of the report and is easily accessible to everyone. Serious policy makers, researchers and partners are requested to deep dive into the chapters for a thorough, more nuanced discussion of policy around the various themes presented.

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[6] See e.g. Alkire,S. (2005); Robeyns, (2005) and Gasper (1997)

[7] The terms human welfare, human development and human resource development have been interchangeably used in this report.

A note of clarification may be in order. A degree of repetition may be observed across some chapters given the various inter-linkages that operate across different economic spaces. An attempt was made to weed out excessive repetition, but some of it has been allowed to remain since some issues do need to be repeated more than once!

Chapter 1 (Regaining Macroeconomic Stability..) begins with an overview of the performance of the macro-economic and macro-financial variables pointing to the severe crisis currently faced with its origins in Covid-19, the Ukraine War, and domestic mismanagement and corruption. It notes that stability is slowly returning but will require close attention across a number of dimensions including monetary and fiscal policy, exchange rate and interest rate policies, attention to supply-side factors underlying inflationary pressures, tariff rationalisation, public expenditure management and domestic and external resource mobilisation.

Chapter 2 (Unlocking Export Potential..) takes on the challenge of export diversification which has long been on the policy agenda without much success. Some key barriers identified include policy disconnects and misalignments that discourage export initiatives, an anti-export bias in policy due to the high tariff regime made worse by dependence on tariffs for revenue generation, and an overdependence on LDC-specific trade preferences. Other issues cited are quality and standards for domestic producers (and the resultant inability to export), over-valuation of the BDT, energy supplies, and lack of preparedness for FTAs. A number of policies have been advocated: unified trade and investment policy, time-bound implementation of the national Trade Policy 2023 to balance incentives and encourage export diversification, a fund for assisting backward-linkage industry, and leveraging geo-political opportunities in the region. A careful review of preparedness for LDC-graduation is provided.

Chapter 3 (Transforming Agriculture..) explores developments and potentials in agriculture which continue to play a crucial role in the Bangladesh economy in terms of food security, nutrition, employment, and contribution to GDP. The sector is dominated by rice but has undergone some diversification with the expansion, first in wheat, and more recently in potato and maize. The most striking change however has been in non-crop agriculture, particularly in aquaculture, poultry, and livestock, including the rise of a modern poultry segment dominated by corporate investors. Another interesting development has been the rise of an agro-processing segment along with the rise in corporate agriculture and modern retail – all very exciting developments that however require to be carefully managed. The main recommendation to flow from this chapter is adoption of a dual strategy combining cutting-edge technologies with robust traditional and modern extension systems. Game changing technologies such as precision agriculture, improved crop varieties, and smart financial and insurance mechanisms, hold the key to addressing complex challenges of climate change, resource constraints, and food security and safety.

Chapter 4 (Rebooting Industrial Strategy to Boost Investment..) grapples with the problem of rebooting industrial growth, investment, exports and diversification, and

particularly zooms in on key challenges relating to productivity, technological upgradation, and scale economies. The role of FDI is thought to be crucial in attracting technology and skills transfer. A key strategy here would be to properly leverage the Economic Zones (EZ) programme of the government to attract quality domestic and foreign investments for exports. This will require some re-orientation in terms of objectives, rules and regulations in EZ policy, along with major investments in infrastructure, connectivity and utilities. The chapter also addresses the role of innovation in RMG, while recognising the vital importance of creating a large, skilled labour force for emerging and existing industrial needs. It concludes by underscoring the need for green industrial investment to make growth sustainable. Given the highly concentrated export basket, a concerted effort is needed to break into new products and industries. It is highly recommended that we try to identify winners ('cherry-pick') from amongst those firms that have already managed to export significant quantities of goods or services but are having difficulty scaling up. The government can design appropriate policy support, with strong performance disciplines, so that these entities can take off. There are a number of such firms to choose from but one that resonates well given its role in East Asian development, is the embryonic semiconductor industry in the country. It also means that export incentives should be provided to these emerging sectors as was once done for RMG. The chapter suggests building a skilled workforce for semiconductors, and a much larger role for BIDA.

Given the role that MSMEs could potentially play in the economy, Chapter 5 (Strategies and Action Plans for Development of SMEs..) takes a close look at the sector to identify challenges faced and recommend institutional and policy change. It is suggested that the SME Cell be promoted to a "Wing" or a Division in the Ministry of Industries, while reforming the SME Foundation by giving it a more effective leadership structure. A 'One Stop Service' is recommended for the Foundation as part of its overall work. An SME Act is proposed to simplify rules along with pursuing innovative financing approaches. A pilot is suggested to establish a Dhaka Haat all year round, dedicated to SMEs, taking inspiration from the success of the Delhi Haat in India. A major ICT-led thrust is advocated to leapfrog into new technologies to promote skills-employment, growth and competitiveness. An important omission of the chapter is the unbundling of MSME into smaller, more logical categories on the basis of the nature of challenges, financing and promotional needs which vary considerably along the large MSME spectrum. Limited time availability prevented this exercise from being conducted but is flagged for further exploration.

The focus of Chapter 6 (..Investment on Education) and Chapter 7 (..Investment on Health) are both key areas of human welfare that have the potential to play a central role in the process of equitable development, as well as open up the path to upward mobility and facilitate entry into the labour market. The health sector is mired in complex issues relating to low public investment, poor quality of services, inefficient resource utilisation, wastage, weak regulations and poor institutional capacity. The education sector also

suffers from deep seated institutional and quality issues, and like in health, the extent of corruption and misgovernance points to the need for fundamental reforms. Policies suggested to jump start development in these areas include use of modern technology including AI to deliver high-quality, accessible services. It is also recommended that the country liberalise the sectors to FDI. A key argument is to establish at least one world class, IIT-type research and teaching institution in the country to teach STEM, engineering and IT to the brightest students in the country. We also urge the government to allow FDI in the tertiary health sector, from world-class hospital groups like Bumrungrad or Gleneagles.

Chapter 8 (Infrastructure and Connectivity..) provides a detailed treatment of infrastructure and connectivity that examines general infrastructure governance, and reforms needed to support building of resilience, capacity, and skills to be able to design, implement, and monitor large and mega projects. In this context, the author recommends the use of international 'best practices', and an overhaul of the entire planning and implementation processes and arrangements now in use. The chapter also strongly advocates for improved city governance, the merging of North and South Corporations in Dhaka City, and identifies invaluable ideas to improve Dhaka traffic conditions. One such proposal is simply to introduce an automatic traffic signalling system that has been sabotaged by vested groups time and again. The moment is now right to get this done now. Another idea is to introduce a single-operator system for public bus transport. Financing ideas are also put forward including infrastructure bonds that have met with great success in the region.

Chapter 9 (Climate Policy ..) focuses on climate and environmental challenges which begins by reminding us of our precarious position as a frontline state against the war on climate change. The challenges are enormous from land degradation, pollution of waterways and air, disposal of toxic waste, climate migration, and so on. The way forward would include a move to clean energy sources, banning single-use plastics, emphasis on recycling of other plastics, regulating effluent discharge, and conservation of land and natural resources, and generally moving towards a coordinated policy of targeted mitigation and adaptation measures. Concerted behavioural change communications are needed to motivate people to abandon damaging practices like use of brick kilns, clogging up of riverbeds, and indiscriminate and unregulated sand-mining, overuse of untreated chemicals in agriculture and industry, and harmful industrial emissions. It is recommended that at least one, highly visible and urgent pilot project be taken up to signal that the government is serious about ending resource degradation. We recommend that the Buriganga River in Dhaka be taken up for revival on an emergency basis given that it is literally in its last throes.

Chapter 10 (Transforming Energy Policy for a Sustainable Future) addresses the vexing question of energy security for which we are critically dependent on the volatile world market for diesel and gas. It has been a challenge to arrive at a policy regime that could ensure adequate energy supplies to domestic industry and agriculture, and meet

household demands while at the same time keeping prices stable. Despite massive subsidies this has not been possible but instead, problems have become compounded due to gross mismanagement and bad policies. The chapter deals with the power sector alone, recommending reversal of policies on quick rental that has led to overcapacity, enormous capacity charges, and a heavy cost burden. It recommends the closure of rundown power plants and a move to renewable sources, mostly solar. An interesting option is to convert degraded tea gardens in Sylhet to solar for which garden owners are keen, and all that is required is official permission. Similar scope exists in unused or poorly used public lands. Another policy mantra is repeated, namely, to set pricing policy with reference to world prices, although this will require careful interpretation in terms of specifying how 'referencing' ought to be defined. Regional power trade has a lot of potential and ought to be pursued. At the institutional level, there is a need to strengthen BERC and SREDA, and to ensure that there is transparency in power purchase contracts, going forward. An extremely pertinent question for power generation is diesel supply stability. Given the unpredictability of the market, it is important to explore holding diesel security reserves much like we do for foodgrains.

Although gas was not discussed in the chapter, stakeholders have repeatedly asked for a solution to the gas problem faced especially by industry, but also by households. The long-term solution is aggressive exploration to find new fields, onshore or offshore but also to move to new, renewable sources. The only immediate solution other than expensive imports, is to immediately embark upon further drilling of existing wells that appear to still have significant reserves that could be easily tapped.

Chapter 11 (Robust Governance for Resilient Banking Sector) focuses on Bangladesh's acute financial crisis and the role of the banking sector therein. The author describes it as "persistent governance challenges and inefficiencies have hindered the potential of the banking sector". Both policy and institutional reforms of the banking sector have been initiated but much more work still needs to be done. The author has suggested measures such as strengthening commercial banks – both private and State-owned, upholding independence of the Central Bank, creating a conducive, legal and judicial environment, and ensuring data quality and professional accounting standards. The need is for struggling banks to be recapitalised – which is the way that the government seems headed although there are concerns that this might not be enough. A precondition is to reform these banks thoroughly and closely monitor performance. The other option is to allow these banks to be weeded out as is the practice in many advanced countries – a step that is difficult to take given the fear of a huge backlash from depositors, and further erosion in confidence in the system. The idea of mergers has been floated but response from sector leaders have been less than muted.

Chapter 12 (Redefining Social Justice..) takes on a complex issue that has been intensely debated over the ages by philosophers, economists and political thinkers, including Plato, Aquinas, Mill, Locke, Hume, Marx, and more recently Rawls and Sen. Although not explicitly stated in this chapter, the approach adopted most closely approaches Sen's

notion that reason can reduce social injustice even if it cannot eliminate it completely. Rawls' proposition that justice requires benefits to be directed to the least advantaged, and that there should be equality of opportunity to access 'offices and politics" also resonate well although these propositions present insurmountable problems.[8] We have looked at structural constraints to justice including gender, location (rural-urban), asset disposition, access to opportunities, and social class. The way out is to take an intergenerational approach that focuses on building human capacities in health and education and opening up markets and non-market spaces to broader participation. While the notion of progressive taxation has been raised, we also recognise that the best way to move forward on social justice is first, to ensure equitable access to public services at reasonable cost - seemingly a simple goal but which has presented enormous difficulty over many decades.

Chapter 13 (Poverty, Vulnerability and the Needs for Social Protection) provides an exhaustive treatment of social protection issues and challenges and makes robust recommendations for policy. The current social protection framework remains fragmented, inadequately funded, and plagued by targeting inefficiencies. It lacks a coherent approach to addressing poverty and vulnerability, gives insufficient attention to the rising challenges of urbanisation, and is constrained by weak institutional capacities that undermine effective programme delivery. These systemic shortcomings demand a strategic shift—one that prioritises reform-oriented results while strengthening ownership and accountability within national institutions. Some key policies advocated include the following: Streamlining the social protection budget and aligning it with core objectives; Redefining the scope of schemes to be included under social protection as per NSS guidelines; Rationalising and streamlining budget allocations; Prioritising poverty-focused programmes such as old-age allowances, disability benefits, mother and child benefit schemes, and food security interventions targeting poor and vulnerable groups. Some other important recommendations include streamlining overlapping programmes, consolidating around the lifecycle-based framework, and focusing resources on the most marginalised. Introduction of a graduation approach is highly recommended for enhanced programme efficiency and impact. A point not emphasised enough but which seems important is to increase urban coverage under social protection schemes, including bringing vulnerable urban households under the Public Food Distribution System (PFDS). In this respect, an official list of poor and vulnerable households nationwide would greatly facilitate targeting and distribution efforts. Such a database can be developed through community participation followed by sample validation checks. The database could be updated periodically. This is a long-felt need and if available, would help reduce targeting, sampling, and other errors all at once. Modern blockchain technology could ensure effective, seamless distribution.

[8] See Murshid, K A S (2023); Alkire (20025); Gasper (1997); Robeyne (2005).

Chapter 14 (Building Resilient Economic and Institutional Governance) assesses the state of economic and institutional governance. It recommends an institutional structure (such as a Regulatory Reform Commission) to improve regulatory governance and create a modern regulatory framework that reduces the costs of doing business while upholding societal and environmental safeguards. It advocates the imposition of performance disciplines on businesses that receive various types of support from government and suggests ways in which the government can better understand markets and enhance market competition, including through strengthening the Competition Commission. The chapter also recommends a set of actions to address more foundational issues of economic governance such as eliminating duplication of mandates for investment promotion, creation of cohorts of mid-level officers trained and incentivised to lead reforms in private sector related areas, and enhancing stakeholder consultation mechanisms.

The chapter also proposes a set of complementary actions to enhance institutional governance. This includes pilot initiatives to reform the delivery of key public services, thereby demonstrating political will and creating a strong signalling effect, imposing rigorous selection process for public investment projects, based on economic criteria and environmental, social and poverty impact assessments, and introducing a system of regular collection of beneficiary feedback, using digital technologies where appropriate, and engaging the youth in conducting such exercises.

Chapter 15 (Youth and Citizenship) observes that recent political events in the country have served to bring to the fore, the potentially vigorous role that youth (young women and men) could play in national development. The new, aspirational role however needs direction, capacity growth and mentorship to become a useful tool in the development process. For effective youth engagement it is important to enable formation of, for example, youth councils and forums, give these community service mandates and link these up with city councils and municipalities, and establish a system of mentorship and capacity developments outside the structure of their formal education but not necessarily outside their educational institutions. These should serve to encourage activism to promote better public services. Youth representatives in the consultations suggested cartoons and Anime as an effective way to target the young with sensitive messages relating to mental or sexual health. An action plan/framework is developed for discussion and further development into a full-fledged proposal for consideration of the government.

Chapter 16 (Enhancing the Digital Economy) argues that digitalisation holds considerable potential in enhancing efficiency and accountability in service delivery, promotion of good governance and transparency, securing global competitiveness in export sectors, and creating quality livelihoods for millions of young people and unemployed graduates. To recalibrate Bangladesh's digital strategy, three vital areas must be prioritised: First, addressing the digital divide by lowering data costs and improving smartphone access will enhance technology availability for all citizens. Second, the creation of a robust digital public infrastructure (DPI) to improve service delivery and

ensure data compatibility across platforms, and finally, fostering a vibrant local digital service industry. These measures will be of considerable value in accelerating the rise of a digital economy in the country.

Chapter 17 (Employment and Skills) focuses on how Bangladesh has made significant strides in various sectors over the years still challenges such as underemployment, informal labour, youth unemployment, and gender disparities continue to persist. According to the BBS, over 75% of the population is aged 41 or younger, indicating a predominantly youthful demographic. However, the country's labour market has struggled to create sufficient decent jobs to accommodate this youth population, resulting in higher unemployment rates and growing mismatches in the labour market. This chapter primarily focuses on the issue of youth unemployment and delves deeper into the multifaceted nature of the problem, analysing contributing factors and presenting a comprehensive set of evidence-based recommendations.

Chapter 18 (Conclusion - A Call to Action) ends with a brief discussion of the challenges that should be kept uppermost in our minds as we move forward into the next phase of our national life. It reminds us that the opportunity presented by the present government, is indeed an opportunity of a lifetime, and if not firmly grasped and appropriately leveraged, we could fall in the danger of being set back once more, by another 50 years.

Reference

Alkire, S. (205): Why the Capability Approach? Journal of Human Development, 6 (1), 115-135.

Amini, A. (2001). The Holistic Approach to Development Research. Journal of Interdisciplinary Economics, 12(4), 375-394. https://doi.org/10.1177/02601079X00001200404

Altmann, M. P. (2010). Contextual development economics: A holistic approach to the understanding of economic activity in low-income countries (Vol. 8). Springer Science & Business Media.

Gasper, D. (1997): Sen's Capabilities Approach and Nussbaum's Capabilities Ethic. Journal of International Development, 9 (2) pp. 281-302.

Ghose, Ajit Kumar (2019), Employment in India, Oxford University Press, New Delhi, 2019.

Mongsawad, P., & Thongpakdee, N. (2016). Sufficiency economy philosophy: A holistic approach to economic development and mainstream economic thought. Asian Social Science, 12(7), 136-142.

Murshid, K A S (2002) The Odds Revisited: Political Economy of the Development of Bangladesh, Cambridge University Press, University of Cambridge, UK.

Murshid, K A S (2023): Public Lecture on Social Justice in the Bangladesh Context, Asiatic Society of Bangladesh, Dhaka (Annual Lecture in Honour of Khan Sarwar Murshid and Nurjehan Murshid).

Robeyne, I. (2005) The Capability Approach: A Theoretical Survey, Journal of Human Development, 6 (1) pp. 93-117.

Murshid, K A S (2023): Public Lecture on Social Justice in the Bangladesh Context, Asiatic Society of Bangladesh, Dhaka (Annual Lecture in Honour of Khan Sarwar Murshid and Nurjehan Murshid).

Robeyne, I. (2005) The Capability Approach: A Theoretical Survey, Journal of Human Development, 6 (1) pp. 93-117.

Part I: Sectoral Discussion

Chapter 1: Re-gaining Macro-economic Stability[1]

1.1 Introduction

Macroeconomic instability and economic downturn originated from the COVID-19 recovery phase. The Ukraine-Russia conflict prolonged the crisis in Bangladesh, compounded by macroeconomic mismanagement, rampant corruption, and fragility of the financial sector. The economy is experiencing corrective actions in an effort to recover from the sudden demise of the Sheikh Hasina government following the July 2024 uprising. Rebalancing growth strategies for Bangladesh amid political regime shifts and macroeconomic instability requires a multifaceted approach focused on stability, inclusivity, and resilience. The overall rebalancing approach will involve prioritising institutional strengthening and governance reforms that are essential to foster the development of the country and sustain the momentum of growth. In the process of reforms and rebalancing, the growth momentum might have to be held back somewhat, in the face of efforts to re-establish macroeconomic stability. Further, enhancing transparency, accountability, and the rule of law in economic management is needed to foster investor confidence and ensure long-term economic stability.

Bangladesh has been encountering macroeconomic instability in the form of inflationary pressures, exchange rate volatility, and fiscal deficits, necessitating prudent fiscal and monetary policies. Strengthening macroeconomic fundamentals through diversified sources of revenue, reducing dependence on external debt, and improving fiscal discipline is key. Additionally, fostering a resilient financial sector, with a focus on strengthening the banking system and improving access to credit, can mitigate the adverse impacts of instability.

On the growth front, Bangladesh must pivot towards sectors that provide high value-addition, such as the digital economy, renewable energy, and innovation-driven industries. A balanced development approach is essential, prioritising not only economic growth but also social inclusion, especially for marginalised groups, to ensure that the benefits of growth are broadly shared. Strengthening human capital through education, health, and skill development will empower the workforce to thrive in emerging sectors and reduce vulnerability to external shocks.

Bangladesh is grappling with macroeconomic instability due to rising inflation, currency depreciation, and widening fiscal deficits. The global economic slowdown, domestic challenges, and political uncertainties have exacerbated these issues. Food inflation and taka depreciation have strained external trade balances and foreign exchange reserves. The country's limited capacity to absorb external shocks and maintain sustainable growth

[1] The chapter is prepared by Monzur Hossain, Research Director, Bangladesh Institute of Development Studies (BIDS).

is exacerbated by poor resource mobilisation capacity, a narrow tax base, low tax-to-GDP ratio, and inefficiencies in public expenditure management. This hinders the government's ability to fund development projects, maintain fiscal discipline, and invest in long-term infrastructure and human capital. This chapter thus focuses on policies to deal with macroeconomic instability, lack of adequacy in resource mobilisation, and public expenditure absorption capacities in sustaining macroeconomic stability in the medium to long term.

1.2 Methods and Approaches

In drafting macroeconomic stability analysis, secondary data and stakeholder consultations play crucial roles. Secondary data, such as historical economic indicators, government reports, and global market trends, provide a solid foundation for understanding macroeconomic conditions and trends. This data helps assess factors like inflation, GDP growth, and fiscal deficits. Stakeholder consultations involving policymakers, business leaders, economists, and civil society offer valuable insights into the practical implications of macroeconomic policies and challenges. These consultations, held on 15 October 2024, ensure that the analysis reflects a comprehensive view, including diverse perspectives, and helps align policy recommendations with the needs of the economy and society.

1.3 Drivers of Economic Growth and Future Outlook

Bangladesh's GDP is attributed to agriculture, which contributes 11% of the total GDP. The industrial sector, including manufacturing, construction, and mining, has grown significantly, particularly in the garment and textile industries. The garment sector is one of the largest exporters globally. The service sector, accounting for 54-55% of the GDP, is the largest, driven by growth in telecommunications, financial services, information technology, trade, transportation, and tourism. Despite declining agriculture's importance, the growth of the industrial sector is not taking place at a fast enough pace to absorb surplus labour, and the growth that actually does take place appears to be ‘jobless’ in nature.

Table 1.1: Sectoral Contribution to GDP (%)

Year	GDP Growth (Real)	Agriculture (%)	Industry (%)	Services (%)
1990	3.3	29.2	21.0	49.7
1995	4.9	25.7	24.9	49.5
2000	5.3	25.0	26.2	48.8
2005	6.5	21.8	29.0	49.1
2010	5.6	18.0	27.4	54.6
2015	6.6	15.4	31.5	53.1
2020	3.4	12.1	36.0	51.9
2023	5.8	11.02	37.95	51.04

Source: Bangladesh Economic Review, Ministry of Finance, various issues.

Bangladesh, once primarily reliant on agriculture, has witnessed rapid economic growth driven by its ready-made garment (RMG) sector, remittances, and burgeoning service industry. However, the contribution of these drivers has been gradually declining with an increasing pattern of labour productivity and total factor productivity (Figure 1.1). To sustain this growth and ensure equitable development, the country must rebalance its growth strategies giving emphasis on technological deepening in the production process. The RMG sector, while a crucial driver of exports, faces increasing competition from countries like Vietnam and India. Additionally, the sector's over-reliance on low-skilled labour and poor working conditions highlights the need for diversification. Bangladesh should focus on upgrading its manufacturing capabilities through technological advancements and vocational training to move up the value chain. Strengthening industries such as pharmaceuticals, information technology, and shipbuilding could reduce dependence on the RMG sector while promoting higher-skilled employment.

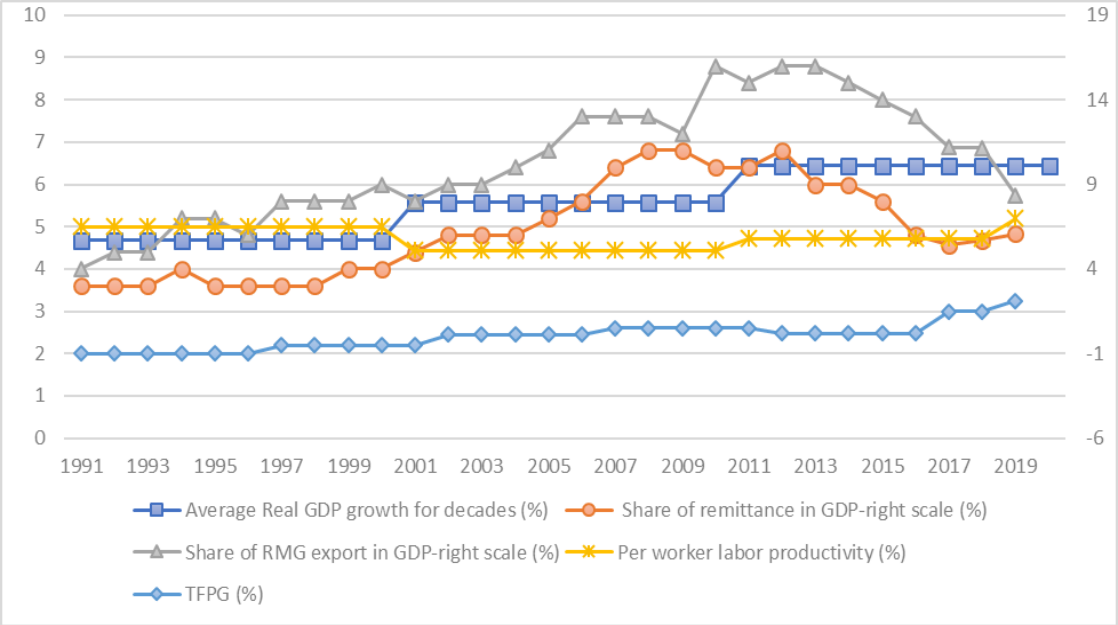

Figure 1.1: Drivers of GDP Growth, 1991-2019

Source: Adapted from Hossain (2022).

Analysing the factor's contribution to GDP, the labour quality and TFP have started growing in the last few years before the pandemic, albeit the contribution of non-IT (non-technology) capital is the highest. Therefore, investment in agro-processing, sustainable farming practices, and rural development can improve productivity and ensure food security. Modernising agriculture will also help mitigate rural-urban migration, which is straining urban infrastructure. To promote inclusive growth, Bangladesh needs to address infrastructure bottlenecks, especially in transportation, energy, and logistics. The country's geographic location offers strategic opportunities for regional trade and connectivity, and investing in infrastructure like ports, roads, and renewable energy will enhance trade and economic resilience. The service sector, particularly financial and digital services, can be further developed to tap into the growing global market for

technology-driven solutions. The expansion of mobile financial services (MFS) is already showing promise, but greater efforts in digital infrastructure, cybersecurity, and regulatory frameworks are necessary to support a thriving knowledge economy. Agriculture, while declining in GDP share, remains vital for employment. By focusing on industrial diversification, digital transformation, agricultural modernisation, and infrastructural improvements, Bangladesh can build a more resilient and sustainable economy that benefits all segments of its population.

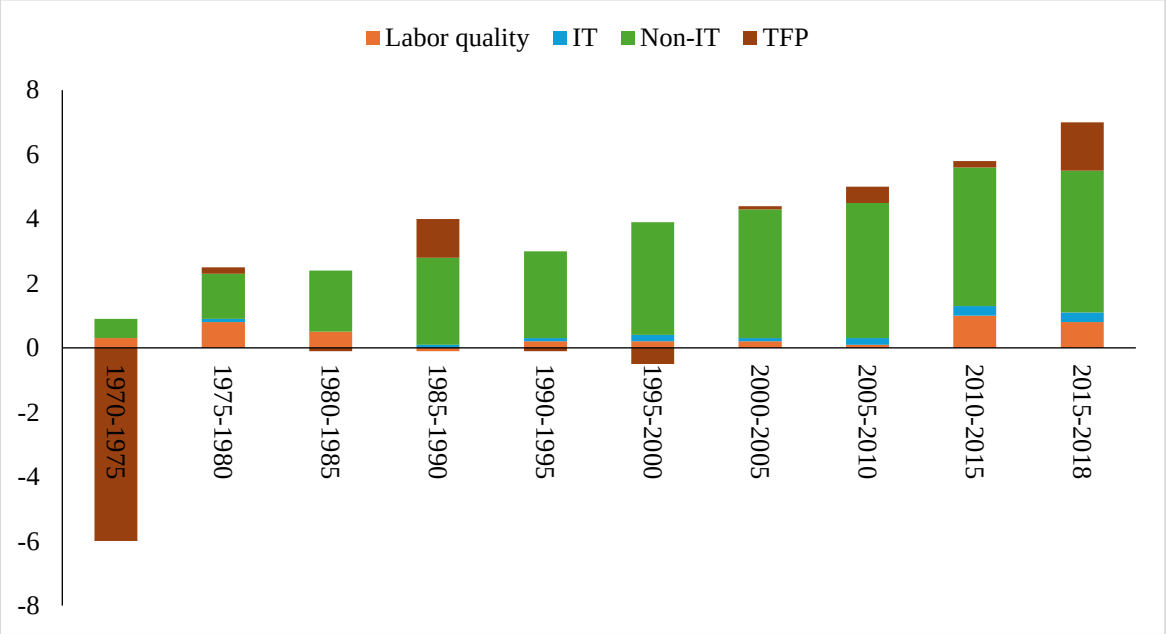

Figure 1.2: Factor Contribution to GDP

Source: ADB.

Savings and investment rates both increased, and as a result, so did growth performance. After stagnating at less than 17% in the 1980s, the investment-to-GDP ratio rose to almost 23% by the end of the 1990s. Private investment accounted for nearly all of this growth, rising from less than 10% of GDP to over 16% since the late 1980s, while public sector investment remained relatively stable at 6% to 7% of GDP. With the same amount of public investment (6-7% of GDP), the private investment ratio rose to about 20–22% of GDP in recent years, showing that public spending did not cause crowding out. Though public investments in infrastructure, in particular, are supposed to encourage private investments, private investments remained stagnant for a decade or so, indicating the inefficiencies and the lack of quality of public investments.

Bangladesh's economy needs to undergo a major reshuffle in terms of increased resource mobilisation to finance its development expenditures to achieve higher growth in the coming days. After COVID-19, the GDP growth has declined to below 6%, and the tax revenue as a percentage of GDP has been declining, which currently stands at 8.67% in 2022-23. This level of tax-GDP ratio, even the lowest in South Asia, cannot afford higher

growth momentum to achieve middle-income status. The declining trend of domestic resources, coupled with the declining trend of aid/ODA in Bangladesh, puts the deficit financing status in a dire state. For example, as a percentage of gross national income (GNI), official development assistance (ODA) has been dwindling, and Bangladesh has received a much lower amount of aid in recent years compared to its least developed country (LDC) counterparts.

1.4 Strategies for Restoring Macroeconomic Stability

Macroeconomic instability that has been experienced in Bangladesh since the COVID-19 pandemic is a culmination of domestic and external factors. While the country has achieved impressive economic growth in recent years, challenges remain in maintaining macroeconomic stability and ensuring sustainable growth. There is a continuum of various combinations of levels of key macroeconomic variables, such as growth volatility, high inflation, fiscal deficit, current account deficit, and international reserves, that together could determine macroeconomic instability. The instability arises due to high inflationary pressures, the fragility of the financial sector, foreign exchange volatility, current account and fiscal deficits with high and rising levels of public debt, and stagnant or declining GDP. While external factors and the COVID-19 pandemic contributed to the instability to some extent, domestic economic policy mismanagement aggravated the situation further, and consequently, the instability has been prolonged. The key factors that are contributing to macroeconomic instability in Bangladesh are discussed below.

1.4.1 Inflation

Inflation in Bangladesh has been spiralling for the last two and half years with higher inflationary pressure emanating from food and fuel. The food inflation rate has been persistently hovering between 10%-14% since early 2023, while non-food inflation remains around 10%, with a major contribution from energy prices, which were upward revised several times during the high inflationary period.

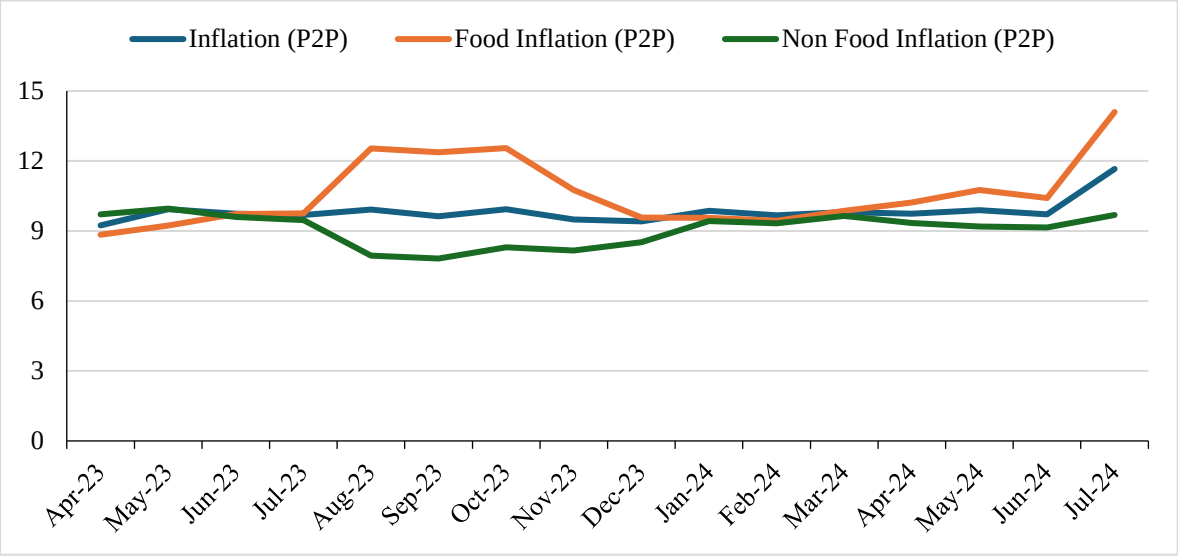

Figure 1.3: Inflation Pattern

Source: Bangladesh Bureau of Statistics (BBS)

Food inflation has been particularly high, with basic food items like rice, vegetables, pulses, and edible oils seeing the sharpest increases. Moreover, protein items like meat, fish, and egg prices are persistently contributing to higher inflation. Higher food inflation especially concerning for low-income households, as they spend a significant portion of their income on food. On the other hand, housing, utilities, and transport are the main drivers of non-food inflation. Increased costs of transportation due to higher fuel prices, along with rising rent and utilities, have added pressure on household budgets.

1.4.1.1 Key Drivers of Inflation in Bangladesh

i. **Food Price Inflation*:*** Historically, food inflation has been higher in Bangladesh and a key driver of overall inflation. Food items, particularly rice, wheat, oil, and vegetables, form a significant portion of household expenditure in Bangladesh. A recent flood in 2024, a political uprising in July 2024, and subsequent political uncertainty etc. caused food prices to rise. Events like the Russia-Ukraine war, natural disasters, and pandemics disrupted global supply chains, leading to price spikes in staple foods in the post-COVID period, which was later triggered by local supply chain disruptions due to political unrest during student movement and subsequent fallout of the previous government. Infrastructural challenges, bottlenecks at ports, and inefficiencies in the logistics sector can also contribute to inflation. Delays in the movement of goods from ports to local markets can raise prices due to supply shortages.

ii. **Fuel Price Shocks*:*** Bangladesh is a net importer of oil and gas, so fluctuations in global oil prices directly impact domestic fuel prices. When global energy prices rise, Bangladesh often raises fuel prices domestically, which triggers inflation across various sectors, particularly transportation and manufacturing.

The government's decision to increase fuel prices in mid-2022 due to soaring global oil prices led to a sharp rise in inflation. As part of the broader energy price structure, increases in electricity and natural gas tariffs pushed up production costs, leading to higher prices for goods and services.

iii. **Exchange Rate Depreciation:** The 35-40% depreciation of the Bangladeshi taka against major currencies like the US dollar since 2022 increases the cost of imported goods, including essential commodities. This has been a persistent problem, particularly with the widening trade deficit and pressure on foreign exchange reserves. Bangladesh is highly dependent on imported goods, both for consumption and production. When international shipping costs increase or customs processes slow down, it can exacerbate price rises for consumers. A weaker currency translates into more expensive imports, especially for goods such as food, fuel, and industrial raw materials. Increases in the cost of imports spill over into the domestic economy, contributing to higher prices. Imposing quantitative restrictions on imports due to depleting international reserves eventually created a demand-supply gap in the market, leading to higher inflation.

iv. **Demand-Side Factors*:*** As Bangladesh's economy grows, especially with a rising middle class and increasing urbanisation, demand for goods and services increases. If demand outpaces supply in certain sectors, it can cause price increases, especially in housing, education, and healthcare. Moreover, the Bangladesh Bank's policies of increasing the money supply by printing money to support sick banks or keeping interest rates low (by maintaining the so-called 9-6 band) for a long period might have also contributed to inflationary pressures. The excess liquidity in the economy might have led to more money chasing fewer goods, which results in inflation.

v. **Wage-Price Spiral:** The recent trend shows that wage rates have been growing by around 8%. Higher wages lead to further cost increases, which are passed on to consumers in the form of higher prices. This wage-price spiral also contributes to a rise in inflation further as high inflation lingers.

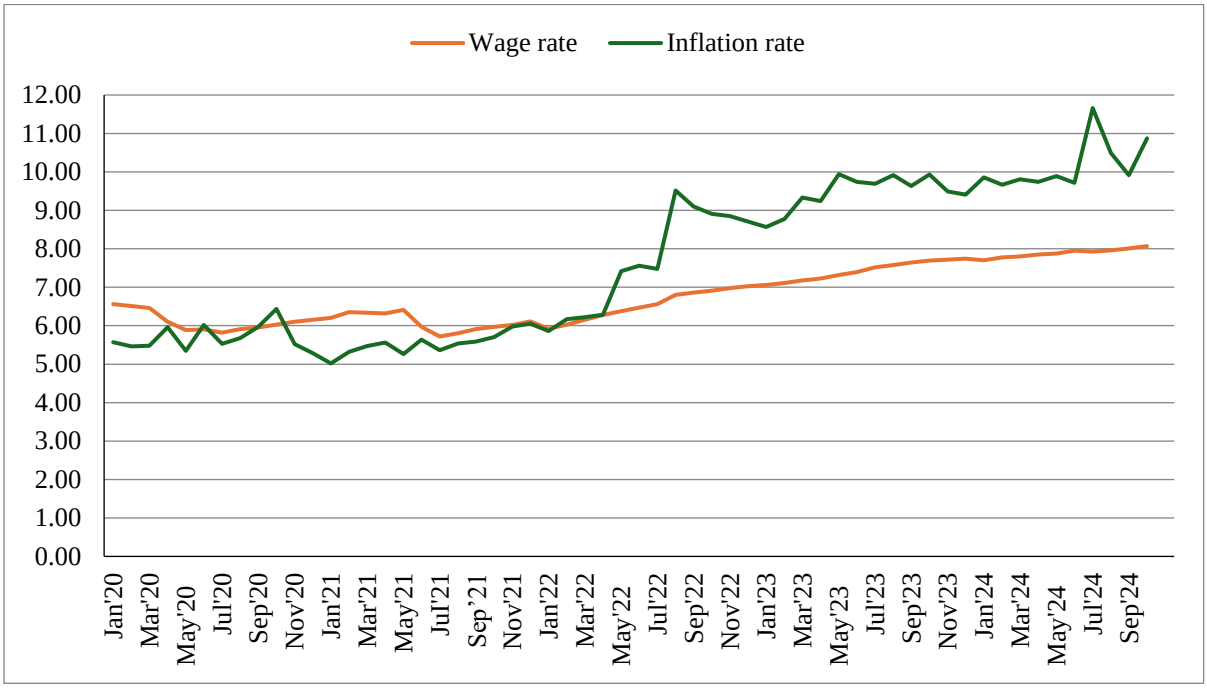

Figure 1.4: Point to Point Wage Rate and Inflation Rate (2020-2024)

Source: Bangladesh Bureau of Statistics (BBS)

1.4.1.2 Policy Responses and Suggested Measures Short and Medium-term Strategies

Managing inflationary expectations is a crucial component of controlling inflation and maintaining macroeconomic stability. When people and businesses expect prices to rise in the future, they adjust their behaviour—such as demanding higher wages, increasing prices, or hoarding goods—which can drive inflation even higher. Therefore, effectively managing inflation expectations is essential to prevent a self-fulfilling inflationary cycle. Below are some key strategies and measures to manage inflationary expectations.

***Pursue an Accommodative Monetary Policy to Manage Aggregate Demand*:** Bangladesh Bank (BB) has used a combination of interest rate adjustments and reserve requirements to try to control inflation. Consequently, it has increased policy rates by 10%, leading to lending interest rates to over 15%, which has made investments costlier. This ultra-tightening of the money supply might not have produced better results due to the weak monetary transmission process in a weak financial system for overall aggregate demand management. As a result, higher interest rates made domestic products costlier and contributed further to inflation. RMG sector, the major exporting industry faces a dire state to repay the loans as it is difficult for them to adjust the prices of their products in the international market due to high interest costs (Hossain and Ibon, 2020). Moreover, monetary tightening alone is often insufficient when inflation is driven by supply-side factors like food shortages or global commodity price increases. Therefore, Bangladesh Bank should adopt an accommodative monetary policy instead of an ultra-tight monetary policy with a moderate tightening of money supply that may keep lending interest rates

below 15% to encourage more investments and productivity growth, which will gradually dampen inflationary pressure.

- **Form a Monetary Policy Committee with voting rights to pursue a credible monetary policy:** A credible and independent central bank is essential for controlling inflation expectations. In the process of deciding policy rates and their possible consequences, the current monetary committee consists of seven members (4 from BB and three from outside) who mostly rely on Bangladesh Bank's policy suggestions in the absence of their voting rights. For this, a strong monetary policy committee with monetary experts having voting rights, like the one in the Reserve Bank of India (RBI), might increase the credibility of the monetary policy framework.
- **Bring discipline in the financial sector with cautious liquidity support to Crisis-prone Banks:** It is necessary to review whether providing liquidity support by printing money to crisis-prone banks can lead to inflationary pressure. BB must be careful in public communication while dealing with crisis-prone banks. If the liquidity support boosts confidence among the depositors and leads banks to invest in industrial production, it might help reduce inflation in the medium-to-long run.

The impact of Monetary Policy Measures must be reviewed and analysed periodically: The relations between policy rate hikes and inflation must be assessed periodically, and how interest rates and credit channels respond to policy rate hikes must be clearly spelled out for proper demand management.

Exchange Rate Management to Maintain Short-term Stability and Long-term Flexibility: Exchange rate volatility led to significant inflationary pressures in Bangladesh during the last two and half years, with a more than 35% depreciation of the Bangladeshi Taka against the US Dollar. As a result, being a net importer country, the cost of imports rises, which fuels inflation. Though BB often intervenes in the foreign exchange market to stabilise the currency when necessary, depleting foreign exchange reserves tied its hand to intervene, allowing further depreciation at the advent of rising imports and squeezing exports and remittances. The current crawling pegged system might work in the short-to-medium term to stabilise the Taka. However, these policies warranted to be undertaken at the early stage of currency volatility, which had not happened due to weaknesses of policy capacities.

Fiscal Discipline: Government Budget and Debt Management: Fiscal policy must be aligned with monetary policy to manage inflation expectations. If the government runs large fiscal deficits and borrows excessively, it can lead to higher inflation expectations, as people fear that excessive money supply growth will drive up prices. Maintaining fiscal discipline through controlling budget deficits and public debt can help avoid excessive government spending that could stoke inflationary pressures. Public spending policies

must prioritise productive investments (e.g., infrastructure, education) over consumption-based expenditures that could inflate demand unnecessarily.

Supply-Side Policies:

- **Ease imports of food and essential items by reducing L/C margins and tariffs:** Bangladesh Bank should give a directive to ease L/C opening for food and essential item imports so that no supply-demand gap exists.
- **Increase competition among the importers of edible oil, sugar, LNG, etc.:** There are only a few importers of edible oil, sugar, LNG, etc., which creates monopolistic competition in the market. It is important to increase competition in importing these important essential products, allowing a mechanism to increase the number of importers.
- **Cautious Attempts are Needed for Energy Price Adjustments***:* Energy price hike has an economy-wide inflationary impact (Hossain et al., 2020). Reducing the volatility in energy prices, such as fuel or electricity, through strategic reserves or subsidies can help stabilise inflation expectations. Upward revision of energy prices should be made with caution keeping its inflationary effect in mind.
- **Establish a sustainable market monitoring mechanism:** A market monitoring mechanism to control prices involves tracking supply, demand, and price fluctuations in real-time. Government agencies, such as the Consumer Directorate (*Vokta Odhidoptor*) or the Competition Commission, should oversee this process, gathering data from producers, retailers, and consumers. They should analyse trends to identify price manipulation or speculative activities that could harm market stability. If price anomalies are detected, measures such as price caps, penalties, etc. may be introduced to prevent excessive inflation. Transparency in reporting and active monitoring helps maintain market equilibrium, protect consumer interests, and ensure fair competition across industries. Timely intervention would prevent economic distortions and promote a sustainable market system. However, the capacity to monitor markets is weak and it is important to hire well-trained professional economists to gather, analyse, and report on market conditions by different sectors.
- **Take stern measures against extortion while transporting the goods:** To combat extortion during goods transportation, authorities must enforce strict laws, increase surveillance, and impose severe penalties on offenders. Regular inspections, collaboration with law enforcement, and the establishment of safe routes can deter extortionists. A dedicated helpline and swift justice for victims are essential to ensuring secure logistics operations.

Labour Market Management: Wage-Price Spiral Control: Wage demands often follow inflation, creating a wage-price spiral. Effective management of wage expectations is

crucial to avoid this feedback loop. Encouraging wage increases linked to productivity improvements, rather than blanket wage hikes, can help reduce inflationary pressures.

Regular consultations between the government, business, and labour unions on wage policies and economic conditions can help manage expectations and prevent excessive wage demands during periods of high inflation.

Monitoring and Data Transparency: The regular release of inflation data, with clear explanations of what is driving inflation (e.g., food vs. core inflation), can help the public better understand the economic situation and reduce uncertainty. Providing real-time data on key economic variables like food prices, oil prices, and exchange rates can help businesses and consumers make informed decisions, reducing panic-driven behaviours.

Inflation in Bangladesh remains a significant economic challenge, especially due to its impact on the poor and vulnerable populations. It is driven by a mix of global factors like commodity price increases and domestic structural issues such as food production vulnerabilities and currency depreciation. Managing inflation requires a coordinated response involving both fiscal and monetary policy measures, along with long-term investments in infrastructure, agriculture, and the overall business environment to reduce supply-side constraints.

1.5 External Sector Performances and Balance of Payment Pressure

During the post-COVID era, Bangladesh faced significant vulnerabilities in its external sector, including a widening trade deficit, declining remittance growth, external debt pressures, and global economic uncertainties. Addressing these challenges will require a multifaceted approach, including export diversification, strengthening the remittance channel, prudent fiscal and monetary policies, and managing external debt and reserves carefully. Additionally, building resilience to external shocks through climate adaptation and regional cooperation will be crucial for long-term stability.

1.5.1 Trends in Exports and Imports

Bangladesh has been heavily dependent on a narrow range of products for most of its export earnings. RMG products have constituted more than 80% of total export earnings since 2015, and the total export growth also exhibited a similar pattern to RMG over the last 15 years. However, the COVID-19-driven economic slowdown inflicted damage on global export demand. According to World Bank data, world exports declined by 8.98% in 2020. The pandemic also hit Bangladesh's economy hard, but exports increased sharply just after the lockdown. But again, from 2021, export growth started to decline. The decline in garment exports to the largest markets, the USA and the EU, has persisted since 2021. Reasons broadly attributed to the situation include inflationary pressure, increased production costs, lead time, and energy crisis. However, in the past, this inadequacy was partly made up of cheap labour and large-scale production of low-end apparel products. The situation now seems to be increasingly difficult as inflationary

pressure coupled with the energy crisis has made garment exports more challenging than in the past.

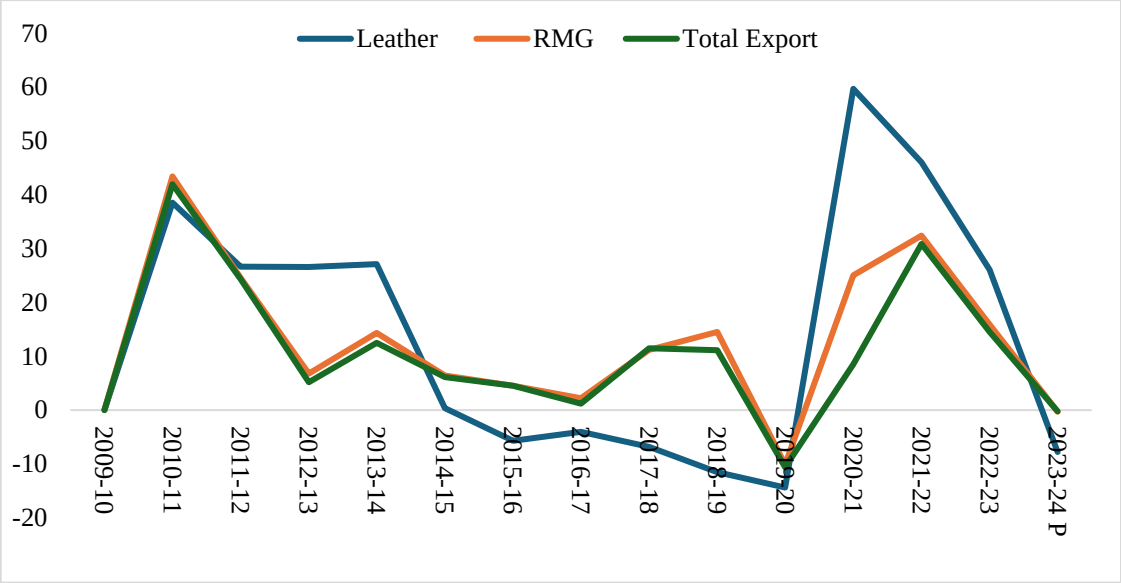

Figure 1.5: Export Growth

Source: Bangladesh Bank and Export Promotion Bureau

Since after COVID-19, Bangladesh's imports started growing significantly with continuous growth of over 40%, and imports of some items like sugar, petroleum, and cotton reached over 60 to 100% in 2021-2022. This extraordinary import growth created substantial pressure on Forex reserves and caused a current account deficit with relatively low export and remittance growth. Later, Bangladesh started feeling the heat of the Russia-Ukraine war in many ways—a reduction in exports and a rise in import bills. With high oil prices, the chain effect is felt through a hike in the prices of gas, fertiliser, and other essentials. In addition to fuel prices, the cost of other imported products has also gone up significantly, which pushed the production costs up, resulting in higher prices for the consumers. To contain forex reserve depletion and taka depreciation, Bangladesh imposed different types of restrictions on imports, which still persists, hurting the long-term growth momentum of the economy albeit restoring macroeconomic stability to some extent.

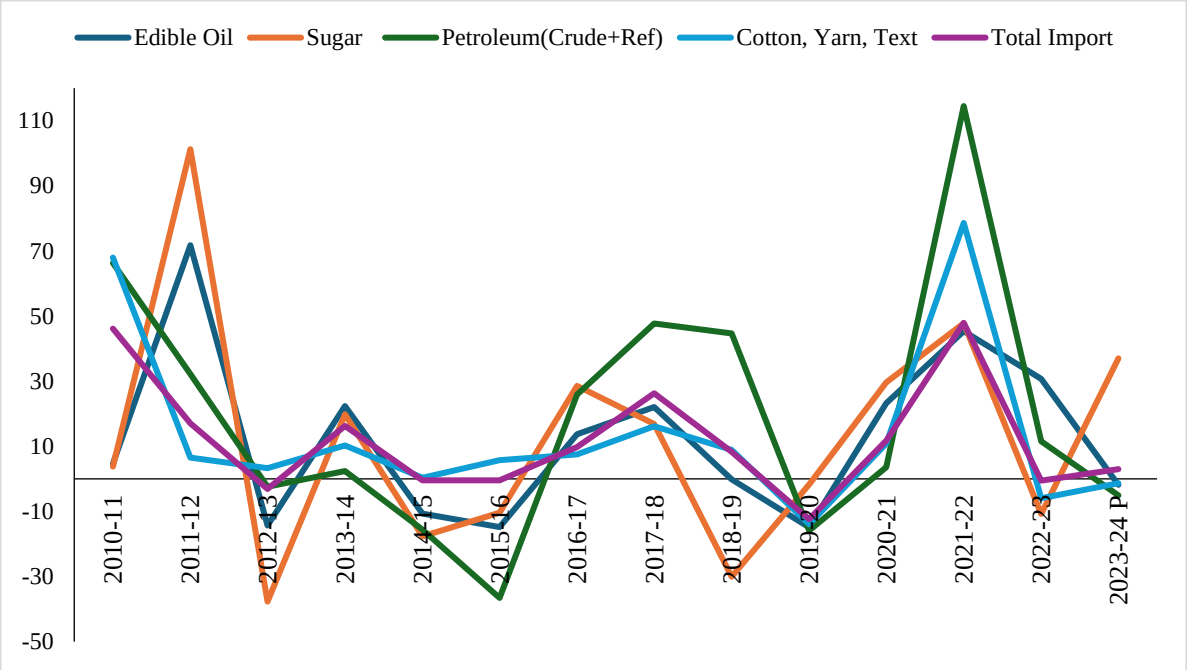

Figure 1.6: Import Growth Change

Source: Bangladesh Bank

Imports declined across the board from 2021. This occurred in tandem with slower GDP growth and as central bank restrictions on opening letters of credit aimed to stem a marked decline in foreign exchange reserves. Imports of intermediate goods decreased sharply in line with curtailed manufacturing. Imports of capital goods and petroleum goods also declined. However, fertiliser and rice imports increased under government efforts to ensure food security. Total imports contracted significantly from a marked expansion in FY 2021-22.

1.5.2 Current Account and Financial Account Balance

The current account deficit narrowed sharply in FY 2022-23 compared to FY 2021-22. The improvement resulted from a lower trade deficit as imports declined sharply while exports expanded moderately and from rising remittances. Bangladesh has registered a significant decline in imports, including capital machinery, due to the prevailing dollar crisis and the central bank strictures. Commercial banks have been cautious about opening letters of credit (LCs), while export earnings have been growing consistently. It eventually narrowed the overall trade deficit. Overseas earnings have largely contributed to the surplus, as inward remittances have consistently hovered throughout the last year.

The financial account exhibited a positive balance in most of the period from January 2023 to onwards. But in the second and fourth quarters of 2023, the financial account exhibited a serious deficit. The slowdown in foreign loan releases, increased repayment of private sector foreign loans, and lack of desired investments are possible reasons behind this deficit. In fact, the financial account deficit is the key reason for Forex's

reserve volatility. Moreover, delayed receipt of export incomes exacerbated the deficit in the financial account.

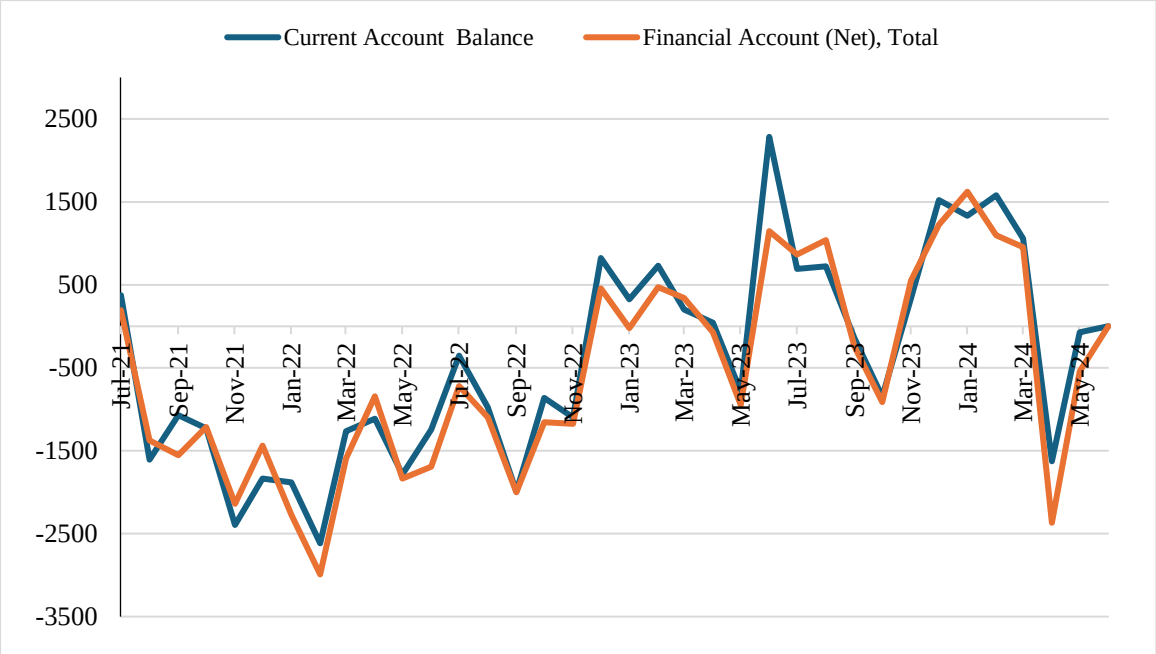

Figure 1.7: Current and Financial Account Balance (Million USD)

Source: Bangladesh Bank

1.5.3 Strategies for Restoring Viable CA and FA Balances:

- **Tariff Rationalisation and Reduction of Anti-Export Biases**: Bangladesh must reduce its over-reliance on the garment industry by promoting other sectors like pharmaceuticals, information technology, agriculture, and food processing. This diversification can reduce the vulnerability of the external sector to fluctuations in global demand for textiles and garments. Following the East Asian model of industrialisation, after apparel, they have specialised in electronics and automobiles. Bangladesh's path appears to be similar, and therefore, more efforts must be given to transforming assembling (electronics and automobiles) industries into manufacturing with joint ventures. However, the process requires proper tariff rationalisation by removing anti-export biases and protectionist approaches, particularly for the leather sector. Institutions such as the Bangladesh Tariff Commission must be equipped with experts, and NBR's policy-making process must be institutionalised by creating a separate entity. A detailed discussion of this issue is made in separate sections and chapters.

- **Cautious Restriction on Luxury and Non-essential Imports:** Imposing cautious restrictions on luxury and non-essential imports can help conserve foreign exchange reserves, promote domestic industries, and reduce trade imbalances. By prioritising essential goods, governments can safeguard national

interests, encourage local production, and stabilise the economy. These measures should be carefully balanced to avoid negative impacts on consumer choice.

- **Further Incentives for Remittances**: Bangladesh can further incentivise remittance inflows by reducing transaction costs, enhancing the formal remittance channel, and offering attractive exchange rate policies. These measures can help maintain the inflow of foreign exchange from its large diaspora community. Moreover, an app-based system may be developed for the remitters to send remittances through MFS. In that case, Cash-out charges may be waived, and the government can bear this as a subsidy.

- **Debt Restructuring**: Managing external debt levels and ensuring that debt servicing does not crowd out essential imports or investments is critical. Bangladesh may need to explore options for refinancing or restructuring its external debt to reduce the burden of repayments. Moreover, a strong review committee is needed to approve/disapprove external borrowing by private sector entities.

- **Building Reserves**: Bangladesh must work on building its foreign exchange reserves through prudent fiscal and monetary policies and enhancing export earnings. A stable and healthy reserve position is essential to withstand external shocks, especially when facing trade imbalances. Bangladesh should seek access to multilateral and bilateral funding sources, including concessional loans, to reduce reliance on commercial external borrowing with higher interest rates.

- **Regional Cooperation and FTAs**: Bangladesh should deepen trade ties and seek cooperation agreements with regional neighbours and other major trading partners to reduce the impact of global supply chain disruptions and trade protectionism.

1.6 Exchange Rate Volatility and Foreign Exchange Reserve Management

Bangladeshi Taka against the US dollar started depreciating in the middle of 2021 and continues till then with a more than 40% depreciation. If allowed free movement, Taka would have depreciated to a greater extent. Exchange rate volatility started with higher demand for the US dollar manifested by a significant surge in imports in the post-COVID recovery with lower exports and remittances. The mismanagement of exchange rates since then aggravated the situation depicting multiple rates and resulted in a chaotic situation in the Forex market. From the middle of 2024, the situation has stabilised with the IMF's release of loan tranches and the introduction of a crawling pegged system.

The following table shows the volatility and the relative volatility of the exchange rate, reserve, and interest rate. The estimates in the table show that the nominal exchange rate was highly volatile from Jan-2022 to June 2024; in earlier periods, the exchange rate was fairly stable. It is also evident that the volatility of reserves and interest rates was higher

during the same period. Consequently, the relative volatility of the exchange rate with respect to reserve and interest rate was also very high from 2022 to 2024, providing evidence of policy mismanagement in the financial sector.

The lower relative volatility of the exchange rate of taka with respect to international reserves and higher relative volatility of the exchange rate with respect to interest rate depicts some sort of policy inconsistency in dealing with the exchange rate, interest rate, and foreign exchange reserves.

Table 1.2: Relative Volatility of Exchange Rate, Interest Rate and International Reserves

	Volatility of Nominal Exchange Rate (Tk./$)			**Volatility of Reserve**	**Volatility of Interest Rate**			**Rel. Vol (ER/Res)**	**Rel. Vol (ER/IR)**
	Std. Dev.	Max.	Min.	Std. Dev.	Std. Dev.	Max.	Min.		
2020-2021 N=24	0.13	85.80	84.80	2.80	2.97	9.66	7.15	0.04	0.04
2022-2024 Jan 22-June 24 N=30	1.31	117.94	85.95	4.42	3.28	11.52	7.08	0.30	0.40

Source: Bangladesh Bank; Hossain and Sattar (2024).

For the purpose of stabilising exchange rates, Bangladesh Bank extensively intervened in the foreign exchange market for a long time, which was not done in a proper manner to restore equilibrium exchange rates but rather to satisfy exporters and, to some extent, from the fear of depreciation. As a result, exchange rates remained overvalued, and at the very first onset of the dollar crisis in the post-COVID, BB could not keep the exchange rate at its desired level. Even sheer mismanagement in the foreign exchange market indicates their lack of capacity in this regard. Usually, a country needs to accumulate a sufficiently large stock of reserves to address any sort of currency crisis. However, in Bangladesh, when the country was able to build a good reserve (approximately $48b) in 2020, many people suggested investing the reserve in investments, which, with hindsight, was wrong - in fact many economists at the time had warned against this type of misadventure. As a result, at the time of crisis, starting soon after COVID-19, the country fell into trouble. Therefore, exchange rate stabilisation policies should be based on frequent and small adjustments rather than rare and large. A few words of caution are in order for the accumulation/use of reserves. Reserve accumulation or depletion should be handled with great caution, keeping in mind the inflationary pressure, external repayment of borrowing, debt sustainability, sterilisation activities, etc.

Table 1.3: Sale & Purchase of Foreign Exchange by BB, Million USD

Year	Purchase	Sell	Net Injection
2019	0	2339	2339
2020	877	835	-42
2021	7900	200	-7700
2022	200	7600	7400
2023	200	13600	13400
2024 July-April, FY24.	2800	12000	9200

Source: Bangladesh Bank

Bangladesh Bank continued selling foreign currency to stabilise the exchange rate at a certain level for a long time, which later proved to be counterproductive. Recent interventions were made to address the demand-supply gap in the foreign exchange market and prevent sudden depreciation, which led to reduce the official foreign exchange reserves. BB's net sales of foreign currencies during July-April FY24 totalled USD 9.3 billion. Consequently, the foreign exchange reserve decreased from USD 31.20 billion at the end of June 2023 to USD 25.37 billion at the end of April 2024.

1.6.1 Strategies for Exchange Rate Stability:

- **Continue a managed floating regime with frequent and small interventions**: Given the *thin* foreign exchange market, high exchange rate pass-through, and exchange rate shocks (exchange market pressure), it appears to be difficult for Bangladesh to maintain a freely floating regime (Hossain and Ahmed, 2020). Given the vulnerable financial system, we suggest that it is better for Bangladesh to continue a managed floating regime with frequent and small interventions.
- **Use a prescribed formula with standard practices to correct exchange rate overvaluation:** Though there is no simple formula for exchange rate management to achieve two important goals of exchange rate management, such as *competitiveness* and *price stability*, simultaneously, adjustments must be made against movements of other currencies as well as of inflation differentials to stabilise the REER.
- **Revisit the REER basket***: C*urrently, there are 15 currencies in the REER basket, which doesn't seem to be useful as Bangladesh's invoice currency is the US dollar mainly. It is better *to create a REER basket with major trading currencies with proper weights.* This kind of basket would be easier to manage and monitor.
- **Improve crisis management capacity and develop an early warning system**: In the face of a currency attack or other severe financial turmoil in the region or in the global economy, the REER stabilisation policy may be suspended temporarily to minimise contagion, credit crunch, reversal of capital flows, etc.

However, *during a crisis or global economic meltdown, it is better to stabilise the NEER instead of the REER when other trading partner currencies are fluctuating against each other*. Bangladesh bank needs to develop its expertise to manage exchange rates in various situations.

1.7 A Review of Public Expenditures

To maintain reasonable GDP growth at around 5% in the context of political uncertainties, geopolitical tensions, and macroeconomic instability in the coming fiscal year, it is necessary to increase both private and public investments. The private investments have stagnated at around 23% for a decade or so. To maintain the growth momentum of the economy, there is no alternative other than to increase both public and private investments. Increasing imports, particularly capital machinery, enhancing FDIs and increasing business confidence are some of the measures that may enhance private investments. A careful selection of ADP projects that were not undertaken with political considerations should go and the continuation of mega projects with careful review might accelerate the pace of public investments that might reinvigorate economic activities.

However, challenges are there. Curtailing projects that were undertaken on political consideration and higher interest rates to curb inflation jeopardises investment projects in the near term. Public investments as a percentage of GDP have been hovering around 7-8% over the last decade, which has declined recently due to COVID-19 and subsequent macroeconomic instability. The major contribution of public investments comes from the Annual Development Programs (ADPs) with higher allocation given to public infrastructures. Some short-to-medium terms and long-term reforms are needed to properly implement ADP and increase efficiency. The concerns and subsequent recommendations are outlined below.

1.7.1 The Size and Quality of ADP

The size of the ADP has remained around 30% of the total budget for the last 10 years. However, the number of projects is roughly about over 1000. This huge number of ADP projects with thin allocations in many projects made it difficult to implement in time and attributed to the waste of public resources. Many of the projects were undertaken on political considerations and time and cost overrun have become a regular scenario for the mega projects.

Historically, around 85% of original ADP is realised in Bangladesh (Hussain and Hossain, 2020). The common scenario is that 30-40% are implemented by March-April, and all of a sudden, 85% are realised by June (end of the fiscal year), indicating some sort of inefficiencies and compromised qualities in implementing the projects. It has never been able to realise the full ADP as allocated in the budget due to various problems in selecting and implementing projects. The problems of setting ADP significantly above the realisable level are twofold. First, it causes resources to remain tied down to slowly

implemented projects, resulting in unnecessary borrowing on the part of the government. Second, the downward revision of the ADP that would be necessary toward the end of the fiscal year might result in considerable wastage of resources in the form of incomplete project works. The policy priority for the government would be to set the ADP size at a manageable level and seriously address the capacity constraint and interagency and aid coordination problems to push ADP implementation to its maximum attainable limit.

Table 1.4: Sectoral Allocations as % of Development Budget

	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Public Service/ Administration	4.59	3.99	6.60	6.23	6.61	6.04	6.44	7.50	12.73
local Govt. & Rural Dev	19.74	18.85	16.58	17.02	17.40	17.61	16.31	17.12	16.93
Education &Technology	12.15	15.51	16.27	15.49	17.95	17.43	17.76	13.94	12.76
Health	5.53	4.37	5.66	5.82	4.58	6.67	6.80	5.04	4.36
Social Security &Welfare	3.84	3.76	2.65	2.94	3.09	2.72	3.23	3.83	3.40
Energy &Power	17.86	12.86	15.68	15.21	12.87	11.39	11.00	11.21	10.84
Agriculture	6.43	6.38	5.49	5.69	5.36	6.17	6.16	7.72	8.04
Transport & Communication	22.08	25.97	25.21	23.32	24.23	24.25	24.98	25.56	24.49

Source: Finance Division, Ministry of Finance

One of the major weaknesses of successive ADPs has been the predominance of road/bridge projects resulting in a thin distribution of resources over many road projects and consequent slow rate of project implementation. Given the large portfolio of incomplete road projects, a moratorium could be imposed on the inclusion of new road projects until a substantial part of the backlogged projects get cleared. The Interim government should prioritise existing projects and allocate resources in a way so that priority projects that are nearing completion can be wrapped up swiftly. Instead of thinly distributing resources on all existing road or infrastructure projects, allocations should be held off from all low-priority and slowly implemented projects.

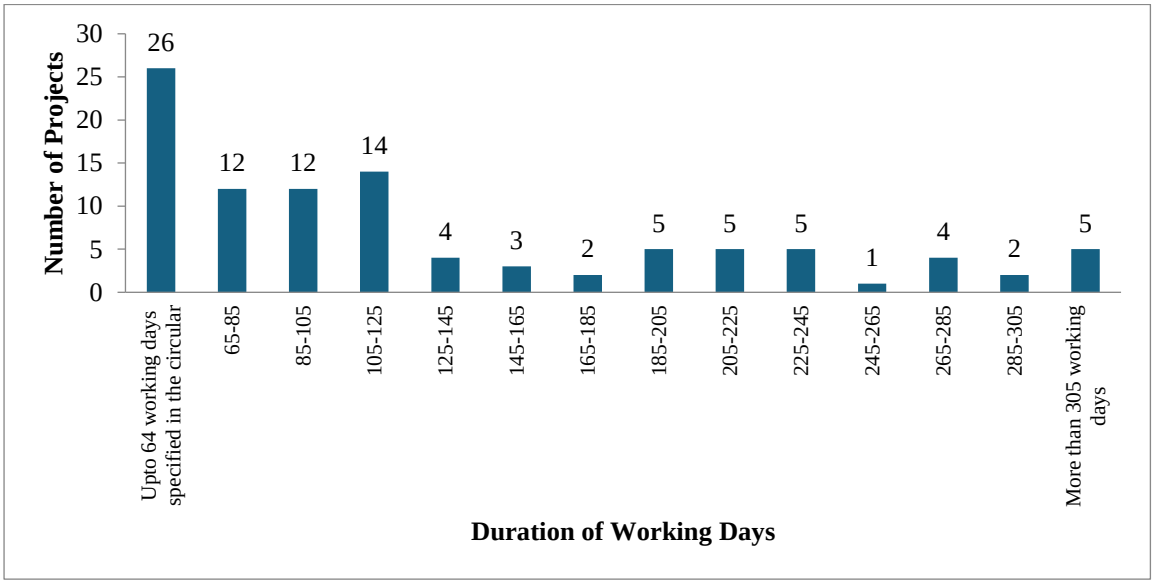

Figure 1.8: From Receipt of DPP at the Planning Commission to Submission of Summary to ECNEC Sub-Division

Source: General Economics Division, Ministry of Planning.

1.8 Resource Mobilisation

1.8.1 Domestic Resource Mobilisation: Tax-Revenue Scenario

The tax revenue scenario is quite unsatisfactory. The tax-GDP ratio in Bangladesh is one of the lowest among the SAARC countries. With the lower growth of tax revenue over time, there was a possibility of fiscal un-sustainability in the absence of foreign assistance. Thus, though the dependence on foreign aid in financing fiscal deficit has decreased over time, its role is still significant in managing the inter-temporal fiscal policy of the government.

Table 1.5: Tax/GDP in Bangladesh and its Regional Partners

Country	FY15	FY16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22
Bangladesh	7.49	7.66	8.8	9.81	9.87	8.95	8.7	8.67
India	10.57	11.15	11.23	11.01	10.01	10.24	10.84	10.69
Nepal	16.15	18	19.08	19.14	18	19.99	19.78	16.18
Pakistan	11	10.4	10.4	10.8	9.7	9.3	9.4	12
Sri Lanka	11.72	11.42	11.61	11.15	10.9	7.78	7.37	7.28

Source: Ministry of Finance of- Pakistan, Nepal, India. WDI- Sri Lanka, Bangladesh Economic Review 2023.

Table 1.6 presents various sources of revenue. VAT and Supplementary Duty (SD) constitute the major share of revenues (5.17% of GDP in 2023), followed by income tax (2.40% of GDP). With the starting of trade reforms and the introduction of VAT, dependence on customs duty has also declined, and the relative importance of domestic taxes like VAT and direct taxes has increased.

Table 1.6: Major Components of Revenue (FY16-FY25)

As % of GDP	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Customs Duty	1	1	1.1	1.2	1.2	1.2	1.3	0.9	0.8	1
VAT+SD	4.5	4.6	5.4	5.7	6.4	6.6	7	5.01	4.79	5.17
Income Tax	2.6	3.2	3.7	4.1	4.3	4.9	5.4	2.5	2.4	2.4
Others	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0.1

Source: National Board of Revenue.

In terms of tax efforts and tax buoyancy, Bangladesh ranks lowest among a sample of 50 developing countries (Begum, 2007; Hossain, 2015). The estimated overall tax effort is about 0.5 (less than unity) indicating that the country is yet to utilise its full capacity of tax revenue collection. The estimated tax buoyancy ratio is 1.235, indicating that tax revenue is highly responsive to GDP growth (Raihan and Anjum. 2020), and thus, strong efforts can be made to increase revenue collection. Overall, there are scopes of higher revenue collection if proper strategies are put in place.

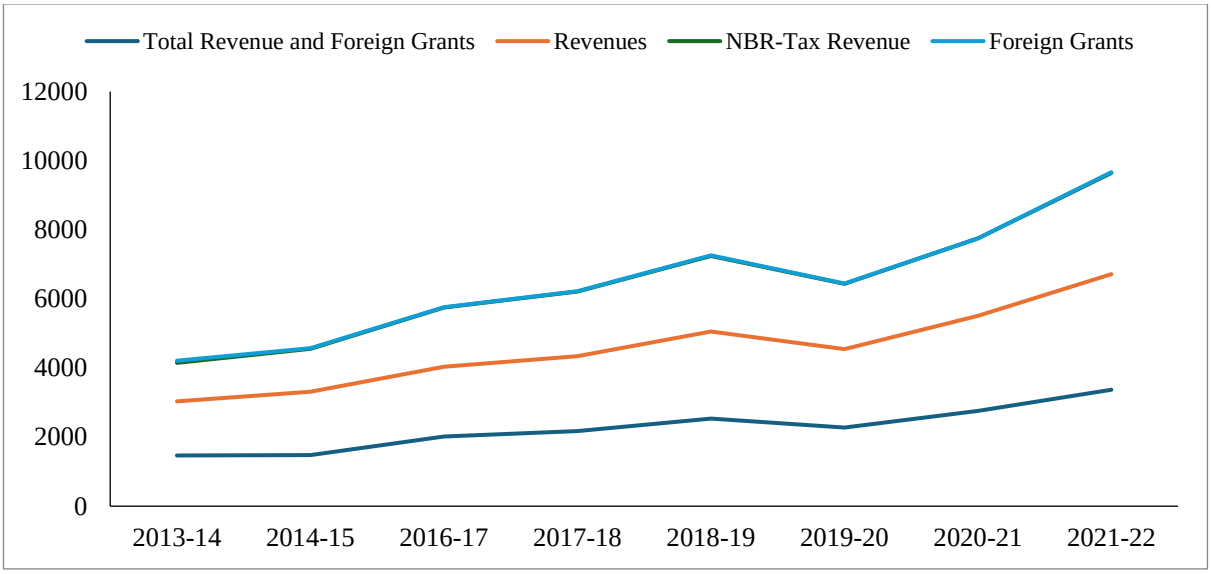

Figure 1.9: Breakdown of Sources of Revenue from 2014 to 2022 in billions of Taka

Source: NBR.

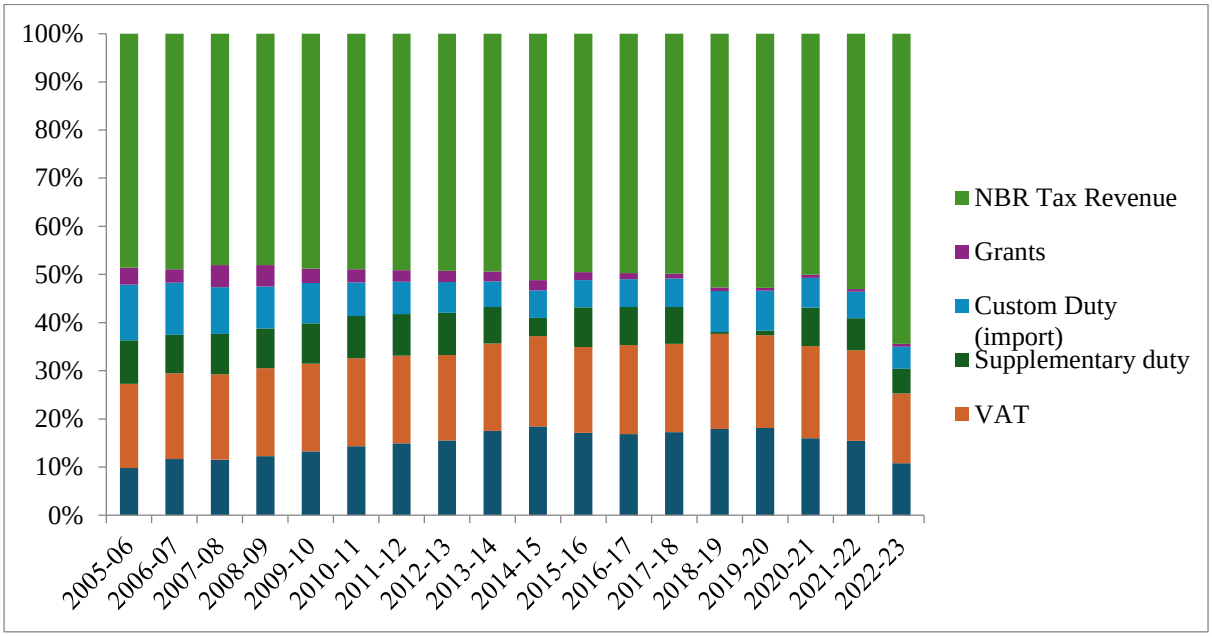

Figure 1.10: Share of Tax and Non-Tax Revenue in Total Taxes 2006-2023

Source: NBR.

1.8.1.1 Strategies to Enhance Domestic Revenue Collection

The NBR adopted various strategies to intensify its revenue collection efforts. The key strategies that the NBR adopts include improvement of revenue collection efforts through capacity building of NBR, tax and VAT system automation, organising tax and VAT fairs, digitalising tax payment system, etc. However, delays and backlogs in implementing various efforts hamper the expected pace of revenue collection. Automation of tax administration is underway, which can ultimately provide support for spot checks, automatic tax report generation, and enforcement of tax compliance in the future. NBR is also looking to revise the national income tax code to develop a direct tax code for the country. These efforts are likely to expand the tax base—both individual and firm level. Initiatives and incentives that are in place need to be reviewed and strengthened to enhance the tax potential on the domestic side while making it possible to achieve the targets.

Another concern remains on Bangladesh's tariff regime, which needs to be restructured in order to reduce effective protection levels and a consequent anti-export bias. In view of the currently high levels of tariffs on final consumer goods, the proposed structure calls for a gradual but significant reduction of tariffs on these goods while making modest adjustments to input tariffs along the way.

The total tax revenue grew steadily from 8.55% in FY16 to 8.68% of GDP in FY23, which required significant efforts on the part of NBR, BB, and MoF. However, considering the escalated development efforts in the coming years, it is necessary to increase the tax-to-GDP ratio gradually to 12-14% by the next 3-5 years. It is important to enhance the ongoing automation of the tax administration system, including the

ongoing online taxpayer registration and online return submission, and organising tax fairs for a longer period (for a month) not only in big cities but also at the district level. The efforts of increasing staffing and training at the National Board of Revenue (NBR) must be intensified. Finally, a review of the existing tariff policy will be essential for boosting and diversifying exports as well as for revenues.

Table 1.7: Revenue Structure (tax-GDP ratio) in FY16-FY25 (Base Year 2015-16)

As % of GDP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Total Revenue	8.55	9.4	9.83	10.73	10.98	9.96	9.79	9.68
Total Tax Revenue	7.49	8.27	8.8	9.81	9.87	8.95	8.71	8.7
NBR Tax Revenue	7.23	7.96	8.53	9.49	9.48	8.53	8.31	8.3
Non-NBR Tax	0.26	0.31	0.27	0.33	0.4	0.42	0.4	0.4
Non-Tax Revenue	1.06	0.99	1.03	0.92	1.1	1.01	1.08	1

Source: Bangladesh Economic Review, Ministry of Finance, various issues.

Having the lowest revenue-to-GDP ratios in the world, Bangladesh's transition to a low and middle-income country would require mobilising domestic resources at a much faster pace. Some of the strategies are recommended below to improve the tax revenue collection scenario.

- **Separation of tax policy and operational services**: A tax policy analysis division may be instituted under the Internal Resource Division with a full-fledged Secretary in place and the NBR chairman should be entrusted with tax revenue collection operations
- **Automation of VAT and Tax**: A fully automated tax return submission and VAT return submission should be implemented immediately. Though online tax return was introduced on a selective basis this year (2024), it must be expanded for all gradually by the next year in a simplified format.
- **Abolish Zoning System**: Now taxes are collected across Zones, which creates an opportunity for respective officials to take undue favours or do corruption as the Zone provides them the opportunity to be familiar with the respective taxpayers. This situation may be improved if a centralised system of online tax collection is introduced. This centralised system will allow the taxpayers to pay taxes wherever they like. The zoning system in the age of digitalisation is redundant.
- **Capacity building of NBR**: To enhance revenue collection, it is imperative to improve the capacity of NBR by providing adequate manpower, logistic support, research and monitoring, and strengthening its intelligence and audit system. Moreover, utmost importance should be given to improving administrative efficiency by reducing corruption in the system. The current system entails high transaction costs for potential taxpayers. Conduct surveys to identify potential taxpayers and barriers to paying taxes.

- **Customs and VAT policy and administration reforms:** There has been consultation with stakeholders on the VAT act which seeks to facilitate electronic interface for taxpayers and a national tax accounting platform for VAT credits and refunds/adjustments of input/output tax. It is recommended to reduce the number of VAT slabs to a minimum level to make it easier and more predictable. The reform of Customs Act needs to be updated to promote investments and prevent false declarations in order to eliminate distortions. Though online VAT registration and return submission are in place, the provision for manual submission of VAT returns must be lifted
- **Rationalise Tax Expenditures:** It is necessary to abolish all exemptions and allowances and/or minimise them in special cases and undertake studies to examine the impact of tax holidays and other incentive measures and explore relative advantages of alternative options (a uniform reduced tax rate) and introduce appropriate changes. Abolish the exemptions of tax in respect of capital gains and, in deserving cases, these may be taxed at preferential rates.
- **Customs duty:** Abolish zero rate of duty except in cases where international treaties or obligations exist, or strong humanitarian reasons prevail. Eliminate all concessionary rates and, if any duty concession is given under special circumstances, it should be approved by the Parliament or Competent authority before or within three months. Discontinue the practice of making mid-term changes of duty through SRO except in special cases like natural disasters and other emergencies. An overhaul of the PSI services is required to remove existing loopholes.
- **Supplementary and Regulatory Duties:** All supplementary and regulatory duties should be gradually phased out following the requirements for LDC graduation. With a substantial depreciation of the Taka, the reduction of such duties may ease inflation pressure on imported items.
- **Procedural reforms:** (i) Reform the customs clearance process to make it more efficient and less time-consuming; (ii) Discontinue the diplomatic bonded warehouses; (iii) Conduct a review of duty drawback, rates, and coefficients and revise accordingly; (iv) Regularly review and frame adequate safeguard duty rules to combat unfair international trade, and (v) withdraw manual submission of VAT returns that have already been submitted online.
- **Local-level taxes:** (i) Local-level taxes are yet to be a major source of revenue while subventions to local governments are a major drain on the national exchequer. Remedying these would necessitate several institutional and policy changes. While the government may look up the Report of the Local Finance Commission set up in the mid-1990s, there is a scope for rationalising the Immovable property tax as well as the urban land development tax. The latter, particularly should be imposed at a high rate so that land does not remain

unutilised and unproductive for long. (iii) Impose location-specific higher and differential tax rates for land used for residential and commercial purposes in large cities (e.g., Dhaka, Chittagong, and other city corporations) and apply the same principle in other cities and upazila headquarters.

- **Land development tax:** (i) Make upward revision in the tax rate by reviewing the land prices every five years; (ii) Bring large agricultural landowners under the tax net: (iii) Impose location-specific higher and differential tax rates for land used for residential and commercial purposes in large cities (e.g., Dhaka, Chittagong and other city corporations) and apply the same principle in other cities and upazila headquarters.

Non-Tax Revenue:

- **Land registration:** (i) Abolish all discretionary power of Sub-Registrars and simplify registration procedure; (ii) Rationalise land valuation by increasing existing rates to reflect market prices in different locations; (iii) Rationalise the minimum value of flats and buildings for tax purposes reflecting current market prices and locational variations.
- **Motor vehicles:** Review the current structure of registration fees for motor vehicles and work out a schedule that introduces high fees for high-capacity and expensive cars for personal use.

Despite all these efforts, the chances of reaching the targeted revenue seem challenging. Implementation of the tax modernisation plan has not been as fast as expected as well as the tax administration enhancements have been below expectations due to delays in the automation of the tax system. The narrow tax base combined with the monetary waste for exemptions and tax holidays has hindered tax collection. Keeping the challenges in consideration, the recommendations made in this report may be taken into consideration to improve the revenue collection situation.

1.8.2 External Resource Mobilisation

Foreign aid finances fiscal deficits and contributes to tax revenue earnings by financing imports and spurring growth. During the 1980s, the fiscal deficit came down from 6.6% of GDP to 5.4%, and afterward, in most of the years, the fiscal deficit remained within 5% of GDP. While total government expenditure (% GDP) has increased from 12.77% in 1990 to about 15.18% in 2021, the tax-GDP ratio has increased from almost 6% to about 8.96% during the same period. With an increased level of government expenditure coupled with increased tax revenue, the direct contribution of aid disbursement (%GDP) has declined from 5.94% in 1990 to about 2.24% in 2021. Net foreign financing in deficit finance was more than 75% before 1990, which indicates the overwhelming importance of aid in maintaining fiscal stability in Bangladesh.

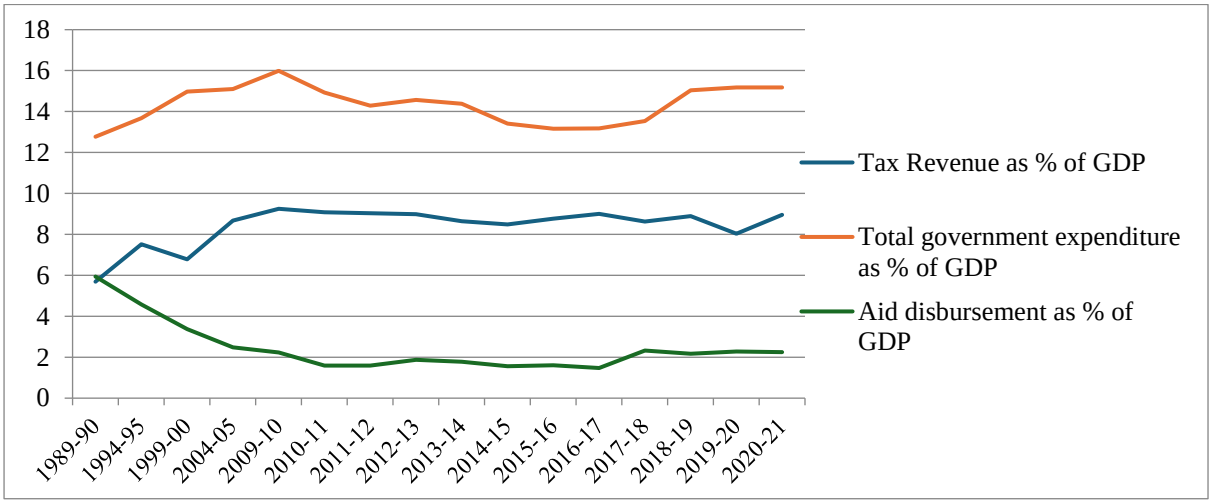

Figure 1.11: Share of Tax, Govt. Expenditure, and Aid Disbursement 1990-2021

Source**:** Flow of External Resources 2020-21 ERD, MoF.

The external funding structure mainly consists of four types of aid: project aid, budget support aid, commodity aid, and food aid. The transformation of the Bangladesh economy happened in a series of steps, which has been reflected in the changing composition of aid over time (Figure 1.12). Food aid has been seen to decline due to reaching a status of self-sufficiency with increased food production. Similarly, commodity aid has also significantly reduced after 2004-05 due to increased export volume, tax revenue growth and consistent rise in foreign remittance. There was no inflow of commodity aid since 2005-06; hence, it can be seen that as of 2021, project aid constitutes about 98.8% of total aid and the rest is food aid.

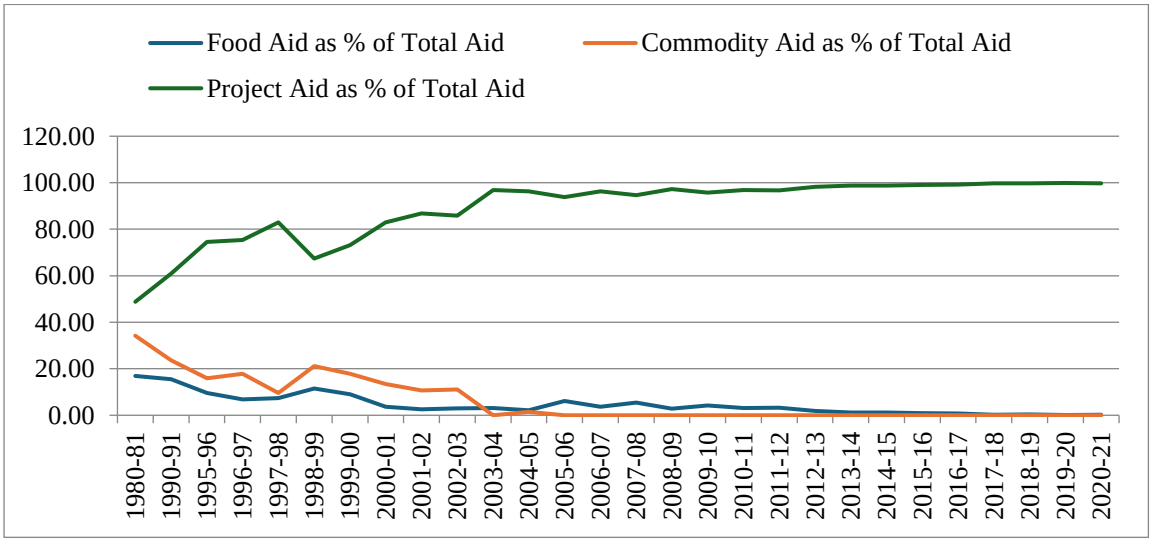

Figure 1.12: Trends of Food, Commodity and Project Aid

Source: Flow of External Resources 2022-23 ERD, MoF.

Historically, the share of project aid depicts an allocation within 25% of total project value across sectors. A shift in aid allocation to different sectors has also been observed over time with a shift of development priority of the government. The key sectors that received higher aid allocations in the 1990s were power, transport, water resources, industry, oil, gas and mineral resources. From 2000 onward, some sectors like industry, oil, gas extraction, water resources, etc., got less project aid allocation in the context of changing scenarios (Figure 1.13). Along with infrastructure projects, aid also went to various projects that are related to MDG targets, such as health, education, and rural development (poverty reduction).

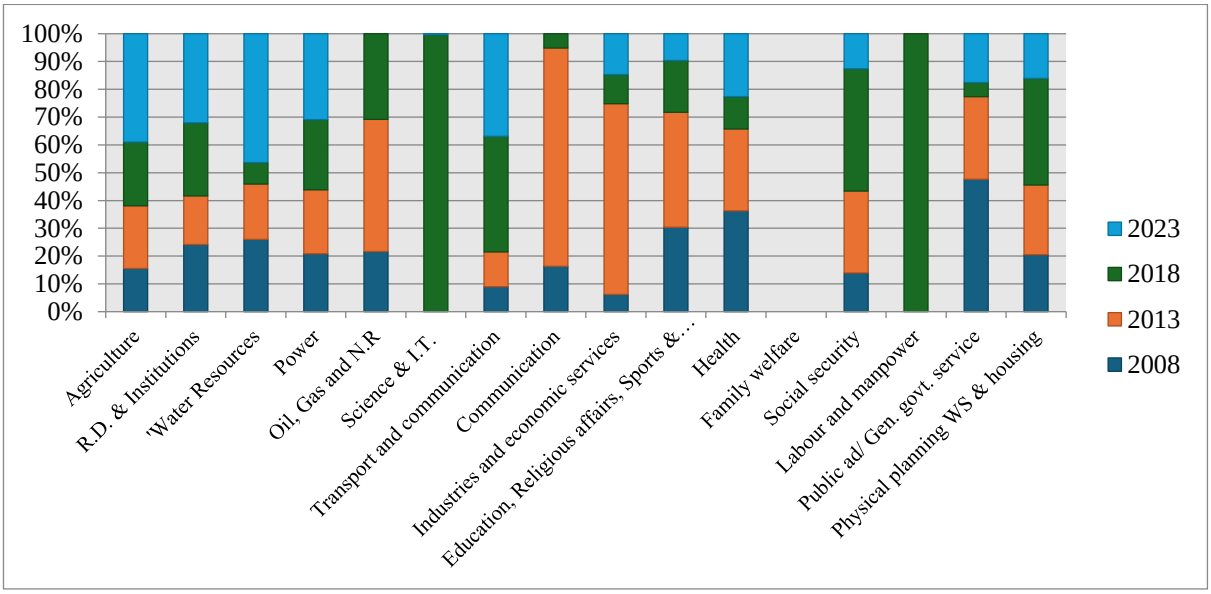

Figure 1.13: Percentage Share of Project Aid to Different Sectors

Source: FoER 2010-24, ERD.

1.8.2.1 Strategies for Enhancing External Resource Mobilisation:

- **Aid/ODA projections and planning:** The ERD needs to make aid projections every five years, exploring all possible sources and resource needs based on the development plan and trends of the country. The Government should encourage a programmatic approach and sector-wide programmes to address the needs of the sectorial level and should urge development partners to provide development assistance in such programmes. Priority should be given to providing resources from development cooperation for the programmes that aim to contribute to inclusive growth, poverty alleviation, and employment generation programmes.
- **Predictability in funding**: Encourage development partners to programme their financial support over multi-year timeframes (at best 5 years) as well as make multi-year funding commitments in a manner that would make it easier for the government to plan and make good projections in accordance with predictable funding. The aid pipeline must be updated with additions and deletions, and it should not reflect aid commitments for more than five years. The government, through ERD, ensures

timely information on Development partners' commitments and disbursement schedules so as to secure the required predictability of external support and its effective integration into the planning system.

- **Broadening the Resource Channels:** Bangladesh should explore and harness the opportunities to acquire external resources from sources like Aid for Trade, South-South Triangular Cooperation, Climate change funds, and financing from emerging market mechanisms, such as BRICS and AIIB.
- **Issuing Diaspora bond**: given that over 10 million Bangladeshi people work outside the country, issuance of diaspora bonds could be a viable option to raise foreign resources. For this, ERD should review relevant policies and regulatory bottlenecks for the issuance of diaspora bonds. Bangladesh Bank will take the initiative to develop a policy framework for issuing such bonds.
- **GDP-indexed bond**: The GDP-indexed bond is a sophisticated bond which is used in special circumstances if a country falls under fiscal pressure. Though, at this moment, there is no potential threat for the country to issue the GDP-indexed bond, it could be thought of as a future option. A background review and feasibility of issuing this type of bond could be done—Bangladesh Bank could take this initiative.

1.8.2.2 Capacity Building of ERD

The capacity building aspects can be seen from several points of view:

- A comprehensive resource mapping is required as a part of better resource mobilisation strategies. This will require significant institutional reforms and should bring together coherent policies to ensure that key financing flows are fully developed and aligned with national priorities. For this purpose, an institutional framework for reviewing and analysing such an integrated financing strategy needs to be developed. A high-level committee headed by the finance minister may be formed to review the financing situation every six months which will also help in formulating the yearly national budget with priority financing considerations;
- Several wings or units within various existing wings of ERD could be initiated to facilitate resource mobilisation from emerging sources, such as SSTC (South-South Triangular Cooperation), AfT (Aid for Trade), CCF (Climate Fund) management, etc. For aid negotiations, external experts including academics, researchers and sector experts can be included in the delegations, which will in one hand increase the capacity of government officials and on the other hand facilitate aid/resource mobilisation;
- Capacity development of the planning cells of the line ministries is very important in terms of project proposal development by linking project indicators to sector indicators and ultimately to the national development results framework. While

developing a proposal for foreign aided project, identification of priority sector/area is also important;

- Capacity development of ERD officials through training would be a continued process. In particular, they are in need of training on public financial management and ICT issues. Both local and foreign training could be arranged on a regular basis;
- Include experts on various aspects of ODA, grants, loans, bonds, etc. in various committees, and regular consultation with eminent economists and other stakeholders is expected to increase the knowledge base of the concerned officials;
- Harmonising different documents prepared under different donor-sponsored projects on aid mobilisation and effectiveness might streamline the overall external resource mobilisation approaches; and
- The allocation of funds for R&D, the formation of thematic groups including experts from outside government, and preparing periodic reports and reviews on aid mobilisation, utilisation, and effectiveness would be an important step toward improving the capacities of ERD.

1.8.3 Mobilising Private Finance for Development

Conventional sources of development finance, such as the budgetary resources of the government and official aid flows, will be inadequate to meet the enormous development needs of Bangladesh. This is particularly true given the climate-change-related challenges faced by the country. Bangladesh thus needs to put in place policies, mechanisms and systems to attract private capital on a much larger scale than it has in the past.

Over the past few decades, many activities traditionally considered exclusive domains for public sector provision and funding have been opened to the private sector. It is now common to see the private sector involved in provision, funding, or both, in sectors that they were largely absent from, such as many infrastructural activities. Bangladesh is no exception and private sector participation is now allowed in many physical and social infrastructure activities which were previously a public monopoly.

Substantial scope exists to attract even more private capital into development activities. According to the World Bank's Infrastructure Assessment 2020, Bangladesh will face an annual financing gap of approximately US$10 billion in the infrastructure sector for at least the next decade and half.

Bangladesh's efforts to attract more private capital in the coming years will face a challenging external environment. In 2007, on the eve of the global financial crisis, private capital flows to developing countries (excluding China) were substantial – 8.8% of the GDP of these countries. However, this was a peak year, and flows declined steadily since then to reach 3.2% of GDP in 2022. The prospects are not bright. A recent report by MIGA states: "Private flows are likely to remain constrained by limited global liquidity and concerns over creditworthiness and the sustainability of debt in many

developing countries." It further states: "Between 2013 and 2023, the rating distribution for developing countries has shifted to the right, implying an increase in country risks."

Given the enormous development needs of the country, Bangladesh will need to step up its efforts to attract private capital in a global environment that remains challenging. Business as usual will not do. In addition to appropriate policies and regulations, Bangladesh will need to leverage innovative approaches to attract private capital, such as public-private partnerships in various forms, and instruments that de-risk private investments. One of the major deterrents to increased private capital flows from abroad is project risks, whether real or perceived. Thus, de-risking is critical. Two popular de-risking instruments are blended finance and guarantees.

Blended Finance

Blended finance is a form of structured finance where private, commercially oriented capital is combined with grants or concessional finance to make a project bankable. Consider a project which is considered socially beneficial (i.e., its social benefits exceed its social costs) but not privately profitable or too risky for private investors. Since it is socially beneficial, it may be worthy of public funding. However, as mentioned at the outset, available public funding may not be adequate to fund all projects with high social returns. Many such projects can still go through if private capital can be attracted to partly fund the project. This is where blended finance can be useful. Some public financing through grants or concessional finance can help improve the risk and return profile of the project such that it becomes attractive to the private sector.

Guarantees

Some of the risks that investors face is commercial in nature, resulting from uncertain market dynamics or deficiencies that are internal to the firm. Investors are usually the best judge of commercial risks, and they know how to address these. However, risks are also generated by government conduct, such as unpredictable policy or regulatory decisions. These may include government reneging on contracts it has signed with private investors (for example, violating the commitments made in power purchase agreements) or not fulfilling other promises, such as not allowing foreign investors to remit their profits, or making it difficult to do so. Other non-commercial risks emanate from regulatory decisions of the government, such as revoking licenses or refusing to approve these, or pricing decisions such as arbitrarily imposing price controls. A more extreme case is that of expropriating properties owned by investors.

Many projects in Bangladesh may fall in the category of high return-high risk. The high returns may attract foreign investors provided the high risks, especially those emanating from uncertain government conduct, are mitigated through the provision of guarantees. Bangladesh may leverage guarantee providing institutions, such as the Multilateral Investment Guarantee Agency (MIGA), a member of the World Bank Group, to help de-risk foreign investments into Bangladesh.

Developing capacity of the Public-Private Partnership (PPP) Authority

Despite the significant potential for investment in PPP projects, progress with such projects, including pipeline development, has been slow. The government has put in place a legal and institutional framework for PPPs through the passage of the Public-Private Partnership Act, issuance of relevant regulations and guidelines, and the establishment of the PPP Authority in the Prime Minister's Office in 2015. These efforts are not producing the desired results due to the weak capacity in government to conceive, develop and negotiate PPP deals and bring these to a closure. Bangladesh needs adequate capacity to design and implement innovative arrangements to mobilise private capital for development purposes, such as those discussed above.

Bangladesh will have to develop such capacity at various levels. It will also need to develop good practices in PPP management to not only make the programme effective but also to earn the trust of the investors. Capacity and/or good practices need to be developed in the following areas: a) coordination of activities across government ministries and agencies in dealing with individual PPP projects (for example, any tax benefits to be provided to foreign investors should be agreed with the NBR and, once NBR has given the go-ahead, it should not renege on that decision); b) management of fiscal liability associated with PPP projects (PPP projects usually involve some financial contribution from the government); c) making PPP deals transparent to the public except where there are solid grounds for maintaining confidentiality; d) implementation capacity in the PPP Authority and other relevant ministries and agencies.

An important priority is creating a pipeline of bankable projects. The government often presents project ideas to investors but many of these projects are not bankable, i.e., they are not sufficiently developed to attract investors. Investors need a considerable amount of information and due diligence analysis before deciding whether to seriously consider a project. In uncharted, and risky territory, such as Bangladesh, many investors are unwilling to bear the expenses of carrying out due diligence analysis on half-baked project ideas. Thus, it is imperative that the government does some due diligence on the proposed projects and create a pipeline of bankable projects, not just a cursory list of project ideas.

To generate such bankable project ideas and take them all the way through to project closure, capacity needs to be built in government in a number of areas. These include good understanding of project risks and ways to share risks between the public and private parties (such as through appropriate financial structuring), negotiation skills and legal issues. The core agency where such capacity may be built is the PPP Authority. However, a cohort of officers is required across several ministries and agencies who also have a minimum understanding of the issues and possess the relevant skills.

Other issues constraining PPPs

Local experts have highlighted a few additional issues and made some recommendations in the area of PPPs. These include: a) standardisation of the project documents and PPP

agreements; b) broadening the applicability of Viability Gap Financing, which is allowed under the PPP law but has so far been applied in a limited manner, c) extending the tenure of loans offered by banks in Bangladesh so that longer-term loans are available for capital-intensive infrastructure projects with long gestation gaps; d) establishing a vibrant secondary market for bonds; e) accelerating the adoption of alternative dispute resolution mechanisms.

1.9 Concluding Remarks

In recent years, Bangladesh has faced significant macroeconomic instability, marked by rising inflation, currency depreciation, and widening fiscal deficits. The global economic slowdown, combined with domestic challenges such as supply chain disruptions, energy shortages, and political uncertainties, has compounded these vulnerabilities. Inflation, particularly food inflation, has placed increasing pressure on households, while the depreciation of the taka has further strained external trade balances and foreign exchange reserves. These macroeconomic imbalances have exposed the country's limited capacity to absorb external shocks and maintain sustainable growth.

At the heart of this instability lies a poor resource mobilisation capacity. Despite positive strides in economic growth, Bangladesh continues to struggle with a narrow tax base, low tax-to-GDP ratio, and inefficiencies in public expenditure management. Over-reliance on remittances and foreign loans has created external vulnerabilities, while the formalisation of the economy remains an ongoing challenge. The insufficient mobilisation of domestic resources hampers the government's ability to fund essential development projects, maintain fiscal discipline, and invest in long-term infrastructure and human capital development.

Broadly, the following structural weaknesses of Bangladesh's economy deter its long-term growth prospects, and therefore, a rebalancing in economic measures is needed to address all these weaknesses through structural reforms.

- **Lack of export diversification:** Bangladesh's export sector remains heavily reliant on a few key products, particularly ready-made garments (RMG), which account for over 80% of total exports. This lack of diversification makes the economy vulnerable to global market fluctuations, trade disruptions, and shifting consumer preferences. While sectors like pharmaceuticals, textiles, and agriculture show potential, they remain underdeveloped due to limited investment in innovation, technology, and market expansion. Diversifying exports into higher-value goods, such as electronics, software, and renewable energy products, is essential to reduce risks, enhance economic stability, and ensure sustainable long-term growth in Bangladesh's global trade position.
- **Weak Tax Systems**: The tax collection systems in Bangladesh are underdeveloped and less automated, leading to low domestic revenue mobilisation. There may be challenges like low tax compliance, tax evasion, and an over-reliance on regressive taxes. tax policies are taken by the officials who

are overwhelmingly engaged in tax collection, which leads to an inefficiency in tax policies. Therefore, it was suggested to establish a separate tax policy department. In addition, research and monitoring wing/department in the NBR are necessary to assess the effectiveness of policies.

- **Weak financial system**: Bangladesh's financial system faces several weaknesses, including a lack of financial inclusion, underdeveloped capital markets, and inefficiencies within the banking sector. The banking system is plagued by politically patronised higher non-performing loans (NPLs), poor corporate governance, and inadequate risk management practices. State-owned banks, in particular, suffer from political interference and inefficient operations. Moreover, the stock market remains underdeveloped, with low investor confidence due to a lack of transparency and weak regulatory oversight. These weaknesses hinder access to finance for businesses, stifle investment, and increase economic vulnerabilities, making it essential to undertake reforms in governance, regulation, and financial inclusion to strengthen the system.
- **Debt Overhang**: Lower tax revenue leads to excessive borrowing, and poorly managed debt to some extent (a large portion from non-banking NSD certificates) can create fiscal instability, limiting the ability of governments to invest in key sectors and risking default.
- **Corruption and Inefficiency in Public Spending**: Public spending often suffers from corruption, inefficiency, or misallocation, leading to the wastage of resources that could have been used for critical public goods. Cost and time over-run in infrastructure development projects were the common phenomena in the previous Awami League regime’s development programmes, which were attributed to corruption and inefficiency in development project management.

To address these challenges, a multi-pronged approach is needed. *First*, strengthening the domestic revenue generation capacity is crucial. This can be achieved through broadening the tax base, improving tax compliance, and enhancing the efficiency of tax administration. Streamlining the tax system and reducing the informal sector's size will ensure more consistent and equitable revenue streams.

Second, addressing fiscal inefficiencies through better public expenditure management, prioritising critical sectors such as education, health, and infrastructure, and reducing wasteful spending will be essential for restoring fiscal discipline. Introducing public-private partnerships (PPPs) and attracting more foreign direct investment (FDI) can also help bridge the resource gap while providing better avenues for job creation and technology transfer.

Third, enhancing the resilience of the financial sector, especially through better regulation of non-performing loans and improving the availability of credit for businesses, particularly SMEs, will be important for fostering economic stability. Additionally, policy measures to stabilise the currency and strengthen the foreign

exchange reserves, such as diversifying export markets and boosting export performance, will help reduce external imbalances.

Lastly, fostering an environment conducive to innovation, diversifying the economy beyond garment exports, and investing in technology and human capital will be key to ensuring long-term sustainable growth. Addressing these challenges will require coordinated efforts between the government, private sector, and international partners.

In sum, while the recent macroeconomic instability and poor resource mobilisation capacity pose significant challenges, they also present an opportunity for Bangladesh to recalibrate its economic strategy. By implementing the right policies, focusing on inclusive growth, and enhancing resource efficiency, Bangladesh can build a more resilient and prosperous economy in the years to come.

References:

Ministry of Finance (2022-): Bangladesh Economic Review, various years

Hossain, M. and Sattar, J. B. (2024). An Assessment of Exchange Rate Management in the

Post-Covid Crisis Period: The Case of Bangladesh BIDS REF Research, Ongoing.

Hossain, M., Ahmed, M. (2020). Exchange Rate Management Under Floating Regime in Bangladesh: An Assessment. In: Hossain, M. (eds) Bangladesh's Macroeconomic Policy. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-15-1244-5_11

Hossain, M., Ibon, M.W.F. (2020). Assessing the Effectiveness of Monetary Policy in Bangladesh. In: Hossain, M. (eds) Bangladesh's Macroeconomic Policy. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-15-1244-5_5

Hossain. M. (2020). ICTs and Economic Growth in Bangladesh, In Hossain (eds) "Digital Transformation and Economic Development in Bangladesh", Palgrave Macmillan, 2022

Hussain, Z., Hossain, M. (2020). A Review of Public Expenditures in Bangladesh: Evidence on Sustainability and Cyclicality. In: Hossain, M. (eds) Bangladesh's Macroeconomic Policy. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-15-1244-5_6

Raihan, S., Anjum, I. (2020). Effectiveness of Fiscal Policy in Stimulating Economic Growth: An Empirical Study on Bangladesh. In: Hossain, M. (eds) Bangladesh's Macroeconomic Policy. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-15-1244-5_7

Chapter 2: Unlocking Export Potential for Economic Re-strategising[1]

2.1 Background

Exports have been a cornerstone of Bangladesh's economic development over the past several decades, particularly since the early 1980s, when readymade garment (RMG) exports—virtually unknown at the time—began to flourish, registering rapid growth that transformed the economy by leveraging the country's comparative advantage in labour-intensive activities and positioning Bangladesh as a leading apparel supplier on the global stage. Shifting from an agrarian export base, the RMG sector now accounts for over 80% of Bangladesh's merchandise export earnings and has become a symbol of socio-economic progress by creating millions of jobs, particularly for women, while generating extensive linkages that support broader economic development.

Despite its transformational role in leading the country into manufacturing activities—whose share in GDP currently stands close to 22%, surpassing the global average of 18%—it somewhat overshadows the fact that the overall size of Bangladesh's exports remains small when compared to countries of similar size, as will be elaborated later in this chapter. The success of the export-oriented garment industry has not been replicated in other sectors, leaving the broader potential for fostering economic development unrealised. Larger exports play a transformative role in driving overall economic growth by generating sufficient foreign exchange earnings to support other economic activities, fostering industrial development across various sectors, enabling economies of scale, and improving efficiency, while also allowing countries to diversify their economic base through integration into global markets. Moreover, the competitive pressures of global trade encourage firms to innovate, adopt new technologies, and enhance product quality, thereby contributing to broader economic modernisation. The lack of export diversification in Bangladesh, however, restricts its ability to fully capitalise on opportunities presented by global trade-led development.

The success of the RMG sector has often portrayed Bangladesh as a case of export-led growth and development. However, the declining share of exports in GDP over the past decade suggests that the 'engine' role of exports may have been a short-lived episode. Moreover, a closer examination of trade policy reveals that the policy-induced incentive structure in Bangladesh has been skewed against the export sector, favouring import-competing industries.

Bangladesh's ongoing macroeconomic challenges, while partly attributed to policy mismanagement by the immediate past political regime, also reflect deeper structural limitations, including a narrow export base shaped by policies such as a highly protective

[1] This chapter has been prepared by Mohammad Abdur Razzaque, Economist and Chairman of Research and Policy Integration for Development (RAPID).

tariff regime and an overvalued exchange rate. FDI inflows, a critical determinant of export success, have remained persistently low, driven in part by a weak investment climate that discourages investment and restricts the country's ability to diversify its export base or fully capitalise on the potential of global trade. The unfolding macroeconomic developments thus highlight the urgent need to expand exports and broaden Bangladesh's export base, not merely as a response to immediate challenges but as a fundamental strategy for achieving long-term economic resilience and sustained growth.

The urgency of addressing the structural weaknesses affecting export performance has become increasingly evident in light of Bangladesh's impending graduation from LDC status in 2026. With a significant proportion of exports, particularly in the RMG sector, currently benefiting from duty-free access, the loss of these preferential tariffs will expose the sector to heightened global competition. The concentrated nature of the export basket means that any substantial decline in garment exports could have wide-ranging consequences. Meanwhile, other export sectors remain too small to offset potential losses, underscoring the critical importance of diversifying the export base and enhancing competitiveness across industries.

Bangladesh is undergoing a significant transition where energising and broadening its export base has become a necessity rather than a choice. Achieving this will require a broad range of economic reforms that not only address the structural factors mentioned above but also prepare the economy to succeed in an increasingly competitive global trade environment. The combined challenges of macroeconomic pressures, LDC graduation, and the need for wider reforms to improve the functioning of the economy present an opportune moment for a strategic recalibration of policies to build resilience through sustained export growth and diversification.

2.2 Current State of Bangladesh's Export Performance

Despite RMG export success, Bangladesh's overall size of exports remain low: Despite Bangladesh's success in RMG exports, its overall export performance remains underwhelming compared to economies with comparable population sizes, such as Vietnam, Indonesia, and the Philippines (Figure 2.1). Among the ten most populous countries, only three, including Bangladesh, have exports below $100 billion.[2] Bangladesh's export volume of $53.7 billion, with a population of 170 million, is modest in comparison. Vietnam, with 99.65 million people, exports over $360 billion; Indonesia, with 279 million, exports over $292 billion; and the Philippines, with 113 million, exports over $110 billion. Furthermore, East Asian nations with very small populations such as Malaysia and Singapore are ranked amongst the top global export performers. Malaysia with a population of 29 million, exports more than $300 billion, while Singapore, with a population of about 6 million has export receipts close to $500 billion.

[2] The other two countries are Nigeria and Pakistan.

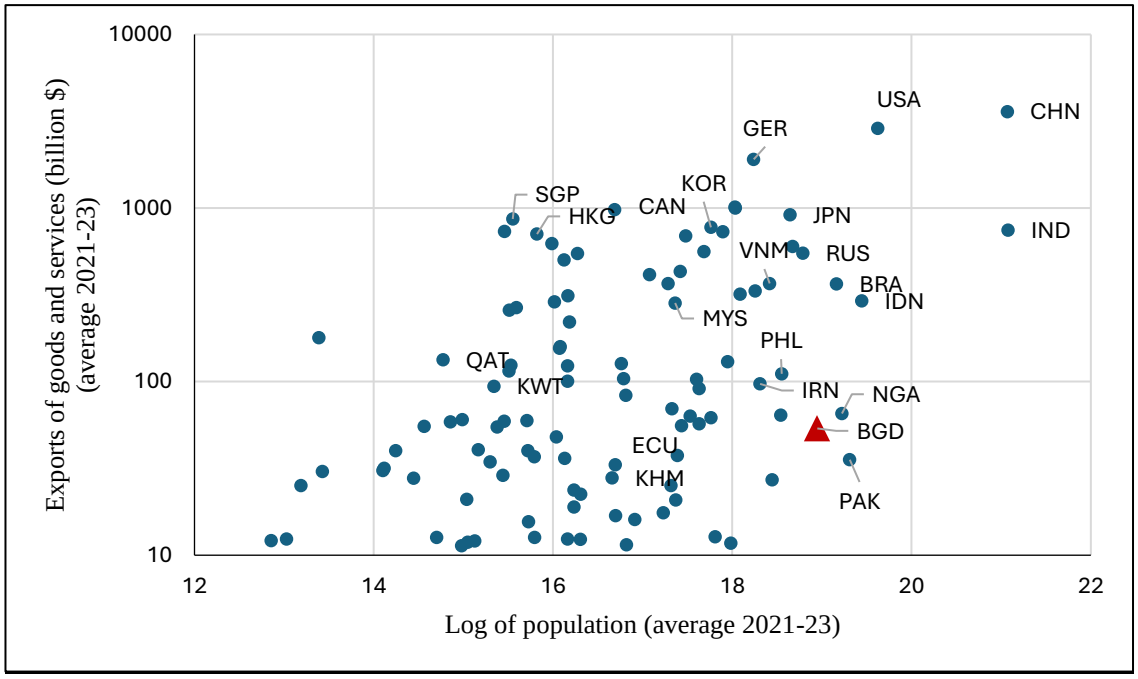

Figure 2.1: Total Exports and Population Size of Global Economies

Source: World Development Indicators (2024).

Despite the policy rhetoric emphasising export-led economic growth, Bangladesh has neither demonstrated the intent nor achieved the outcomes associated with such a strategy: Successive policy documents, including the Five-Year Plans and export policies, consistently highlight export-led growth as a national priority. However, this narrative is undermined by both the policy framework and actual economic performance.

From a policy perspective, Bangladesh remains one of the most protectionist economies in the world (World Bank, 2023a), generating a policy regime that favours import-competing sectors significantly more than the export-oriented sector, the discussion on which is provided later in this chapter. In contrast, countries that have successfully implemented export-led growth strategies, such as Vietnam and India, undertook sweeping trade liberalisation measures and sustained those enabling deeper integration with the global economy.

In terms of outcomes as well, the export-GDP ratio in Bangladesh further challenges the claim of pursuing export-led growth. Economies with genuine export-led growth typically exhibit export sectors expanding faster than GDP, pulling overall economic growth. However, in Bangladesh, the export-to-GDP ratio has steadily declined—from above 20% in 2012 to 13.16% in 2023. When exports are measured in value-added terms, the same ratio would have fallen much less than 10% (Figure 2.2).

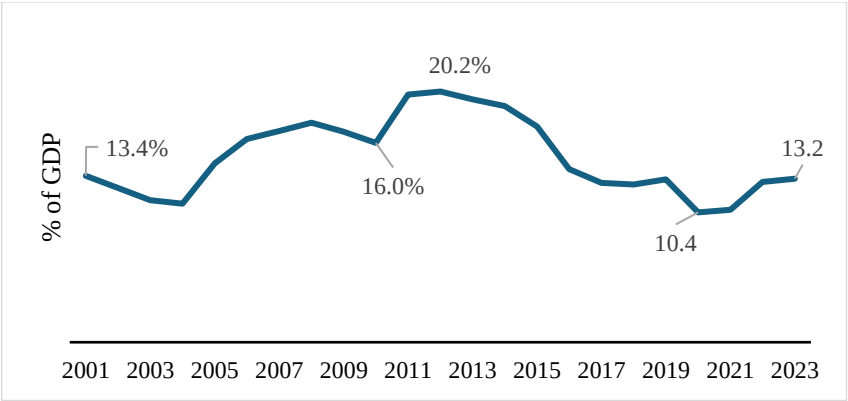

Figure 2.2: Falling Export GDP Ratio of Bangladesh

Source: World Development Indicator, World Bank (2024).

Overwhelming reliance on RMG means Bangladesh's export concentration is much higher than the LDC average: Bangladesh overwhelmingly depended on its RMG sector for export earnings, contributing more than 80% of its export earnings. Such overwhelming reliance on one sector makes Bangladesh's export basket one of the least diversified in the world. Bangladesh's export basket is four times more concentrated than the average for developing countries. According to one UNCTAD's export diversification index, which compares a country's export structure with the world average, ranging from 0 (reflecting the world average diversified exports) to 1 (indicating the highest level of concentration), the average score for LDCs is estimated at 0.66 as against Bangladesh's 0.87, let alone comparison with such countries as China, India, Indonesia, and Viet Nam (Figure 2.3).

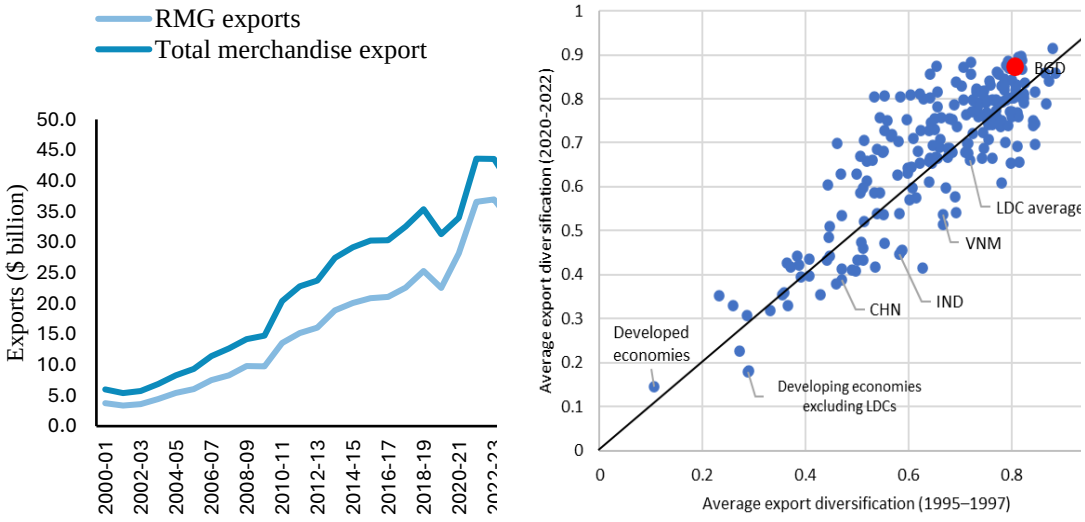

Figure 2.3(a): Bangladesh's Total Merchandise and RMG Exports; Figure 2.3(b): Export Diversification Index of Global Economies

Source: For Figure 2.3(a), author's presentation based on data from Bangladesh Bank (2024a). Figure 2.3(b) is adopted from Razzaque et al. (2024a).

Bangladesh exports a narrower range of products to fewer markets. Its export concentration is evident in both product and market dimensions. In comparison, East Asian countries such as Indonesia, Malaysia, Thailand, and Vietnam export a significantly larger variety of products to a wider array of markets. Even Sri Lanka and Pakistan, despite having smaller overall export baskets than Bangladesh, have achieved greater diversification in both product offerings and market reach.

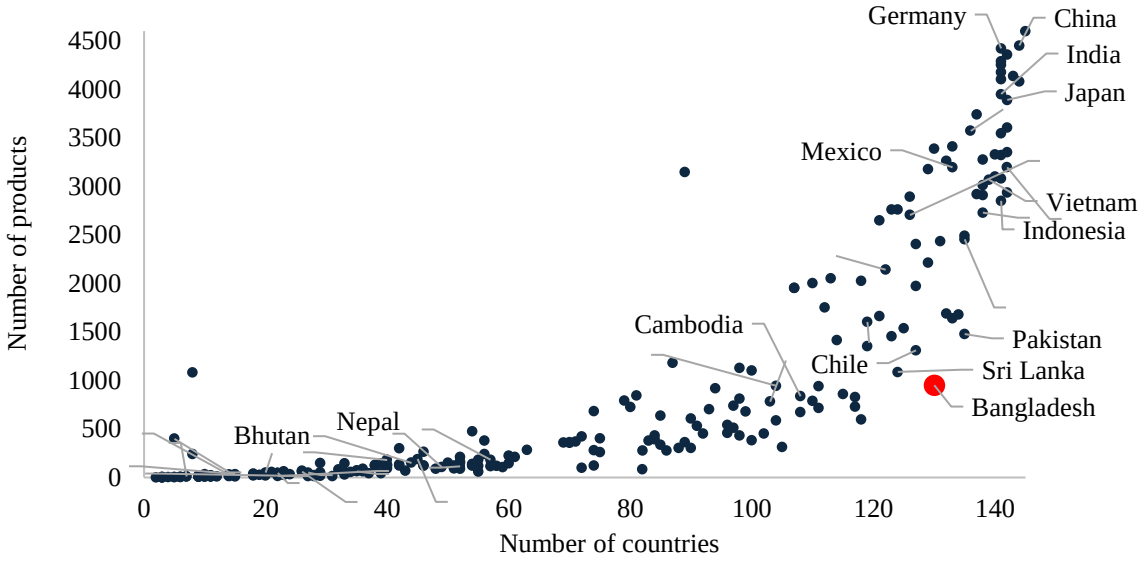

Figure 2.4*:* Number of Export Products and Markets

Source: Author's analysis using WDI data.

The contribution of new products to Bangladesh's export growth is remarkably low. Export growth can occur through increased sales of existing products (intensive margins) and/or the introduction of new products (extensive margins). An analysis of disaggregated HS8-digit data reveals that new products account for less than 5% of Bangladesh's export growth, with over 99% of the growth driven solely by intensive margins—selling more of the same products (Table 2.1). In contrast, comparator countries exhibit significantly higher contributions from new products. For example, Malaysia's export growth was driven by nearly 78% from new products, while Vietnam and China reported contributions of 42% and 32%, respectively.

Table 2.1: Contribution to Export Growth 2005–19 (%)

	Intensive margin	New product margin	Product death margin
Bangladesh	0.991	0.047	-0.038
China	0.760	0.319	-0.079
India	0.848	0.197	-0.045
Cambodia	0.797	0.233	-0.030
Sri Lanka	0.884	0.249	-0.132
Malaysia	0.824	0.777	-0.601
Pakistan	0.880	0.260	-0.140
Vietnam	0.614	0.415	-0.029

Source: Razzaque et al. (2024a).

Even within the RMG sector, exports are concentrated in cotton-based products: Bangladesh's heavy reliance on the RMG sector is compounded by a significant concentration within the sector itself. RMG exports are broadly classified into cotton and non-cotton apparel, the latter comprising items made from man-made fibres (MMFs) and blended fibres. Unlike global trade, where approximately 58% of apparel exports consist of non-cotton items and 42% are cotton-based (Razzaque et al., 2024b), Bangladesh's RMG exports are predominantly cotton-based, with 71% of exports falling into this category and only 29% in non-cotton (Figure 2.5).

This overdependence on cotton apparel not only misaligns Bangladesh with evolving global trade patterns but also places its RMG sector at a strategic disadvantage, as consumer preferences increasingly favour non-cotton apparel for their superior performance and sustainability attributes. MMF-based apparel, with inherent properties such as water and wrinkle resistance, recyclability, and durability, appeals to modern consumers who prioritise materials offering extended lifespans, ease of maintenance, and reduced environmental impact. Moreover, regulatory pressures, particularly from the EU, are accelerating the shift towards sustainable textiles, thereby amplifying the competitive edge of MMFs, which require less land and cause less soil erosion compared to cotton-based alternatives.

The global market's pivot towards recycled fibres, particularly polyester, further underscores the urgency for Bangladesh to diversify beyond its traditional reliance on cotton-based products. This dependency not only risks diminishing export earnings as global demand increasingly favours MMFs but also exposes the RMG sector to vulnerabilities arising from environmental disruptions to cotton production, which may intensify with climate change.

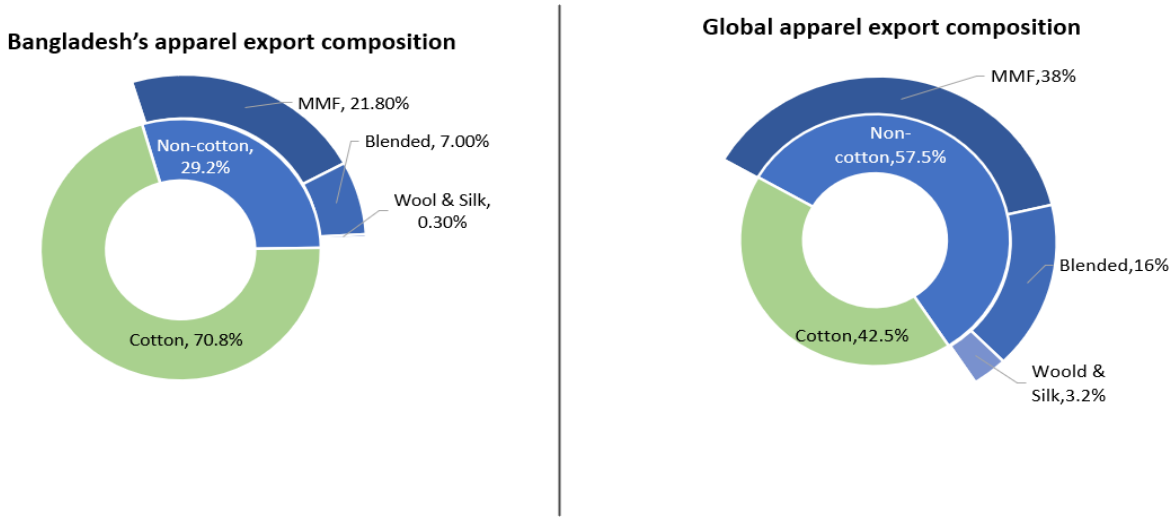

Figure 2.5: Bangladesh and Global Apparel Export Composition

Source: Adopted from Razzaque et al. (2024b).

Heavy reliance on LDC-specific trade preference: Among the LDCs, including recently graduated ones, Bangladesh stands out as the most heavily dependent on LDC-specific trade preferences. Approximately three-quarters of Bangladesh's exports benefit from these preferences WTO & EIF (2020). In contrast, most other LDCs, such as Kiribati, Timor-Leste, and Lao-PDR, primarily export mineral goods, which generally face zero tariffs under the Most Favoured Nation (MFN) regime in different countries. Bhutan, which recently graduated from LDC status, primarily exports to India, where its goods enjoy preferential access through a bilateral trade agreement not linked to LDC status. Similarly, Nepal benefits from preferential market access in India under a bilateral arrangement. Thus, a concern for Bangladesh after LDC graduation is the potential loss of these trade preferences, which have been instrumental in sustaining its export competitiveness. Graduating countries typically transition to less favourable preferential trade schemes designed for other developing nations, which often offer limited benefits. In the absence of these preferences, they may face MFN tariff rates—meaning no tariff concessions at all—depending on the trade policies of importing countries. This poses a significant challenge for Bangladesh, given the heavy reliance of its export sectors on these preferential arrangements.

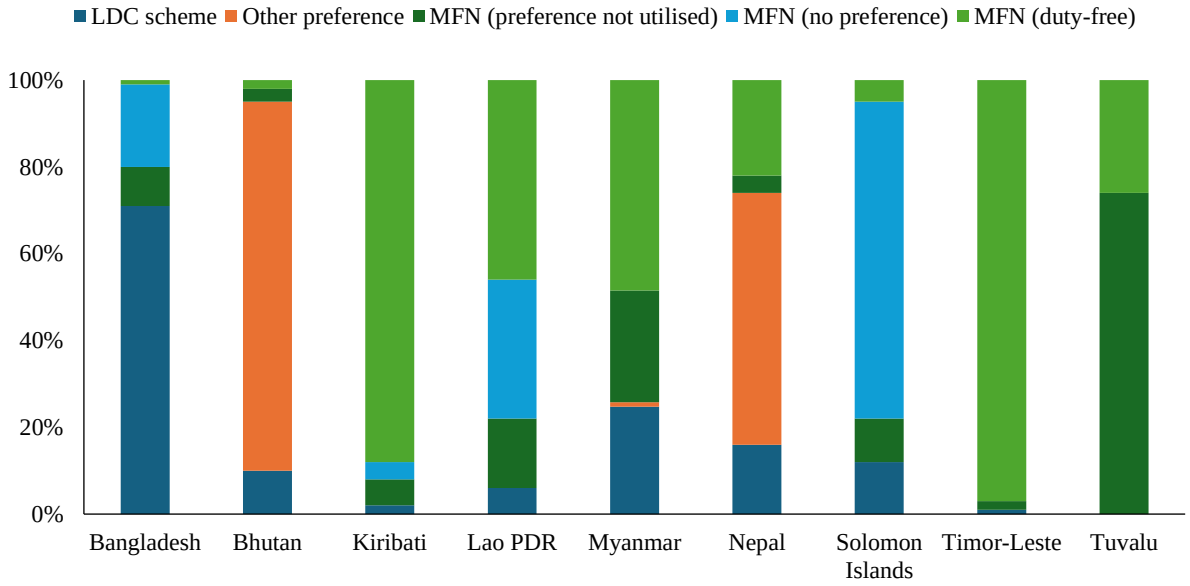

Figure 2.6: Breakdown of LDCs Exports by Duty Type
Source: Adopted from UNDP (2022).

Booming manufacturing growth in the domestic market is not reflected in exports, and significant export potential remains untapped. The remarkable growth of Bangladesh's manufacturing sector for the domestic market has not translated into a proportional expansion of non-RMG export earnings, leaving substantial export potential unexploited. Domestically, the country produces a wide array of goods, ranging from cement and ceramics to pharmaceuticals, plastics, handcrafts, handbags, fertilisers, and

footwear. Between 2016-17 and 2023-24, the manufacturing sector experienced robust average growth of 13% annually, reflecting its dynamism in meeting domestic demand. However, this impressive growth contrasts sharply with the increasing concentration within the country's export basket, highlighting the broader challenge of untapped export potential from diverse products.

Limited inflow of foreign direct investment into Bangladesh has contributed to limited participation in the global value chain across various export product range. FDI has been instrumental in driving rapid export growth and diversification in countries such as Vietnam, Malaysia, and China, where integration into global trade networks has been achieved through foreign investment. These countries demonstrate that FDI not only scales up export volumes but also enhances their sophistication, enabling access to competitive global markets.

With nearly two-thirds of global trade driven by multinational corporations (MNCs), FDI acts as a crucial channel for facilitating trade flows and embedding economies into global value chains (GVCs) (Conconi et al., 2024). FDI firms, equipped with advanced technologies, established networks, and superior production processes, are better positioned to meet international standards and secure higher prices for their products. Their strategic connections to GVCs also enable participation in higher-value segments, further strengthening their export contribution. Despite policy aspirations, net FDI inflows into Bangladesh have remained critically low (Figure 2.7). In 2022-23, FDI was recorded at approximately $3.25 billion, representing just 0.71% of GDP (Bangladesh Bank, 2024b), far below the 8th Five-Year Plan's target of raising FDI to 2% of GDP by 2022-23 (GED, 2020a).

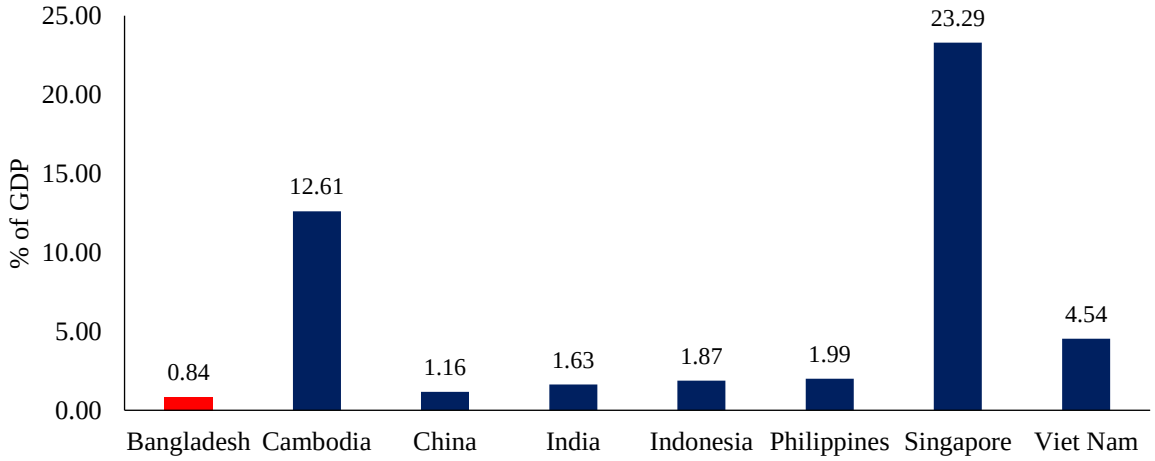

Figure 2.7: Average FDI Inflows, 2011–2023

Source: Author's presentation based on data from UN Trade and Development (UNCTAD) (2024).

2.3 Barriers to Achieve Export Potential

2.3.1 Policy Disconnects: A Major Challenge to Unlocking Export Potential

A critical challenge to Bangladesh's export performance lies in the misalignment among key government policies, including industrial, export, investment, and import policies. These policies, rather than functioning cohesively to promote export growth, often conflict with each other, undermining the export sector's ability to reach its potential.

One prominent disconnect arises from industrial policies that elaborate support for import substitution in a manner that impact relative incentives for export promotion. For example, the National Industrial Policy 2022 offers special incentives, tax exemptions, and tax holidays for import-competing industries. Combined with Bangladesh's already high tariff regime, these measures contribute to a policy framework not favouring resources for the export-oriented sectors resource allocation by shielding domestic industries from foreign competition, incentivising investments in less competitive sectors rather than in export-oriented industries capable of integrating into global value chains (GVCs). This approach makes exporting less attractive to businesses, as the protected domestic market often appears more profitable and less risky compared to the global marketplace.

Investment policies also play a pivotal role in this disconnect. While export development strategies aim to attract FDI into high-value, export-driven industries, investment incentives are often directed toward sectors prioritised for domestic consumption. Without a targeted focus on fostering export-oriented investments, the potential to diversify exports and enhance global competitiveness remains unrealised.

In contrast, countries like Vietnam and Malaysia have successfully addressed these challenges by ensuring coherence across their policy frameworks. Their industrial policies emphasise global market integration, investment policies prioritise FDI for export-oriented sectors, and export strategies align with broader economic goals. This coordination has allowed these countries to diversify their export baskets, improve competitiveness, and achieve sustained growth in global trade.

High tariff protection creates an anti-export bias, hindering the realisation of export potential: In Bangladesh, the import-competing industry is favoured through high tariffs, combining customs duties with complex and non-transparent para-tariffs (GED, 2020a, 2020b; Sattar, 2020; World Bank, 2022). This excessive protectionism towards import-competing sectors creates a policy-induced anti-export bias, as resources and investments are disproportionately funnelled into protected domestic industries. High protection also makes the domestic market more lucrative to investors compared to the global market, leading to a misallocation of resources. Meanwhile, the export sector, which cannot rely on similar protective measures or equivalent export support (e.g., subsidies), is left at a disadvantage.

- Bangladesh's trade protection measures, when assessed solely through import duties, reveal an average Most Favoured Nation (MFN) tariff of 14.8%, surpassing those of many East Asian economies and neighbouring countries such as Bhutan, Nepal, Pakistan, and Sri Lanka, while remaining slightly below India's rate of 18.1% (WTO, 2022). However, the inclusion of para-tariffs significantly alters this picture, nearly doubling the average nominal protection rate to 28%, positioning Bangladesh as one of the most protective regimes for import-competing industries (World Bank, 2023). Furthermore, escalating tariffs along the value chain have widened the gap between input and output duties over time, leading to a sharp rise in the effective protection rate (GED, 2020a; ERD, 2024).
- The high level of tariff protection in Bangladesh creates a significant anti-export bias, as equivalent support measures for exports, such as subsidies, cannot be implemented. An analysis comparing the effective exchange rate for imports (i.e., that is, nominal exchange rate augmented by the nominal rate of tariff protection) with the effective exchange rate for exports (i.e., nominal exchange rate augmented by cash assistance and interest subsidy for exporters), reveals a stark disparity. The relative effective exchange rate for import-competing activities is estimated to be 20-30% higher than that for exports, highlighting the relative disadvantage faced by export-oriented sectors (PRI, 2024).
- Since even after considering exports-related incentives, the policy regime favours the import-competing sectors by significant margins, the strategy of picking winners or targeting specific sectors, recognised as highest priority sectors or special development sectors in successive export polices, for export expansion has not worked. For example, the leather goods sector, identified as a highest-priority sector, had an export target of $5 billion by 2021 but achieved just over $1.3 billion by 2024. Similarly, the IT and IT-enabled services sector’s original export target of $5 billion by 2021 has been postponed to 2025, with current exports amounting to only $1.4 billion. These outcomes highlight the failure of the strategy to drive export expansion in Bangladesh.

One might question how the RMG sector managed to grow despite the presence of a pronounced anti-export bias. Its growth was significantly influenced by global trade policies, particularly during the Multi-Fiber Arrangement (MFA) era, when restrictions on textile exports from newly industrialised Asian countries led to the relocation of production to other nations, including Bangladesh, utilising unused MFA quotas. This period saw the rise of “born to export” firms in Bangladesh’s RMG sector, which benefited from technical expertise and market access through partnerships such as the one between Desh Garments and South Korea’s Daewoo in 1978.

High tariffs imposed on textile and apparel imports by major importing countries—often exceeding average MFN rates—remain a key factor, with LDC-specific duty-free preferences providing Bangladesh a notable competitive advantage in apparel exports, a benefit not extended to other sectors. Additionally, supportive government policies, including special bonded warehouses (SBW) for duty-free input imports, back-to-back letters of credit (LC), and priority customs clearance at ports, created a conducive

environment for the industry's growth. Following the abolition of MFA quotas, Bangladesh strengthened its position in global apparel markets, eventually becoming the world's second-largest apparel exporter after China.

Dependence on tariff revenue complicate the task of tariff rationalisation to reduce policy bias against exports: Although its relative significance is declining, approximately 30% of government revenue still comes from trade taxes (Figure 2.8). This heavy reliance on trade-related revenues, including import duties, supplementary duties, and other tariffs, has hindered efforts to rationalise tariffs and address the inherent anti-export bias due to concerns over potential revenue losses. Moreover, active lobbying by influential manufacturers and their associations has amplified resistance to tariff reforms and adjustments to incentive policies, further complicating the situation. The continued imposition of high import tariffs in sectors with export potential incentivises manufacturers to focus on the domestic market rather than exploring international trade opportunities.

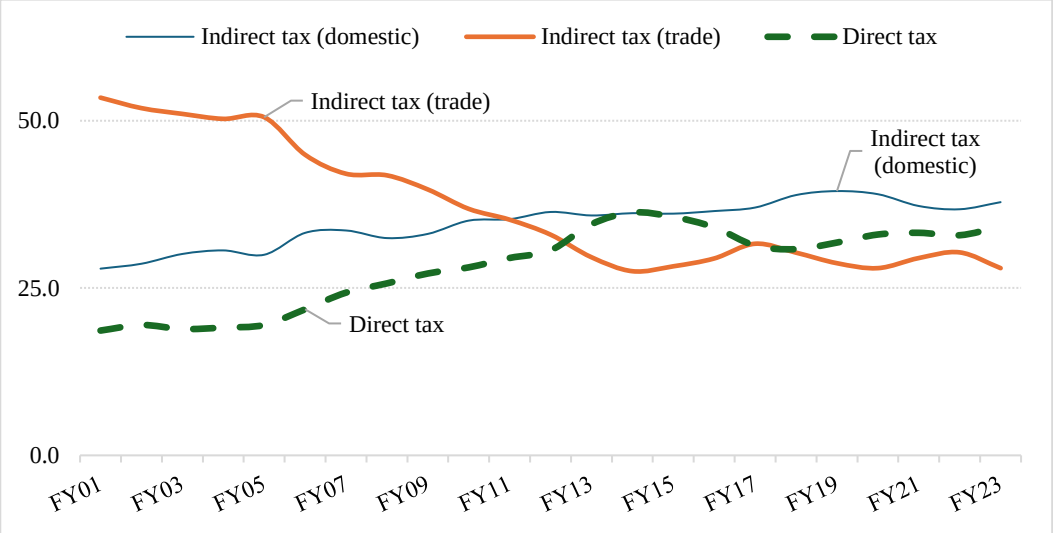

Figure 2.8: Share of Government Revenue from Various Sources (%), 2000-01 to 2022-23

Source: Data are from the National Board of Revenue (2024).

***Lack of quality and standards in the domestic market further incentivises domestic industry*:** Bangladesh's anti-export bias is further amplified by the absence of robust domestic standards, leading to a notable quality disparity that hampers the international competitiveness of local products (Razzaque et al., 2024a). This quality gap discourages non-RMG producers from pursuing export opportunities and adversely affects the global perception of Bangladeshi goods over time. In the absence of stringent domestic standards, exporting is often viewed as an expensive endeavour due to the additional costs of meeting compliance requirements, which in turn diminishes the motivation to enhance product quality. For example, global buyers have significantly reduced sourcing leather products from Bangladesh because local hides fail to meet international

environmental standards, while items produced for the domestic market remain largely unaffected.[3]

Bangladesh's substantial and rapidly expanding domestic market of over 170 million people encourages many firms to prioritise local sales, often at the expense of adhering to international quality standards. This focus on the domestic market leaves numerous businesses unprepared to meet the stringent requirements of export destinations such as Europe and North America. Critical industries, including agriculture, processed foods, leather, and fish, face significant difficulties in achieving compliance with global standards, a challenge further exacerbated by the limited availability of domestic testing and certification facilities (RAPID and FES Bangladesh, 2023).

***Persistent appreciation of the exchange rate affecting export competitiveness*:** Although Bangladesh transitioned to a flexible exchange rate system in the early 1990s and later adopted a managed floating regime in 2004, its exchange rate policies have failed to effectively maintain external competitiveness. During the most recent political regime, the exchange rate became overvalued due to a combination of relatively higher inflation rates compared to peer countries and limited adjustments of the taka against the dollar. Between 2011 and 2022, the real effective exchange rate (REER) appreciated by over 60% (ERD, 2024). In response to balance of payments pressures starting in 2022, the central bank allowed the nominal exchange rate of the taka against the dollar to depreciate by approximately 25%. However, even with this adjustment, the REER remained overvalued by more than 40% compared to the FY2011 baseline. Additionally, the bilateral RER of the taka against the currencies of China, India, and Vietnam remains 70 to 80% overvalued compared to 2012 levels.

The sustained appreciation of Bangladesh's real exchange rate has significantly undermined its external competitiveness, particularly in non-RMG export sectors (Ginting et al., 2024). In contrast, the RMG sector has shown resilience, supported by economies of scale, tariff preference margins, and export incentives. Prolonged overvaluation of the taka has also been argued to deter foreign direct investment by reducing export profitability and inflating the costs of establishing operations, thereby diminishing Bangladesh's attractiveness as an investment destination (Udomkerdmongkol et al., 2009).

[3] The Tannery Industrial Estate in Dhaka faces significant challenges, including an underperforming central effluent treatment plant (CETP) and inadequate solid waste management. As a result, pollution from crust leather production has become a major obstacle, preventing tanneries from achieving international quality certifications. These compliance failures have negatively affected Bangladesh's leather goods exports, as global buyers increasingly prioritise environmental and sustainability standards in their sourcing requirements.

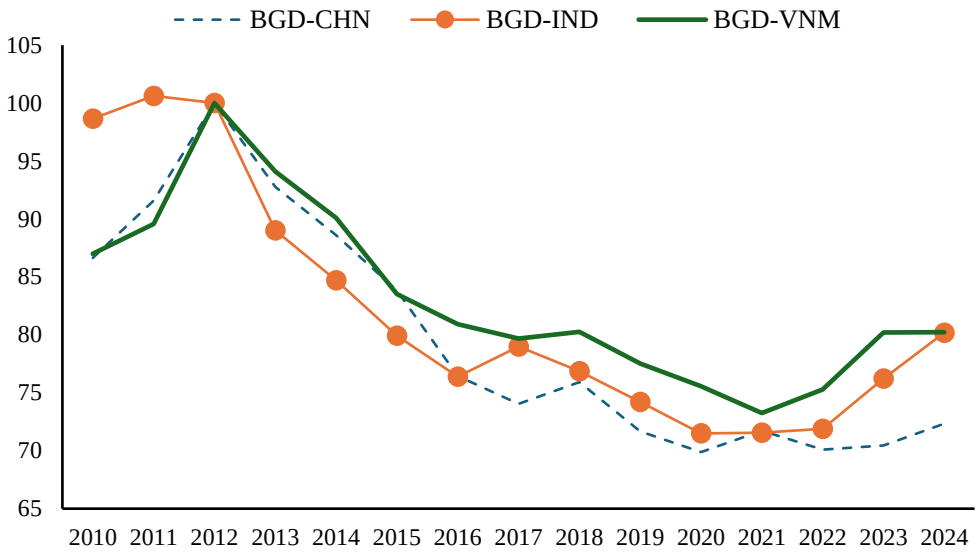

Figure 2.9: Trends in Bilateral Real Effective Exchange Rate (FY2012=100)

Source: Calculation is based on International Financial Statistics, IMF (2024).

2.3.2 Other Factors Affecting Competitiveness

***Infrastructural bottlenecks raise production costs undermining competitiveness*:** Energy shortages, inefficient port and customs operations, limited availability of industrial plots with essential facilities, underdeveloped road and railway networks, and inadequate air freight and airport storage facilities significantly constrain production activities in Bangladesh. The country's per capita electricity consumption is among the lowest globally, amounting to only one-third of India's level and one-fifth of Viet Nam's (Razzaque et al., 2024a). A cross-country comparison highlights Bangladesh's unusual ability to sustain its current export volume with such minimal per capita energy usage (Table 2.2). However, this should not be interpreted as exceptional energy efficiency but rather as a critical challenge. To expand and diversify its exports, Bangladesh will need a significant increase in energy resources, emphasising the urgent need for strategic investments in energy infrastructure.

Table 2.2: Export Performance and Average Energy Consumption

Country	Average exports ($ billion) (2021 to 2023)	Average per capita energy consumption (kWh/person) (2021 to 2023)
Singapore	865	153,713
India	745	7,175
Viet Nam	368	12,938
Indonesia	292	9,445
Philippines	110	4,974
Colombia	62	11,648
Morocco	56	7,185
Slovenia	55	34,536
Oman	54	90,243

Bangladesh	54	2,957
Belarus	48	31,331
Bahrain	40	161,111
Serbia	40	27,640
Croatia	40	24,188

Source: U.S. Energy Information Administration (2023) Energy Institute - Statistical Review of World Energy (2024), and World Development Indicators database.

Inefficiencies in transport infrastructure, customs procedures, and supply chain management contribute to higher trade costs, limiting the country's ability to compete effectively in global markets. These challenges are reflected in the components of the World Bank's Logistics Performance Index (LPI), which evaluates a country's logistics system across six dimensions: customs efficiency, infrastructure quality, international shipments, logistics competence, tracking and tracing capabilities, and timeliness of shipments. Bangladesh's logistics performance significantly impacts trade costs and export competitiveness, as reflected in its ranking of 87th out of 139 countries in the World Bank's 2023 LPI.

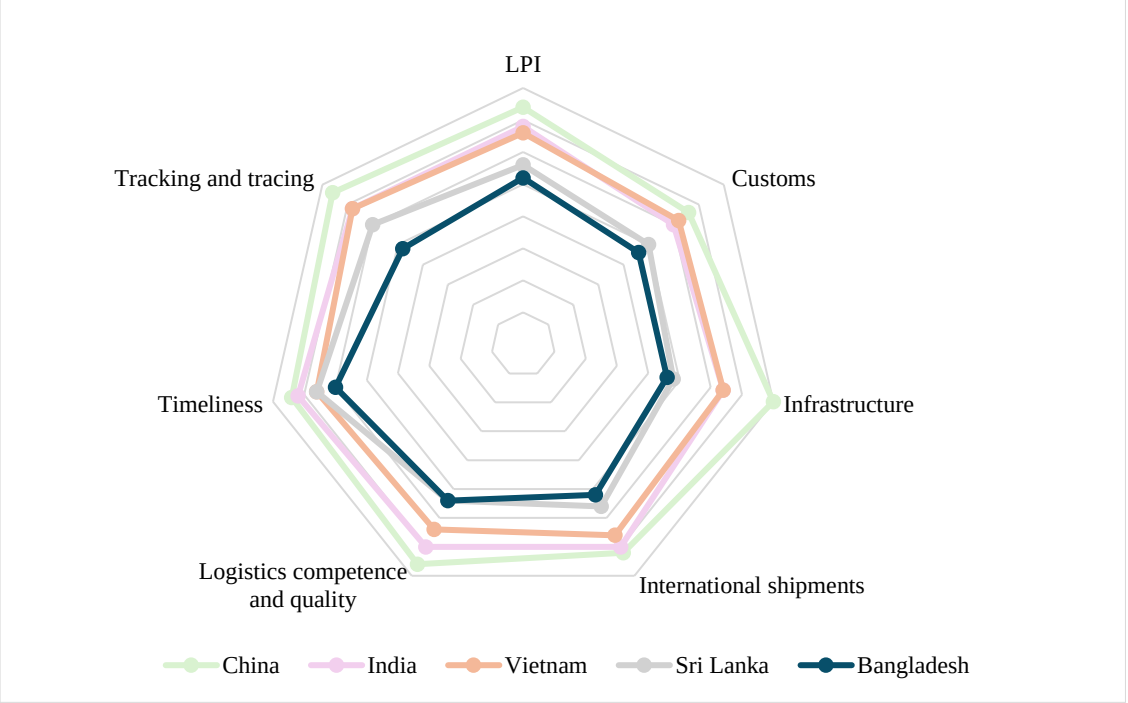

Figure 2.10: Logistics Performance Index Scores by Each Component

Source: World Bank (2023).

Investment and business climate-related obstacles: Bangladesh's investment and business environment is burdened by persistent challenges that impede growth and deter both domestic and foreign investment. Numerous studies identify inefficiencies in starting a business, cumbersome land management processes, and limited access to finance as significant barriers (MCCI & Policy Exchange, 2024; World Bank, 2024a).

Entrepreneurs frequently encounter delays in obtaining permits and licenses, exacerbated by bureaucratic red tape and a lack of transparency. Land acquisition for business purposes is equally problematic, with weak land administration systems, ownership disputes, and high costs discouraging investment.

The taxation system is another notable challenge, often criticised for its complexity, inconsistencies, and lack of predictability, which creates uncertainty for investors. Prolonged resolution of commercial disputes further increases operational costs and undermines investor confidence. Additionally, shortages and mismatches in workforce skills hinder productivity and innovation, particularly in sectors requiring specialised expertise, affecting the attractiveness of Bangladesh as an investment destination.

Labour-related issues, including weak enforcement of labour laws, poor workplace conditions, and sporadic industrial unrest, also pose risks for businesses. Compliance with evolving environmental, social, and governance (ESG) standards is increasingly important for expanding exports and securing foreign investment, yet many industries in Bangladesh face difficulties meeting these requirements due to inadequate infrastructure, insufficient training, and limited regulatory enforcement.

Bangladesh's trade competitiveness is undermined by persistent challenges in trade facilitation, stemming from inefficiencies in customs procedures, infrastructure deficiencies, and systemic gaps in coordination. Despite progress in digitalising customs processes and implementing the National Single Window, significant challenges remain, including inadequate port infrastructure, complex regulatory requirements, and delays in customs clearance. Lengthy clearance processes and cumbersome documentation requirements, compounded by the absence of streamlined and technology-driven customs systems, significantly inflate transaction costs and delay the movement of goods. These procedural inefficiencies are further exacerbated by inadequate infrastructure, including congested ports, insufficient warehouse capacity, and underdeveloped road and railway networks, all of which collectively constrain the seamless flow of trade. Moreover, the lack of coordination among various trade-related agencies creates redundancies and procedural overlaps, further complicating the process for exporters and importers alike. The situation is aggravated by a shortage of skilled personnel in logistics and trade management, which limits the capacity to implement effective facilitation measures. These interlinked challenges not only raise trade costs but also erode Bangladesh's export competitiveness, deterring investment and weakening the country's ability to integrate effectively into global value chains.

2.4 Implications of LDC Graduation

The implications of Bangladesh's graduation from LDC status for its export sector can be both significant and far-reaching. As the largest beneficiary of LDC-specific trade-related international support measures (ISMs), Bangladesh has utilised tariff preferences in garment exports to an unparalleled degree; no other LDCs have been able to make use those in such a commercially significant manner as Bangladesh has. Nearly three-quarters of Bangladesh's merchandise exports benefit from LDC-specific tariff preferences, with more than 90% of its exports to Australia and the EU enjoying duty-

free access. Similarly, over 80% of its exports to Canada, India, Japan, the Republic of Korea, and the UK are covered under such preferences (Table 2.3).

A key concern post-graduation is the potential erosion of this preferential market access. Graduating countries often transition to less favourable trade arrangements available to other developing nations or, in some cases, face Most Favoured Nation (MFN) tariffs, which provide no concessions. For Bangladesh, these LDC-specific preferences have been instrumental in its rise as a dominant player in the global apparel market, allowing it to overcome high tariff barriers in developed countries where the apparel sector is highly protected. The preferences have significantly bolstered Bangladesh's market share for RMG exports in key regions. In the early 2000s, Bangladesh's share of clothing exports in Canada, the EU, and the United States was relatively similar. However, leveraging preferential market access, Bangladesh has become a leading apparel exporter in the EU and Canada, capturing over 20% and 13% of their market shares, respectively (Razzaque et al., 2024a). By contrast, in the United States, where Bangladesh does not benefit from LDC-specific preferences, its market share has grown more modestly to 6.8%. Overall, LDC-specific preferences have been a cornerstone of Bangladesh's success in becoming a major RMG exporter globally.

Table 2.3: Changes in the Respective Countries' GSP for Apparel Products

Markets	Share of BGD exports under LDC benefits	Transition period	Post graduation preference	Post-graduation tariff rate	
				MFN	Post-LDC Tariff
Canada	80.3%	Yes, three years	GPT	**16.2%**	11.2% for 28 products; MFN tariffs for the rest.
			GPT+		GPT+ provisions are yet to finalise
China	66.6%	No	APTA	**6.7%**	4.4% for 403 products; for the rest MFN tariffs will apply
European Union	94.7%	Yes, three years	GSP+	**11.5%**	GSP+: 0.0% No tariff benefit for RMG exports due to safeguard measures
			Standard GSP		Standard GSP: 9.2% No tariff benefit for RMG exports due to safeguard measures
India	83.5%	No	SAFTA	**20%**	6.0% for 144 apparel products; MFN tariffs will apply for the rest.
Japan	88.0%	No	GSP for developing country	**9.0%**	2.2%
United Kingdom	89%	Yes, three years	Enhanced Preference	**11.5%**	0.0%

Source: Adopted from Graduation from the Group of Least Developed Countries: Smooth Transition Strategy (Government of Bangladesh, 2024). The share of exports under LDC benefits is estimated using IDB and WTO databases. Calculations are based on 2022 data.

Post-graduation, Bangladesh's RMG exports will lose duty-free market access, transitioning to less favourable arrangements.

- However, markets such as Canada, the EU, and the UK will allow the continuation of these preferences for up to three years after graduation.
- Once this transition period ends, Bangladesh's RMG exports to the EU, which represent over 90% of its exports to the bloc and contribute more than 40% of the country's total export earnings, will face tariffs of 11.5%. Non-RMG exports may still qualify for the EU's Generalised Scheme of Preferences (GSP) under the Standard GSP or GSP+ programmes, but RMG products are unlikely to benefit as per the existing EU-GSP provisions.
- In Canada, while Bangladesh will remain eligible for tariff preferences under the General Preferential Tariff (GPT) scheme, the narrow product coverage means that most RMG exports will face tariffs exceeding 16%.
- In Japan, post-LDC graduation duties on garment items will be 9%.
- For the Chinese and Indian markets, preferences under regional agreements such as the South Asian Free Trade Agreement (SAFTA) and the Asia-Pacific Trade Agreement (APTA) will continue. However, the limited scope of these agreements suggests that the majority of Bangladesh's RMG exports to these markets will likely be subject to MFN tariff rates.

The potential loss of these preferential access schemes threatens to undermine its price competitiveness, placing immense pressure on exporters to maintain their foothold in these critical markets.[4] Given the limited diversification in export destinations, the erosion of these preferences could exacerbate vulnerabilities in Bangladesh's trade portfolio, posing a substantial risk to its export earnings.

In addition to losing preferential market access, Bangladesh's graduation from LDC status will restrict its ability to support the export sector through subsidies. Under WTO rules, export subsidies are generally prohibited, but LDCs benefit from exemptions to these regulations. Bangladesh has so far depended on a comprehensive export subsidy programme, which will no longer comply with WTO requirements after graduation. While the effectiveness of export incentives is often a subject of debate, their discontinuation will undoubtedly place additional pressure on the country's export competitiveness.

While Bangladesh has long benefited from non-reciprocal tariff preferences in key export markets due to its LDC status, the impending graduation necessitates a strategic shift to sustain export competitiveness. As these preferences, which have been instrumental in

[4] Around 70 % of Bangladesh's RMG export earnings come from Canada, the EU, India, Japan, and the United Kingdom. According to a study by the World Trade Organization (WTO), Bangladesh's exports are projected to decline by approximately 14.28 % due to tariff changes in key destination markets (WTO & EIF, 2020).

driving the country's export growth, are phased out, Bangladesh's exports will face higher tariffs, undermining their price competitiveness. To address this challenge, pursuing bilateral and regional trade agreements to secure preferential market access is critical. However, progress in this area has been notably slow. Although 45 bilateral MoUs on trade have been signed and 26 feasibility studies—including those related to PTAs and FTAs—have been conducted (Ministry of Commerce, 2023), no substantial trade agreements have yet been finalised. While 13 trade agreements with 10 countries and three regional blocs have been prioritised, the absence of a comprehensive tariff rationalisation programme poses a major obstacle. Reciprocal market access demands from potential FTA partners, coupled with other reform measures integral to such agreements, further complicate the likelihood of successfully concluding these negotiations. Amongst the most prominent ones, currently trade negotiations with Japan are underway.

2.5 Policy Recommendations

Bangladesh's export sector faces significant challenges that necessitate strategic and well-coordinated policy interventions. Structural bottlenecks, policy misalignments, and the impending loss of LDC-specific trade preferences represent critical vulnerabilities in revitalising the export sector. These issues underscore the need for targeted measures to address inefficiencies, foster diversification, and enhance global competitiveness. As Bangladesh approaches a post-LDC landscape, the urgency of implementing coherent and forward-looking strategies is paramount for sustaining export growth and ensuring long-term economic resilience. The following recommendations aim to tackle these pressing challenges and strengthen the foundation for sustained export growth.

Developing a unified trade and investment policy framework should be an urgent consideration.

Addressing the inconsistencies and conflicting objectives across existing policy documents requires the formulation of a unified trade and investment policy. Such a policy would consolidate and replace the current export and import policies, providing a comprehensive and coherent framework to guide trade and investment promotion efforts. An actionable implementation plan, designed as a roadmap for achieving the policy's objectives, would enhance its practicality and focus. To ensure the effectiveness of this unified framework, enforceable provisions and robust mechanisms for regular monitoring and evaluation should be incorporated, enabling the government to track progress and adapt as needed.

A time-bound implementation of the National Tariff Policy (NTP) 2023 stands as one of the most pressing trade policy priorities for expanding and diversifying Bangladesh's exports, with tariff rationalisation serving as a pivotal mechanism to address policy-induced disincentives and establish a more balanced incentive structure.

To address policy-induced disincentives against exports and foster diversification, trade policy reform must become a key priority, with a focus on rationalising the tariff

structure. The high levels of protection afforded to import-substituting activities have created an anti-export bias, undermining the effectiveness of incentive structures aimed at supporting export diversification, particularly in non-RMG sectors. Identifying and promoting potential export sectors has proven inadequate when such sectors remain disadvantaged by the allure of the domestic market. Without correcting this imbalance, efforts to expand the export base will likely remain insufficient.

The potential export earnings from trade policy reform are substantial and cannot be overlooked. At the HS6-digit level, Bangladesh's export basket comprises nearly 1,400 non-RMG items, of which approximately one-quarter achieve export values exceeding $1 million. Among these, 39% are classified as highly competitive, with Bangladeshi products ranking within the top 10 exporting countries globally, as measured by the normalised revealed comparative advantage metric. A further 27% are moderately competitive, ranking within the top 10 to 20 exporters, while the remaining 34% are marginally competitive, positioned below the top 20 exporting countries (ERD, 2024). When global market trends, export growth trajectories of peer countries, and Bangladesh's revealed comparative advantage are taken into account, an estimated 50 non-RMG products present the country with an export potential ranging from $28 to $57 billion. Despite this significant opportunity, the current trade policy stance—which continues to make the domestic market more attractive behind high tariff barriers—acts as a major impediment to realising this export potential and hinders the necessary expansion of non-RMG exports.

Bangladesh has not undertaken significant tariff liberalisation since the early 1990s, despite its prominence in policy discussions, including the recommendations of successive Five-Year Plans. The 8th Five-Year Plan (2021–2025) proposed gradually reducing the average nominal protection rate by 3–5 percentage points annually until 2025. However, no meaningful progress has been achieved. The adoption of the National Tariff Policy (NTP) 2023 represents a critical opportunity to address these long-standing issues by institutionalising a framework for tariff rationalisation.

The timely and effective implementation of the NTP should be regarded as an urgent priority. To this end, the National Board of Revenue (NBR) should immediately develop an actionable implementation plan for the NTP, outlining clear timelines, milestones, and measurable targets. Addressing potential hurdles such as revenue concerns and protectionist pressures will require strategic planning and coordination with stakeholders. A time-bound approach to tariff reform under the NTP framework will be instrumental in creating a balanced and supportive incentive structure, enhancing export competitiveness and diversification in Bangladesh's trade portfolio.

Strengthening domestic revenue mobilisation is crucial for enabling tariff rationalisation and achieving the trade policy flexibility necessary to secure free trade agreements.

Reducing reliance on import-based revenues is essential to facilitate tariff rationalisation and allow greater trade policy flexibility, particularly as Bangladesh seeks to negotiate free trade agreements. Strengthening domestic resource mobilisation should be

prioritised to address revenue concerns stemming from tariff reductions. With a tax-to-GDP ratio of only 8%, comprehensive reforms outlined in the 8th Five-Year Plan—such as automating tax processes, broadening the tax base, improving compliance, and expanding VAT coverage—must be effectively implemented.

A shift towards direct taxation and non-tax revenue generation would not only support revenue stability but also enable the government to pursue a more balanced trade policy framework. Evidence suggests that tariff rationalisation could increase GDP by 1.4% and boost exports by 16.5% (World Bank, 2022), underscoring the potential economic benefits. Enhanced export competitiveness and diversification, driven by reduced protection, could further strengthen domestic revenue mobilisation as firms become more productive and profitable, contributing higher taxes. This approach is crucial for fostering a dynamic trade environment and reducing consumer costs, which excessive protectionism has significantly inflated.

Attracting FDI and strengthening the investment climate for driving export competitiveness constitutes an immediate priority.

Creating a conducive investment environment is essential to attract foreign direct investment (FDI), which plays a critical role in expanding and diversifying Bangladesh's exports. FDI not only drives export growth but also facilitates technology transfer, enhances productivity, and strengthens connections to global supply chains. Key actions include:

- Introducing a new arbitration act to streamline profit repatriation rules, safeguard investor interests, and enhance transparency in investment-related policies
- Removing restrictions on foreign investment in sectors such as transport, logistics, telecommunications, insurance, and professional services, while simplifying capital and profit repatriation processes to attract global investors.
- Establishing a dedicated commercial court staffed with expert judiciaries to ensure the swift resolution of investment and business disputes.

Securing cross-border investments driven by geopolitical shifts should be considered as a strategic priority for expanding exports.

Geopolitical shifts are prompting many investments to relocate, presenting a strategic opportunity for Bangladesh to position itself as a preferred destination for these investors. Rising trade tensions and reconfigurations in global supply chains have led businesses to seek alternative manufacturing hubs with competitive advantages. Bangladesh, with its large workforce, competitive labour costs, and growing infrastructure, can capitalise on this trend by creating a favourable investment climate. Targeted policy measures such as streamlining business regulations, offering fiscal incentives, and improving trade facilitation can make the country more attractive to relocating businesses.

Addressing infrastructure and logistics challenges can boost immediate export competitiveness.

Bangladesh's export competitiveness is severely constrained by high business costs arising from weak infrastructure, inefficient inland transportation systems, complex customs procedures, and inadequate port facilities. Ineffective container handling, limited containerisation, and inefficient trade logistics further exacerbate these challenges, resulting in longer lead times and higher costs for both importing raw materials and exporting final products. These inefficiencies place Bangladeshi firms at a significant disadvantage in global markets.

While infrastructure and logistics improvements will require sustained effort over many years, immediate action is essential to address urgent priorities. Ensuring uninterrupted energy supplies to export-oriented and export-supporting firms must be regarded as a critical first step to maintain operational efficiency and reduce production costs. Developing an actionable plan to prioritise reforms over the next two to three years is vital, laying the groundwork for a comprehensive medium-term development strategy.

Key actions include:

- Ensuring reliable energy and utility supplies to firms directly involved in exports or critical to export-supporting sectors.
- Focusing on priority reforms under the National Logistics Policy (NLP) 2024, with measurable key performance indicators (KPIs) to track progress.
- Streamlining logistics networks and modernise infrastructure, including enhancing port and inland transport systems to reduce lead times and costs.
- Improving customs and supply chain management processes, including digitalisation, to enhance efficiency and minimise delays.

Establishing WTO-compatible export support mechanisms is an immediate need for ensuring continued policy support for exporters.

With Bangladesh's upcoming graduation from LDC status, establishing WTO-compliant export support mechanisms is of immediate importance to ensure continued policy support for exporters. Assistance targeted at green transformation, research and development (R&D), improved standards, and compliance can align with WTO rules while fostering competitiveness and modernisation in the export sector. Undertaking a comprehensive study to identify WTO-consistent measures that effectively support the export sector could guide this transition. Furthermore, strategically utilising existing support mechanisms to enhance product quality and standards remains essential for strengthening Bangladesh's position in global markets.

Moving towards and sustaining a more market-based exchange rate policy will be critical to sustain export competitiveness.

While the exchange rate management since the change of the political regime in August 2024, has improved moving towards a more market-based system and sustaining it will

enhance export competitiveness. Even after the relatively large devaluations since 2022, the real exchange rate remains significantly overvalued compared to the level of early 2010s. A delicate balancing of the taka value against the inflationary pressure is important to protect external competitiveness of exporters.

Enhancing product quality and ensuring compliance with international standards are essential for the growth and diversification of export items, especially in non-RMG sectors.

Enhancing quality standards and ensuring compliance with international product requirements are essential for improving Bangladesh's trade competitiveness and expanding emerging export items. A lack of stringent quality enforcement obligations in the domestic market has led many companies to neglect the importance of improving product quality and standards. However, advanced economies demand rigorous adherence to testing and quality standards, creating significant challenges for Bangladeshi exporters. These challenges include limited access to advanced technology, inadequate infrastructure for quality control, insufficient expertise in international compliance, and high compliance costs. Such barriers particularly hinder export diversification in non-RMG sectors, restricting the country's potential to grow and compete globally. To improve the quality and standards, the following recommendations are suggested:

- Enforcing quality standards within the domestic market is crucial for preparing firms to compete in international markets, enabling them to build credibility and demonstrate their commitment to global quality practices.
- A robust regulatory framework should be developed to ensure compliance with quality standards across all sectors, fostering a culture of continuous improvement.
- Modernising and expanding the capabilities of testing and calibration laboratories under the Bangladesh Accreditation Board (BAB) and the Bangladesh Association of Certification Bodies (BACB) is vital.

Prioritise establishing a fund to support backward-linkage industries for the export sector.

Bangladesh’s continued reliance on cotton-based apparel leaves its RMG sector misaligned with global market trends, where the demand for man-made fibre (MMF)-based apparel is steadily increasing. Capacity to produce MMF-based apparel remains critically low, constraining the country’s ability to tap into higher-value markets and diversify its export base. Developing MMF capacity will require substantial investment in backward-linkage industries, including fibre production, dyeing, and finishing facilities, which are critical for creating a competitive supply chain. Access to long-term finance is a critical bottleneck for the growth of many export industries. To address this, establishing a dedicated fund to support backward-linkage industries for export-oriented sectors should be prioritised. Such a fund could facilitate targeted investments in modernising existing facilities, acquiring advanced technology, and fostering innovation to help expand export supply-side capacity and competitiveness.

An immediate review of LDC graduation preparations, along with the timely adoption and implementation of the Smooth Transition Strategy (STS) in line with its time-bound action plan, could play a pivotal role in ensuring a smooth transition and enhancing export competitiveness.

A comprehensive review of Bangladesh's preparations for LDC graduation must be prioritised, ensuring that all necessary measures are undertaken to align policies and reforms for a seamless transition. This process should include addressing any gaps in readiness and evaluating the necessity of requesting an additional transition period from the UN. Regardless of the decision on seeking extra time, the immediate adoption of the government-prepared Smooth Transition Strategy (STS) and the commencement of its implementation are imperative.

The STS offers a time-bound action plan centred on key pillars, such as promoting export competitiveness and diversification, securing trade preferences and favourable transition measures, building productive capacity, ensuring macroeconomic stability, and fostering development partnerships and international cooperation. These measures provide a strategic framework not only for mitigating the impacts of graduation but also for achieving medium- to long-term economic transformation and enhanced global competitiveness. Swift implementation of the strategy's actionable guidelines can establish the foundation for sustainable growth, while any additional transition period, if granted, would serve to bolster these efforts further. By committing to the STS, Bangladesh positions itself to navigate the challenges of graduation while leveraging it as an opportunity to foster economic resilience and competitiveness.

Engaging proactively with the EU to secure enhanced GSP+ benefits, including a waiver from safeguard measures, is critical for sustaining export competitiveness post-LDC graduation.

Bangladesh must leverage the deferral of the EU's new GSP regime until 2027 to negotiate continued duty-free access for its RMG exports. Given the potential application of EU safeguard measures, which would otherwise exclude apparel from preferential treatment given Bangladesh's large market share in EU apparel imports, it is essential to seek a waiver that reflects the developmental needs and vulnerabilities of a graduating LDC.[5] The substantial contribution of Bangladesh's RMG sector to employment, particularly for women, and its alignment with the EU's trade and development goals underscore the need for this exemption. In addition to these efforts, Bangladesh should engage candidly with the EU to address challenges in implementing the 32 required international conventions as a precondition for obtaining GSP+ benefits and seek technical and financial assistance where necessary.

[5] The details of the safeguard measures can be found in the Smooth Transition Strategy (Government of Bangladesh, 2024).

Securing an FTA with Japan should be considered as a strategic priority for developing future trade partnerships.

As Bangladesh's LDC graduation approaches, the importance of FTAs in securing future market access cannot be overemphasised. While FTAs are vital for shaping trade development strategies, their outcomes are often complex and context-specific. Additionally, potential trade partners may lack sufficient economic or geopolitical incentives to prioritise negotiations with Bangladesh. Developed countries, in particular, may be reluctant to dedicate time and resources to agreements with limited mutual benefits. To navigate these challenges, Bangladesh must adopt a diversified strategy to ensure continued market access and smooth post-graduation trade performance. This includes exploring a mix of bilateral and regional agreements. High-priority negotiations should focus on FTAs with the EU, Japan, China, India, and the Regional Comprehensive Economic Partnership (RCEP). Currently, FTA negotiations with Japan are underway.
Securing a free trade agreement (FTA) with Japan could be transformative for Bangladesh, not only in terms of expanding market access but also as a critical step toward enhancing its trade development strategies and attracting similar arrangements with other key markets. An FTA with Japan would signal Bangladesh's capacity to successfully negotiate and commit to comprehensive trade agreements, enhancing its credibility on the global stage. Such an agreement could also generate "lock-in" reforms by encouraging the implementation of trade-related policies that improve domestic competitiveness and align with international standards, fostering an environment conducive to export growth. Additionally, an FTA with Japan is likely to attract further foreign direct investment (FDI) by demonstrating Bangladesh's commitment to economic liberalisation and trade facilitation, particularly for export-oriented industries. The agreement could also serve as a catalyst for other potential trade partners, including the EU, India, and China, to prioritise FTA negotiations with Bangladesh.

Establishing a Chief Trade Negotiator's Office and a skilled pool of negotiators to enhance trade negotiation capacity should be given immediate consideration.

With Bangladesh's increasing engagement in proactive trade negotiations and the existing constraints in negotiation expertise, creating a Chief Trade Negotiator's Office alongside a pool of skilled negotiators could be a strategic step toward improving the country's capacity to navigate complex trade agreements. The Chief Trade Negotiator's Office would provide the institutional foundation for coordinating trade engagements, aligning efforts across government agencies, and ensuring that Bangladesh's interests are effectively represented in bilateral and multilateral negotiations.

The development of a pool of trade negotiators, drawing on resource persons from relevant government ministries, the private sector, think tanks, and academia, would bring together diverse expertise to strengthen negotiation outcomes. Intensive training programmes for this pool would ensure proficiency in trade negotiation techniques, economic diplomacy, and relevant trade frameworks, equipping them to support engagements with key trade

partners effectively. This approach can play a critical role in ensuring productive engagements and follow-ups with major trade partners, securing favourable agreements, building institutional expertise, and enhancing long-term trade negotiation capacity in an increasingly competitive global environment.

Conducting a comprehensive review of the Export Promotion Bureau (EPB) to enhance its role as a modern export promotion agency.

A detailed review of the Export Promotion Bureau (EPB) is essential to better align its activities and services with the evolving requirements of Bangladesh's export sector. As a key agency dedicated to supporting exporters, the EPB must adapt to meet the demands of a dynamic global trade environment, particularly in light of the country's LDC graduation and the growing need for export diversification. The review should focus on assessing the EPB's capacity to deliver effective export promotion services, including trade facilitation, market access support, trade fair participation, and exporter capacity building. It should also identify gaps in its operational effectiveness, engagement with exporters, and ability to respond to emerging challenges in global trade. By strengthening its focus on market intelligence, digital trade facilitation, and exporter support, the EPB could play a more impactful role in driving Bangladesh's export growth and competitiveness in the global marketplace.

Establish a high-level export development coordination committee to streamline and oversee export support.

To effectively address the challenges of export expansion and diversification, the establishment of a high-level export development coordination committee can be helpful. This committee, comprising representatives from key government ministries, trade associations, export-oriented industries, and representatives from other relevant stakeholders would ensure a unified and cohesive approach to export development and promotional support measures. The committee's primary mandate would be to serve as a platform to resolve inter-ministerial policy conflicts and implementation difficulties ensuring a harmonised framework for export development, to provide strategic oversight and facilitate collaboration across stakeholders.

2.6 Concluding remarks

Bangladesh's export sector stands at a critical juncture, facing the intertwined challenges of expanding its export volume and diversifying its export base. While the success of the RMG sector has been remarkable, it has also led to an over-reliance on a single sector, leaving the broader export portfolio highly concentrated and vulnerable to external shocks. As the impending LDC graduation looms, the urgency to address these dual challenges becomes even more pronounced, given the expected loss of preferential trade benefits and the heightened global competitiveness that will ensue.

Contrary to the oft-repeated narrative that non-RMG sectors have failed to respond to export-oriented policies, the reality points to structural biases embedded within the country's policy framework. These biases, rooted in high tariff protection, an overvalued exchange rate, and incentives favouring import-competing industries, have inadvertently steered resources toward inward-looking production activities, stifling the outward orientation required for export diversification. Such misaligned policies have not only restricted the growth of emerging sectors but also hindered the potential of integrating into higher-value segments of global value chains.

Looking ahead, export expansion and diversification must be addressed as complementary yet distinct imperatives. Expanding the overall export volume will require immediate measures to enhance the competitiveness of existing sectors, particularly RMG, while addressing critical bottlenecks such as infrastructure inefficiencies, energy shortages, and high trade costs. Simultaneously, diversification efforts must focus on creating an enabling environment for non-RMG sectors through targeted policy reforms, quality enhancement, and strategic investments in backward linkages and technology-driven industries.

The evolving global trade landscape, shaped by geopolitical shifts and growing demand for sustainability, presents both opportunities and challenges for Bangladesh. Proactively aligning with these trends—through green transformation, digital trade, and enhanced regional integration—can position the country to unlock new markets and secure its foothold in global trade. Moreover, pursuing forward-looking policies to attract FDI, foster innovation, and strengthen institutional capacities will be instrumental in building resilience and sustaining export growth.

Bangladesh's graduation from LDC status in 2026 presents significant challenges and opportunities for its export sector. The Smooth Transition Strategy (STS) prepared by the government offers a coherent and actionable framework to mitigate the adverse impacts of LDC graduation while fostering structural transformation. Anchored in key pillars—such as export diversification and competitiveness, productive capacity building, macroeconomic stability, and fostering international cooperation—the STS lays out time-bound actions to navigate the transition effectively. Prompt and robust implementation of this strategy is imperative, as it not only seeks to preserve existing trade benefits but also aims to strengthen the country's ability to integrate into the global economy. By adopting the STS as a roadmap, Bangladesh can boost export competitiveness, support industrial modernisation, and take advantage of expanded trade opportunities, thereby paving the way for a more resilient and diversified export sector.

It is crucial to recognise that LDC graduation does not equate to the end of all trade preferences. Opportunities exist for Bangladesh to secure extended preferences, such as under the EU's GSP+ scheme, and to pursue reciprocal trade agreements like free trade agreements (FTAs). These arrangements can provide sustained market access and ensure Bangladesh remains competitive in its key export markets. However, such initiatives demand sophisticated trade policymaking and negotiation capacities. Developing a Chief

Trade Negotiator's Office and creating a pool of skilled trade negotiators will be essential to advancing these agreements. These efforts must also be coupled with enhancing institutional coordination and aligning trade policy objectives with long-term export growth strategies.

Policy disconnects and misaligned incentives have long hindered Bangladesh's export potential. Addressing these challenges requires an integrated approach that aligns industrial, trade, and investment policies to foster a cohesive strategy for export growth. Equally important are concerted efforts to improve the investment climate, reduce business costs, and enhance the enabling environment to attract both domestic and foreign investments. The current economic challenges, coupled with the impending LDC graduation, should be seen as an opportunity to undertake critical reforms that pave the way for sustained competitiveness and structural transformation. Ultimately, the path forward requires a holistic recalibration of trade and investment policies, underpinned by an unwavering commitment to addressing structural inefficiencies and policy misalignments.

References

Bangladesh Bank. (2024a). *Export Receipts of Goods and Services* [Dataset]. https://www.bb.org.bd/en/index.php/publication/publictn/0/15

Bangladesh Bank. (2024b). *Foreign Direct Investment and External Debt July-December 2023*. https://www.bb.org.bd/en/index.php/publication/publictn/1/30

Conconi, P., Leone, F., Magerman, G., & Thomas, C. (2024). *Multinational Networks and Trade Participation*.

ERD. (2024). *Market Access, Comparative Advantages and Export Diversification Prospects: Policy Imperative for Bangladesh*. Ministry of Finance, Government of the People's Republic of Bangladesh. https://ssgp.erd.gov.bd/resources/#tab-1691662644167-2-8

GED. (2020a). *8th Five-Year Plan, July 2020–June 2025: Promoting Prosperity and Fostering Inclusiveness*. General Economics Division (GED), Bangladesh Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh. https://plancomm.gov.bd/sites/default/files/files/plancomm.portal.gov.bd/files/68e32f08_13b8_4192_ab9b_abd5a0a62a33/2021-02-03-17-04-ec95e78e452a813808a483b3b22e14a1.pdf

GED. (2020b). *Making Vision 2041 a Reality PERSPECTIVE PLAN OF BANGLADESH 2021-2041*. General Economics Division (GED), Bangladesh Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh. https://plandiv.gov.bd/sites/default/files/files/plandiv.portal.gov.bd/files/79060938_fbce_4286_b787_e8f41edfc615/PERSPECTIVE%20PLAN%20of%20BD%202021-2041.pdf

Government of Bangladesh. (2024). *Bangladesh Graduation from the Group of Least Developed Countries: Smooth Transition Strategy*.

IMF. (2024). *IMF Data Access to Macroeconomic & Financial Data* [Dataset]. https://data.imf.org/?sk=4c514d48-b6ba-49ed-8ab9-52b0c1a0179b&sId=-1

Ministry of Commerce. (2023). *Annual Report 2022-23* (p. 44). Government of Bangladesh. https://mincom.gov.bd/sites/default/files/files/mincom.portal.gov.bd/annual_reports/7a9449b6_23ba_4ea4_9a3a_d51a975e9b5a/%E0%A6%AA%E0%A7%8D%E0%A6%B0%E0%A6%A4%E0%A6%BF%E0%A6%AC%E0%A7%87%E0%A6%A6%E0%A6%A8%20%E0%A7%A8%E0%A7%A8-%E0%A7%A8%E0%A7%A9.pdf

National Board of Revenue. (2024). *Research & Statistics* [Dataset]. https://nbr.gov.bd/publications/research-statistics/eng

Razzaque, M. A. (Ed.). (2020). Revitalising Bangladesh's Export Trade: Policy Issues for Growth Acceleration and Diversification. In M. A. Razzaque, *Navigating New Waters Unleashing Bangladesh's Export Potential for Smooth LDC Graduation*. Bangladesh Enterprise Institute (BEI).

Razzaque, M. A., Rabi, R. I., & Dey, B. K. (2024a). *Fostering Export Diversification in Bangladesh: Issues and Way Forward*. Asian Development Bank. https://doi.org/10.22617/WPS240339-2

Razzaque, M. A., Rahman, J., Zaman, R., Akhter, S., & Islam, D. (2024b). *Exploring Export Diversification Opportunities in the European Union*. FES, Bangladesh. https://bangladesh.fes.de/fileadmin/user_upload/images/publications/Bangladeshi-exports-to-the-EU-RAPID.pdf

Sattar, Z. (2020). *Assessing State of Industrial Protection 2020: Review of Effective Protection in Selected Sectors*. IFC.

Udomkerdmongkol, M., Morrissey, O., & Görg, H. (2009). Exchange Rates and Outward Foreign Direct Investment. *Exchange Rates and Outward Foreign Direct Investment*, *13*(004). https://doi.org/10.1111/j.1467-9361.2009.00514.x

UNCTAD. (2024). *Foreign direct investment: Inward and outward flows and stock, annual* [Dataset]. https://unctadstat.unctad.org/datacentre/dataviewer/US.FdiFlowsStock

UNDP (United Nations Development Programme). (2022). *Graduation from LDC status: Trade preference and development financing implications for Asia-Pacific countries*. UNDP Bangkok Regional Hub. https://www.undp.org/sites/g/files/zskgke326/files/2022-12/Graduation%20from%20LDC%20status%20trade%20preference%20and%20development%20financing%20implications%20for%20Asia-Pacific%20countries.pdf

U.S. Energy Information Administration, Energy Institute - Statistical Review of World Energy, & Population based on various sources. (2024). *Energy use per person, 2023* [Dataset]. https://ourworldindata.org/energy-production-consumption

World Bank. (2022). *Change of Fabric*. World Bank Group. https://documents1.worldbank.org/curated/en/099400009232233045/pdf/P1750610db2026066085a802b16079592d7.pdf

World Bank. (2023a). *Bangladesh Development Update Trade Reform: An Urgent Agenda*. The World Bank Office. https://thedocs.worldbank.org/en/doc/122ba4c5bf8dcf96c25e9828a06ecd59-0310012023/original/Bangladesh-Development-Update-April-2023.pdf

World Bank. (2023b). *Trade Logistic in the Global Economy*. World Bank. https://lpi.worldbank.org/index.php/sites/default/files/2023-04/LPI_2023_report.pdf

World Bank. (2024). *World Development Indicators* [Dataset]. https://databank.worldbank.org/source/jobs/Series/NE.EXP.GNFS.ZS

World Trade Organization & Enhanced Integrated Framework. (2020). *Trade impacts of LDC graduation Insights from country-specific market access analyses*. https://www.wto.org/english/res_e/booksp_e/trade_impacts_of_ldc_graduation_insights.pdf

Chapter 3: Transforming Agriculture: Growth, Diversification, and Sustainability[1]

3.1 Introduction

Agriculture remains a vital component of the Bangladesh economy despite its declining share in the country's gross domestic product (GDP), which was more than 38% in the early seventies but currently stands at 11.3% (FY 2022-23) and is estimated to fall further slightly to 11.02% in FY 2023-24 (BBS, 2024). The sector grew at an annual rate of 4-5% in the 1990s, compared to around 3% in the 2010s (Table 3.1). The sector's significance, however, extends far beyond its direct contribution to GDP. The broader agri-food system—encompassing processing, trade, and transport—accounts for over 23% of the national GDP, highlighting its critical role in driving economic activities across multiple sectors (Diao et al., 2024). It employs nearly 45% of the labour force, and serves as a source of food security, rural development, and poverty alleviation. The sector's significance extends to its contribution to export earnings, particularly through products like jute and tea, as well as its vital role in reducing malnutrition and ensuring livelihoods for millions. In terms of future potential, Bangladesh is considered to be the most favourable area for agricultural technology adoption in the region (Pender 2007).

Table 3.1: Agriculture - Irrigation Coverage, Fertiliser Use, and Growth Rates, Selected Countries (%)

Indicator	Bangladesh	India	Vietnam	Nepal	Pakistan
Growth rate (1990s)	4.5	3.9	4.0	3.2	4.0
Growth rate (2010s)	3.0	2.9	2.8	2.7	2.7
Irrigation coverage 2020-21, (%)	58	48	65	43	50
Fertiliser use, 2020-21(kg/ha)	236	165	234	120	173

Sources: World Bank Group (2022): World Development Indicators; ADB (2022): Key Indicators for Asia and Pacific.

Agriculture's contribution to poverty alleviation cannot be overstated. Between 2010-11 and 2023, agricultural wages more than doubled (BBS, 2023), marking a significant improvement in rural incomes. The sector's ability to absorb a large labour force, especially in rural regions, serves as a crucial safeguard against economic shocks and urban unemployment pressures. Smallholder farmers, who form the foundation of the agricultural workforce, play a vital role in sustaining rural livelihoods. Strategic

[1] This chapter is prepared by K A S Murshid, Chairman of the Task Force

investments in agricultural infrastructure, extension services, and access to credit are essential to empower these farmers and promote inclusive growth.

Furthermore, agriculture has an intrinsic connection to Bangladesh's cultural heritage and social fabric. Traditional farming practices, combined with an increasing openness to modern technological innovations, reflect a unique duality that characterises the sector. The adoption of high-yielding crop varieties, precision farming techniques, and climate-resilient practices have begun transforming the agricultural landscape, boosting productivity while ensuring environmental sustainability.

While agricultural production has been commendable, there remains a substantial untapped opportunity for further growth through intensification based on modern technology. Although crop intensity is high in Bangladesh, it must continue to be pushed further to sustain growth, given the acute shortage of agricultural land. Crop diversification must go hand in hand to promote food security and enable import-substitution (Ahmed, A. et al., 2024). Some of these aspects are explored further in the following sub-section.

3.2 Crop Production

3.2.1 Rice

Bangladesh has made impressive strides in cereal production, particularly rice, which dominates Bangladesh agriculture. High-yielding varieties, irrigation, and subsidies on inputs like fertiliser have fuelled productivity. However, diversification into high-value crops (vegetables, fruits, and oilseeds) remains limited.

Although agricultural productivity has improved over time, it lags regional leaders like Vietnam and Thailand. Rice yields, for example, are high in absolute terms but could improve significantly with a shift to newer rice varieties, mechanisation and better irrigation infrastructure.

The rice yield gap in Bangladesh—the difference between yields in experimental farms and actual yield at farm level—remains significant, particularly for smallholder farmers. While the potential yield of high-yielding rice varieties (HYVs) under optimal conditions can reach 6–7 tons per hectare, the national average yield is around 4.8 tons per hectare, leaving a yield gap of approximately 1.2–2.2 tons per hectare (Table 3.2). This gap is even higher when compared to newer rice varieties like BRRI *dha*n 100, 107, 111 etc. whose yields are considerably higher (Ahmed, Akhter et al., 2024). This gap is attributed to several factors, including suboptimal farming practices, limited access to newer seeds or lack of awareness, inadequate irrigation infrastructure, and the effects of climate stressors such as floods, droughts, and salinity intrusion. Poor knowledge dissemination and extension services also contribute to farmers not fully utilising modern techniques. Addressing this yield gap would require improved agricultural finance, extension, adoption of climate-resilient rice varieties, better irrigation systems, and the promotion

of sustainable intensification practices. Crop insurance is another critical area that has remained elusive due to high levels of production and price risk, and a lack of a suitable subsidy policy.

3.2.2 Non-Rice Crops

Table 3.2: Actual and Potential Yields, Selected Non-Rice Crops (Ton per Hectare)

Crop	Potential yield (tons/ha)	Actual yield (t/ha)	Gap (t/ha)
Wheat	4-5	2.8-3	1.2-2
Maize	10-12	8.9	1.1-3.1
Jute	2.5-3	2.1	0.4-1.1
Potato	40-50	20-25	20-25

Source: FAO GIEWS Country Brief on Bangladesh, 2023; BRRI (2023): Bangladesh Rice Journal.

Wheat

Wheat is the second most important cereal crop for human consumption in Bangladesh and meets 20% of local demand. A unique feature of wheat is 100% adoption of modern varieties. The area under wheat increased six-folds from 132,000 ha in 1971 to 832,000 ha in 2000 but then declined sharply to 479,050 ha in 2006. Current acreage (2019) is 330,348 ha. The actual yield level increased from 0.9 t/ha to 1.5 t/ha over 1972-2006, rising thereafter to reach around 3.0 tons/ha. Table 3.3, traces the performance of wheat over the decades.

Table 3.3: Decadal Growth Rate of Wheat Yields in Bangladesh

Decade	Growth Rate	Details
1970s	24.93% annual mean growth	High-yielding varieties like 'Sonalika' and 'Kalyansona' led to substantial increases in cultivated area and production.
1980s	Stagnation mid-decade	Initial growth due to the adoption of high-yielding varieties; stagnation followed.
1990s	Renewed growth post-1995	Policy support, improved irrigation, and new varieties drove growth.
2000s	Poor and stagnant growth	Competition from other crops and environmental challenges hindered growth.
2010s	Fluctuations	Production varied yearly, e.g., 1,280,000 metric tons in 2013, declining to 1,100,000 by 2018.
2020s	Slight decline	Production decreased from 1,200,000 metric tons in 2019 to 1,085,000 metric tons in 2021, stabilising in 2023.

Sources: PMC (https://pmc.ncbi.nlm.nih.gov/articles/PMC3540706); Ageconsearch (https://ageconsearch.umn.edu/record/200226).

A study suggests that wheat productivity drops when cultivated in poor soils/lowland areas. Technical efficiency of production has been estimated at 83%, implying that production can be increased by 20% simply through reallocation of resources alone![2] Analysis of the determinants of technical efficiency reveals that farmers' education, access to agricultural information, training and use of mechanical power significantly improve technical efficiency, whereas a delay in sowing and fertilisation, and poor sourcing of seeds significantly reduces efficiency. Large farms are more efficient relative to small and medium sized farms. There is considerable yield variation by agroecological zones.

Wheat production has stagnated in recent years, and further prospects are not promising. Farmers are now moving into more productive crops, especially Maize – an important poultry and livestock feed for which there is growing demand.

Maize

Maize production has experienced significant growth over the past several decades, emerging as the third most important cereal crop in the country, concentrated mostly in the Rangpur Division. Recent growth between 2011- 2020 has been high, peaking at 17.1% in 2019 and declining slightly to 14.6% in 2020. The growth rate over the entire period was around 3%, and yields were 9 tons/ha. Further growth will occur through the displacement of wheat and greater intensification. Intensification is more preferable but will require heavy investment in R&D.

Jute

Jute is Bangladesh's golden fibre and traditionally served as its main export item, accounting for much of the country's foreign exchange earnings. Jute suffered a deep setback with the rise of synthetic fibres and a sharp decline in demand. Jute continues to enjoy a modicum of demand, although its importance as a foreign exchange earner is small, just 3% of exports. Between FY 1973 and 2004, jute production was largely stagnant but grew at over 7% over FY 2004-2013. This was due to area expansion and not an increase in yields.[3] Further growth depends on demand from the world and domestic market. Given greater environmental awareness, there is good scope for jute goods to be promoted as a sustainable, biodegradable product. However, the necessary marketing, product diversification, and R&D needed to realise jute's true potential remains unexploited.

[2] Rahman, Sanzidur and Hasan, M. (2009): Wheat in Bangladesh – Yield Growth, Performance and Determinants, Advances in Environmental Research, Chapter.

[3] Rahman, S., M.M.H. Kazal, I.A. Begum and M.J. Alam (2017).

Potato

Potato production in Bangladesh has seen remarkable growth over the last 20 years, driven by demand, and improved farming techniques along with high-yielding seeds. Production in 2000 was 5.8m tons, growing to 11m tons in 2023, making Bangladesh the 7th largest producer of potatoes in the world.

Key factors driving growth were expansion of cold storage facilities for preservation, input subsidies for fertiliser, HYV seeds, and irrigation. Yields face considerable risk – both climatic, and from pests and disease, as well as from temporary bottlenecks that constrain access to vital inputs like fertiliser and water. The resulting volatility can be acute – a worry for both growers and consumers. Consumer demand has gone up sharply from 25 kg/capita in 2000 to 30-35kg/capita in 2023 as food habits changed (Ahmed et al., 2024).

There is potential for exports but is currently hampered by variable quality, excessive moisture content, and weak market linkages to the world market. Certification, improved quality and a robust cold-chain system could help boost exports to regional markets. A strong potato processing industry has emerged in the meantime and holds substantial promise given appropriate investment and policy incentives to reduce risks.

3.3 Non-Crop Agriculture

3.3.1 Fisheries

Bangladesh is lucky to have abundant water resources given that it is the largest delta in the world, drained by the mighty Ganges-Brahmaputra River systems. Its expansive water resources have enabled Bangladesh to emerge as a leading fish-producing country, and making it self-sufficient in fish, since 2017 (DOF, 2023).

This ‘blue revolution’ in aquaculture production expanded at 7% per annum and is continuing to grow (Rasid and Xiaobo, 2019). Total production in FY 2022-23 was 4.92m MT, mainly from inland fisheries (91%), with carp accounting for more than half of the total catch. Fish consumption stands at around 63 grams/per capita per day against the set target of 60 grams/day. The sector accounts for 12% of national employment, directly or indirectly (Rashid and Xiaobo, 2019)

The fisheries sector comes from three broad areas: inland capture fisheries (38,60,772 ha), inland aquaculture (8,45,399 ha) and marine fisheries - of which inland aquaculture sub-sector contributes around 57.4%, capture around 28% and marine, 14.8% (Table 3.4). The marine output is almost entirely exported. The structure of the sector is given in Table 3.4.

Table 3.4: Marine and Freshwater Fish – Area and Production in 2021-22

Fishery Type	Area (ha)	Production (tons)	% of Total
Inland (capture)	3860772	1321631	27.8
Inland (culture)	845399	2731070	57.4
Sub-total	**4706171**	**4052701**	**85.2**
Marine	-	706030	14.8
Total	**-**	**4758731**	**100**

Source: DOF (2023).

Capture fisheries output has declined over the years due to destruction of habitat and over-fishing. Potential yields have been estimated at 1.5m tons/annum, against actual yield of 1.1m tons per annum, indicating a gap of 26.7%. There is significant potential to generate further growth, especially using modern technology.

3.3.2 Poultry

The poultry sector has emerged as a vital component of agriculture contributing to food security, nutrition and livelihoods. It includes broilers for meat, layers for eggs, and backyard poultry. Brokers dominate commercial operations, and backyard output caters to rural households. Some 6-8 million people are directly or indirectly involved in the sector with a significant presence of women (Begum, M. et al., 2019; Rahman et al., 2020)

Annual production is around 3.2 billion eggs and 2.3 million tons of poultry meat per annum, with annual per capita consumption at 103 eggs (FAO, 2021; DLS, 2023). Large-scale commercial farms are adopting advanced technologies like automated housing systems and feed management. However, small holders lack access to these technologies (World Bank, 2022a).

Medium and large-scale farms report moderate profitability, with returns on investment (ROI) of 12-20%, while smallholders face challenges from input cost inflation and limited market power (Begum, I. et al., 2010). Feed costs constitute 60-70% of production expenses. Heavy dependence on imported soybean meal and maize contributes to price volatility. Disease outbreaks like Newcastle Disease and Avian Influenza remain frequent despite improvements in biosecurity protocols resulting in significant losses (Haque, M.A. et al., 2024).

The poultry sector contributes approximately 1% of Bangladesh's GDP, underscoring its importance to the national economy (DLS, 2023). Annual growth in poultry consumption is 6-8%, driven by urbanisation and increasing disposable incomes (World Bank, 2022b).

Expansion could generate thousands of new jobs in farming, feed production, veterinary services, and logistics. Women, who already play a significant role in backyard poultry, could benefit from further upskilling and support (Begum, M. et al., 2019).

3.3.3 Livestock

The livestock sector in Bangladesh is a vital component of the nation's economy, significantly contributing to agricultural GDP, employment, and food security. In FY 2022-23, it accounted for 1.85% of GDP (at constant prices) (or 16.52% of the agricultural GDP) while exhibiting a growth rate of 3.23%. The sector's GDP volume at current prices was 73,571 crore Taka (Ahmed et al., 2024).

The livestock industry provides direct employment to approximately 20% of the population and partial employment to an additional 50%, underscoring its role in rural livelihoods and poverty alleviation.

Despite its contributions, the livestock sector faces several challenges:

• Low Productivity: Issues such as inadequate breeding services and limited access to quality feed hinder productivity.

• Market Access: Weak value chains and price volatility affect profitability for smallholders.

• Climate Change: Increasing climate variability poses risks to livestock health and fodder availability.

3.4 Major Constraints to Agriculture

3.4.1 Land

Land scarcity and fragmentation has emerged as a leading problem for Bangladesh agriculture leading to tiny, unviable plot sizes preventing economies of scale from being reaped. Bangladesh's land area is only 147,570 km², with about 63% of the population dependent on agriculture. Increasing population density (1,265 people/km² in 2024) has led to shrinking per capita farmland. The average landholding size dropped to 0.6 hectares in 2021, down from 1.5 hectares in the 1960s (Husain, A. M., & Hossain, M., 2022).

Land fertility too is on the decline promoting ever-increasing chemical fertiliser use. Land degradation is accelerating because of encroaching salinity in coastal areas, riverbank erosion, water stress in the dry season due to increasing pressure on groundwater resources and drying up of riverbeds from upstream diversion of international rivers causing desertification in Northern Bangladesh.[4]

3.4.2 Labour Constraints

Rural-urban migration has resulted in a 2% annual decline in the agricultural labour force, with young workers shifting to non-farm, industrial and urban jobs, as well as

[4] Soil erosion, salinity affects 1.02 million hectares, and riverbank erosion displaces nearly 50,000 people annually, reducing cultivable land.

leaving for jobs outside the country in large numbers.[5]As a result, agricultural productivity growth has slowed, with the sector growing only by 3.5% annually in 2023 (Ahmed et al., 2024).

Daily agricultural wages increased from BDT 250 in 2015 to BDT 450 in 2023 and are continuing to rise - making labour-intensive crops like rice and jute less profitable. This has led to introduction of labour-saving machinery as well as inducing more women to enter into the rural labour market.

3.4.3 Market Constraints

Limited Market Access - smallholders, who represent 70% of farmers, face difficulties accessing competitive markets. Poor rural infrastructure increases costs, with 25% of perishable goods lost annually to post-harvest loss, and inadequate storage and transportation infrastructure.

Price volatility levels are high - farmers experience fluctuating commodity prices, which leads to unstable incomes. For instance, rice prices fluctuated between BDT 40-55 per kg in 2023, discouraging farmers from planting. Current inflation rates in Bangladesh are in the double digits (December 2024), led by food price increases – this is highly unusual for this time of year, signalling poor market expectations and the need for increasing imports.

An important market failure revolves around safety, quality and standards that have gone unaddressed, although some initiatives are now underway. These include false labelling of seeds, excessive use of chemicals on food, and arsenic in food crops. A market failure that has eluded us so far is the widespread extortion of food-loaded trucks on the highways by organised gangs that usually have some kind of political muscle at the local level. This has made supply chains vulnerable, adding to costs to final consumers.

In the case of some key imports – edible oil in particular, there are widespread allegations of monopolistic behaviour arising from lack of competition. Competition is hampered by the large capital outlays needed for large-scale commodity imports that only a few very large trading conglomerates can afford to raise.

3.4.4 Machinery and Technology Constraints

While considerable progress has been made in the mechanisation of Bangladesh agriculture, there is still considerable opportunity to expand coverage and production. Although Bangladesh’s rice yield per ha has significantly increased and currently remains above the South Asian average, it is still well below East Asian standards.

[5] In 2024, the total number leaving Bangladesh over the past one year was nearly one million.

Around 50% of farmers use power tillers or tractors, compared to, e.g., over 80% in neighbouring India. Greater adoption rates of precision agriculture and digital farming could significantly enhance productivity.

In the context of modern irrigation, coverage stands at around 80% of the cultivable land. Much of the irrigation expansion has been due to the exploitation of groundwater, although around 28% of irrigation coverage is still accounted for by surface water sources. Energy availability is a critical bottleneck to further expansion of coverage.

3.4.5 Credit and Capital Constraints

Access to credit and lack of capital is a key problem that constrains agricultural growth, particularly for small farmers. Only 50% of farmers have access to formal credit with the remaining ones facing difficulty in meeting stringent collateral requirements, including proof of land ownership.[6]

Microfinance institutions charge rates as high as 27% annually, which, along with monthly instalment repayment requirements *(Kisti*), make microfinance unsuitable for the seasonal pattern of farm credit demand and farm returns.

Agricultural Extension Services and Behaviour Change Communication (BCC)

The farmer-to-extension-worker ratio is 1:1,200, which is far below the ideal ratio of 1:400. This limits dissemination of knowledge on modern farming practices. It is important to strengthen the capacity of the Department of Agricultural Extension (DAE) and incentivise frequent field visits to farms with new messages and new techniques or even to re-enforce old messages with new techniques to reinforce messages.

An important capacity that requires urgent attention is the strategy for addressing behavioural change with modern communication methods. New communication technologies, use of Apps and clever content creation can be quite effective in addition to traditional extension modes practiced. Here, the limitation at the farm level is the persisting digital divide, which reduces the effectiveness of digital extension communication. As the digital divide is narrowed, this will become a potent source of BCC. The DAE needs to pay particular attention to modern BCC to help us move to the next generation of tech-led growth.

Some of the areas where BCC could add value relate to adoption rates of improved seeds, superior farming practices and techniques, including smart irrigation technologies, and climate-resilient, saline-resistant crops. For example, only 35% of farmers were found using certified seeds in 2023. Similarly, use of fertilisers and chemicals suffer from imbalanced use as well as over-use, which adds to farming costs and affects the health of

[6] Proof of land ownership is often onerous given poor property rights, difficulty and high cost of land mutation/registration, and rampant corruption in land administration offices.

farmers as well as consumers. This also means that the country must import more fertilisers than is strictly necessary.

3.4.6 Climate Change Constraints

Bangladesh has always experienced periodic bouts of floods, cyclones, and droughts due to its deltaic topography and geographic location. With rising threats of global warming and greenhouse gas emissions, there is growing alarm over the heightened intensity and frequency of these 'natural' phenomena, which have, in the past, led to cataclysmic events like super-storms (e.g. Cyclone Aila), caused immense loss of life and property. It can take many years to recover from catastrophes. Annual losses in agriculture due to extreme weather are estimated at $3 billion (World Bank, 2021).

Rising sea level, and salinity incursion has already begun to affect Bangladesh's coastal communities causing land degradation, eroded livelihoods, lower productivity, and climate migration. There is therefore much to be done in Bangladesh in terms of devising adaptation strategies, as well as mitigation measures to reduce methane emissions, in particular - emanating from Bangladesh's huge rice-paddy agriculture and a large cattle population. It has been estimated that a 1°C rise in global temperature could reduce rice yields by 5%-7%.

3.5 Addressing the Constraints

To unlock the potential of agriculture in Bangladesh, it is essential to adopt a multi-pronged strategy that integrates technology, appropriate cropping patterns, financial and institutional support, and risk mitigation mechanisms. Below is an outline of key interventions needed to address the constraints identified earlier.

3.5.1 Mechanisation

Mechanisation in Bangladesh is highly subsidised to encourage adoption, particularly amongst small farmers. However, expensive agricultural machinery is fielded disproportionately to relatively more backward areas of the country as part of the policy to advance modern agriculture in less-developed regions. This policy has backfired and needs to be corrected. The machines should be redirected to robust centres of demand, which are likely to be in the agriculturally more advanced areas, where the impact would be greatest.

Another factor that is slowing down adoption rates of modern equipment is the lack of bank credit and credit conditions that specify that subsidised machines cannot be sold for at least three years after purchase. Despite good intentions, this restriction too, has slowed down demand and needs to be removed.

In the context of mechanisation, there is a problem with the repair-maintenance capacity of the local workforce. Good quality skills training will immensely benefit machine owners while also creating skilled, well-paid jobs in the countryside.

Finally, ways will need to be found to reduce the price of machinery through lower duties and domestic fabrication. A suitable policy regime will need to be introduced – such as low-duty imports of spares and components for local assembly. A policy of enforced equipment standardisation again is probably faulty, as seen in the case of modern irrigation equipment in the 1980s and 1990s. A main factor for the rapid expansion of irrigation technology in Bangladesh at the time was the lifting of standardisation restrictions allowing the import of cheap machines from China and Vietnam, and a huge supply response. The market mechanism can be relied upon to resolve the machine quality problem.

3.5.2 Specific Techniques Recommended

There are some promising improved/smart irrigation technologies now available in Bangladesh that need to be scaled up rapidly. These include the Axial Flow Pump (AFP) for surface water irrigation that is particularly suitable for Southern and South-Central Bangladesh.

Historically, Southern Bangladesh has suffered neglect as the Green Revolution began in the North with the South lagging significantly behind. Given the abundance of surface water sources during the dry season, the main irrigation equipment used is the low-lift pump or LLP. Although groundwater is readily available at shallow depths, high salinity levels in the region make it unusable for irrigation purposes. Some 50% of farmers use LLPs for rice cultivation during the dry *Boro* season. The high and rising diesel energy costs needed to operate the machines have constrained further expansion so that the remaining 50% of farmers are limited to growing one crop a year under traditional, rain-fed conditions (Ahmed et al., 2024).

The Axial Flow Pump

The Axial Flow Pump is being put forward as a promising alternative to LLPs: it is characterised by superior technical and economic performance compared to LLPs by delivering increased water flow, lower energy requirements, higher technical efficiency and lower operating and maintenance costs. The technique is also considered women friendly. (Ahmed et al, 2024).

Two-wheeled mechanical reapers

Two-wheeled mechanical reapers offer a technically feasible and economically viable solution for enhancing agricultural productivity in Bangladesh. Their compatibility with local farming practices and the economic advantages they provide make them an asset in the country's move towards increased agricultural mechanisation. These machines, often attached to two-wheeled tractors, streamline the harvesting process, allowing farmers to reduce planting and harvesting times, and thus allow subsequent crops to be cultivated more promptly. This mechanisation is particularly beneficial in addressing labour

shortages. Importantly, reapers can reduce harvesting costs by approximately 30%, making this particularly attractive to small holders.

The adaptability of two-wheeled reapers to Bangladesh's diverse agricultural landscape further underscores their suitability. Their manoeuvrability in small and fragmented fields, common in the region, enables efficient operation where larger machinery may be impractical. Additionally, the emergence of local service providers who rent out these machines has facilitated broader access among farmers, promoting widespread adoption and new business opportunities.

Table 3.5 summarises the technical and economic suitability of two-wheeled mechanical reapers in Bangladesh:

Table 3.5: Technical, Economic Suitability and Adaptability of 2-Wheeled Mechanical Reapers

Aspect	Details
Technical suitability	Compatible with two-wheeled tractors commonly used in Bangladesh; Effective in small, fragmented fields; reduces crop damage at harvest; easy to operate.
Economic suitability	Reduces harvesting cost; Labour saving; Affordable for smallholders through service providers; Timely planting and increased cropping intensity.
Local adaptability	Suitable for Bangladesh cropping pattern; growing acceptability locally.
Versatility	These reapers can be combined with seed-fertiliser drills to make the machine versatile and take on tasks like tilling, planting and fertilisation in lines simultaneously and with great precision.

Source: Based on CIMMYT (2017): Three Technologies That Are Changing Agriculture in Bangladesh.

Alternate Wetting and Drying Irrigation (AWD)

Alternate Wetting and Drying (AWD) is a water management technique for rice cultivation that involves periodic drying and re-flooding of fields, as opposed to continuous flooding. In Bangladesh, AWD has demonstrated significant benefits, including water savings of approximately 38% without compromising rice yields. This method also enhances water productivity by about 16.9% compared to the traditional practice of continuous flooding. Additionally, AWD can reduce irrigation costs by $23 to $42 per hectare, offering economic advantages to farmers (Karen et al., 2018).

Beyond water conservation and cost savings, AWD contributes to environmental sustainability by reducing methane emissions from rice fields by up to 85%, thereby mitigating greenhouse gas emissions associated with rice cultivation. The technique also leads to firmer soil conditions at harvest, facilitating mechanical harvesting and potentially reducing labour costs. The huge potential emission impact could lead to the earning of significant amounts of carbon credits.

Despite these advantages, the adoption of AWD in Bangladesh has been limited. Barriers include a lack of awareness among farmers, insufficient training, and concerns about

potential yield reductions. To address these challenges, targeted policies and extension services are necessary to promote AWD adoption.

Below is a summary of the technical and economic suitability of AWD irrigation in Bangladesh:

- Technical Suitability - Compatible with existing rice cultivation practices. Requires proper field levelling and water control structures. Reduces methane emissions by up to 85% and Enhances soil conditions for mechanical harvesting.
- Economic Suitability - Reduces irrigation costs by $23–$42 per hectare; Saves approximately 38% of irrigation water; Maintains or potentially increases rice yields and reduces labour costs due to improved field conditions.
- Local Adaptability - Limited adoption due to lack of awareness and training; Requires extension services to educate farmers. Presents a significant potential to improve the sustainability of rice farming in Bangladesh.

Solar Powered Sprinkler Irrigation

Solar-powered sprinkler irrigation systems also present a promising solution for enhancing agricultural productivity in Bangladesh. These systems utilise photovoltaic panels to power water pumps, distributing water efficiently across fields through sprinkler mechanisms. This method offers several advantages, including reduced dependency on diesel fuel, lower greenhouse gas emissions, and decreased operational costs. For instance, replacing 1,300 diesel pumps with solar-powered alternatives could save approximately $3.2 million annually in fuel costs.

The technical feasibility of solar-powered sprinkler systems in Bangladesh is supported by the country's ample solar irradiance, averaging between 4 and 6.5 kWh/m² per day. This solar potential ensures that photovoltaic systems can operate effectively throughout the year. Additionally, solar pumps have demonstrated reliability and ease of maintenance, making them suitable for the rural agricultural context.

Economically, while the initial investment for solar-powered irrigation systems is higher compared to traditional diesel pumps, the long-term benefits are substantial. Farmers can experience a reduction in irrigation costs by nearly half, as solar energy eliminates the need for expensive diesel fuel. This will also allow the government to reduce fuel subsidies, serving to alleviate budgetary pressure.

The technology is well-aligned with national renewable energy targets. Acceptance amongst farmers is growing but given the high costs involved, faster and wider acceptance will require supportive policies, in particular access to credit on easy terms.

In sum, the techniques discussed in this section outlines the pathway to usher in the next phase of rapid agricultural growth in Bangladesh, while at the same time, delivering efficient, sustainable, women-friendly, labour-saving, and cost-saving technology at the farmers' doorstep.

3.5.3 Fertiliser Use and Availability

Bangladesh needs around 6m MT of fertilisers per year but is heavily dependent on imports, which account for over 80% of demand. Bangladesh Chemical Industries Corporation (BCIC) produces urea and has a production capacity of around 2.3 m MT, although actual production is much less. Other fertilisers, including TSP, DAP and MOP, are entirely imported.

High import dependence has made the country susceptible to global shocks – for example, the Ukraine War caused world urea prices to jump from $338/MT in 2021 to $599/MT in 2023.

Use and Its Determinants

Fertiliser use is a critical factor in improving agricultural productivity, but the sector faces crucial challenges related to pricing, subsidies and balance. Here is a brief overview:

1. Overuse of Urea: Urea is heavily subsidised, making it the most used fertiliser. This leads to imbalanced fertiliser use, as farmers often underuse other critical nutrients like phosphorus (TSP), potassium (MOP), and micronutrients. This is also detrimental to environmental health.

2. Subsidy Burden: The government spends a significant portion of its agricultural budget on fertiliser subsidies. In FY 2023-24, subsidies were about BDT 150 billion, creating fiscal burden.

4. Distribution Inefficiencies: Delays and inefficiencies in the public fertiliser distribution system often leads to shortages during peak seasons, leaving farmers vulnerable.

Subsidised fertilisers are sold at fixed prices, which are often far below international market rates. This distorts market signals and encourages misuse. As a result, black market activities are common, as subsidised fertilisers are often resold at higher prices. There has also been reports of subsidised fertilisers being smuggled across the border.

Heavy reliance on imported fertilisers makes the sector vulnerable to global price shocks and supply disruptions. Inefficiencies in domestic production (e.g. aging facilities at BCIC-run fertiliser plants) further exacerbate supply issues.

Smart technologies exist to increase urea use efficiency which could significantly reduce dependence on its supply. The most interesting such technique is the deployment of polymer or neem-coated urea which has certain interesting characteristics: urea granules are covered with a layer of protective material which allows the slow release of nitrogen into the soil, matching plant uptake more effectively and reducing wastage. Coated urea effectiveness is much higher – with a Nitrogen Use Efficiency (NUE) of 70% as opposed to that of traditional area that has an NUE of only 30-50%. In addition, crop yield responses are improved while farmers save time, labour and costs due to fewer

applications needed. It can be adapted to specific crops and soil conditions as well, providing greater flexibility to farmers.

Coated urea is well-suited for Bangladesh which suffers nitrogen-depletion due to overuse and nitrogen leaching of soil from excessive rainfall. Adoption rates remain low due to higher cost, lack of awareness, and subsidy policy.

Organic fertilisers have begun to attract attention, although its use so far is limited to small-scale farmers and NGOs. Expansion is limited due to lack of awareness, capital shortage, and inadequate market access/demand for organic products.

Coco-peat or coir-pith is a byproduct of the coconut industry and is currently under-utilised and much of it discarded as waste. There is limited awareness of its benefits as a soil conditioner and growing medium. There is potential for coco-peat production expansion for both domestic consumption and exports. It's ability to retain water, improve soil aeration, structure, and fertility makes it ideal for use in horticulture.

Vermicomposting has not achieved much popularity. It promotes soil fertility, converts organic waste into valuable compost, and can reduce dependence on chemical fertilisers. Similarly, Mycorrhizal fungi are not widely used although research institutions like BARI – Bangladesh Agricultural Research Institute, have initiated studies to examine potential for expansion in Bangladesh.

Bangladesh needs an organic fertiliser policy framework with the following objectives:

• Develop an organic farming policy with clear guidelines on the use of inputs like coco peat, vermicompost, and mycorrhizal fungi.

• Set up certification systems for organic inputs and produce to boost consumer trust and export potential.

A serious market failure in the fertiliser market is the problem of quality assurance for various inputs, particularly fertilisers. It is in this context that a fertiliser quality assurance programme has become essential. A smart method that has been advocated to tackle the problem is the use of mandatory scratch labels with bar codes registered on a database that allows traceability and verification of product quality. Farmers and dealers can scan the barcodes to get confirmation of quality. This is a clever way to solve the issue of the sub-standard proliferation of fertilisers in the market. The advantages are clear: effectiveness will increase, costs will be lower, and yield responses will improve. It appears to be a much more cost-effective method than testing (Gilligan, Karachi, and Thai, 2019).

Invest in Upgrading Domestic Fertiliser Plants to Reduce Imports

Domestic gas-based production of urea is hampered by old, outdated machinery and inefficient technology, compounded by erratic gas supplies to plants. It is therefore essential to ensure a smooth and uninterrupted flow of gas, as well as invest in the plants to upgrade and modernise the factories. Performance audits and regular maintenance will enhance efficiency.

Fertiliser Security: Strategic Reserves

It is time to consider the establishment of a strategic reserve of fertilisers similar to that for foodgrain. This could be built up from diversified sources to ensure a smooth and regular supply to farmers, adding to fertiliser security. In addition, a voucher system to distribute fertilisers to targeted farm populations would also help ensure equitable access. These could be aligned with awareness programmes and pricing policy to incentivise balanced use.

The efficiency of fertiliser distribution can be further enhanced using blockchain technology. This can have transformative impact by ensuring transparency, traceability, and efficiency across the supply chain. Initial piloting is recommended on a small scale to test the technology and train stakeholders and farmers in its use.

3.6 Crop Diversification

Crop diversification, i.e. away from an overwhelming dependence on rice towards higher value crops, has been under discussion for many years without bringing about much change. Bangladesh's agroclimatic and topographic conditions are well-suited for rice cultivation, and it has been difficult for other crops to displace it. However, diversification has occurred in at least three senses:

First, the traditional dependence on a dominant, rain-fed wet season rice crop, mostly consisting of local varieties has over a period of fifty years, led to the emergence of an entirely new irrigated, high-yielding rice crop in the Boro or dry season which soon came to dominate Bangladesh agriculture.

Secondly, non-crop agriculture expanded rapidly, setting off the 'blue revolution' in fisheries and aquaculture. Today, Bangladesh is one of the largest producers of inland freshwater fisheries in the world. Bangladesh has also done exceptionally well in modern poultry and egg production, a trend that is currently being mimicked by livestock production. Innovation, adoption and entrepreneurship in these non-crop sectors have been remarkable.

Third, even within crop agriculture, a distinct regional shift is noted with the initial rise of wheat cultivation, which appears to have stagnated after an initial burst of productivity, and the emergence of maize as a popular feed crop in Northern Bangladesh, especially in and around Rangpur. The feed demand from poultry and livestock has ushered in maize in a part of Bangladesh where local conditions are well-suited. Similar trends are noted for the growth of pulses (in Dhaka) and oilseeds (in Rajshahi) – a positive development that needs to be encouraged to reduce import dependence.

There is further potential for diversification that will require extension services to proactively identify suitable crops for uptake and intensification by different agroecological zones (AEZ) in the country. Modern technologies now available enhance this process by using satellite imagery to identify soil fertility conditions. Most importantly, however, serious R&D is required to identify and develop appropriate crop varieties for different AEZs.

Some crops have already been identified for chars and salinity-affected areas, such as oilseeds, pulses, *kheshari,* sunflower and mustard. While some exotic crops have been found suitable for coastal areas like seaweed, in whose cultivation, the Japanese have indicated keen interest. It has the potential to become a significant export crop with a guaranteed Japanese market.

In other words, there are quite a few options available for higher-return crop diversification which is being hampered by the high associated production risks. These risks will need to be addressed, not just through R&D but also targeted input supplies, irrigation, and crop insurance. It may be noted that the problem is largely on the supply-side rather than on the demand side.

3.7 Seed Quality and Availability

The availability and quality of seeds significantly influence agricultural productivity and food security. However, seed availability is often inconsistent, with shortages during critical planting seasons due to inefficiencies in the distribution network and inadequate production planning. Farmers frequently rely on self-saved seeds or seeds purchased from informal markets, many of which are low-quality, uncertified, or adulterated. These issues reduce crop yields and farmer incomes.

Quality assurance mechanisms for seeds remain weak. Certification processes often lack enforcement, and substandard seeds continue to infiltrate the market. This is particularly problematic for hybrid and high-value crops like rice, maize, and vegetables. Farmers also face difficulties accessing high-yielding and stress-tolerant seed varieties essential for adapting to climate change.

Truthfully Labelled Seeds (TLS) could play a vital role in addressing seed quality issues. TLS systems provide farmers with reliable information about seed germination rates, purity, and genetic traits, enabling them to make informed decisions. However, the adoption of TLS is limited due to poor awareness among farmers and the prevalence of counterfeit products.

The certification system in Bangladesh, managed primarily by the Seed Certification Agency (SCA), aims to ensure that seeds meet quality standards. However, inadequate resources and insufficient enforcement capacity often undermine the system's effectiveness. Strengthening the certification framework and expanding the use of digital tools like barcoding or blockchain for tracking seed authenticity can improve the reliability of the certification process.

3.7.1 Public and Private Sector Roles

The public sector, led by institutions such as the Bangladesh Agricultural Development Corporation (BADC), is a major supplier of seeds, especially for rice and wheat. Public research institutions like the Bangladesh Rice Research Institute (BRRI) and Bangladesh Agricultural Research Institute (BARI) develop high-yielding and stress-tolerant seed varieties. However, the public sector often struggles with inefficiencies in seed production, storage, and distribution, limiting its ability to meet farmers' needs.

The private sector is increasingly important, especially for hybrid seeds and high-value crops like vegetables and maize. Private companies bring innovation, efficiency, and improved access to seeds through competitive markets. However, their role is constrained by regulatory barriers, lack of incentives.

3.7.2 Import Dependence

Bangladesh remains heavily dependent on imported seeds for certain crops, particularly hybrid varieties of maize, vegetables, and oilseeds. While imports fill critical gaps, they also pose challenges. Imported seeds are often expensive, making them inaccessible to smallholder farmers without subsidies. Additionally, weak regulation of imports sometimes allows low-quality or mislabelled seeds to enter the market.

3.7.3 'Low Hanging Fruits'

It has been observed that over 70% farmers use only older rice varieties in the Boro season, namely *Dhan* 28 and *Dhan* 29. Similarly, the Aman season is dominated by *Dhan* 49, *Dhan* 11, *Dhan* 52, and *Bina*. In other words, farmers have stuck with these older rice varieties for the last 30 years. A quick win here, would be to focus on getting farmers to move to much better yielding or better adapted seed varieties that are already available. These include BRRI *dhan* 107 (8.19 tons/ha, can go up to 9.57t/ha), *dhan* 108 for the boro season that has a potential yield of 8.7 t/ha, and is lodging tolerant and medium-fine quality), *dhan* 58 (yield rate is 7t/ha and is harvested 7-8 days earlier), IR-13F441 adapted for growing in T. Aman in flood prone areas, and *dhan* 79 that is suitable for flash flood prone areas. *Dhan* 88,96, 92 are best for Boro while IR13F44 and *dhan* 79 are best for T. Aman (Daily Star 2024; www.icar-iief.org; BRRI, 2023).

In other words, there is considerable potential here to achieve much higher yields than currently enjoyed. The technology and appropriate seed varieties exist. All that is needed is to aggressively develop awareness and facilitate adoption by DAE and related government agencies and NGOs. This appears to be a relatively low-hanging fruit that can immediately be acted upon.

3.8 Fisheries, Livestock and Poultry

3.8.1 Technology

In Bangladesh, the poultry sector is considered one of the fastest-growing segments of the agricultural economy. The introduction of vaccines, antibiotics, and improved breeding technologies has bolstered production. It is estimated that over 80% of the poultry farmers in Bangladesh are smallholders and routinely face challenges like disease outbreaks (e.g., avian influenza) and a lack of access to quality feed and health services (Hossain, M. et al, 2020).

The livestock sector is diversified, including cattle, goats, and sheep. Despite improvements in breeding methods and veterinary services, many smallholders still rely on traditional methods for animal husbandry, resulting in lower productivity. The use of artificial insemination (AI) for cattle has seen increased success, yet there are still barriers related to accessibility and affordability (Chowdhury et al., 2018).

Bangladesh is endowed with an extensive network of rivers, ponds, and coastal waters, supporting a vibrant fisheries sector. Technology utilisation varies; while there are advancements in aquaculture techniques such as semi-intensive and intensive farming, many small-scale fishermen still practice traditional fishing methods. The adoption of integrated aquaculture practices and the use of aerators to enhance fish production are emerging but have not been widely adopted (Islam et al., 2019).

In the poultry sector, Bangladesh has witnessed rapid growth, driven largely by the introduction of vaccines, antibiotics, and improved breeding technologies. Notably, over 80% of poultry farmers in the country are smallholders, who often face significant challenges such as disease outbreaks—most notably avian influenza—and a lack of access to high-quality feed and health services (Hossain et al., 2020). Within the livestock sector, which includes cattle, goats, and sheep, advancements in breeding methods and veterinary care have emerged, yet many smallholders continue to rely on traditional practices, resulting in suboptimal productivity. Although artificial insemination (AI) for cattle has gained traction, barriers related to accessibility and cost remain significant concerns (Chowdhury et al., 2018). The fisheries sector is also vital, benefiting from the abundant network of rivers, ponds, and coastal waters that support a diverse industry. While some aquaculture techniques have advanced—such as semi-intensive and intensive farming methods—many small-scale fishermen still employ traditional practices, limiting their productivity. Integrated aquaculture practices and the use of aerators to improve fish production are on the rise but have not yet been widely adopted (Islam et al., 2019).

To expand technological depth within these sectors, several approaches can be taken. First, investment in research and development (R&D) is crucial. This can involve strengthening local research institutions focused on producing high-yield, disease-resistant breeds and improving feed production and sustainable aquaculture practices. Public-private partnerships may also facilitate technology transfer and adoption. Improving access to information through farmer-centric digital platforms can provide essential guidance on best practices and real-time market and weather data, enhancing decision-making processes. Ongoing training and capacity building are fundamental to ensuring that farmers are equipped with the necessary skills to adopt modern agricultural practices effectively. Local agricultural extension officers can play a pivotal role in demonstrating these technologies in real-world settings, thereby encouraging adoption.

A strong barrier to R&D in the poultry sector is the contractual obligation on the part of corporate poultry importers preventing them from investing in genetic research. This is an onerous restriction which requires policy-based remedy.

Encouraging adoption by smallholder farmers also requires targeted measures. For instance, providing subsidies or financial assistance for high-quality inputs, vaccines, and equipment can lower the financial barriers to technology adoption. Implementing microfinance tailored specifically for smallholders can further ease access to necessary resources. Promoting collective action among farmers, such as forming cooperatives or groups, can enhance resource sharing, boost purchasing power, and facilitate marketing

advantages. Additionally, showcasing success stories of technology adoption in the community can inspire peers to embrace similar practices. By highlighting exemplary farmers and their achievements, a culture of innovation and acceptance can be nurtured.

Several smart solutions are currently available to support these initiatives. Mobile applications such as iFarmer, Farmers' Hub and DigiCow provide farmers with vital market price information, and related information, and connections to buyers, which can facilitate improved decision-making and market access. Furthermore, sensor technology can be employed in fish farming to monitor vital parameters like water quality and temperature, optimising fish growth. Blockchain technology offers opportunities for traceability in poultry and fisheries, ensuring food safety and quality assurance. The utilisation of drones for monitoring crop health, tracking livestock, and managing aquaculture is another innovative avenue being explored. While these emergent technologies appear tantalising, it needs to be understood that none of these are ready for scaling up and thus requires careful monitoring and strategic policy measures.

In conclusion, the agricultural economy of Bangladesh, particularly within the poultry, livestock, and fisheries sectors, holds considerable potential for technological advancements that can enhance productivity, efficiency, and sustainability. Concurrently, encouraging farmer adoption can be supported by financial assistance, training programmes, and leveraging community networks. The smart solutions currently available can bridge existing gaps in technology usage, ultimately leading to sustainable agricultural intensification in Bangladesh.

3.9 Enhancing Storage and Logistics

Bangladesh, with its diverse agricultural landscape, faces significant challenges in managing post-harvest losses, particularly for perishable commodities such as fruits, vegetables, and fish. Implementing strategic enhancements in cold storage facilities, agricultural logistics networks, and community-level processing centres can substantially improve food security, increase farmer income, and reduce waste within the agricultural sector.

3.9.1 Building and Upgrading Cold Storage Facilities

Establishing and upgrading cold storage facilities in strategic agricultural zones is crucial for preserving perishable products. Currently, a considerable portion of Bangladesh's fruits and vegetables spoil before reaching consumers due to inadequate storage infrastructure. By building new facilities and upgrading existing ones, we can extend the shelf life of perishable goods. Cold storage not only reduces spoilage but also allows farmers to sell their produce at higher prices during off-peak seasons, thus maximising their profits.

Regions such as the northern districts, where potato cultivation is prominent, and the southern coastal belt, which grows a variety of fruits and vegetables, are prime locations for cold storage interventions. Collaborations with private investors and governmental bodies can facilitate funding and technical expertise to establish state-of-the-art facilities equipped with the latest refrigeration technology. Additionally, training for local

personnel on the operation and maintenance of these facilities is essential to ensure their longevity and efficiency.

3.9.2 Developing Agricultural Logistics Networks

Developing efficient agricultural logistics networks is equally important for connecting rural producers directly to urban markets. Currently, the transportation system in Bangladesh is fragmented, leading to increased transportation costs and food spoilage. By creating a streamlined logistics network, we can significantly enhance the distribution of agricultural products.

This approach would involve the establishment of aggregation points where local farmers can bring their harvests for collective storage and distribution. Creating partnerships with local transportation providers and utilising digital technology for route optimisation. Such a system not only supports farmers in obtaining fair prices but also enhances access to fresh produce for urban consumers.

3.9.3 Community-Level Storage and Processing Centres

To empower smallholder farmers and reduce food waste, it is imperative to introduce community-level storage and processing centres. These centres would serve as hubs where farmers can store excess produce, process it into value-added products, and ultimately increase their income potential. For instance, fruits can be turned into jams or juices, while vegetables can be transformed into pickles or dried snacks.

Establishing these centres would involve training smallholder farmers in post-harvest handling and food processing techniques in addition to storage, enabling them to enhance their product offerings. Additionally, these can serve as educational sites, fostering knowledge sharing around best practices in crop management and sustainable agriculture. This model not only preserves local agricultural diversity but also boosts the local economy, providing jobs and creating a self-sustaining ecosystem.

3.10 Conclusion

Bangladesh's agricultural sector has made remarkable strides in recent decades, but it continues to face significant challenges that hinder its ability to fully meet the growing demands of food security, economic growth, and rural development. Key obstacles include inadequate financing mechanisms, poor risk management systems, limited adoption of advanced technology, and insufficient agricultural extension services. These challenges are exacerbated by infrastructural deficits, particularly in storage and post-harvest systems, which lead to substantial losses and inefficiencies.

Despite these hurdles, there is immense potential for transformation. Mechanisation and improved irrigation systems represent some of the low-hanging fruit (LHF) for modernisation, offering immediate and tangible benefits. However, for sustainable progress, a more comprehensive approach is required, emphasising research and development (R&D), a robust communication policy, and policy reforms.

3.10.1 Leveraging Game-Changing Technologies and Agricultural Extension

To achieve sustainable agricultural growth, Bangladesh must adopt a dual strategy combining cutting-edge technologies with robust traditional and modern extension systems. Game-changing technologies, such as precision agriculture, improved crop varieties, and smart insurance mechanisms, hold the key to addressing the complex challenges of climate change, resource constraints, and food safety. However, these technologies need to be accompanied by a strong focus on field-level communication to ensure farmers understand, accept, and adopt them effectively.

Agricultural extension services, particularly the Department of Agricultural Extension (DAE), require urgent revamping to align with contemporary needs. Integrating a professionally designed Behaviour Change Framework within extension programmes can bridge the gap between technology availability and farmer adoption. Moreover, DAE should actively promote knowledge sharing, encourage collective action among farmers, and provide targeted support for agroecological zones. A few concrete examples have been discussed in this chapter, such as the two-wheeled reaper, seed drilling machines which can be attached to the reapers, and the AFP. AWD irrigation was also highlighted. These are relatively low hanging fruits which need strong policy support.

There are some private startups that appear to have made some progress through app-based outreach, e.g., Folon app launched by iFarmer, and DigiCow – for crops and livestock respectively. If the digital divide can be narrowed, and with greater digital literacy, app-based extension can become a game changer. Some of these innovations should be carefully monitored and selectively supported.

3.10.2 Diversification and Innovation in Crop Choices

Bangladesh's over-reliance on outdated rice varieties remains a critical challenge. Many farmers continue to cultivate 30-year-old rice varieties, despite the availability of newer, high-yielding, and stress and climate tolerant-tolerant options. A policy shift towards promoting newer rice varieties and diversifying into non-rice crops is essential for enhancing productivity and resilience. Again, a major extension thrust is required to promote new-generation rice varieties already available with BRRI and BARI.

Non-rice crops, particularly those suited to specific environments such as coastal, saline, char, and drought-prone areas, offer significant opportunities for growth. Diversifying cropping patterns can not only improve incomes but also enhance soil health and optimise resource use. Public-private partnerships can play a pivotal role in providing farmers with access to improved seeds, fertilisers, and training to facilitate this transition. However, PPP has lagged behind due to complex institutional factors which will first need to be addressed.

3.10.3 Risk Management

Reducing risks requires a multi-pronged approach, including the development of disease-resistant breeds (in the case of livestock and poultry), expanding access to agricultural insurance, and creating tailored financial products for smallholders. Innovative solutions such as smart insurance technologies—like facial recognition for livestock or use of

sensors to monitor health of livestock—should be closely explored in terms of accessibility and affordability for small farm adoption.

3.10.4 Investing in Research, Storage, and Food Safety

R&D is crucial for continued progress in production, storage, and food safety. Investments in seed development, disease control, and storage technologies will enable farmers to achieve higher yields and reduce post-harvest losses. Equally important is the promotion of food safety standards to ensure the quality of agricultural produce for both domestic consumption and export markets.

Behaviour change communication must complement these efforts, raising awareness about the benefits of adopting new practices and ensuring widespread participation in government and private sector initiatives.

A critical component that is worth repeating again, is the need for access to subsidised credit and agricultural insurance in the transition to a more modern agriculture. The emergence of fintech and possible beginnings in digital banking can be leveraged to reach small farmers with loans using KYC data from the fintech companies. Small farms have traditionally found it hard to get access to finance. New technology may be able to make a breakthrough in this regard.

References:

ADB. (2022). Key development indicators Asia and Pacific. Manila, Philippines.

Ahmed, Akhter U.; Bakhtiar, M. Mehrab; and Mahzab, Moogdho M. 2024. Food security and nutrition in Bangladesh: Evidence-based strategies for advancement. IFPRI Report October 2024. Washington, DC: International Food Policy Research Institute. https://hdl.handle.net/10568/159466

Ahmed, K. U., & Miah, M. H. (2019). Investment in cold chain logistics for food safety: Opportunities and challenges in Bangladesh. Journal of Agricultural Sciences.

BARC (Bangladesh Agricultural Research Council). (2024). Bangladesh livestock research priorities. Ministry of Agriculture, Government of Bangladesh. Retrieved from https://barc.portal.gov.bd/sites/default/files/files/barc.portal.gov.bd/page/8a336169_7a16_491e_92fd_a16894a22f5a/2024-04-15-10-45-d17d

BBS. (2023). Yearbook of agricultural statistics.

BBS. (2024). Monthly statistical bulletin: September 2024. Bangladesh Bureau of Statistics, Dhaka.

Begum, I. A., Buysse, J., Alam, M. J., & Van Huylenbroeck, G. (2010). Technical, allocative, and economic efficiency of commercial poultry farms in Bangladesh. World's Poultry Science Journal, 66(3), 465–476.

Begum, M., Sultana, T., & Islam, I. B. (2019). A critical overview on women entrepreneurship through poultry farming in Bangladesh. Journal of Emerging Technologies and Innovative Research (JETIR), 6(6), 888–896.

BRRI. (2023). Bangladesh rice journal.

Chowdhury, M., et al. (2018). The effects of artificial insemination on milk production in cattle in Bangladesh: A case study. Livestock Science, 214, 76–83. https://doi.org/10.1016/j.livsci.2018.07.016

CIMMYT. (2017). Three technologies that are changing agriculture in Bangladesh. Mexico.

The Daily Star. (2024, January 9). Business page. Dhaka.

DOF. (2023). Yearbook of fisheries statistics in Bangladesh. Department of Fisheries, Ministry of Livestock and Fisheries, Government of Bangladesh.

Diao, X., Masias, I., Pauw, K., Thurlow, J., & Boughton, D. (2024). The agrifood system: Structure and contribution to development goals. Myanmar's, 19.

DLS (Department of Livestock Services). (2023). Livestock economy. Retrieved from https://dls.gov.bd

FAO (2021). "The State of Food and Agriculture", Food and Agriculture Organization, Rome, Italy

Gilligan, D. O., Karachiwalla, N., & Thai, G. (2019). An evaluation of the impact of verification in counterfeit agricultural inputs and technology adoption in Uganda: Endline report. IFPRI.

Haque, M. A., Sadekuzzaman, M., Haque, M. E., Parvin, M. K., Kamal, M. M., Hayat, S., ... & Islam, M. A. (2024). Characterization of the dominant strain (G-VII) of Newcastle disease viruses isolated from commercial chickens in Bangladesh during recent outbreaks. Journal of Advanced Veterinary and Animal Research, 11(2), 408.

Hossain, M., et al. (2020). Impact of avian influenza on poultry production: A review of key issues in Bangladesh. Journal of Animal Science and Technology, 62(1), 75–85. https://doi.org/10.5187/jast.2020.62.1.75

Husain, A. M., & Hossain, M. (2022). Bangladesh's agricultural growth and development over fifty years. In Towards a sustainable economy (pp. 171–190). Routledge.

ICAR-IIEF website. (n.d.). Retrieved from https://www.icar-iief.org

Islam, M., et al. (2019). Current status and future directions of aquaculture in Bangladesh: Challenges and opportunities. Aquaculture Research, 50(6), 1201.

Karen, A., et al. (2018). Alternate wetting and drying in Bangladesh: Water-saving farming practice and the socio-economic barriers to its adoption.

Pender, J. (2007). Agricultural technological choices for poor farmers in less-favoured areas of South and East Asia. IFPRI Discussion Paper No. 00709. Washington, DC.

PMC (https://pmc.ncbi.nlm.nih.gov/articles/PMC3540706); Ageconsearch (https://ageconsearch.umn.edu/record/200226)

Rahman, K. M., Hossain, M. J., & Rana, M. S. (2020). Livestock and poultry rearing by smallholder farmers in haor areas in Bangladesh: Impact on food security and poverty alleviation. The Bangladesh Journal of Agricultural Economics, 41(1), 73–86.

Rahman, S., Kazal, M. M. H., Begum, I. A., & Alam, M. J. (2017). Exploring the future potential of jute in Bangladesh. Agriculture, 7(12), 96.

Rahman, S., & Hasan, M. (2009). Wheat in Bangladesh: Yield growth, performance, and determinants. In Advances in Environmental Research (Chapter).

Rashid, S., & Zhang, X. (2019). The making of a blue revolution in Bangladesh: Enablers, impacts, and the path ahead for aquaculture: Synopsis. International Food Policy Research Institute (IFPRI). https://doi.org/10.2499/9780896293632

World Bank. (2021). Climate risk country profile: Bangladesh. Washington, DC.

World Bank. (2022a). Transforming Bangladesh's agriculture: The role of cold chain logistics.

World Bank. (2022b). Improving productivity in the poultry sector in Bangladesh. Stories of impact in agribusiness. Washington, DC.

World Bank Group. (2022). World development indicators. Washington, DC.

Chapter 4: Rebooting Industrial Strategy to Boost Investment, Diversification, Exports and Competitiveness[1]

4.1 Introduction

This chapter is about the manufacturing sector – its importance and potential, the factors that prevent the potential from being fully realised, and the actions that may allow the sector to make its expected contribution to Bangladesh's development.

The development of the manufacturing sector is important for at least four reasons.

- *Increasing productivity*. Manufacturing allows a country with a limited supply of skilled workers to increase the productivity of its economy by assigning unskilled workers to work with machines. Amidst skills shortages, a small number of entrepreneurs and technicians can organise production processes that employ millions of unskilled workers at productivity levels significantly higher than in agriculture or services.
- *Accelerating productivity growth*. The scope for learning by doing and achieving technological progress is greater in manufacturing. Thus, the average levels of productivity are not only higher in manufacturing but can also rise faster than in other sectors. Even workers with limited skills can see their skills and productivity increase rapidly if employed in manufacturing and given the opportunity to learn.
- *Upgrading technological knowledge through trade*. Manufactured products are more freely traded across borders than services. Developing countries can gain technological knowledge and productive skills through trade as they respond to the needs of demanding customers in the global market.
- *Exploiting scale economies*. Participation in global markets also means that industrial firms can scale up their production levels and reap scale economies. This can also happen in domestic markets, through large firms, even if to a limited extent.

These features of manufacturing place it in a particularly strong position to help address two important development priorities of Bangladesh, i.e., large-scale generation of remunerative jobs and achieving higher productivity. To play this role, the manufacturing sector will have to expand and diversify, with a larger proportion of its output exported overseas. The country will have to enter a wider range of global value chains and diversify its exports. All this will have to be achieved within a growth model that is

[1] This chapter was prepared by Syed Akhtar Mahmood, Selim Raihan and Syed Nasim Manzur.

sustainable, both socially and environmentally, and based on continual learning and technological upgrading.

Currently, the manufacturing sector of Bangladesh is operating far below its potential. Section 2 discusses the current state of the manufacturing sector and important trends. Section 3 analyses its prospects, including for diversification, while Section 4 provides an overview of the factors that prevent the manufacturing sector from realising its potential. Of particular concern is the current ability of the manufacturing sector to help Bangladesh avoid the middle-income trap.

Sections 5-9 discuss the multifaceted actions required to address these constraints and boost investment, diversification, exports and competitiveness. Three important action areas are being covered in a separate chapter (Chapter 2) and hence not discussed here. These are removing anti-export biases in policy; entering into regional trade agreements to open markets for exports; and improving trade facilitation. This chapter focuses on a) attracting FDI that will facilitate technological learning and entry into global value chains; b) streamlining the provision of serviced industrial lands through economic zones; c) boosting innovation and technology upgrading; d) facilitating skills development; and e) fostering green growth and sustainable manufacturing.

Section 10 presents a set of recommendations, and Section 11 proposes a monitoring and evaluation framework for diversification strategies. The discussion of required actions is informed by cross-country experience. Annex 1 discusses some country cases of successful export diversification and some relative failures.

4.2 The Manufacturing Sector: Structure and Trends

4.2.1 Structure of the Manufacturing Sector

The latest survey of manufacturing enterprises was carried out in 2017/18 with the report being published as the 2019 Survey of Manufacturing Industries (SMI).[2] According to this, only 6% of manufacturing enterprises are large but account for roughly two-thirds of employment.[3] The largest group, i.e., small enterprises, constitute half of all manufacturing enterprises in Bangladesh, while micro-enterprises account for another third (Figure 4.1). However, these two categories account for only 24% of manufacturing employment.

The size structure of manufacturing firms has changed in recent years. There has been a modest increase in the total number of enterprises and employment between 2012 and 2019, by 8% and 9%, respectively. This translates to an annual growth rate of just over one per cent.

Hiding behind the overall growth rates are significant differences in the growth rates by size categories (Figure 4.2). Over this period, the number of medium-scale enterprises

[2] Bangladesh Bureau of Statistics (2020). Survey of Manufacturing Industries 2019, July 2020.

[3] Large enterprises are those that employ more than 250 production workers, medium enterprises between 100 and 250, small enterprises between 25-99 and micro enterprises less than 25.

fell by 48% and employment by 53%, while that of small enterprises jumped by 49 and 41%, respectively. This is a significant structural change. Employment in large enterprises has increased by 24% despite a 22% drop in the number of such enterprises.

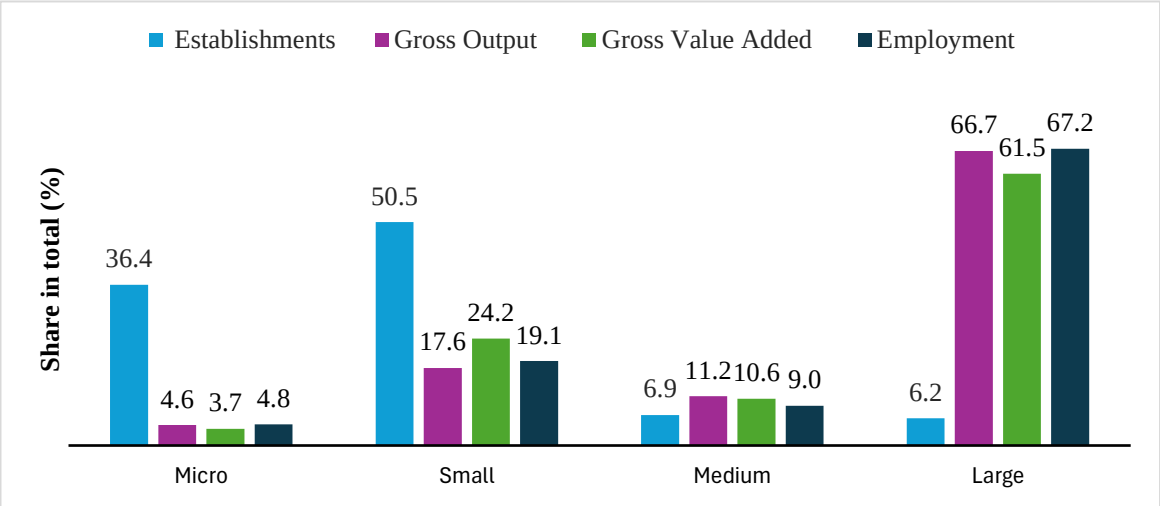

Figure 4.1: The Relative Importance of Different Size Groups in Manufacturing: 2019

Source: Bangladesh Bureau of Statistics, Survey of Manufacturing Industries 2019.

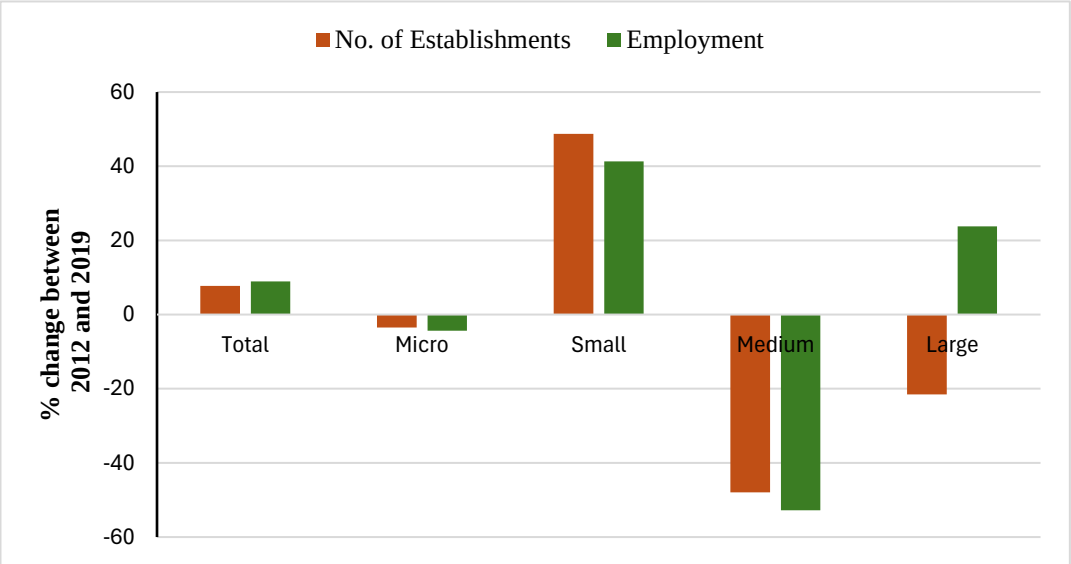

Figure 4.2*:* Change in the Relative Importance of Different Size Groups in Manufacturing: 2012-2019

Source: Bangladesh Bureau of Statistics, Survey of Manufacturing Industries 2012 and 2019.

To summarise, there appears to be a significant hollowing out of the middle.[4] There is a rise in the importance of small enterprises, a decline in medium-scale enterprises, and a consolidation of large enterprises. It is possible that some large enterprises may have closed or downsized to become medium-scale enterprises, while some may have merged with other large enterprises. Whatever the case may be, average employment per large firm has increased significantly, from 815 to 1285 over this period.

4.2.2 Employment trends and wage setting in manufacturing

4.2.2.1 The spectre of job-loss growth

Bangladesh may have entered a phase of job-less growth in manufacturing. Manufacturing employment grew by almost 13% per year between 2001/02 and 2005/06 but slowed to 7% per year during 2005/06-2010/11 and further to 1.3% in 2010/11-2017/18 (Figure 4.3). Employment per enterprise rose from 88 in 2001/02 to 107 in 2005/06. It continued to rise after that but at a slower rate to reach 118 in 2017/18. By contrast, gross value-added per employee registered significant growth throughout this period, particularly during 2010/11-2017/18, when it grew by almost 24% per year.

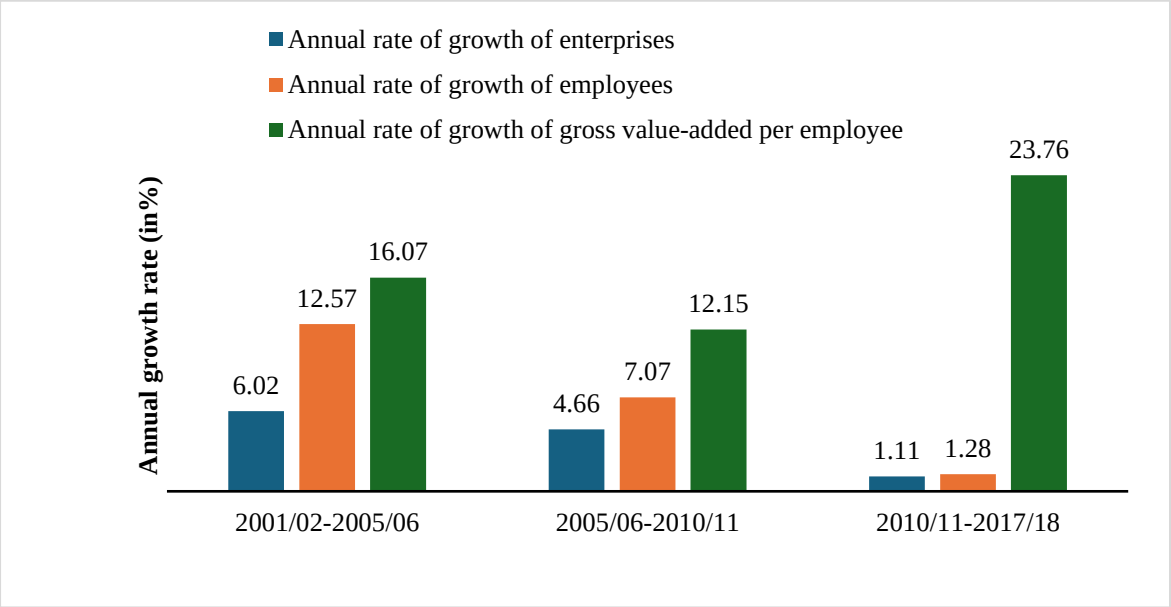

Figure 4.3: Growth in Number of Enterprises, Employment, and Value-Added: 2001-2018

Source: Bangladesh Bureau of Statistics, Survey of Manufacturing Industries 2012 and 2019.

Labour-intensity differs greatly across sectors. Based on data from the 2019 SMI, the average labour-intensity was calculated for manufacturing sectors defined at the two-digit level BSIC code. Four categories of labour-intensity are defined: high (value of 5

[4] The significant expansion in the number of small enterprises could be at least partly due to the downsizing or closure of medium-sized enterprises and partly by the entry of new small firms or expansion of micro enterprises.

and above), moderate (value of 2 to 4.99), modest (value of 1 to 1.99, and low (value lower than 1).[5]

With garments included, about 30% of the stock of machinery is allocated to sectors with high labour-intensity and another 51% to those with moderate labour-intensity. However, without garments, the figures change to 3% and 71% respectively (Figure 4.4). Beyond garments, Bangladesh is allocating only a small amount of its stock of machinery in sectors with high labour-intensity.[6]

4.2.2.2 The Challenge of Providing Decent Wages to Industrial Workers

A major challenge for the industrial sector is how to balance the need for cost competitiveness with the imperative of ensuring decent wages for industrial workers. The importance of the latter was reiterated during the consultations, which pointed out that the average wages in both RMG and non-RMG industries remain substantially below what can provide a sustainable standard of living for the workers. The persistently high rate of inflation has made the matter worse.

While a medium to long-term strategy should be to enhance worker skills and productivity so that the twin goals of providing decent wages and enhancing competitiveness is achieved, some immediate actions are required to improve living conditions for the workers. These are discussed in the section on recommendations (Section 10).

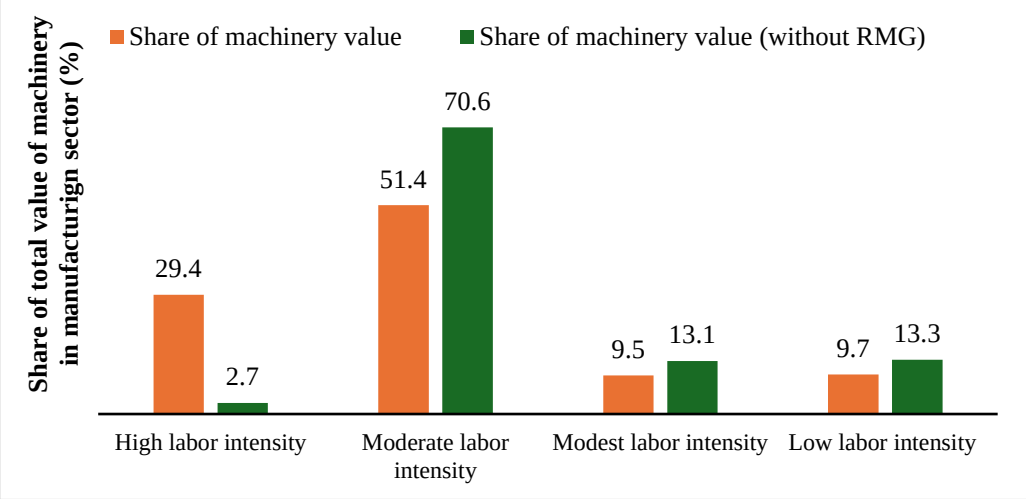

Figure 4.4: The Allocation of Capital Expenditures by Labour Intensity: 2019

Source: Bangladesh Bureau of Statistics, Survey of Manufacturing 2019.

4.2.3 Low Levels of Technology Acquisition

Bangladesh's ability to diversify its exports, improve productivity and avoid the middle-income trap will depend on the willingness and capacity of Bangladeshi firms to adopt

[5] The values refer to number of people employed per million takas of investment in machinery.

[6] These sectors include furniture, fabricated metal products (except machinery and equipment), machinery and equipment n.e.c, wood and products of wood and cork, except furniture, tobacco products and printing.

new technology and business processes. In the RMG industry, the changing nature of global demand, such as the growing importance of online sales and green production, is putting a premium on technological change. The industry will increasingly need to go for automation, robotics, ICT systems for supply chain management, and adoption of green production and circularity practices. Technology adoption is also going to be important for other sectors.

Currently, Bangladeshi firms lag in technology adoption and innovation. None of the manufacturing enterprises surveyed for the World Bank's 2022 Enterprise Survey introduced a new product, and only 1% introduced a process innovation in the previous three years (Figure 4.5). The corresponding global averages are 35% and 27%, respectively, and South Asian averages are 21% and 25%, respectively. Only 1.2% of Bangladeshi manufacturing firms spent on R&D in the previous fiscal year, and 2.6% used technology licensed from foreign companies, far behind their global and South Asian counterparts. Within this bleak scenario, there are inspiring stories of firms that have focused on R&D and technological upgrading as a critical tool for export expansion (see Box 4.1).

Box 4.1:R&D and Technological Upgrading in Pharmaceuticals

About a decade ago, a leading Bangladeshi pharmaceutical company invested heavily in R&D by hiring mentors from Australia and the UK to train local talent. After years of training, the company drastically improved it's R&D output and intellectual capacity, now employing over 200 young scientists with world-class product development capabilities. This focus on R&D led to a large basket of products for pharmaceutical export, with over 75 bioequivalent products and 35 product approvals across leading regulatory authorities. As a result, companies from the USA, EU, Australia, and the UK are paying licensing fees and engaging in collaborations to co-develop products, recognising the strength of the company's R&D capabilities. The company also invested in infrastructure development, training young people to build state-of-the-art factories and ensuring quality control under the mentorship of international experts. This emphasis on building world-class R&D, engineering, production, and quality control stemmed from the company's understanding that relying solely on lower manufacturing costs for exports was not sustainable in the competitive global pharmaceutical market.

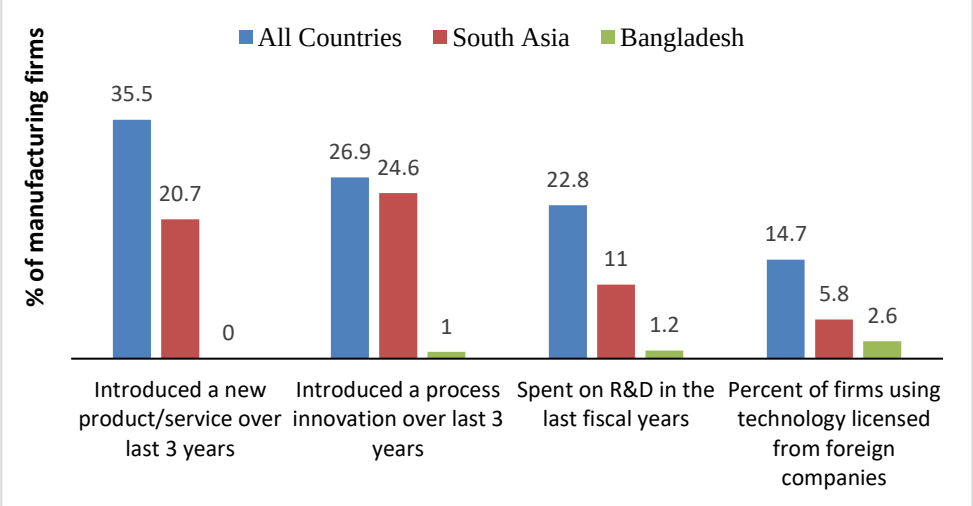

Figure 4.5: Innovation in Manufacturing Enterprises: 2022

Source: World Bank Enterprise Survey 2022.

According to the World Bank's Firm-level Adoption of Technologies (FAT) survey, Bangladeshi firms lag significantly in technology sophistication. Most firms rely on non-digital technologies, and even the best firms are distant from the global frontier.[7] The average degree of technological sophistication in the RMG industry is low compared to the frontier; the industry depends largely on non-digital technologies (Figure 4.6 - reproduced from the survey report).[8] Large firms use more advanced technologies than small and medium enterprises but still operate well below the frontier of technological sophistication.[9]

Figure 4.6: Technological Sophistication in the RMG Industry: 2023

Source: Xavier Cirera, Ma. Charmaine Crisostomo and Yuheng Ding, Bangladesh Sector Notes for CPSD, World Bank, June 11, 2024.

4.2.4 Restructuring of Industry, Resource Reallocation, and Support to Promising Firms

4.2.4.1 Restructuring of Industry and Reallocation of Resources

Reallocation of resources from low productivity activities to high productivity ones is an essential feature of a dynamic economy. This theme is captured in the evocative phrase 'creative destruction' immortalised by the Austrian economist Joseph Schumpeter. This is about destroying something to create something of greater value.

A good example of creative destruction is the 2002 closure of the Adamjee Jute Mills. The closure of the world's largest jute mill and a symbol of national pride had triggered

[7] Xavier Cirera, Ma. Charmaine Crisostomo and Yuheng Ding (2024). Bangladesh Sector Notes for CPSD, World Bank, June 11, 2024. The survey covered 1938 firms stratified across sector, region, and firm size and gathers information on technology sophistication in a set of general and sector-specific business functions for the firms.

[8] Cirera et. al (2024), *op. cit.* This is true for both general business functions such as sales and quality control, and sector-specific functions such as cutting and sewing.

[9] Technology sophistication is measured in two ways in the study, both scaled from 1 to 5: the 'extensive margin', which measures the array of technologies used by the firm, and the 'intensive margin' which measures the most frequently used technology in the business function.

concerns about deindustrialisation. However, such fears were belied by what happened next. The hallowed ground where the Adamjee Jute Mills once stood was used to set up the Adamjee Export Processing Zone (EPZ). The zone started operating in 2006 and, within seven years, employment in the EPZ crossed the number of jobs lost due to the closure of the jute mill. The factories in the EPZ are all viable and export-oriented, and do not require subsidies to survive as did Adamjee. Moreover, many of the looms of the Adamjee Jute Mills were later used to set up small jute twinning mills in North Bengal, helping the industry to shift from the traditional product mix of hessian, sacking and carpet-backing cloth towards jute twines, which appear to have better market prospects.

The concept of creative destruction has now become even more relevant for Bangladesh in an era of rapid change, triggered by technological developments occurring at breath-taking pace. It will not be business as usual. Entire industries may have to be restructured, including the venerable garments industry, which has indeed seen considerable consolidation in recent years. According to industry insiders, the number of garment factories has come down from about 4500 (seven to eight years ago) to about 2300 now. A significant part of this decline is due to the closure of subcontracting firms. Of the 2300 factories currently in operation, 1286 are direct exporters and about 1000 are subcontractors.

According to garment manufacturers, most of the closures are due to one or more of the following factors: a) stricter compliance requirements imposed by buyers; b) low efficiency, c) high financial leverage; and d) over expansion. Since total exports have increased over time, the reduction in the number of firms implies that the average size of firms (in terms of production capacity and export volumes/values) has gone up. Many existing garment firms have expanded by increasing the size of their factories and/or acquiring other factories, including some of their erstwhile subcontractors. According to the industry, this has been driven largely by a desire to exploit economies of scale and was necessary to maintain cost-effectiveness and survive. The increase in average factory size has not been accompanied by an equivalent increase in average employment per factory.

Changes such as these are sometimes painful and need to be carried out in an orderly manner. For this, the government needs to reform the bankruptcy regime. Specific recommendations are provided in Section 10.

4.2.4.2 Supporting Vanguard Firms

Certain firms in the manufacturing sector may be considered vanguard firms which are pioneering new products, entering new markets or innovating to enhance productivity. As mentioned in Chapter 2, while a few products dominate the export basket, there are hundreds of other products that are being exported by Bangladeshi firms. This suggests that Bangladesh does have a comparative advantage in many products beyond our conventional exports, and that there are some firms which have found a foothold in global markets with such niche products. This is true both within and beyond garments.

Global research suggests that while developing countries may be good at introducing new products in the global marketplace, they are less successful in ensuring survival or growth of such exports. The literature suggests a few factors that may explain the rate of export survival. These include market information and knowledge, durability of relationships with foreign buyers, and product quality.[10]

Because of these factors, the volumes remain small for most of the nascent export products. Thus, an important question for policymakers is whether anything can be done to increase the export volume of products which have shown some promise. The government may identify promising exporters who have made a breakthrough with new export products but need support to scale up their exports. Specific recommendations are provided in Section 10.

4.3 Three Pathways to Manufacturing and Export Diversification

In the early years of this century, the most important export earner after RMG was frozen food, which fetched $345 million worth of export earnings on average per year during 2000-05 (Table 4.1). This was 5.3% of all exports during that period. Next were jute products, followed by leather and shoes. For leather and shoes, the corresponding figures were $241 million and 3.6%, respectively.

Table 4.1: Long-Term Growth Trends of Major Export Products

Products	Annual average exports (million US$)		% growth in annual average exports (2018-23 vs 2000-05)	Share of total exports in 2000-05	Share of total exports in 2018-23
	2000-2005	2018-2023			
RMG (including Knitwear)	5025	36629	629	75.2	83.0
Leather and shoes	241	495	106	3.6	1.1
Engineering products	22	509	2214	0.3	1.2
Frozen food	345	478	38	5.2	1.1
Agricultural products	33	482	1352	0.5	1.1
Total primary commodities	***491***	***1598***	***226***	***7.3***	***3.6***
Total manufactured products	***6191***	***42523***	***587***	***92.7***	***96.4***
Total Exports	**6681**	**44122**	**560**	**100**	**100**

Source: Government of Bangladesh, Ministry of Finance, Bangladesh Economic Review, various issues

The picture has changed in recent years. The average annual export earnings of frozen food, leather and shoes increased modestly between 2000-05 and 2018-23, by 38 and 106%, respectively. By contrast, engineering products (dominated by bicycles, electrical products, and engineering equipment) and agricultural products (mainly dry food, tobacco, and vegetables), which had a minuscule share of total exports during 2000-2005 (Table 4.1), increased by 2214% and 1352% respectively over the same period. This growth rate is more than double that of RMG, which grew by 629% over the same period.

[10] Paul Brenton, Christian Saborowski and Erik von Uexkull (2009). "What Explains the Low Survival Rate of Developing Country Export Flows?" World Bank Policy Research Working Paper Series No 4951, Washington DC, June 2009.

However, it is from a small base and engineering products remain a very small component.

Diversification within and beyond RMG and integration of other sectors into GVCs is necessary to sustain growth of the economy. There are some efforts in this direction, but success remains limited due to structural, institutional, and policy-related challenges Three pathways of manufacturing diversification may be considered. These are not mutually exclusive. However, the relative emphasis to be placed on each from a policy perspective is a strategic choice, depending on how important that path is for the country's development and how much attention is required from the government to address the relevant constraints.

These pathways are related to manufacturing, and services linked to manufacturing. Given the right mix of policies and other support, manufacturing diversification will lead to export diversification.

- Diversification within the garment industry towards more value-added products and/or use of newer materials.
- Expanded volume and share of simple, labour-intensive non-RMG products
- Expanded volume and share of complex, skill-intensive manufactured products and manufacturing-related services.

This section illustrates the diversification possibilities using a few sectoral examples. These are meant to be illustrative, not exhaustive.

4.3.1 Diversification within the Garments Sector

There is considerable scope to further diversify Bangladesh's garment exports. Bangladeshi entrepreneurs have gained considerable expertise in the garment industry, which may be leveraged to venture into additional garment products. Hundreds of apparel products are traded in the global marketplace, and for most of these, Bangladesh’s market share is still miniscule.

A particularly promising area is the use of man-made fibres (MMF) in making garments, which is environmentally friendly as it requires less water and produces lower greenhouse gas emissions compared to cotton. It is estimated that, if necessary reforms are undertaken, greater use of MMF and diversification into non-traditional markets may help increase RMG exports by 15% annually, compared to about 10% annually in 2019–2023, taking RMG exports to US$94 billion by 2029.[11]

In general, beyond RMG, good potential for GVC integration exists in the ICT, pharmaceuticals, agro-processing and light engineering sectors. More specifically, the ICT sector witnessed recent growth with software and outsourcing services despite its small contribution to worldwide exports. Agro-processing industries, such as shrimp and jute goods, hold promise but have yet to overcome global standards and supply chain inefficiencies.

[11] World Bank (forthcoming). *Bangladesh Country Private Sector Diagnostic (draft),* Washington D.C.

4.3.2 Expanded Volume and Share of Simple, Labour-Intensive, Non-RMG Products

Light engineering and electrical goods

The light engineering industry, which employs about 1 million workers, has been boosted in recent years by rising incomes and expanded consumer demand. The size of the domestic market for these products was estimated to be US$ 12 billion in 2018.[12] The industry manufactures both export-oriented products, such as bicycles and optical lenses, and a wide range of industrial machinery and spare parts sold in the domestic market. There are a few large companies, such as Walton and Meghna, but most enterprises are very small in size and operate in an informal setting with low productivity. The industry remains an import-substituting industry and with 80% of domestic demand being met by imports, there is considerable scope for increased sales to the domestic market.

However, the industry can also contribute to the export diversification agenda. The industry's export sales are modest (about 1% of total exports), and despite some early success in exporting bicycles and simple electrical goods, the industry remains far from competitive in higher-value products or precision engineering. Nonetheless, exports have jumped from just over $20 million during 2000-2005 to half a billion dollars during 2018-23.[13] Growth opportunities exist in several segments of the industry, such as manufacturing key components for electrical goods and machinery, energy-efficient appliances, and automotive and motorcycle assembly.

4.3.3 Expanded Volume of Complex, Skill-Intensive Manufactured Products and Related Services

Pharmaceuticals

The pharmaceutical industry, which meets about 97% of domestic demand for pharmaceuticals, is one of Bangladesh's fastest-growing industries, with an annual average growth rate of 15% in recent years. The industry has benefited from reduced import duty on raw materials and tax holidays and took advantage of the TRIPS waiver to expand into the export of generic drugs. Being able to produce quality drugs at low cost, the industry has expanded exports in recent years, with 54 companies now exporting to more than 127 countries. However, it is constrained by stringent regulatory barriers in destination countries and lack of international certifications.

Besides API, there is considerable promise in biopharmaceuticals, which is globally projected to be the main source of growth for the industry in the future. A few Bangladeshi companies currently manufacture biopharmaceuticals on a small scale. To grow further in this challenging subsector with long gestation periods, the industry needs long-term finance and adequate laboratory testing facilities (such as bioequivalence

[12] Kazi Iqbal, Md. Nahid Ferdous Pabon and Tanveer Mahmood (2022). *Labour Market Study under Skills for Employment Investment Programme (SEIP), Light Engineering Sector*, Bangladesh Institute of Development Studies, August 2022.

[13] Government of Bangladesh (2024). *Bangladesh Economic Review 2024*.

testing laboratories which are currently absent in Bangladesh) to facilitate compliance with strict regulatory standards.

Semiconductor value-chain

The ongoing 4th Industrial Revolution is disrupting economies worldwide, destroying jobs but also creating many opportunities that Bangladesh can exploit. The foundation of the technologies associated with the 4th Industrial Revolution lies in semiconductors and related industries. Revenues in the global semiconductor industry are expected to rise from $630 billion in 2022 to anywhere between $1.7 trillion to $2.4 trillion in 2040.[14] Bangladesh can seek to enter the semiconductor value chain at various levels, encompassing both manufacturing and services. Participation in the semiconductor value chain will contribute to Bangladesh's overarching development objective of employment generation at scale for semi-skilled workers while also transitioning from a cheap labour-based development strategy to a skill-based one.

A large part of the semiconductor value chain involves advanced, capital-intensive manufacturing that is beyond Bangladesh's capacity, now or in the near-term. However, there are also lower-end, more labour-intensive components where capital requirements are more modest, and lower labour costs are an advantage. Jump-starting such basic, lower-end, manufacturing is a quick way to position Bangladesh in supply chains that feed this large industry. It can employ thousands of workers who need training but not at the sophisticated level required by advanced manufacturing. Another entry point for Bangladesh is in services for manufacturing, such as chip design. This is a sophisticated area that requires an educated workforce and hence large investments in educational institutions, and R&D. Such investment will pay rich dividends since this is an area with great promise. A small number of firms are already operating in this area, employing more than 500 chip designers. In 2023, export earnings from this activity were around $8 million.[15]

A multi-pronged approach is required, involving long-term, medium-term, and short-term actions. These include policy, legal and regulatory reforms, public investment programmes, and direct support to the private sector, universities, and research institutes. Basic, lower-end, manufacturing for the semiconductor industry is a very competitive area and will need proactive effort from the Government and local industry to learn what is needed and develop a plan to get there. Specific project ideas are provided in the Recommendations section.

4.4 Constraints to Economic and Export Diversification: An Overview

This section provides an overview of some of the constraints faced by Bangladeshi firms as they try to diversify production and exports. Some of these are discussed in greater

[14] McKinsey Global Institute (2024). *The Next Big Arenas of Competition*, Chapter 6, October 2024.

[15] Mahfuz Ullah Babu (2024). "Bangladesh eyes $1 billion semiconductor exports by 2030", *The Business Standard*, November 12, 2024. https://www.tbsnews.net/tech/bangladesh-eyes-1-billion-semiconductor-exports-2030-991531?

detail in the subsequent sections while others are addressed elsewhere in the report, such as in Chapter 14 (on economic governance). Some constraints, such as anti-export bias in policies and irrational tariff structures, are not discussed here since these have been addressed in Chapter 2.

4.4.1 Regulatory Regime

Consultations carried out for this report have brought out a wide range of regulatory issues that increase the cost of doing business and discourage investment, including in ventures that may help Bangladeshi firms move up the technological ladder. An example of this is the pharmaceutical industry, where some cutting-edge firms, who are trying to forge R&D partnerships with foreign companies, including through the purchase of equity stakes in such companies, are constrained by short-sighted regulators. For example, the Bangladesh Bank, concerned about moderate foreign exchange outflows now ($10-20 million), is conservative about allocating foreign exchange for such R&D related outward investment and overlooking the potential for much larger foreign exchange earnings in the future.

4.4.2 Technology, R&D, and support ecosystem

Most of the enterprises in the light engineering sector, including SMEs, have obsolete machinery and lack the means to upgrade their technology. Poor availability of good quality components constrains original equipment manufacturers. The lack of a good ecosystem deprives enterprises of access to common technical facilities, such as metal heat treatment facilities and testing labs.

While the innovation ecosystem is weak for all industries, this is a big handicap for the pharmaceutical industry as it seeks to enter the global market on a big scale. Industry-academia links are weak, academics rarely do practical research that could be useful to industry, and the two parties don't speak with a common vocabulary.

Bangladesh also needs to invest in R&D for the semiconductor industry and create an eco-system that drives it forward. The R&D investment programme should be underpinned by systems to measure progress. A commonly used metric is the annual value of R&D investments aggregated across all sectors. Bangladesh should aim for a level of 1 to 2% of GDP.

4.4.3 Energy and Infrastructure

Insufficient infrastructure, like low port capacity and higher transport costs, are a major hindrance to export competitiveness, particularly for less established, or new, exports. The infrastructural deficiencies span a wide range, including energy, port services, road and railway networks, and airfreight and airport storage services.

Unreliable power supply is a particularly serious problem for the light engineering industry where many manufacturing processes require an uninterrupted power supply. Frequent power cuts, especially during the summer, lead to high wastage rates and raise energy costs. A recently completed API park for the pharmaceutical industry lacks a functional common effluent treatment plant (ETP), and commercial production has been

delayed because it is yet to be connected to the national grid. Moreover, two of the three companies that are ready to start commercial operations at the park, are still waiting for regulatory approval from the Drug Administration.

4.4.4 Skills

The shortage of a skilled workforce and poor technological capabilities hinder the development of skill-intensive sectors like ICT and pharmaceuticals. The light engineering sector is constrained by the lack of skilled labour, a problem made worse by the migration of skilled people. Most enterprises in the sector are micro or small, employing unskilled workers who do not receive much on-the-job training.

Bangladesh lacks an adequate workforce to succeed in the knowledge-based economy of the future. Skills shortage will constrain efforts to enter the semi-conductor value chain. Investors, especially foreign investors, will look for a workforce with the required skills and aptitudes. Bangladesh must build an educational and business eco-system that would supply and absorb the trained workforce.

The skills development programmes under initiatives like the Skills for Employment Investment Programme are aimed at building a workforce capable of supporting emerging industries. The establishment of IT parks and innovation hubs, such as those led by the Bangladesh Hi-Tech Park Authority, is a means to foster entrepreneurship and technological innovation. The experience with the skills development programmes has been mixed and progress with hi-tech parks has been at a glacial pace (see sections below for details).

4.4.5 Standards

The lack of robust domestic standards in the local market means that many firms either lack the incentive to improve quality through innovation or must incur substantial costs to be compliant with international standards. The product testing and certification infrastructure is inadequate and the standard enforcing bodies lack capacity. Consequently, local manufacturers tend to make products that fail to meet export market standards. The establishment of internationally accredited certification bodies and compliance with global standards is critical for expanding exports, especially in pharmaceuticals and agro processing.

To summarise, the integration of Bangladesh into GVCs beyond RMG has remained constrained due to structural inefficiencies, inadequate investment in technology and skills, and policy gaps. The potential of the non-RMG sectors needs to be realised through a broad approach comprising policy reforms, infrastructure investment, regulatory reforms, enhancement of skills, and international partnerships. Infrastructure development needs to focus on export connectivity, especially regarding ports and SEZs, while competitiveness in agro-processing and light engineering can be achieved through improvements in the supply chains. Sector-specific FDI incentives and partnerships with MNCs will provide technology and know-how for high-tech industries. Additionally, regional trade initiatives, such as BIMSTEC and BBIN, should be leveraged to integrate

into regional value chains, while bilateral trade negotiations with major economies can diversify the export base. The following sections discuss these issues in greater detail.

4.5 FDI in Manufacturing

4.5.1 Why FDI - the Importance of FDI for Export Diversification

As discussed in Chapter 2, in addition to being a source of capital, foreign direct investment (FDI) also provides market access, helps technological upgrading by bringing new technology, and enhances efficiency by introducing productivity-enhancing measures and sophisticated business practices. Often, the benefits of these spill over from the invested firms to other businesses. FDI thus helps diversify and upgrade manufacturing and exports through various channels.

4.5.2 Trends and Composition of FDI

FDI inflows had remained quite modest, averaging about $600 million annually, between 1996 and 2011. In more recent years, FDI flows have mostly ranged between US$2.0 billion and $3.5 billion. A large part of this increase is due to reinvested earnings and intra-company loans, which represent investments by foreign investors already in the country. These were only 30% of net FDI inflows in 2007/08 but rose to 73% during July-December 2023. Thus, the recent increase in FDI flows reflects more the attraction of a growing domestic market rather than the success of the government's efforts to attract new investors.

It does suggest though that investors already in the country have succeeded in navigating the challenging investment climate and are making sufficient profits that motivate them to invest more. However, two words of caution. Part of the reinvestment could be due to difficulties in repatriating profits. It is also possible that some existing investors had planned to reinvest even more but were discouraged by adverse policy or regulatory actions by the government. These possibilities point to the need for: a) an investor tracking system which tracks if potential foreign investors have progressed with their investment plans and, if not, why not; and b) an investor grievance mechanism which helps address problems faced by existing investors.

The sectoral composition of FDI flows or stock in a country reflects the interplay of the foreign investors' business strategies, and economic characteristics and developments in the recipient country. A distinction may be made between three motivations that underpin FDI: a) 'Market-seeking' FDI where the investor's main interest is in selling in Bangladesh's domestic market; b) 'Natural-resource' seeking FDI, where the foreign investor has its eyes on natural resources located in Bangladesh, such as natural gas; and c) 'Efficiency-seeking' FDI where the investors main interest is the export market and who have decided that it will be cost-efficient to produce in Bangladesh and sell the products abroad. These factors drive foreign investor interest in a country and may not necessarily match the country's priorities. Where the two sets of interest diverge, some policy intervention is required to create a match.

In Bangladesh, much foreign investor interest was initially focused on exploiting natural resources and providing traditional services such as banking. As the domestic economy expanded, market-seeking FDI flows into infrastructure, such as power generation and telecommunication, became important. While these types of FDI are useful, export diversification would require a significant amount of efficiency-seeking FDI. Currently, Bangladesh does not do well on this front. The stock of 'efficiency-seeking' FDI was only 23% at the end of June 2022, down from 27.5% at the end of June 2012 (Figure 4.7). An important policy imperative is to reverse this trend and substantially increase the flow of FDI that can help expand, and diversify, Bangladesh's exports.

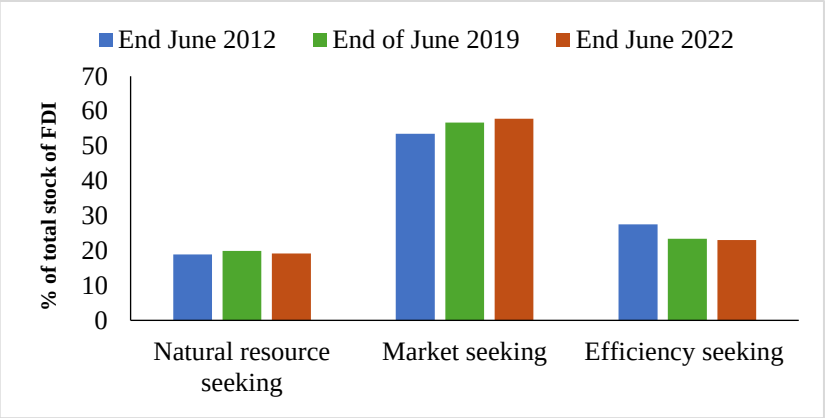

Figure 4.7: The Composition of FDI in Bangladesh

Source: Bangladesh Bank.

4.6 An Assessment of the Economic Zones (EZ)

4.6.1 The Objectives of the Economic Zones Programme

The government's ambitious economic zones programme seeks to address a major constraint faced by both domestic and foreign investors, i.e., the scarcity of serviced industrial land. The origins of this programme can be traced to the early years of the new century. In a 2007 World Bank survey of businesses, almost 50% of the respondents identified land as a major or severe constraint, up from 30% in a similar survey done in 2002. Land scarcity was compounded by weaknesses in land recording and titling, and land ownership disputes were ubiquitous. In the absence of a good zoning policy, entrepreneurs had set up factories indiscriminately, and inadequate planning for industrial growth had led to inefficient use of scarce land.

In response, the government announced an economic zones programme in 2008, which sought to develop several zones in the public sector and provided for varying degrees of private sector participation. An Economic Zones Ordinance was passed in 2008 and ratified through an Act in 2010. A dedicated body, the Bangladesh Economic Zones Authority (BEZA), was established to develop public zones and regulate private zones. The Bangladesh High-Tech Park Authority (BHTPA) was established the same year to oversee economic zones dedicated to the IT industry. In 2014, the government issued the

Private Economic Zone Policy to clarify the rules of the game for private economic zones.

4.6.2 The Implementation of the Economic Zones Programme

Eleven private zones, five government zones, and one government-to-government zone (the Japanese Economic Zone) are currently operational. According to data provided by BEZA, 122 investment projects are currently being implemented in the economic zones, with a total land allocation of 1950 acres, i.e., an average of 16 acres per project. This land allocation may be compared with the total land allocated in the eight EPZs of the country, which is roughly 2300 acres. In other words, the amount of serviced land made available to investors through zones has already seen a significant jump (almost doubled) with the advent of the economic zones. It is thus useful to assess what the country is getting, in terms of investment and employment generated, from this very substantial land allocation.

Of the 122 projects, 47 have already commenced operations, while the rest are in various stages of construction. The total projected cost of these projects is $8.89 billion, i.e., an average cost of US$ 72 million per project. Total investment to date is $5.06 billion, which is 57% of the total cost projected. So far, 43,286 jobs have been created in the economic zones, which is 43% of the projected employment (100,183) in these projects. Four out of five jobs have gone to men.

Of this $5 billion investment, only $197 million is FDI. This is a meagre 3.9% of the total investment so far. Moreover, only about 10% of the investment in the zones, and a similar share of land allocated so far, is in investments that are export oriented. Thus, so far, most of the investment in the economic zones has come from local investors targeting the local market. The potential of the economic zones to attract FDI that can help expand and diversify exports and expand Bangladesh's foothold in global value chains remains unfulfilled.

4.6.3 Hi-tech parks

In April 2017, the government initiated an ambitious project to establish 12 IT/hi-tech parks in 12 districts by June 2020 at a cost of about Tk 1,800 crore. Implementation has been considerably delayed. Only 12.6% of the budget had been spent as of February 2024. The project implementation deadline has been extended twice, and it appears that the project is seeking another three years for implementation (till 2027) with a cost increase to Tk. 2000 crore. According to the Hi-Tech Park Authority, the main reasons for the slow implementation are: a) much longer than expected time taken for land acquisition; b) insufficient allocations from the government to pay customs duty and VAT in fiscal 2018-19; c) a year and a half halt in project implementation in 2019-21 due to the Covid-19 pandemic; d) no progress in the first four years due to retendering and frequent turnover in the Project Director position.

4.7 Innovation and Technology Development

4.7.1 Exploring how Innovation and R&D can Drive Diversification

Innovation and R&D are very critical to economic diversification, productivity growth, and value addition. Bangladesh can tap these drivers for competitive advantages, value chain upgrades, and new products in ICT, pharmaceuticals, agro-processing, and light engineering. A conducive environment for R&D will help attract foreign investment and position Bangladesh as a knowledge economy.

The importance of R&D investments for industrial competitiveness is exemplified by the pharmaceutical industry. The transition from generic medicines to complex products such as biosimilars and vaccines in pharmaceuticals needs heavy R&D, including international collaborations. Equally, R&D in agro-processing can bring productivity gains and higher value-addition to encourage more exports of high-value agro-products. The ICT sector has enormous potential for export diversification via R&D in software, AI, and fintech. R&D in light engineering and electronics manufacturing can lead to precision engineering and innovative designs, which would provide entry into high-value markets. Investment in R&D is essential to make a breakthrough in the semiconductor value-chain, another promising area for Bangladesh.

Collaboration between academia, government, and the private sector is essential to fostering innovation. Policies such as tax breaks, grants, and strengthened IP laws can incentivise R&D. Establishing world-class labs, innovation hubs, and accessible venture capital will create a robust innovation ecosystem. Bangladesh's low R&D expenditure (<0.5% of GDP), lack of skilled human capital, and inadequate infrastructure hinder innovation. Investments in technical education, international collaborations, and state-of-the-art facilities are critical to overcoming these challenges.

4.7.2 Challenges and Opportunities in Adopting Advanced Technologies in Manufacturing

Advanced technologies, mostly named Industry 4.0, may bring change in manufacturing through automation, AI, IoT, and 3D printing for greater efficiency and diversification opportunities. Advanced technologies can help bring down production costs and improve quality, mainly in RMG[16], pharmaceuticals, and electronics. Sustainable practices of using energy-efficient machinery enhance access to the global market, while high-precision manufacturing will open up diverse export opportunities.[17]

High costs of advanced technologies, limited skilled labour, poor ICT infrastructure, and resistance to change pose significant hurdles. A lack of a coordinated national strategy for Industry 4.0 and weak IP protection further discourage adoption. Bangladesh needs supportive policies, financial incentives, and investment in human capital. Infrastructure

[16] Light Castle Partners (2023). "4IR in the Apparel Industry: Is Bangladesh Ready for the Advancement of Automation?". https://lightcastlepartners.com/insights/2023/07/4ir-in-the-apparel-industry/

[17] Light Castle Partners (2024). "Navigating Change: Aligning Bangladesh's Apparel Manufacturing with Global Sustainability Trends". https://lightcastlepartners.com/insights/2024/02/aligning-bangladesh-apparel-with-global-sustainability-trends/

improvements, innovation hubs, and public-private partnerships are essential to overcoming barriers. Enhanced IP laws and collaboration with global technology providers will facilitate modernisation and integration into global value chains. Some specific recommendations are provided in Section 10.

4.8 Addressing Skills Development in Non-RMG Sectors, Linking Education to Industry Needs

One of the major priorities of Bangladesh in economic diversification is skills in emerging industries. The RMG sector still relies largely on unskilled labour, while the non-RMG sectors that have been identified as having promise—pharmaceuticals, ICT, agro-processing, and light engineering—require more technical, problem-solving, and industry-specific knowledge. Linking education and training with industry needs will ensure a sustainable flow of skilled workers for such growth sectors.

4.8.1 Industry-Specific Skills and Challenges

Non-RMG sectors face a significant shortage of skilled manpower, which hampers their growth and competitiveness. Pharmaceuticals require expertise in advanced manufacturing and regulatory compliance, while ICT demands proficiency in software development, AI, and data analytics. Agro-processing needs skills in food technology and supply chain management, which differ markedly from the low-skilled requirements of RMG. Challenges include:

- An education system focused on theoretical knowledge with limited practical training.[18]
- Underdeveloped technical and vocational education and training (TVET), with low enrolment and outdated programmes.[19]
- Poor cooperation between academia and industry, as manifested in the continued mismatch between the competence acquired by the graduates and that which is required by industry.[20]

4.8.2 Linking Education to Industry Needs

The above-mentioned problems require a multi-pronged approach to solve them.

- Collaboration: Establish industry-specific skills councils, with representation from industry, academia, and government, to align curricula with labour market demand.
- Strengthening TVET: Provide TVET institutions with modern infrastructure, professional trainers, and collaboration with industries. Apprenticeships,

[18] Hassan, M. Shahidul (2023). "Our outdated, inefficient higher education institutions", Daily Star, December 19, 2023. https://www.thedailystar.net/opinion/views/news/our-outdated-inefficient-higher-education-institutions-3497526

[19] Asian Development Bank (undated). "Improving the Labor Market through Skills Development in Bangladesh": https://www.adb.org/sites/default/files/publication/28594/ban-skills-development.pdf

[20] Haque, Ashraful (2022). "Bridging the industry-academia gap through collaboration": The Business Standard, December 3, 2022. https://www.tbsnews.net/features/panorama/bridging-industry-academia-gap-through-collaboration-544090

internships, and public awareness campaigns will increase TVET attractiveness as a career choice.
- Technology Integration: E-learning platforms, simulation tools, and coding boot camps can be used to provide industry-relevant training at lower costs.
- Lifelong Learning: Upskilling and reskilling through certification, short courses, and industry workshops to make the workforce agile and responsive to the changing market demand.

This will have to be taken further with the Skills for Employment Investment Programme by scaling up the initiatives of the government and private sector in training infrastructure and developing customised programmes in high-growth industries. Industry partnerships would increase the prospect of practical training and the possibility of acquiring mentors while ensuring a skilled workforce, relevant for a diversified economic future for Bangladesh.

4.9 Green Growth and Sustainability in Diversification

4.9.1 Sustainable Manufacturing and Green Practices

Sustainability is increasingly pivotal for Bangladesh, particularly in flagship sectors like RMG. Internal drivers such as efficiency, cost reduction, and regulatory measures, alongside international buyer pressures, are advancing the shift toward sustainable manufacturing. Key strategies include:

- Clean technologies and energy efficiency: Adopting waterless dyeing[21], closed-loop water systems, and solar energy can significantly reduce costs and environmental impacts. Government incentives like tax breaks can accelerate these transitions.
- Resource efficiency and circular economy: Initiatives like recycling textiles, biodegradable fabrics, and sustainable packaging can improve resource use and reduce waste in RMG and agro-processing sectors.[22]
- Social sustainability: Enhancing labour standards, ensuring fair wages, and empowering women are critical to achieving social sustainability. Certifications and social audits can boost the image of Bangladeshi goods globally.
- Government policies and private sector role: Policy support through green financing, eco-friendly subsidies, and compliance regimes, alongside private sector efforts in meeting global standards, can foster a sustainable industrial landscape.[23]

[21] Textile Today (2024). "Groundbreaking development on solvent-based waterless dyeing": Textile Today, January 2, 2024. https://www.textiletoday.com.bd/groundbreaking-development-on-solvent-based-waterless-dyeing.
[22] Light Castle Partners (2024). "Transforming Waste to Wealth: Strategic Insights for Bangladesh's Circular Economy": https://lightcastlepartners.com/insights/2024/06/strategic-insights-for-bangladeshs-circular-economy/

[23]Global CRI (undated). "Sustainability reporting and integration of SDGs- the Bangladesh status": Global CRI. https://www.globalreporting.org/media/0g3ivp35/final-status-of-sustainability-reporting-in-bangladesh.pdf

4.9.2 Green Investment Opportunities in Emerging Industries

Bangladesh contains a large number of green investment opportunities that would help diversify its industry base and be environmentally sustainable. Prominent areas are:

- Renewable energy manufacturing: Solar-powered factories, and local production of renewable energy components like panels and batteries can help reduce costs and carbon dependency.
- Green technologies and waste recycling: Energy-efficient equipment and recycling businesses, by-products of plastics, textiles, and electronics are aligned with circular economy principles, reducing waste and creating revenue.
- Eco-friendly inputs: Investment in sustainable packaging, green construction materials, and low-carbon textiles should respond to growing global demands for eco-conscious products.[24-25]
- Green automotive industry: Manufacturing electric vehicles, batteries, and components is a future-oriented opportunity encouraged by incentives from governments.[26]

4.9.3 Diversification Strategies to Reduce Climate Vulnerabilities

Climate change exposes the Bangladeshi economy to considerable risks—especially in agriculture and RMG. Diversification can reduce these vulnerabilities of the economy.

- Less dependence on climate-prone sectors: Diversification into electronics, pharmaceuticals, and biotechnology will reduce the share of RMG in the economy by spreading risk across industries.
- Promoting climate-resilient manufacturing: Solar power-based factories and water-efficient systems bring resilience to climate disruption while reducing carbon footprints.
- Expanding into low-carbon industries: Developing sectors like electric vehicles and renewable energy technologies puts Bangladesh in the playing field of sustainable global markets.
- Resilient infrastructure: Cyclone-resistant and flood-resistant factories, transportation systems, and natural barriers like mangroves can help to protect from floods and cyclones.
- Jobs in resilient sectors: Diversification will also create jobs in climate-resilient industries and open up livelihood opportunities for climate-affected people, thus fostering inclusive growth.

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[24] European Commission (undated). "Building greener - sustainable building in Bangladesh": European Commission https://international-partnerships.ec.europa.eu/news-and-events/stories/building-greener-sustainable-building-bangladesh_en

[25] Textile Focus (2024). "Bangladesh is reshaping the sustainability with world's best Green Factory": Textile Focus, February 5, 2024. https://textilefocus.com/bangladesh-is-reshaping-the-sustainability-with-worlds-best-green-factory/

[26] BBF Digital (2024). "Bangladesh's Bold Leap Towards an Electric Vehicle Future". BBF Digital, August 15, 2024. https://bbf.digital/bangladeshs-bold-leap-towards-an-electric-vehicle-future

4.10 Recommended Actions and Projects

This chapter has analysed the current state of Bangladesh's manufacturing sector and its potential role in addressing the high-level development challenges of the country. This analysis of the current state of Bangladesh's manufacturing sector and its potential role in addressing the high-level development challenges provides some pointers for an industrial development strategy for the country. Such a strategy should be developed urgently through a collaborative approach involving the government, the private sector and other players. Meanwhile, there are a number of areas where actions can be taken immediately. This section provides a few examples of such actions.

4.10.1 Ensuring a Decent Wage Structure in the Industrial Sector

Bangladesh will continue to compete on the basis of inexpensive labour while it makes the transition to an economy that competes based on knowledge and skilled labour. However, even in the short run, the wage level and structure should be improved such that workers and their families can lead a sustainable standard of living. A Tri-patriate committee can be formed to negotiate the wages. Even if wages cannot be brought to the desired level immediately, non-wage incentives could help address worker needs in the interim. Programmes such as Accord and Alliance have already shown that improved conditions lead to better worker satisfaction. Also, CSR funds may be utilised as a welfare mechanism for workers.

4.10.2 Reforming the Tax Regime and Making Tax Administration More Business-Friendly

4.10.2.1 High-Level Dialogue for Systemic Tax Reforms

Given the ubiquitous and persistent complaints about the tax regime and tax administration, there is a need for serious, structured and results-oriented dialogue between the private sector and the highest levels of government on reforming the tax regime and making the tax administration more business-friendly. It is suggested that a Tax Reform Consultative Council be formed headed by the Advisor, Finance with high-level representation from key ministries and agencies in government, including the NBR, Bangladesh Bank and BIDA, and inclusive representation from the private sector.

The Council should address the fundamental conflicts between the way the NBR pursues its domestic resource mobilisation mandate and other important development agendas of the government, such as investment and employment generation, FDI attraction, productivity improvement and SME development. It should set up mechanisms to ensure that there is adequate coordination within government to minimise, if not eliminate, such contradictions. This may involve specific reforms (such as the ones mentioned below) as well as more structural ones. The Council may formulate its recommendations within a three-month period and then continue to operate as a monitoring body.

4.10.2.2 Some Specific Reform Suggestions

The formation of a Council, as suggested above, will help generate specific reforms and serve as a platform for the stakeholders to reiterate many suggestions articulated during the consultations for this report. Here, only a few recommendations are listed as candidates for quick-win action.

- Separate the tax policy function from the tax administration function.
- Rationalise the application of HS-codes to reduce arbitrariness, uncertainty and harassment of businesses. If the raw material is imported on the HS code specified in the import permit issued by CBC, it needs to be released without making any delay. Even if the goods are imported under wrong HS code, it needs to be redeemed and disposed off, which should be audited later.
- Reduce number of documents for obtaining Bond License from 31 at present to no more than a dozen.
- A Central Bonded Warehouse may be established to facilitate raw material procurement for the leather industry and significantly reduce lead times (this is provided for in the Export Policy 2024-27).
- Expand the Authorised Economic Operator (AEO) scheme for expedited delivery of imported containers. Currently, only a select few companies have been covered by this scheme although many more have applied.

4.10.3 Supporting Promising Exporters

The government may identify promising exporters who have made a breakthrough with new export products but need support to scale up their exports. Some of the problems identified above can be addressed through policy, regulatory or other systemic changes (such as setting up standards and quality certification systems), which are indirect ways of supporting firms. However, firms often need more direct support, which is justified by the presence of market failures and externalities. For example, potential exporters may be helped to acquire better knowledge of export markets for specific products, including through peers who are already exporting to that market, or through their own exports of that product in a different market. Mechanisms that allow prospective foreign buyers to easily acquire information about potential exporters from Bangladesh can also help.

Experience with such direct support programmes has been mixed.[27] This has now prompted experimental approaches that seek to identify effective means of providing direct support to firms. Several such projects have shown positive results.[28] Their experience provides lessons on how these projects may be designed such that they are effective, and the resources expended do produce results. It is important to carefully select the recipients of support. For example, in a project in Nigeria, a business plan competition was used to identify high-potential enterprises who then received the grants. Making at least part of the support contingent on showing some results is also a good idea. For example, any grants given may be disbursed in tranches subject to achievement of results, such as increased exports.

[27] Geeta Batra and Syed Akhtar Mahmood (2003), Direct Support to Private Firms: Evidence on Effectiveness, World Bank Policy Research Working Paper Series No 3170, Washington DC, November 2003.

[28] David McKenzie (2023), Is There Still A Role for Direct Government Support to Firms in Developing Countries? World Bank Policy Research Working Paper Series No. 10628, Washington DC, December 2023.

4.10.4 Reforming the Bankruptcy Regime

Bangladesh's current Bankruptcy Act was enacted in 1997. It has become outdated and does not provide a conducive framework for bankruptcy.[29] The system is poorly integrated with the broader legal and commercial systems of the country. The presence of bankruptcy provisions in several laws makes application of these challenging. The criteria for commencing bankruptcy proceedings are archaic and not based on modern concepts. The complex procedures for the filing and adjudication of a bankruptcy petition makes the process prolonged and not amenable to prompt resolution.

As a result, it is difficult to restructure businesses to restore their viability or, in the case of non-viable businesses, liquidate the assets in a prompt and orderly manner. Good faith borrowers who have fallen into difficult times are penalised, and SME debtors often find the cost and formality associated with the system prohibitive. Many potentially productive resources (land, capital or machinery) are thus locked in non-functioning or poorly performing businesses and are not put to better use. Many potentially viable businesses are falling into insolvency. Such problems in the enterprise sector spill over into the financial sector – part of the huge problem of non-performing loans in the financial sector could be attributed to the inefficient bankruptcy regime.

It is recommended that a new bankruptcy and restructuring regime be introduced through enactment of a new Bankruptcy Act. The regime should be informed by global good practices, and be comprehensive, well integrated with broader legal and commercial systems of the country, and accessible to all types of enterprises. In parallel, the relevant institutions tasked to implement the new bankruptcy regime should be substantially strengthened (e.g. the bankruptcy courts) or created if they are not currently in place (i.e. a professional cohort of insolvency administrators to manage bankruptcy and restructuring cases upon court appointment). The new regime should incorporate special procedures for small and micro enterprises. The newly formed Working Group led by the Financial Institutions Division and including the Bangladesh Bank should work with other relevant stakeholders such as BIDA, and prioritize the bankruptcy and debt resolution reforms, which are time-consuming but should be accelerated.

4.10.5 Stimulating Growth of Tech-Based Goods and Services Exports

4.10.5.1 Investment in R&D and Related Eco-System:

A set of policy and institutional-level initiatives are needed to drive targeted goals in R&D for tech-based goods and services. Bangladesh may establish institutions/programmes to support R&D through the award of grants to universities, research institutes and private companies. Notable examples from the US include the Defence Advanced Research Projects Agency (DARPA), the National Science Foundation (NSF), and the National Institutes of Health (NIH) which drive research in

[29] It may be noted that India introduced a new, and more consolidated, Insolvency and Bankruptcy Code in 2016, Vietnam introduced a modern streamlined process for restructuring and liquidation by passing a new Bankruptcy Law in 2014 and Egypt enacted a new Bankruptcy and Restructuring Law in 2018. The reforms in India, which also included other measures, have led to more effective debt recovery and helped enhance the asset quality of banks.

the US and have been credited with major progress and developments that have put the US economy in a competitive position. The proposed institutions in Bangladesh would provide annual grants that have to be earned. Bangladesh can target the kind of R&D it wishes to prioritise, with the priorities evolving over time.

Exciting opportunities are emerging that may be explored. For example, in the world of garments, technology is evolving where clothing, such as shirts, can have embedded electronics that can be designed to monitor biometrics for therapeutics. Bangladesh may also develop targeted research in pharmaceuticals. More generally, AI-related developments may be leveraged to do something impactful for Bangladesh. These efforts would create an environment where faculty and students get exposed to ideas that matter and students emerge to join a workforce where they can readily be employed: indeed, some of these research projects can be jointly done with Industry.

Additionally, some key institutes need to be established to drive focused efforts in areas with high impact in the 4th Industrial Revolution, such as semiconductors and computing, bio-related science, and AI.

- Targeted institutions such as Korea Advanced Institute of Science and Technology (KAIST) in Korea come to mind. These institutes can be chartered to work with Industry and Academia to achieve progress in sectors of interest. This would address areas such as matters related to semiconductors.
- Other institutes like NIH can be set up to drive efforts in biological science areas where things like biomolecular work and DNA/RNA related work are carried out. All these efforts in both institutes will also have strong AI efforts embedded as well.
- In addition to institutions, a bureaucracy will need to be empowered to manage and drive this effort forward. In addition to government investments, the private sector will need to be encouraged and government officials with appropriate policy initiatives will need to play a continuing role. Incentives may be provided to the private sector (such as R&D tax credits in the US).

4.10.5.2 Stimulating Research and Development to Help Expand Exports of Pharmaceutical Products

As discussed in Section 4, promising beginnings have been made in the pharmaceutical industry to develop R&D capabilities with the objective of expanding exports to regulated markets. However, there are bottlenecks to be addressed. To significantly enhance the Bangladesh pharmaceutical industry's global market share and foster its growth and competitiveness on the international stage, several strategic measures can be implemented:

- *Incentivising Research and Development*: A crucial step is incentivising substantial Research and Development (R&D) investment within the pharmaceutical sector. This can be achieved by implementing a system of rebates or tax credits specifically targeted towards R&D activities. This approach, mirroring successful models like Australia's R&D Tax Incentive, would encourage pharmaceutical companies to engage in research and development and ultimately boost the industry's global competitiveness. The provision of such incentives may be linked to achieving performance targets such as filing for regulatory approvals in export markets.

- *Streamlining export procedures*: Another key measure is to remove or significantly reduce duties and tariffs on pharmaceutical imports that are intended solely for export purposes. This would simplify import procedures, creating a more streamlined supply chain, reduce costs for pharmaceutical companies, and enhance the attractiveness of Bangladesh as a hub for pharmaceutical manufacturing and export.
- *Harmonising Regulatory Standards*: Gradually aligning local drug quality and registration standards with globally recognised benchmarks, such as those set by the World Health Organization (WHO) or other stringent regulatory bodies such as the FDA or EMA, is essential. This harmonisation would enhance the credibility and acceptance of Bangladeshi pharmaceuticals in the global market, opening doors to new export opportunities and fostering greater trust among international buyers.

By implementing these comprehensive and strategic measures, Bangladesh can significantly enhance its pharmaceutical industry's global market share, foster innovation, and establish itself as a key player in the international pharmaceutical landscape.

4.10.5.3 Achieving Science & Engineering Education at Scale to Promote Integration into the Semiconductor Value-Chain

The following projects are proposed to produce the required workforce for the semiconductor industry in the medium term:

- Infrastructure investments in specialised areas, for example, setting up small specialty FABS (initial cost within the $10 million range for each). Different universities may be provided with different specialities: for example, Gallium Arsenide, Silicon Carbide, Micro-electromechanical systems (MEMs) and Solar Cells.
- Funding for 'tape out' experience & software (SW) infrastructure: The worldwide demand for semiconductor wafers is approaching $0.7 Trillion. The key enabler is designing the products involved. Engineers need to design silicon chips of various design disciplines and then complete a computer-aided design to capture the design into a "layout" of a chip. This chip is fabricated by expensive FABS in leading semiconductor fabricators such as the Taiwan Semiconductor Manufacturing Company (TSMC).
  The chip design is "taped" out to them for a fee and TSMC manufactures the chip and sends back the finished circuit. It would be excellent for Bangladeshi engineering students to learn the 'tape out' process. They may then test the chips, acquiring another important expertise. Through these exercises, the engineering students will have the basic skill set and when they graduate, local Bangladeshi companies can employ them immediately without having to go through an expensive training regime. The ready availability of such a trained workforce may also encourage FDI to come into this activity.

  This kind of tape-out can initially be done in collaboration with US universities (such as the University of California at Berkeley) and will require some government funding. For example, this effort will require access to CAD tools (that many universities already have but may need to be augmented) and an upfront nominal fee for the chips (approximately $50, 000 per project). This process will also help faculty

members get trained in collaborating with US universities. The effort will also train students in Integrated Circuit layout, an immediate need for chip design companies already in Bangladesh. Additionally, if students could intern at these chip companies and use tools/equipment at the university, this could also boost local companies.

4.10.5.4 Jump-Starting Basic, Lower-End, Manufacturing for the Semiconductor Industry:

This is a quick way to position Bangladesh in supply chains that feed this large industry. Supply chains are now under pressure and there are opportunities to diversify to reduce risk and cost. Vietnam was able to get moving by landing assembly/test plants from multi-national companies. This is a very competitive area and will need proactive effort from the government and local industry to learn what is needed and develop a plan to get there. Some actions on this short-term track are:

- Get the government organised to take on this area: what to do, who to approach, incentivise wins, and stay engaged in the longer run. An incentivised ecosystem is required including the bureaucracy.
- Some pragmatic shorter-term steps to help local companies acquire skillsets/equipment to get started in a smaller way. An example could be to acquire Integrated Circuit Testers from companies such as Advantest in Japan with assistance from JICA under favourable terms. This would jump-start the training process for personnel in a small way and success will lead to more success.
- Incentivise local consumption of value-added products as a result of all of the above activities. This would create a virtuous cycle.
- Establish more value-added offshore facilities for external companies. These would be manufacturing sites with more complexity or design centres employing more highly trained engineers. The lines between manufacturing and services are blurring a bit with time. Emphasis on manufacturing alone is not enough.
- Undertake regulatory actions and IP protection.

4.10.6 Attracting FDI

BIDA is currently operating with a sub-optimal mandate. It is sharing, with other agencies, responsibility for carrying out certain functions with should be its exclusive responsibility. At the same time, it is carrying out activities that are better placed in other agencies. For example, BIDA has the primary mandate for foreign investment promotion and attraction. However, several other agencies, such as BEZA, BEPZA, BHTPA and the Public-Private Partnership Authority, are also involved in investment promotion. At the same time, the BIDA performs a host of regulatory functions, many of which are better placed in other agencies.

Another issue is the lack of a good tracking system by which BIDA can assess the progress made by foreign investors in pursuing their investment interests in Bangladesh. Investors go through different stages from initial interest in a country to the commissioning of their projects. An investor tracking system monitors how far potential investors have travelled in their investment journey, whether they are stuck somewhere and, if so, why.

BIDA has established a one-stop service (OSS) for regulatory approvals. The establishment of the OSS was supported by an IFC technical assistance project which

ended in February 2022. Although the IFC had recommended a single OSS, the government decided to establish four central OSSs in different agencies, with limited uptake of BIDA-OSS services by other agencies.

The OSS is merely a window to receive applications from businesses and does not have the authority to approve the applications. That responsibility lies with individual regulatory agencies, which receive the applications via the OSS. Chapter 14 discusses in greater detail the performance of the OSS and recommends actions to improve its functioning.

Here are some recommendations for attracting FDI:

- Consolidate all investment promotion and attraction functions in BIDA. Review the investment facilitation functions carried out by the various agencies and rationalise the division of labour regarding investment facilitation between the various agencies. Build capacity in BIDA for investment promotion and facilitation.
- Establish an investor tracking system in BIDA.
- Take actions to improve the efficacy of the BIDA OSS (details provided in Chapter 14 which discusses regulatory governance improvements).
- Streamline the approval process for repatriation of profits by foreign investors.

4.10.7 Increasing Effectiveness of Economic Zones and Hi-Tech Parks

4.10.7.1 The Economic Zones Programme

The economic zones programme is an important, and potentially transformative, agenda of the government. By providing an assured supply of infrastructure and a hassle-free regulatory environment within a reasonably short period, the zones can attract a critical mass of investors unwilling to wait for country-wide infrastructural and regulatory improvements. To realise its potential, the programme must be implemented in a strategic manner, underpinned by a vision of where the manufacturing sector should be a decade from now. Here are some recommendations.

- Rethink the scope of the programme. The declared intention is to set up 100 economic zones in the country. According to its website, BEZA received approval to establish 97 economic zones countrywide comprising 68 Government and 29 Private EZs.[30] Implementing zones on such a large scale faces several challenges including land acquisition, funding, and attracting an adequate number of tenants. It may be prudent to scale down the ambitions and focus on a smaller number of well-developed and commercially viable zones. The focus for now should be on quality, not quantity.
- Ensure that the investment that comes in truly helps diversify Bangladesh's exports and lays the basis for a skill-based manufacturing sector that will compete globally based on knowledge, not cheap labour. The economic zones provide very valuable assets such as land and good-quality infrastructure. It will be a shame if

[30] The website also states: “Feasibility studies, land acquisition and identifying area specific social and environmental initiatives are underway for these approved EZs.”

such scarce resources are used to produce traditional goods, such as jeans and shirts, that do not help achieve the objectives of diversification and a move towards more complex products.

4.10.7.2 Hi-Tech Parks

- Carry out a thorough review of the current portfolio of hi-tech parks in the country, including parks in operation, being built, and proposed. The assessment may look at a) the utilisation status of parks already in implementation and additional infrastructure and facilities needed in these parks; b) the implementation status of parks being built; c) the rationale of proposed parks, including feasibility. Based on this assessment, a decision may be taken on rationalisation of the portfolio and additional investments.[31]
- Improve infrastructure leading to the Kaliakoir hi-tech park. The park is located far away from Dhaka with no civic amenities, and the rural setting discourages skilled tech professionals from relocating there. Two projects may be considered: a) establish high-speed commuter trains linking Kaliakoir to Dhaka; and/or b) establish civic amenities, including decent housing and shopping malls, around the park.

4.10.7.3 API Park

- Ensure adequate and uninterrupted supply of power to the API park so that factories set up in the park can have smooth operations.

4.11 Monitoring and Evaluation Framework for Diversification Strategies

4.11.1 Measuring Progress in Manufacturing Diversification

To assess Bangladesh's diversification progress, measurable indicators are essential, including shifts in industrial composition, export diversification, technological advancement, employment trends, green manufacturing, value-added production, and private sector investments.

- Industrial composition: Track periodic changes in industry contributions to manufacturing output and employment, particularly the rise of electronics, pharmaceuticals, and green technologies.
- Export diversification: Monitor the variety and volume of non-RMG exports, especially high-tech or eco-friendly products in new markets, to reflect industrial development.
- Innovation and technology: Gauge the adoption of advanced technologies, R&D investments, patents, and innovation-driven startups to measure technological upgrading.
- Employment Trends: Analyse job creation, skill development, and wage growth within the emerging sectors to provide an assessment of qualitative and quantitative employment impacts.

[31] The following questions may be addressed: a) what more needs to be done in the operational parks to increase utilization rates; b) should any of the parks under implementation be abandoned; c) what additional expenditures are needed in the ones to be retained; c) which proposed parks may be pursued and which may be abandoned.

- Green manufacturing: Evaluate investment in sustainable practices, such as certifications like LEED and green exports, in line with global environmental trends.
- Value-added Manufacturing: Measure Gross Value Added (GVA) by industry—electronics, automobiles—to track a shift to higher value-added production.
- Private investment and FDI: Estimate domestic and foreign investment in non-RMG sectors based on the responsiveness of investment to diversification-friendly policies.

4.11.2 Need for Continual Policy Adjustment

Diversification needs a flexible and responsive policy framework to respond to the changing dynamics globally and local challenges.

- Technological changes: The policies are regularly updated to infuse automation, AI, and green technologies into the policy framework for relevance in high-tech industries.
- Market demand shifts: Adjust industrial strategies to rise to the challenge of increasing demand for sustainable and high-value products in global markets.
- Crisis response: Quickly adapt policies to cushion the economy from global shocks by providing financial support and adjusting trade policies during disruptions.
- Inclusive growth: Impose policy interventions that reinforce women's participation, youth employment, and regional equity in the emerging sectors.
- Policy coordination: Build mechanisms for coordination of efforts by the ministries and agencies for coherence and implementation.

4.11.3 Indicators of industrial readiness

Diversification of the economy through successful emergence requires infrastructure and logistical support attuned to emerging sectors.

- Infrastructure development: Expand industrial zones, IT parks, and green technology hubs for diverse industries.
- Logistics efficiency: Monitor improvements in transportation and supply chain systems, critical for sustaining growth in diversified manufacturing.

Annex 4.1 Case Studies and Best Practices from Other Countries

A4.1 Insights from Countries that Have Successfully Diversified

Vietnam

A notable example of Vietnam's success in export diversification is its electronics industry. In 1995, Vietnam exported barely $30 million worth of electronic products; this was less than 1% of its total exports. It was on par with Bangladesh on this front, which also had very modest exports of electronic goods. But now, Vietnam exports close to $150 billion of electronic products, accounting for about 40% of its total exports. By comparison, Bangladesh's electronic exports remain below 1% of total exports.

Several factors have contributed to Vietnam's success in developing a globally competitive electronics industry. These include skill development. Samsung's choice of Vietnam as the location of its largest R&D Centre in Southeast Asia is a testament to the engineering skills available in the country. Ten percent of Samsung's software on a global scale is developed by Vietnamese IT engineers. Nonetheless, the Vietnamese feel that they have skill shortages and are paying attention to addressing this issue. It may be mentioned that Vietnam did not stop at providing academic training in relevant disciplines but also helped develop the cognitive and soft skills needed for an employee to make the best of the on-the-job training provided by companies.

The second critical factor is a vibrant and open international trade regime. Manufacturing electronic products requires dozens, often hundreds, of different components, most of which need to be sourced from outside. By establishing an open trade regime and large trade networks, Vietnam made it easier for its electronics firms to access diverse sources of components and benefit from cheaper imports of intermediate goods, thus enhancing their export competitiveness. Over the years, Vietnam has joined several regional and global trade agreements and signed bilateral Free Trade Agreements with several countries in the last two decades. More are in the making. This is in sharp contrast to that of Bangladesh, whose trade regime remains constricted, despite some liberalisation over the years.

The third factor is the catalytic role of foreign investment. Foreign investors bring the technical skills, brand name and access to markets needed for electronics exports. Till the late 1980s, FDI inflows were a minuscule proportion of GDP in both Bangladesh and Vietnam. However, their paths have diverged significantly after that. As Vietnam opened its economy, it paid particular attention to attracting FDI. Since the early 1990s, annual FDI inflows to Vietnam have averaged 6% of GDP. FDI inflows to Bangladesh have increased in recent years but remain below 2% of GDP. In Vietnam, foreign-invested companies contribute up to 70% of total exports, with the proportion being much higher for electronics exports. One of the major foreign-invested companies in Vietnam's electronics sector is Samsung. By the end of 2017, Samsung had invested $14 billion and provided employment to more than 100,000 Vietnamese. Meanwhile, Intel has opened a $1 billion semiconductor assembly and testing facility in Ho Chi Minh City, putting Vietnam firmly on the global technology map.

The story about Samsung's presence in Vietnam is a particularly sobering one for Bangladesh. About a decade ago, the company had wanted to invest on a large scale in

Bangladesh but could not. That points to the fourth important factor in the development of an electronics industry, i.e., the availability of large tracts of land.

While electronics companies source a lot of components through imports, they often look for opportunities to source locally. For logistical and quality assurance reasons, they like the local suppliers to be located close by. Thus, foreign investors in the electronics industry often ask for large tracts of land, large enough to accommodate both their plant as well as those of their suppliers. Failure to provide such a huge tract of land was an important reason why Samsung left Bangladesh and chose to expand its investment in Vietnam.

Malaysia

FDI was also the key to Malaysia's breakthrough in the electronics industry and facilitated Malaysia's entry into electronics GVCs. Like Vietnam, Malaysia had a very proactive investment promotion strategy aimed at attracting FDI to the electrical and electronics industry. The state government of Penang was the pioneer in this, starting in the late 1960s. Its investment promotion body, Penang Development Corporation, proactively reached out to leading global firms in the industry and persuaded them to come to Malaysia. By the early 1970s, eight such firms decided to invest in the electronics and electrical industry in Malaysia. Dubbed the "Eight Samurai", the group included top industry names such as Intel, Hewlett Packard, and Advanced Micro Devices (AMD). The government provided land in free trade zones, tax holidays, investment tax credits and export incentives. It also set up systems to respond fast to any concerns raised by the investors, and also proactively reached out to them to check if they were having any issues.

In the first phase of the rise of Malaysia's electronics and electrical industry, which lasted from the early 1970s to the late 1980s, the focus was on the labour-intensive, low-value-added parts of the global value chain. This included the production of components that did not require much skill and assembly of parts for products such as printed circuit boards. There was a focus on exports - almost all output was exported. The presence of the big-name foreign investors put Malaysia on the electronics GVC map. Over time, more foreign investors came and, by 1981, 80% of the firms in the industry were owned by foreign investors. The second phase of the industry, from the late 1980s to the early 2000s, saw substantial upgrading in the industry. This was supported by a second wave of FDI coming mainly from East Asian countries such as Japan, Korea, Taiwan, and China. The foreign companies gradually shifted into higher-value-added activities, for example, moving from simple assembly to automated assembly, and into process and product design. They entered the computer products market and expanded their share in the consumer product market.

A4.2 Lessons from Countries that Faced Setbacks in their Diversification Efforts

Many countries have tried to reduce dependence on those few sectors through diversification as a vital means of creating resilience in the economy. Not all stories of diversification have been successful, though, since several of these countries have faced tremendous setbacks. Bangladesh can thus learn from these experiences with much that can inform its own strategies for diversification and hence try to avoid similar pitfalls

toward sustainable economic growth. Below, we reflect on what Bangladesh can learn from countries whose diversification efforts did not go so well.

Overreliance on external factors: The case of oil-dependent economies

Most of the oil-dependent economies, like Nigeria, Venezuela, and the Gulf States, have had poor diversification because of their high dependency on oil exports. Whenever world oil prices fell or went into volatility, these economies suffered severe setbacks. All their diversification strategies failed because they did not adequately diversify into sectors which would help them withstand exogenous shocks, such as manufacturing, services, or even technology.

The important lesson for Bangladesh to take from here is that it has to diversify in every possible sector rather than sticking with one or two. In the case of Bangladesh, the RMG sector played a big role, but dependence on a single sector without taking the potential vulnerability of global trade and labour issues or even climate risks would prove quite disastrous. A successful diversification may occur only where the process spreads out from core industries into activities, inter alia, from basic agriculture to technological ones such as green industries to more intensive high-value-added manufacturing - one in which Bangladesh must try to make its economy better balanced or resilient. Such lack of structural reforms prevented them, to a great extent, from sustaining long-run growth improvements such as enhancing infrastructure, education, or technological capabilities**.**

Failure in building competitive advantage: Latin America's case

In Latin America, many countries like Brazil, Argentina, and Mexico have tried to develop their economies through the promotion of industrialisation and the creation of new manufacturing sectors. The catch is that many of these efforts go together with the failure to build up a competitive advantage which could be sustained in the concerned sectors. For example, Brazil did try to diversify into manufacturing and even space industries but could not do away with its high costs of production, lack of innovation, and poorly performing labour markets that eroded competitiveness in international markets.

Bangladesh should pick up a lesson from this: any attempt at diversification should create competitive advantages. This requires investment in technology, innovation, and skills development to enable such industries to compete globally. Rather than just relocation of resources into new sectors, Bangladesh must ensure that the chosen industries are able to provide value propositions that are unique in terms of cost efficiency, sustainability, or technological advancement. The government's policies should be more geared toward improving the business climate by facilitating ease of doing business, reducing bureaucratic barriers, and ensuring access to finance for new ventures. It helps Bangladesh avoid overambitious diversification with scant strategic support by focusing on long-term competitive strengths.

Neglect of structural reforms: The case of African economies

Several African economies like Kenya, Benin and Angola suffered from hiccups in their strategies for diversification because structural reforms did not take place on priority

fronts such as governance, infrastructure, and institutions. For example, weak infrastructure and poor strategies of industrialisation hindered the diversification attempt from cocoa and gold export in Ghana. This is because even when the new industries were put up, they lacked supportive infrastructure that would enable them to prosper, such as logistics, energy, and transport networks.

This brings out an important lesson for Bangladesh - the structural reforms that have to be complementary to industrial growth played a very important role in the process of diversification, shifting focus into new sectors, and investments into better infrastructure: transportation, energy, IT systems, building institutional capacity, readjustment of education towards industry needs. Otherwise, it will be difficult for these new sectors to take shape and have any relevance to the economy. For instance, the pharmaceuticals and electronics industries can develop business opportunities in Bangladesh only when the country enhances technical education systems, improves the condition of logistics networks, and advances a regulatory environment that will provide greater scope for the emergence of private enterprises.

Insufficient investment in human capital: The case of South-East Asian economies

Some of the countries in the Southeast Asian region, like Indonesia and the Philippines, have confronted some obstacles to diversification with a shortage of adequate investment in human capital. The fact that these countries tried to make the transition from agriculture to manufacturing and services did little to help them, as their labour lacked the technical skills and deep knowledge the new industries demanded. In Indonesia, for instance, such industrialisation initiatives were restricted due to a shortage of skilled workers in sectors like electronics and automotive manufacturing, hence low productivity and inability to capture more value-added activities in global supply chains.

Bangladesh can learn from this by prioritising skills development as a cornerstone of its diversification strategy. The focus should be on advanced technical skills, entrepreneurial capability, and STEM education for the workforce to meet the requirements of emerging industries like electronics, renewable energy, and information technology. Public-private partnerships with industry participants will be needed to properly design and implement vocational training programmes. Workers need to be equipped for higher value-added activities. In addition, through research and development, universities and technical institutions play a vital role in informing innovation-driven industries, which again will be crucial for long-run diversification.

Political instability and policy inconsistency: The case of Egypt

Political instability and policy inconsistency have created an unpredictable business environment in Egypt, hence setbacks in diversification. Although it has tried to develop industries such as textiles, automobiles, and chemicals, its political turmoil has fluctuating policies, changes in leadership, and inconsistent regulations that discourage foreign investment and stifle domestic entrepreneurship. Most of the diversification projects are either underfunded or poorly executed due to a lack of a stable and coherent economic vision.

Bangladesh must ensure political stability and policy consistency in its efforts to diversify its manufacturing base. Clear and predictable policies that promote industrial

growth, innovation, and investment are essential for creating the kind of environment where diversification can thrive. By establishing long-term policy frameworks, with clear goals and consistent regulatory enforcement, Bangladesh can signal to investors that the country is committed to creating a conducive environment for industrial growth. Besides, good governance and strengthening democratic institutions would give more credibility and better results for economic policies.

References

Asian Development Bank (undated). "Improving the Labor Market through Skills Development in Bangladesh": https://www.adb.org/sites/default/files/publication/28594/ban-skills-development.pdf

Babu, Mahfuz Ullah (2024). "Bangladesh eyes $1 billion semiconductor exports by 2030", The Business Standard, November 12, 2024. https://www.tbsnews.net/tech/bangladesh-eyes-1-billion-semiconductor-exports-2030-991531?

Batra, Geeta and Syed Akhtar Mahmood (2003). Direct Support to Private Firms: Evidence on Effectiveness, *World Bank Policy Research Working Paper Series* No 3170, Washington DC, November 2003.

Brenton, Paul, Christian Saborowski and Erik von Uexkull (2009), "What Explains the Low Survival Rate of Developing Country Export Flows?" World Bank Policy Research Working Paper Series No 4951, Washington DC, June 2009.

BBF Digital (2024). "Bangladesh's Bold Leap Towards an Electric Vehicle Future". BBF Digital, August 15, 2024. https://bbf.digital/bangladeshs-bold-leap-towards-an-electric-vehicle-future

Cirera, Xavier, Ma. Charmaine Crisostomo and Yuheng Ding (2024). Bangladesh Sector Notes for CPSD, World Bank, June 11, 2024.

European Commission (undated). "Building greener - sustainable building in Bangladesh": European Commission https://international-partnerships.ec.europa.eu/news-and-events/stories/building-greener-sustainable-building-bangladesh_en

Global CRI (undated). "Sustainability reporting and integration of SDGs- the Bangladesh status": Global CRI. https://www.globalreporting.org/media/0g3ivp35/final-status-of-sustainability-reporting-in-bangladesh.pdf

Government of Bangladesh (2024). Bangladesh Economic Review 2024.

Hassan, M. Shahidul (2023). "Our outdated, inefficient higher education institutions", Daily Star, December 19, 2023. https://www.thedailystar.net/opinion/views/news/our-outdated-inefficient-higher-education-institutions-3497526

Haque, Ashraful (2022). "Bridging the industry-academia gap through collaboration": The Business Standard, December 3, 2022.

https://www.tbsnews.net/features/panorama/bridging-industry-academia-gap-through-collaboration-544090

Iqbal Kazi, Md. Nahid Ferdous Pabon and Tanveer Mahmood (2022). Labor Market Study under Skills for Employment Investment Programme (SEIP), Light Engineering Sector, Bangladesh Institute of Development Studies, August 2022.

Light Castle Partners (2023). "4IR in the Apparel Industry: Is Bangladesh Ready for the Advancement of Automation?". https://lightcastlepartners.com/insights/2023/07/4ir-in-the-apparel-industry/

Light Castle Partners (2024). "Navigating Change: Aligning Bangladesh's Apparel Manufacturing with Global Sustainability Trends". https://lightcastlepartners.com/insights/2024/02/aligning-bangladesh-apparel-with-global-sustainability-trends/

Light Castle Partners (2024). "Transforming Waste to Wealth: Strategic Insights for Bangladesh's Circular Economy": https://lightcastlepartners.com/insights/2024/06/strategic-insights-for-bangladeshs-circular-economy/

McKenzie, David (2023). Is There Still A Role for Direct Government Support to Firms in Developing Countries? *World Bank Policy Research Working Paper Series* No. 10628, Washington DC, December 2023.

McKinsey Global Institute (2024). The Next Big Arenas of Competition, Chapter 6, October 2024.

Textile Focus (2024). "Bangladesh is reshaping the sustainability with world's best Green Factory": Textile Focus, February 5, 2024. https://textilefocus.com/bangladesh-is-reshaping-the-sustainability-with-worlds-best-green-factory/

Textile Today (2024). "Groundbreaking development on solvent-based waterless dyeing": Textile Today, January 2, 2024. https://www.textiletoday.com.bd/groundbreaking-development-on-solvent-based-waterless-dyeing

World Bank (forthcoming). Bangladesh Country Private Sector Diagnostic (draft), Washington D.C.

Chapter 5: Strategies and Action Plan for Development of MSMEs to Enhance Inclusive Growth and Development[1]

5.1 Background

Micro, small, and medium companies (MSMEs), which include more than 95% of all businesses in Bangladesh and contribute to 25% of GDP (ADB, 2015). The MSME sector has seen a substantial transition as nonfarm economic activities, particularly in rural regions, continue to expand. The progress in the MSME sector must be nurtured and advanced to guarantee that MSMEs contribute significantly to the growth and socio-economic development of Bangladesh. The advancement of SMEs could be pivotal for Bangladesh to pursue elevated economic trajectories as outlined in several governmental planning documents. Bangladesh possesses the benefit of fostering MSMEs due to its abundant human capital with inherent aptitude and intellectual capability.

Nevertheless, there is a lack of a supportive and cohesive governmental framework to enhance the sector. Despite substantial expansion in the SME sector, numerous obstacles encountered by small businesses persist in hindering the industry's full potential. For example, notwithstanding the recent rise in overall credit growth to SMEs, access to finance remains a primary constraint for 68.6% of small entrepreneurs and 44.7% of medium entrepreneurs (INSPIRED SME Survey 2013). This signifies a persistent scarcity of credit, disproportionately affecting small entrepreneurs. An additional constraint is a deficient marketing network. A marketing network serves a crucial function in a firm's sustainability. Numerous SMEs are encountering marketing challenges stemming from substandard product quality, inadequate packaging, insufficient marketing expertise, and intense rivalry. Insufficient support services have hindered SMEs from achieving competitiveness in both local and international markets.

The government has sought to create a conducive policy environment to help address such issues. The initial SME Policy was prepared in 2005 by the Ministry of Industries. An updated policy was supposed to be issued in 2015. It was delayed and eventually issued in 2019. Although the fundamental direction of the policy for MSME development has received broad support, it is deficient in a comprehensive implementation plan, rendering it ineffective as an MSME policy. It is unclear how effective these policies have been. The accomplishments and execution facets of the policy remain unevaluated. To ensure the effective development of MSMEs, it is essential to implement periodic monitoring and evaluation of policies; hence, a monitoring and evaluation framework must be established, which is currently lacking.

[1] The chapter is prepared by Monzur Hossain, Research Director, Bangladesh Institute of Development Studies (BIDS).

The aim of this strategy is to identify certain areas that could enhance the competitiveness of MSMEs and their role in the international value chain. It is important to mention here that there is no "one-size-fits-all" policy for MSMEs. Usually, medium-sized firms are far ahead of other segments. Similarly, cottage and micro firms need separate treatment in policy support. It is, therefore, necessary to develop tailor-made policies for different segments of enterprises. To this end, the recommendations focus on critical strategic issues, including upgrading institutional and regulatory framework, focusing on size-specific policies, enhancing the business environment, and facilitating access to formal financing. To address the credit requirements of SMEs, this strategy establishes some guidelines to be executed in the forthcoming years.

5.2 Growth Trend of SMEs

Given the lack of recent information regarding MSMEs in Bangladesh, this section endeavours to estimate the number of MSMEs and other pertinent indicators, serving as a preliminary step to comprehend the requirements of these enterprises. The estimates would assist policymakers in formulating an effective stimulus package for the MSME sector.

The most recent official data on MSMEs is derived from the Economic Census of 2013. There was a significant increase in the number of non-farm economic units in the country in the three decades between 1986 and 2013. In 2013, the country had 7.82 million non-farm economic units, compared to 3.71 million in 2001/03 and 2.17 million in 1986.[2] This indicates an annual growth rate of 3.4% from 1986 to 2001/03 and 7.2% from 2001/03 to 2013. The increase in nonfarm activities during the inter-census period has been marginally greater in urban regions (8.4%) than in rural regions (7.6%). In the latest inter-census period, the number of rural nonfarm economic units grew at an annual compound growth rate of 8.4%, increasing its proportion of the total units from 62.6% in 2001/03 to 71.5% in 2013.

Of these economic units, the vast majority are in trade and services, and a small proportion is in manufacturing. In 2013, the overall number of manufacturing units was 868,000, which is 11.1% of all nonfarm economic units. This may be compared to 450,000 in 2001/2003, indicating an annual compound growth rate of 8.2%. The proportion of manufacturing among the total count of nonfarm economic entities has been decreasing in recent years, from 24.5% in 1986 to 12.1% in 2001/03, and subsequently to 11.1% in 2013.

Most non-farm economic entities (97%) fall in the category of MSMEs (including cottage industries). Of these, 34,000 are small and medium-sized enterprises (SMEs), employing nearly 7 million workers.

According to the Economic Census 2013, the share of micro, small, and medium firms in manufacturing employment was 7.8%, 16.2%, and 6.5%, i.e., 30.5% of all manufacturing employment. Their relative contributions to manufacturing gross value

[2] These data are from the Economic Censuses, 2013.

added (GVA) could not be determined due to insufficient data in the Economic Census. However, the SMI 2012 data indicates that micro, small, and medium enterprises contributed 5.9%, 23.7%, and 23.3%, respectively, to manufacturing GVA. This indicates that medium firms have not expanded as swiftly as other size categories, highlighting challenges for small enterprises to transition to larger sizes.

Hossain (2023) estimates the number of different categories of non-farm economic entities for 2019 based on the observed growth rates for the period 2001/03 to 2013. The estimates for 2019 and the actual data for 2013 are provided in Table 5.1. During the inter-census period from 2001 to 2013, MSMEs experienced an annual growth rate of 7.2%, while the workforce expanded at a rate of 6%. Based on these growth rates, the expected number of MSMEs in 2019 is 1.35 million, while the estimated number of cottage and home economic units (with fewer than 10 employees) is 9.58 million, equal to 17.3 million workers. Approximately 11 million smaller economic units are estimated, with approximately 34 million individuals engaged (Table 5.1).

Table 5.1: Estimated Number of MSMEs and their Employees in 2019

	Number of enterprises		Number of employees (workers)		
	2013	2019	2013	2019	2019*
MSMEs	970431	1,358,603	7,306,797	9,937,244	8,744,775
Economic Household, cottage, and others	6848134	9,587,388	17,194,053	24,363,946	17,324,130
Total	7,818,565	10,945,991	24,500,850	34,301,190	26,068,904

*Adjusted by deducting unpaid family workers (at 3%); (Manufacturing Units= 54,344; Trade & service= 1,304,259); Source: Hossain (2023).

The size distribution of units is as follows: 11% are Micro, 88.9% are small, and 0.8% are medium. Regarding employment, 7.1% of jobs are in micro firms, 83.9% in small firms, and 9% in medium firms (Table 5.2). So, there is the overwhelming dominance of small firms in the MSME sectors.

Table 5.2: Distribution of Units and their Workers

	Number of units	Percentage	Number of workers	Percentage
Micro (TPE: 10-24)	145,610	10.7	706,059	7.1
Small (TPE: 25-99)	1,203,045	88.5	8,339,104	83.9
Medium (TPE: 100-249)	9948	0.8	892,080	9.0
Total	1,358,603	100	9,937,243	100

Source: BBS

Note:TPE: Total persons engaged.

It seems difficult to make an exact comparison between small and medium firms based on economic census data due to discrepancies in SME definitions. Only after Industrial Policy 2010, a uniform definition has been applied. However, a rough comparison could

be made among permanent establishments (Table 5.3). The comparison suggests that the share of small firms has increased substantially over time, though the growth of medium enterprises was marginal.

Table 5.3: Compositions of SMEs (% of total number of permanent units)

	2001/03			2013		
	Rural	Urban	Total	Rural	Urban	Total
Micro	61.4	35.9	97.3	57.3	25.3	82.7
Small	1.1	1.3	2.4	7.6	9.4	17
Medium	0.04	0.07	0.11	0.07	0.09	0.16
Large	0.03	0.1	0.12	0.03	0.08	0.12
Total	62.57	37.37	99.93	65	34.9	99.98

Source: Economic Censuses, BBS

Note: It is mentionable that the figures regarding the category of establishments are not strictly comparable as their definitions used in the two Censuses are different.

The sectoral composition suggests that the share of SME manufacturing units has decreased slightly while trade and service units have increased substantially during the inter-census period, 2013 - 2001/2003. The share of Transport and communication sectoral units has increased substantially over time.

As already mentioned, due to the unavailability of flow data in the Economic Census 2013, the contribution of SME manufacturing units was estimated from SMI 2012 data. It is even more difficult to estimate the sectoral contribution of SMEs to GDP. However, a study on six boosters sectors conducted in 2006/2007 provided estimates of GVA. It shows that agro and food processing, leather and footwear and designer goods were the highest contributors to the gross value added. Thus, there exists relevance of sector-specific policy formulation for boosting those high-value-added sectors.

5.3 Existing Institutional and Policy Support Structure for SMEs

Under the umbrella of the Ministry of Industry, various organisations are involved in MSME development in Bangladesh. With the establishment of the SME foundation, the overall support structure for MSME development in Bangladesh becomes a multi-institution approach. Bangladesh Small and Cottage Industries Corporation (BSCIC), established in 1957, is a corporation under the MoI mandated to work mainly for the development of small and cottage industries. Each of them works in some specific areas although with some overlaps. Bangladesh Bank has been facilitating access to finance to MSMEs with various policy initiatives, however, there exists less or no coordination with other agencies.

The SME Foundation was created under the Ministry of Industries (MoI) as an apex institution for SME development in the country through a gazette notification in 2007. The major activities of the Foundation include (i) implementation of SME Policy Strategies adopted by the Bangladesh Government, (ii) policy advocacy and intervention

for the growth of SMEs, (iii) facilitating financial support for SMEs, providing skill development and capacity building training, (iv) facilitating adaptation with appropriate technologies and access to ICT, and (v) providing business support services, etc. The Foundation is intended to work as a one-stop service delivery window for SMEs.

However, the Foundation has yet to make a functional mark in the development of MSMEs for a number of reasons. These include inadequate financial resources, inadequate legal backing, inadequate logistic backup, and governance problems. The total financial resources available to the foundation are inadequate and volatile. The foundation received an endowment fund of Tk. 200 core. Interest earned on this fund is the sole source of finance subject to volatility of interest rates. The earnings on this endowment, as per the views of the Foundation, are inadequate to undertake different activities by the foundation as mandated in the government gazette. This makes the overall planning difficult for the foundation.

5.4 Key Strategies for SME Development

The basis of the strategies is to adopt a more comprehensive approach to SME development to cater to the need for achieving higher GDP growth and poverty reduction. A four-pronged foundation for SME strategies is highlighted below:

- Determine critical strategic intervention areas and the functions of principal stakeholders for the sustained advancement of the MSME sector in Bangladesh. Recognising SMEs as crucial contributors to growth acceleration and poverty alleviation, the SME policy initiatives must be interconnected in a comprehensive and integrated manner, consistent with the prior SME Policy 2019 and the other Government Plans.
- Encourage private sector involvement in MSME development and foster collaboration among diverse stakeholders to leverage the future growth potential of MSMEs.
- Establish policy guidelines to enhance the business climate by promoting technology adoption, facilitating access to institutional finance, and fortifying the regulatory and institutional framework.
- Develop a robust coordination structure to integrate the relevant ministries, agencies, trade associations, and organisations into a unified platform to address issues pertaining to MSMEs.

5.4.1 Improve Institutional Support Structure for SMEs

- **Convert SME cell into an SME Wing or Division at MoI**: Currently, an SME Cell under the Ministry of Industries (MoI) is dealing with SME issues, which undermines the importance of SMEs in industrial development. The MoI should establish a separate Department/Division to strengthen SME sector development, headed by an Additional Secretary, oversee subsidiary organisations, provide policy guidelines, and collaborate with other Ministries and agencies.
- **Strengthen the SME Foundation:** The SMEF governing body needs to be strengthened by including at least six booster sectors' representatives to better

represent SME sectoral bodies. The organisation, established in 2007, has not yet assessed its impact. To improve its effectiveness, SMEF should collaborate with public and private training institutes, design training programmes, and present a clear action plan to the MoI within three months. Additionally, the endowment fund could be doubled in phases.

- **One-stop service centre (OSC) at SMEF**: The SME Foundation was entrusted to provide an effective one-stop service centre on its premises to provide all the necessary services to SMEs, such as trade license, Tax and VAT issues, training support, business promotion support, etc. It is high time to establish a full-pledged OSC, including representatives from all stakeholders and government agencies. An automated service facility through the mobile app or SMS-based may be provided on a 24/7 basis for SMEs under the OSC.
- **Coordination between SMEF and BSCIC, Bangladesh Bank:** Bangladesh Bank should collaborate with SMEF and BSCIC on designing and implementing credit programmes for SMEs, following SMEF's innovative financing guidelines.

5.4.2 Improve Regulatory Framework for SMEs

- **Simplification and rationalisation of rules and regulations**: The government should simplify business registration and licensing procedures, review the current tax system for SMEs, introduce tax incentives, review Public Procurement procedures, and collaborate with relevant agencies to develop a unified registration system for SMEs.
- **Enactment of SME Act:** The government should adopt an "SME Act" with a set of principles to steer the drafting and implementation of policies to benefit SMEs. The objective is to come up with a legislative Act, as an Act of Government, with the aim of supporting the promotion and development of SMEs, which is available in many countries.
- **Fiscal incentives for export-oriented SMEs**: SMEs can benefit from a graduated turnover tax system, differentiated tax treatment (AIT, VAT, Tax exemption, etc.), and a tax incentive mechanism for those with trade licenses and environmental compliance.

5.4.3 Improve Access of SMEs to Institutional Finance

- **Establish an SME Bank**.: The present banking system is not equipped to cater to the needs of SME Financing. A separate bank or similar institution is needed to serve SMEs financing needs. Bangladesh bank should assess legal and regulatory issues for establishing a dedicated SME bank. If it is not feasible to establish a new SME bank at this moment, the government should restructure and enhance the base of activities of the PALLI SANCHOY BANK into an SME bank that has experience of dealing with microcredit.

- **Improve Innovative Financing for SMEs:**

  i. The existing Credit Guarantee Scheme (CGS) developed by Bangladesh Bank should be reviewed and made a more effective tool for SME financing; the Credit Wholesale programme of the SME Foundation needs to be allocated more funds from the government or other development partners as this programme has been successful in SME clusters. With additional funding, this CWS may be extended to non-clustered SMEs.

  ii. The current system of EEF has been largely flawed, and therefore, its operation needs to be modified (as per the recommendations made in the evaluation of EEF in various reports). ICB's EEF operation needs to be evaluated to increase operational efficiency and reduce corruption.

  iii. Venture capital firms can be assigned to be engaged in EEF operation instead of lien bank system. A guideline for Factoring financing should be prepared by SMEF and should share with BB. Some factoring finances could be introduced on a pilot basis by SMEF with support from BB.

  iv. Develop a "business angels" option as an alternative source of finance and support for business start-ups and innovative SME enterprise growth. A guideline for Factoring financing should be prepared by SMEF and should be shared with BB.

- **Strengthen refinancing schemes***:* BB and MoI should enhance foreign fund mobilisation for its refinancing schemes by effectively engaging with existing donors and exploring new donors for this purpose. The process should continue over a longer term to support SMEs. Further, the government should provide budgetary allocation to the Refinancing Scheme to meet up the growing demand for credit of the SME sector.

5.4.4 Improve SMEs Competitiveness and Facilitate Access to the Market

- **Develop Dhaka HAAT to showcase SME Products***:* A dedicated place may be allocated for SMEs to showcase and sell their products all year round, like the one in India, "Delhi HAAT." The International Trade Fair (ITF) venue in Purbachal may be allocated for SMEs for 11 months except for the duration of the ITF. The concept would be to allocate stalls for 5/6 districts' SMEs on a lottery basis for one month, and then other districts' SMEs will get similar opportunities next month, and so on. This will give a fair opportunity to all SMEs to showcase their products for a longer time than the existing one for 4/5 days. This idea may be implemented at the district level too.

  This initiative aims to enhance business linkages between large and small enterprises, strengthen marketing agencies supporting SMEs, create bulk provision systems, facilitate compliance, and benefit from government procurement.

- **Provide Training to SMEs to increase competitiveness:** The plan involves training SMEs on product quality control techniques, ISO 9000 certifications, productivity

improvement, pricing mechanisms, market segmentation, accounting procedures, software applications, financial transactions, ICT applications, branding, human resource management, tax issues, trade issues, intellectual property rights, FOREX rules, and other relevant topics. A steering committee may be formed to decide training needs and design curricula, while standardised training modules will be developed and made available online. SMEF and BSCIC should collaborate in developing a unified training module.

- **A dedicated Website for SMEs:** SMEF should establish a dedicated SMEs website, regularly update it with sectoral stakeholders, adopt e-commerce facilities, and maintain an updated SME database.
- **Cheaper and Faster Start-up**: The government should facilitate online licensing and registration for start-ups, ease existing regulations, introduce ICTs, provide finance and technical support, design tailored training programmes, and establish an incubator.
- **Promote Cluster and Business Network for SMEs**: A need assessment focusing on infrastructure bottlenecks and business support services in SME clusters should be done in 2-3 years. Prioritising bank branches and joint cluster-based SME development programmes is suggested. The government should prioritise providing utility services to clusters, improving road connectivity, providing broadband internet, and establishing a common facility and design centre in each centre, maybe on a PPP basis.

5.4.5 Promote ICT applications, E-commerce, Online support, Outsourcing facilities and other technologies to SMEs

- **Equip SMEs with necessary ICT support***:* Design and develop training programmes aiming to equip SMEs with ICT applications, business solutions, software, website development, e-commerce facilitation, outsourcing, and freelancing activities.
- **Facilitate technology adoption and innovation**: It is important to establish a linkage between TVET institutions and SMEs, a network between R&D institutions, an assessment of product-specific technology requirements, a one-stop service centre, joint ventures, and allocation of A2I Service Innovation Fund and further innovation grants.
- **Facilitate SMEs to get international certification:** SMEF should help SMEs get BSTI certificates in an easy and affordable manner. They should take programmes to help SMEs get ISO certifications and should provide financial and technical assistance in this regard. BSTI should help SMEs to attain product certification internationally
- **Technology and Innovation Incubators**: The MoI should support technology incubation centres and R&D labs at universities for SMEs development. SMEF should assess existing facilities, allocate seed money, and create linkages between SMEs and these facilities.

- **Improve the capacity of training/academic institutes:** Initiatives should be taken to improve the training capacities of SMEF, SCITI, BIM, TVET, BFTI, BGMEA Fashion Technology Institute, ICT Institutes**,** and Skill Dev. Institutes, Trade bodies, and sector-related institutes by the government and respective organisations. The budgetary allocation should be made to employ additional resources for SMEF and other institutes for organising more training and skill development programmes.
- **Improve effective collaboration between training institutes***:* It is important to have collaboration between SMEF, SCITI, BIM and other institutes on training curricula and programmes designed for SMEs. SMEF should improve effective collaboration between training institutes such as SCITI, TVET and other Institutes. MoI should build close links with other relevant Ministries, such as Ministry of Education, Ministry of Labour, Ministry of Women and Children Affairs and other relevant ministries to ensure that close cooperation and co-ordination of TVET activities results in the provision of a better-skilled workforce for SMEs linked to SME future employment needs
- **Online training content:** Distant learning programmes should be designed and offered. Content of the training should be made available online through the dedicated SME website. Inculcate through education, training, and other programmes values and attitudes that are conducive to the development of entrepreneurship.

5.4.6 Promote Women's Entrepreneurship Development

The government should promote women entrepreneurship through targeted training programmes, awards, scholarships, and special preference for foreign scholarships. A Women Entrepreneur Development Fund (WEDF) should be established to train, create jobs, and provide loans at subsidised rates, with SMEF managing the fund and initially aiming for Tk. 100 crore.

5.4.7 Create SME Database, Facilitate R&D for SMEs and Improve SME Statistics

BBS should streamline SMI, AEIS, and other industry surveys to meet standard tools and formats. Regular SMI should be conducted every two years. The next round of the Economic Census should be comprehensive for well-documented SME statistics. SMEF should create an SME Data Warehouse and publish SME statistics on important indicators regularly.

References:

Hossain, M. (2023). MSMEs Distress in COVID-19 Pandemic in Bangladesh: An Analysis of the Stimulus Package Design and Implementation Options, International Journal of SME Development, Issue 15, 2022, SME Foundation, Dhaka, Bangladesh

Hossain, M., Yoshino, N., & Taghizadeh-Hesary, F. (2021). Optimal branching strategy, local financial development, and SMEs' performance. *Economic Modelling*, *96*, 421-432.

Hossain, M., Yoshino, N., & Taghizadeh-Hesary, F. (2018). *Local financial development, access to credit and SMEs' performance: Evidence from Bangladesh* (No. 906). ADBI Working Paper Series.

SME Foundation. (2023). Annual report 2022-2023. Ministry of Industries, Government of Bangladesh. https://smef.gov.bd/site/view/annual_reports/

Bangladesh Bank. (2020). Small and Medium Enterprise (SME) credit policies & programmes. SME & Special Programmes Department. https://www.bb.org.bd/sme/index.php

Planning Commission. (2020). 8th Five Year Plan (July 2020-June 2025): Promoting prosperity and fostering inclusiveness. Government of Bangladesh. http://www.plancomm.gov.bd

Ministry of Finance. (2023). Bangladesh Economic Review 2023. Finance Division, Government of the People's Republic of Bangladesh.

Chapter 6: Reaping the Benefits of Demographic Dividends: Investment in Education[1]

6.1 Background

Bangladesh's current state of primary, secondary and higher education is less than ideal and fails to meet global standards. According to the Bangladesh Bureau of Educational Information and Statistics (BANBEIS), there are about 114,630 primary schools, 21,086 secondary schools and about 171 universities across Bangladesh, including 55 public universities, 114 private universities, and 2 international universities (BANBEIS, 2024). However, despite having such a substantial number of primary and secondary schools and universities, several educational institutions in Bangladesh face challenges, including inadequate funding, lack of proficient faculty members, substandard curricula and a provision of poor-quality education, in addition to demonstrating high political involvement either through prevalent on-campus student politics or perpetual intercession by political authorities hindering academic freedom. Furthermore, a skills mismatch between academia and labour market demands further obstructs youths from securing adequate employment (Khatun & Saadat, 2019). For instance, employers prioritise communication, English language skills, problem-solving, and efficient time management, yet university graduates lack such aptitude (Khatun et al., 2022). Additionally, the proportion of female students participating in higher education has been staggeringly low. According to the BANBEIS 2023 Statistics, female students constituted only 37% of all student body across public, private, and international universities established in Bangladesh (BANBEIS, 2024). This delineates three key consequences, including fostering a lack of employable skills among graduates, suboptimal global competitiveness with respect to international peers, resulting in a brain drain, and insufficient female labour force participation, underscoring a lack of gender parity.

Bangladesh is currently experiencing a demographic dividend, with around 66% of its population being of working age. Bangladesh needs to invest in its people to turn this large population into a valuable resource by providing proper education (CPD, 2023). The 4th Industrial Revolution (4IR) requires a diverse set of skills, including digital literacy, Information and Communications Technology (ICT) knowledge, emotional intelligence and analytical thinking of the population to be able to compete in the global economy. To fully participate in this revolution, the country must re-evaluate its education systems and ensure that it meets the demands of the 4IR (CPD, 2023; Ahmed, 2024). The development of Bangladesh is heavily dependent on its ability to tap into the potential of its population and turn them into valuable human resources, which can only

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be achieved through quality education. Therefore, investing in primary, secondary and higher education is the key to investing in people, and ultimately achieving prosperity.

6.2 Primary, Secondary and Higher Education: Current Context

6.2.1 Primary Education

The primary education system in Bangladesh is designed to provide basic education to children aged 6 to 10 years (grades 1 to 5), where basics such as reading, writing and math are taught. Secondary education covers five years of schooling (grades 6 to 10) for children aged 11 to 15 years. This initial phase of education is crucial for the children as it lays the foundation for future learning, skill development, and the country's efforts to achieve universal education, socioeconomic development and social equity (Adhikary et al., 2022). Quality of education, especially at the primary level, is crucial in human capital development. Pathways and ability to succeed in secondary, higher-secondary, and university levels become increasingly difficult without a strong foundation in primary education (Masoom and Siddik, 2024). Investment in women's education is also widely acknowledged to benefit society through numerous economic and noneconomic channels. However, the current situation of primary education in Bangladesh faces significant challenges, such as variations in the teacher-student ratio, lack of qualified and trained teachers, variety in primary education systems, and disparity and lack of coordination among primary educational institutions (Jahan & Islam, 2017).

Available data indicate that Bangladesh has made considerable progress in primary and secondary education over recent years by attaining near-universal enrolment in primary schools and gender parity across both primary and secondary levels. However, despite these achievements, challenges persist, particularly in retaining students through secondary education. The COVID-19 pandemic has worsened dropout rates, especially among girls, due to several socio-economic factors, such as financial hardships and an increase in early marriages, highlighting the need for targeted interventions to sustain progress in the education sector. Table 6.1 presents some key indicators of primary education from 2018-2023.

Table 6.1: Key Indicators of Primary Education, 2018-2023

Key Indicators		**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Gross Enrolment Rate (%)	Boys	110.32	104.49	100.1	105.32	103.16	100.71
	Girls	118.30	114.93	108.9	106.14	118.46	109.83
	All	**114.23**	**109.60**	**104.9**	**105.72**	**110.48**	**104.53**
Net Enrolment Rate (%)	Boys	97.55	97.65	97.37	97.39	97.52	97.68
	Girls	98.16	98.01	98.25	97.44	97.81	97.84
	All	**97.85**	**97.74**	**97.81**	**97.42**	**97.56**	**97.76**
Survival Rate to Grade 5 (%)	Boys	80.93	84.1	83.3	85.25	85.9	85.91
	Girls	87.73	86.1	85.9	87.1	87.8	87.83
	All	**83.53**	**85.2**	**84.7**	**86.2**	**86.25**	**86.93**

Primary Cycle Dropout Rate (%)	Boys	21.4	19.2	19.1	15.05	14.88	14.12
	Girls	15.69	15.7	15.5	13.25	13.19	12.32
	All	**18.6**	**19.9**	**17.2**	**14.15**	**13.95**	**13.15**
Teacher Student Ratio	All	1:37	1:35	1:34	1:35	1:33	1:29

Source: APSC 2023 (DPE).

The Annual Primary School Census (APSC) 2023 data shows that Boys' Gross Enrolment Rate (GER) has gradually declined from 110.32% in 2018 to 100.71% in 2023, while girls' GER, maintaining a higher rate, reached the highest point of 118.46% in 2022 before falling to 109.83% in 2023 (DPE, 2023). However, both boys' and girls' Net Enrolment Rate (NER) showed stability, with boys remaining at around 97% and girls slightly higher at approximately 98%. Overall, access to primary education remains relatively consistent. The Survival Rate to Grade 5 (primary level) has improved for boys, rising from 80.93% to 85.91%, and for girls, it remained almost constant, with a slight increase between 2018 and 2023. This reflects a positive trend in retaining students at the primary level. Additionally, the primary cycle dropout rate has decreased considerably, particularly for girls, whose dropout rate fell from 15.69% to 12.32% over the same period. This decline is encouraging and suggests improvements in educational retention strategies. Finally, the Teacher-Student Ratio has improved markedly, decreasing from 1:37 in 2018 to 1:29 in 2023.

6.2.2 Secondary Education

Moving to secondary education, Table 6.2 presents the trend in some of the key indicators over the years.

Table 6.2: Key Indicators of Secondary Education, 2018-2023

Key Indicators		Year					
		2018	**2019**	**2020**	**2021**	**2022**	**2023**
Gross Enrolment Rate (%)	Boys	69.56	67.83	67.13	66.40	69.10	66.55
	Girls	82.50	83.36	85.19	83.15	83.20	83.70
	All	**75.32**	**75.62**	**76.38**	**75.78**	**76.10**	**74.81**
Net Enrolment Rate (%)	Boys	64.47	60.11	62.89	63.29	67.60	64.37
	Girls	74.68	74.47	80.62	79.09	80.02	80.62
	All	**69.38**	**67.30**	**71.89**	**70.25**	**73.76**	**72.20**
Dropout Rate (%)	Boys	36.01	35.52	36.80	32.50	33.25	30.46
	Girls	40.19	37.67	34.86	40.29	40.78	34.87
	All	**37.62**	**36.73**	**35.76**	**35.66**	**35.98**	**32.85**
Teacher Student Ratio	All	1:45	1:42	1:41	1:38	1:36	1:34

Source: Bangladesh Education Statistics 2023 (BANBEIS).

The latest report of Bangladesh Education Statistics 2023 shows that the GER for boys has fluctuated, peaking at 69.56% in 2018 but declining to 66.55% by 2023, while girls

consistently maintained substantially higher rates, reaching 83.70% in 2023. However, overall, GER has experienced many fluctuations over the years. In terms of NER, boys showed a modest increase from 64.47% in 2018 to 64.37% in 2023, whereas girls improved from 74.68% to 80.62%, highlighting a significant advancement in girls' access to education. The dropout rates have also improved, particularly for boys, whose rate decreased from 36.01% to 30.46%, while girls' dropout rates fell from 40.19% to 34.87% between 2018 and 2023. Lastly, the student-teacher ratio improved from 1:45 in 2018 to 1:34 in 2023, suggesting improvements similar to the primary level.

Comparing the key indicators of both levels, it is observed that secondary education shows lower GERs, reflecting a significant drop in participation as students transition to higher levels of schooling. Additionally, dropout rates are notably higher in secondary education, particularly for girls, compared to the much lower primary dropout rates. These differences underscore the challenges faced in retaining students as they move up the education system despite strong foundational access at the primary level.

In terms of the school-level infrastructure, the increased availability of electricity, computers, and internet connections reflects a shift toward enhancing students' digital literacy. Simultaneously, the progress in better sanitation through improved toilet facilities, access to safe drinking water, and the adoption of solar panels signify better learning environments at educational institutions. However, the regional disparities are more evident if the division-wise distribution of primary and secondary schools is observed. The following Table 6.3 presents the division-wise number of institutes providing primary education in 2023.

Table 6.3: Division-wise Distribution of Primary and Secondary Schools in 2023

Division	Number of Primary Schools		Number of Secondary Schools	
	Total	Percentage of schools (%)	Total	Percentage of schools (%)
Barishal	8,660	7.6	1735	8.23
Chattogram	19,701	17.2	3402	16.13
Dhaka	23,253	20.3	4023	19.08
Khulna	12,543	10.9	2886	13.68
Mymensingh	10,471	9.1	1550	7.35
Rajshahi	14,818	12.9	3041	14.43
Rangpur	16,948	14.8	3327	15.78
Sylhet	8,236	7.2	1122	5.32
Total	**114,630**	**100.0**	**21086**	**100.0**

Source: APSC 2023 and Bangladesh Education Statistics 2023.

The data highlights both the distribution and relative scale of primary and secondary schools across the eight divisions in Bangladesh. Dhaka leads considerably with the highest number of primary schools at 23,253, accounting for 20.3% of the total, and also

in secondary schools with 4,023, representing 19.08% of all secondary institutions. Chattogram follows closely in both categories, with 19,701 primary schools (17.2%) and 3,402 secondary schools (16.13%). In contrast, Sylhet has the fewest secondary schools at just 1,122, making up only 5.32% of the total, despite having a comparable number of primary schools (8,236 or 7.2%). Additionally, Mymensingh shows a significant disparity; while it has 10,471 primary schools (9.1%), it has only 1,550 secondary schools (7.35%). Overall, while the distribution of primary schools is relatively widespread across divisions, the number of secondary schools tends to be lower, indicating potential challenges in providing adequate access to secondary education as students' progress from primary schooling.

The data on key indicators of higher secondary education in Bangladesh shows that education enrolment and retention have improved considerably from 2018 to 2023. The GER for both boys and girls has seen an upward trajectory, with boys increasing from 45.35% in 2018 to 56.06% in 2023, while girls rose from 42.16% to 58.47%, indicating a notable improvement in access to higher secondary education for both genders. In contrast, the NER improved more for girls, who increased from 33.90% to 52.74%, compared to boys' rise from 36.88% to 51.14% (Table 6.4). However, dropout rates remain a concern, and the teacher-student ratio has slightly worsened, potentially impacting education quality.

Table 6.4: Key Indicators of Higher Secondary Education, 2018-2023

Key Indicators		**Year**					
		2018	**2019**	**2020**	**2021**	**2022**	**2023**
Gross Enrolment Rate (%)	Boys	45.35	48.68	49.19	48.50	46.79	56.06
	Girls	42.16	45.87	47.54	49.88	48.71	58.47
	All	**43.8**	**47.32**	**48.39**	**48.79**	**47.70**	**57.20**
Net Enrolment Rate (%)	Boys	36.88	31.72	36.53	41.88	44.26	51.14
	Girls	33.9	36.99	36.97	40.49	44.61	52.74
	All	**35.43**	**35.81**	**36.40**	**40.54**	**44.42**	**51.90**
Dropout Rate (%)	Boys	18.02	17.28	20.57	20.74	21.59	20.51
	Girls	21.21	19.66	22.02	21.56	22.60	22.45
	All	**19.63**	**18.55**	**21.16**	**21.14**	**22.72**	**21.51**
Teacher Student Ratio	All	1:35	1:34	1:36	1:35	1:34	1:38

Source: Bangladesh Education Statistics 2023 (BANBEIS).

The division-wise distribution of colleges also follows somewhat similar patterns as seen in primary and secondary schools. Dhaka leads markedly in this sector as well, with 408 total schools and colleges, accounting for 27.57% of the total, and has the highest number of higher secondary colleges at 324, representing 23.14% of all colleges. Chattogram follows in the second position. Barishal and Sylhet have lower representation, with only 80 colleges and 100 colleges respectively. Mymensingh has a smaller educational infrastructure Table 6.5.

Table 6.5: Division-Wise Distribution of Higher Secondary Colleges in 2023

Division	Number of Schools & Colleges (College Section)		Number of Higher Secondary Colleges	
	Total	Percentage (%)	Total	Percentage (%)
Barishal	80	5.40	100	7.14
Chattogram	226	15.27	210	15
Dhaka	408	27.57	324	23.14
Khulna	123	8.32	159	11.36
Mymensingh	73	4.93	123	8.79
Rajshahi	202	13.65	209	14.93
Rangpur	238	16.08	195	13.93
Sylhet	130	8.78	80	5.71
Total	**1480**	**100.0**	**1400**	**100.0**

Source- Bangladesh Education Statistics 2023 (BANBEIS).

The Education Watch 2023 report found that, between 2022 and 2023, a family's out-of-pocket costs per school-going child increased by 25% and 51% at the primary and secondary levels, respectively (Ahmed, 2024). The average annual family cost per child in 2023 was Tk 17,294 and Tk 41,424 for primary and secondary levels, respectively—about a quarter less for rural areas. Private tutoring and commercial guidebooks were major contributors to these costs. According to the Bangladesh Bureau of Statistics (BBS), the average monthly family income was Tk 32,422 in 2022 (Ahmed, 2024). Schooling cost is a big burden, especially for about two crore households in the country earning below-average income, particularly if they have more than one school-going child.

The government of Bangladesh took multiple initiatives, such as, adopting the compulsory primary education law in 1990, offering a monthly stipend to a large number of students at primary and secondary levels, distributing free textbooks to all students of mainstream schools, launching school-meal programme, and initiateing vitamin-A, deworming campaign, which expanded access to education in a major way. However, these could only partially mitigate the disparities in the system, while expansion did not match learning outcomes, thus limiting the impact of the initiatives. The scale of effort and effectiveness of implementation remained deficient, as suggested by experts.

6.2.3 Higher Education

To aggravate the existing challenges, COVID-19 has thwarted progress in higher education, with a decline in the gross enrolment rate observed after 2019 (Figure 6.1). The pandemic had caused a prolonged closure of universities and prompted an abrupt transition to online classes and remote learning. However, not all universities had the resources or infrastructure to facilitate online classes effectively, resulting in significant learning loss. Between 2011 and 2019, the gross enrolment rate in higher education had

a progressive trajectory, increasing from 13.6% to nearly 22.8% (World Bank, 2024). Yet, in 2020 the gross enrolment rate fell to 22.5% and has fluctuated around this level ever since (World Bank, 2024).

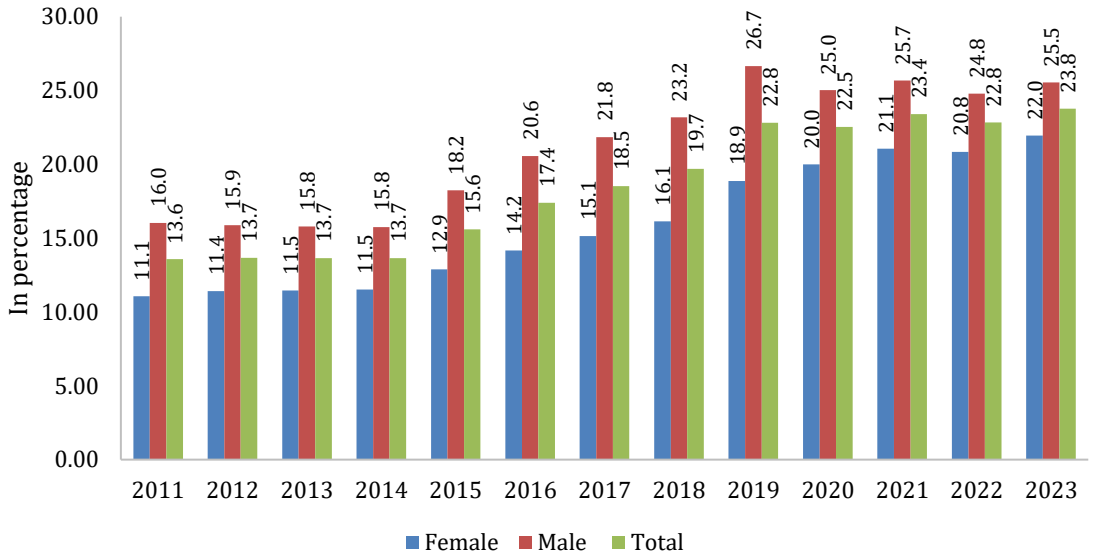


Figure 6.1: Gross Enrolment Rate in Higher Education

Source: Authors' illustration based on data from the World Bank Group (World Bank, 2024).

In Bangladesh, between 2015 and 2019, the percentage of students aged 25 years and older who attained at least a Bachelor's degree increased from 8.2% to around 10% (Figure 6.2) (World Bank, 2024). Similarly, during the same period, the percentage of students aged 25 years and older who attained at least a Master's degree also increased from 3% to nearly 4% (World Bank, 2024). However, relative to the increase in the share of those who have attained a Bachelor's degree, the growth in the proportion of Master's degree holders was quite marginal. But it should be underscored that after 2019 there was a sharp decline in the share of students holding a Bachelor's degree as it fell to about 7.6% in 2022 (World Bank, 2024). This further emphasises the prolonged impact of the pandemic on Bangladesh's higher education, which experienced the longest closure of academic institutions in the world, lasting nearly 82 weeks (Østby et al., 2023). This extended disruption compromised the education system as many students were also insufficiently equipped to transition to remote learning.

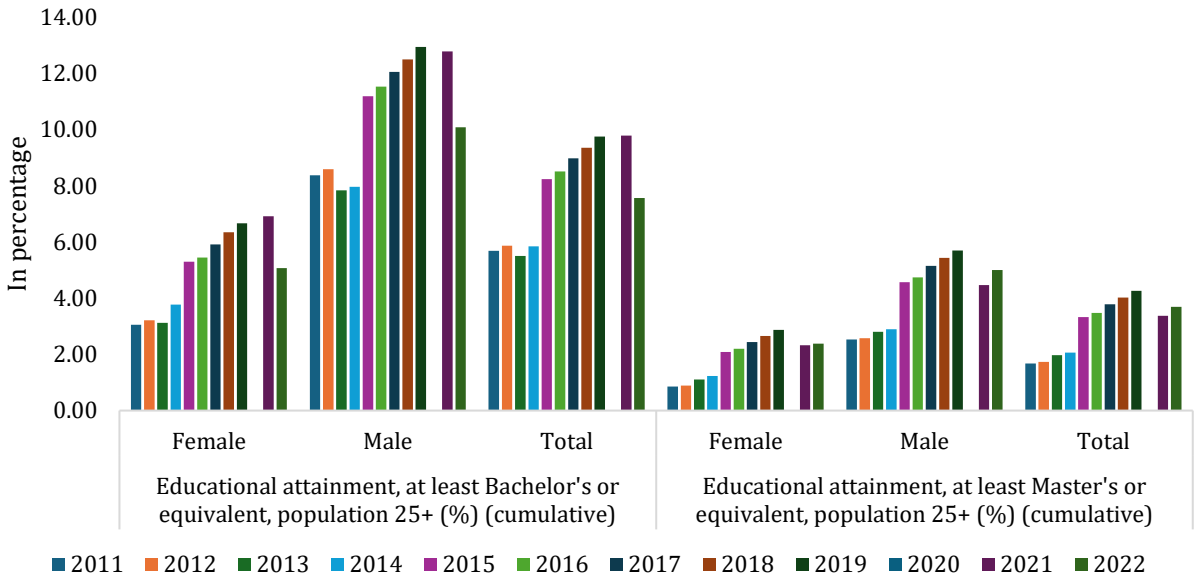


Figure 6.2: Educational Attainment, at least Bachelor's and Master's or Equivalent, Population 25+

Source: Authors' illustration based on data from the World Bank Group (World Bank, 2024).

6.3 Key Challenges of Primary and Secondary Education

6.3.1 Quality of primary and secondary education: A great concern

Heterogeneity of education system: Bangladesh's education system has varied levels of heterogeneity. At present, the education system in Bangladesh is segregated into the National Curriculum, where lessons are taught in Bangla or English; Aliya Madrasah (registered with the government), where more traditional subjects are also taught in addition to religious studies and Qawmi Madrasah (not registered with the government), where lessons are primarily concentric around religious studies (Mahbubul & Al-Hasani, 2020); and British and IB curriculum which is vastly different from the other stated systems. Government, for-profit private, NGOs and faith-based organisations run the primary and secondary schools, creating disparities in quality and accessibility, which reflect a major weakness of the education system. Experts opined that the diverse streams are widening and deepening class divisions (madrasas largely serving the poor, middle and lower-middle class prefer Bangla schools, and the powerful elites choosing the English medium institutions) and undermining national unity (Ahmed, 2024). Affluent families often prefer to enrol their children in private schools due to the substandard quality of education in government primary schools. Though the 2010 policy advocated a unified and equitable school education of acceptable quality for all children, it was not explicit about how the multiple streams could be brought under a unified system or at least how to bring them under a framework of common national educational vision and goal. Limited initiative has been taken to plan and work towards this goal (Ahmed, 2024). Consequently, students from these diverse cohorts enter universities, further contributing to the heterogeneity in higher education.

Continued poor performance of students in some subjects: The poor performance of primary-level students in reading, mathematics, science and English has been a concern. A report by UNICEF (2021) shows that only 34% of third graders in the country can read proficiently, and only 18% can do basic math. Results of the seventh national student assessment (NSA), conducted in 2022 reveals that more than 60% of Class 3 students and 70% of Class 5 students did not have the expected grade-level proficiency in mathematics. Also, 51% of the Class 3 students and 50% of the Class 5 students lacked grade-level proficiency in Bangla. Though the challenges faced by children predate the COVID-19 pandemic, the prolonged school closures caused by the pandemic has worsened the situation.

Less focus on life skills, extracurricular activities and moral education: There is limited focus on life-skills education, extracurricular activities and moral education in primary and secondary school curriculum. Textbooks and classroom instructions often do not contain creative examples and problem-solving elements rather emphasises more on memorising.

Shortage of Teachers: Availability of dedicated and skilled teachers are critical for providing quality education. However, there is lack of sufficient teachers in government primary schools and disparities exist in teacher-student ratios, with many not meeting the recommended 1:30 ratio. Vacant posts for teachers and headmasters, and inadequate recruitment processes remain a major challenge (See Annex a). In addition to conducting their regular class (often five consecutive classes), the primary schools are engaged in carrying out different surveys, administrative work, which increases their work pressure and compromises quality of education.

More than 77,000 teaching positions were vacant in over 28,000 of the 31,826 educational institutions under the Monthly Pay Order (MPO) scheme including schools, colleges, madrasas, and technical education until March 2024 (bdnews24, 2024). In the last couple of years, the Non-Government Teachers' Registration and Certification Authority, or NTRCA, took multiple recruitment drives to address the teacher shortage, however, a shortfall in the number of qualified candidates in specific subjects and a lack of desired candidates for some of the positions have added to the crisis. Madrasas in particular are seeing dwindling pass rates for some of the subjects, which is exacerbating the staffing crisis (bdnews24, 2024).

Lack of qualified teachers: Untrained and unqualified teachers are prevalent, as most primary teachers lack the qualifications or specialised training in education (Nur & Short, 2020). It was reported that over 177,000 primary school teachers in Bangladesh do not even have an honours degree (Chandan, 2023). Many teachers lack adequate training and professional development opportunities. This lack of qualified teachers is particularly concerning given the challenges posed by the sudden shift to online learning during the COVID-19 pandemic. Training programmes also emphasise less on soft skill, such as relationship-building and communication skills for teachers. There is limited focus on counselling students for their mental health problems.

Outdated Teaching Methods: Ineffective pedagogy and stressful teaching practices often fail to engage students.

Reliance on private tuition: Many complains that schools are often not providing adequate attention to students, which has led to a dependency on private tuition. This situation is compounded by the fact that many parents struggle to find enough time or often lack capacity to devote to their children's education. Prevailing attitude of striving for a GPA 5 is creating a demand for private tutoring among students and parents.

Assessment of progress: A group of parents are not trusting the assessment system due to the abolishment of examination system in the primary level, therefore, shifting towards madrasa and kindergarten. While progress needs to be assessed by a steady stream of homework assignments, quizzes, tests, projects, and standardised tests, these should not add 'pressure' and 'stress' on the students.

Weak teacher-student and parent-teacher relationship: While the teacher and the head teacher often accuse parents of not providing adequate support at home, parents allege the school of not providing the required care and attention for their children (Hossain, 2016). This mutual disregard affects the teacher-student relationship. Skilled teachers should be available to the students regardless of the school location, cultural disparity, and students' quality. Communication skills of teachers are also crucial to build the relationships.

6.3.2 Gaps in Infrastructure and Resources

Inadequate facilities: During a stakeholder consultation, school teachers identified a few barriers, such as poorly maintained and outdated classrooms, insufficient toilets, inadequate or no libraries and playgrounds in many schools' compounds. Many schools do not have ramps or other logistics to support students with disability. However, it was also reported that there is enough budget in the primary education ministry and 732 crore BDT was returned to ADB in 2023/24 as surplus after establishing the required infrastructure (see Figure 6.3 for total budget allocation). This raises questions about the process of need assessment, planning, resource allocation and budget preparation.

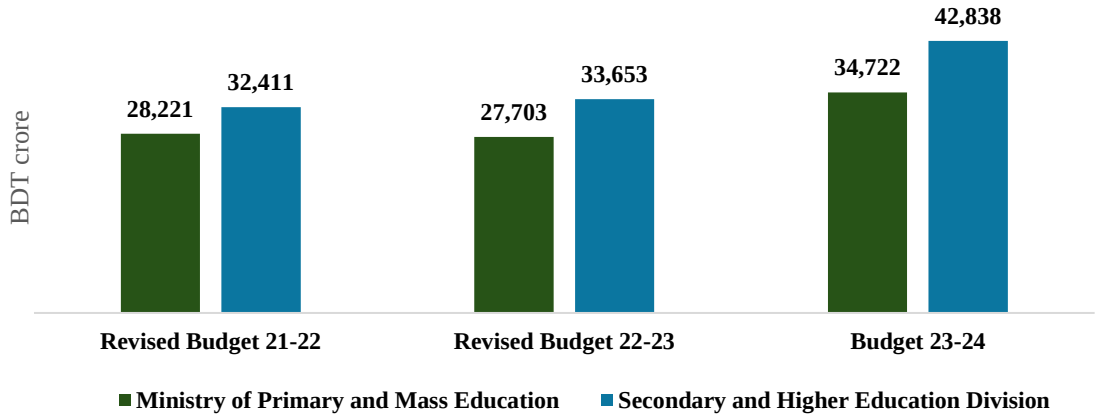


Figure 6.3: Ministry/Department Wise Allocation for the Education Sector (in BDT crore)

Source: Budget in Brief, 2021-24.

Inadequate salary of teachers: The salary of primary and secondary school teachers is one of the lowest in South-East Asia (see 6.4). This demotivates the teachers and compels them to do private tutoring or ultimately switch their jobs.

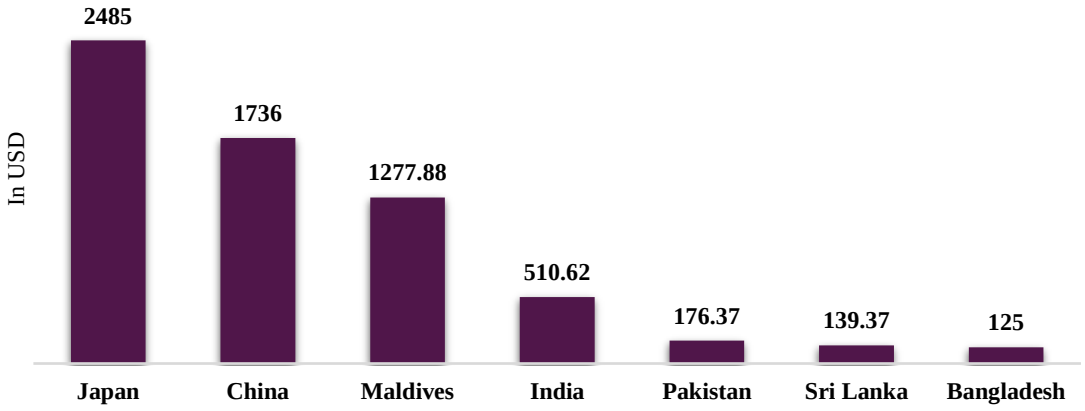


Figure 6.4: Minimum Salary of Secondary School Teachers (In USD)

Source: The Ministry of Education and Finance of the respective country, world population review and IRI.

Safety of students and teachers at the school premises: Inadequate safety measures for teachers and students, especially for female teachers and students, often remain a major concern. There is often no or limited closed-circuit (CC) camera on the school premises.

Lack of digital infrastructure: Lack of ICT infrastructure and limited access to technology and digital learning materials, especially in rural areas, remain a challenge.

When the COVID-19 pandemic spread to Bangladesh, students switched to an online teaching system. This transition brought forth many problems and highlighted the difficulties of introducing online teaching. The way children access online learning during COVID-19 varied greatly. BBS reported that remote learning was only accessible to 18.7% of primary school children during school closures. This highlights a significant problem: not all children have the same opportunities to get a good education, as there are differences in how much money their families have available for their education. This shows that many primary school children in Bangladesh could not study remotely during the pandemic.

The Chinese embassy has been conducting a pre-piloting programme on smart classrooms in Chadpur and Sylhet since January 2024 where students are provided with smart boards. These smart classrooms with a capacity of 30 students cannot adjust all 60 students in one day. Hence, half the students have to take classes on alternative days in alternative subjects, which is a limitation of the initiative.

Midday meal programme: The midday meal programme in primary school is considered a good initiative for student retention. However, a few cases of students' sickness due to poor-quality midday meals raised concern about the programme's implementation. A new project is scheduled to start in the region of Bandarban and Cox's Bazar, which will include midday meals.

6.3.3 Gender and Social Disparities

Systematic discrimination and the denial of equal opportunities characterize the education system in Bangladesh. A comprehensive national plan for quality schooling, looking at it from a rights perspective, does not exist. The target set in Education Policy 2010 to obtain education up to Class 8 by 2014 is yet to be reached. Now, in 2024, in light of the SDG 4 target, it is necessary to consider compulsory and free education of acceptable quality up to Class 10 and eventually Class 12. Yet, no such national plan exists, nor does it seem to be under consideration.

Socioeconomic barriers: Poverty impacts children's schooling regarding enrolment, participation, attendance, dropouts and success (Shohel, 2014). Parents often rely on their children's income-generating work instead of prioritising their education. The lack of health conditions for children and malnutrition is closely linked to poverty and are important indicators of academic success (Masoom and Siddik, 2024).

Gender inequality: Gender stereotypes and a pro-male bias in textbooks are evident (Islam and Asadullah, 2018). Sociocultural norms discourage girls to realise their potential, even though more of them are enrolled in school than boys. Significant dropout rates, especially among girls, due to socioeconomic barriers and lack of support, remain a challenge.

Regional disparity: A major fault line in school provisions is between rural areas (where 70% of the children live) and urban localities. Rural schools are at a disadvantage in respect of capable and motivated teachers, adequacy of infrastructure, and availability of

effective and operational digital technology (Masoom and Siddik, 2024). Char region faces significant challenges, including a high poverty rate and inadequate communication systems in several areas. People residing in slums experience social isolation, where education facilities are often worse than those in rural areas.

6.3.4 Policy and Governance

Inadequate coordination: Lack of coordination among educational institutions in public, private and NGO sectors, and their governing bodies remains a challenge.

Resource Allocation: Resource allocation is often not needs-based, leading to inequitable distribution of resources across geographic areas. There is also limited tracking of public expenditure in the education sector.

Conflicts of interest: A conflict of interest arises if the owner of a kindergarten school becomes a member of the school governing body of the government primary school.

Inadequate monitoring and supervision: In the absence of standard procedure and guidelines and also lack of capacity in terms of resources and skills, monitoring and supervision of schools, including teaching quality, construction and maintenance remain a challenge.

Delay in scholarship disbursement: Delays in receiving scholarships hinder students' access to financial support for their education.

6.4 Key Challenges of the Higher Education

Inadequate digital resources: According to the International Telecommunication Union (ITU) only around 8.7% of households in Bangladesh owned a computer in 2021 which slightly increased to 8.9% in 2023 (ITU, 2025). Additionally, in 2023 a mere 29.5% of the households across Bangladesh owned a smartphone. Furthermore, less than half of the households in Bangladesh reported having access to a fixed broadband connection while only 26.1% of the households had access to a mobile broadband network via handset in 2023 (ITU, 2025). Digital resources such as a basic computer, smartphone, and an adequate internet connection were critical to facilitate remote learning, particularly during the pandemic. Yet, the lack of such digital tools hindered the effective participation of students in online classes, significantly affecting their educational progress. This left students with limited options, often forcing them to either temporarily suspend their studies or in more severe cases, drop out entirely. Furthermore, financial hardships during the pandemic, due to loss in family income, further compelled students to prioritise informal employment at the expense of continuing their education. To exacerbate the situation, many female students enrolled in higher education faced additional pressures, leading to early marriage as a consequence.

Decline in educational attainment: The decline in educational attainment of at least a Bachelor's or a Master's degree poses significant challenges since it reduces the probability of securing suitable employment. In Bangladesh, the labour market is already constrained, defined by several challenges including a large supply of labour with limited available corresponding jobs, a substantial number of unemployed youths, and a

mismatch in skills demanded by employers. Organisations typically require applicants to have a Bachelor's degree at the very least in a relevant discipline to be considered for employment (Khatun et al., 2024). Thus, without a basic undergraduate degree, individuals find themselves at a greater disadvantage, unable to secure well-paying white-collar employment, and compelled to settle for informal jobs.

In addition, employers also need candidates to have some degree of proficiency in computer skills to be eligible for the available position (Khatun et al., 2024). However, individuals in Bangladesh also lack expertise in ICT, as Bangladesh's youths and adults find it difficult to write programs, solve arithmetic problems in spreadsheets, adjust privacy settings, connect devices, or install software. For instance, according to statistics as recent as 2021, barely 1% of individuals have some proficiency in programming language, while only 4% of individuals could connect or install new devices (UIS, 2025). Furthermore, a mere 6% of youths and adults know how to change the privacy settings in their applications, and only 7.8% have transferred files between a computer and other devices (UIS, 2025). In addition, only 14% can solve arithmetic problems using a spreadsheet, while 22% can install, download, and configure software (UIS, 2025). However, astonishingly, less than half of the population, comprising youths and adults, cannot execute rudimentary tasks involving sending emails with attachments, making electronic presentations, or copying and pasting information within documents.

Heterogeneity of the education system: The lack of uniformity and standardisation in the education system highlights a few integral issues. First, each education system differs in resources available, quality of teachers, academic rigour, and methods of assessments and lessons delivered. As a result, some students might enter higher education with a stronger academic foundation than others. Secondly, universities might then struggle to offer a cohesive academic framework and methods of assessment to optimise student outputs. This could lead to a curriculum designed to accommodate students who are struggling, further undermining the overall quality of education.

Another dimension of multiformity present in higher education is the quality of education offered between public and private universities and universities located outside of Dhaka. Universities that are located outside of the purview of the capital city are often at a greater disadvantage. Most universities outside Dhaka often lack the required resources to facilitate quality education with limited research outputs. They also find it difficult to enrol international students or hire competent teachers who can further provide premier education. Furthermore, the planned academic programmes of such universities also fail to be on par with either national or international standards. Even universities with strong reputations struggle to meet international standards, as a Master's degree earned in Bangladesh is often not directly comparable to a Bachelor's degree obtained in some developed countries. According to a survey conducted by CPD, 86% of 250 unemployed youths and 76% of 250 employed youths agreed that a university degree received from abroad is more valuable than the one attained in Bangladesh (Khatun et al., 2024). This further emphasises the perception that the quality of education offered in local universities in Bangladesh is deemed inadequate by both employers and graduating

youths from public and private universities. This underscores the significant notion that candidates with academic qualifications accredited by universities abroad might be more qualified in terms of skills and knowledge as opposed to applicants graduating from Bangladesh (Khatun et al., 2024). In addition, there also exists a preconceived notion that privately owned universities in Bangladesh tend to "sell" certificates under the guise of offering quality education. While this prevailing belief might be true for most universities, a select few private institutions have distinguished themselves by achieving top rankings. Simultaneously, many public universities in Bangladesh also provide subpar education. As these institutions are subsidised to maintain low tuition fees, offering education of such low quality may be considered an inefficient use of taxpayers' money.

Low government funding for higher education: Historically, the overall government expenditure for higher education has been substantially low. Between FY 2015-16 and FY 2023-24, the revised budget on tertiary education as a share of the total revised budget has always fluctuated around a mere 1% (Figure 6.5). Moreover, government expenditure as a proportion of the revised budget has declined since FY 2021-22, reaching its lowest point in FY 2023-24 at only 1.1%. Additionally, the total revised budget allocation on tertiary education as a share of GDP has remained less than 1% between FY 2015-2016 and FY 2023-2024. This underscores a growing concern regarding the government's declining prioritisation of higher education in Bangladesh. With such limited funding, academic institutions face several challenges, including resource constraints, limited research, and poor student outcomes.

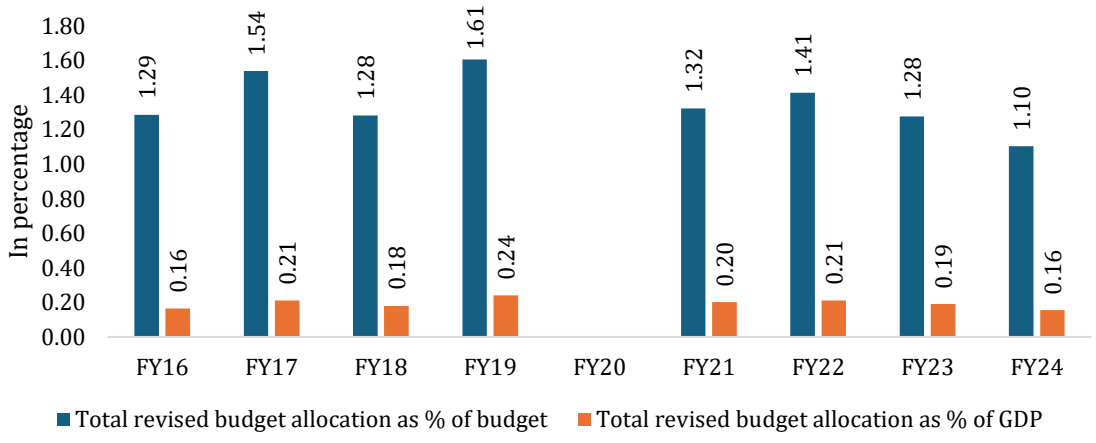


Figure 6.5: Government Expenditure on Higher Education in Bangladesh

Source: Authors' illustration based on data from the Ministry of Finance and Bangladesh Bureau of Statistics (BBS) (MoF 2017a; MoF 2017b; MoF 2018a; MoF 2018b; MoF 2019a; MoF 2019b; MoF 2020a; MoF 2020b; MoF 2021a; MoF 2021b; MoF 2022a; MoF 2022b; MoF 2023a; MoF 2023b; MoF 2024a; MoF 2024b; MoF 2025a; MoF 2025b; BBS 2021; BBS 2023).

In addition, initial government funding per tertiary student as a percentage of GDP per capita from 2000 to 2013 depicts a declining trend (Figure 6.6 and Figure 6.7). This

declining trend highlights several key issues, including challenges in maintaining access to equitable, affordable, and quality education.

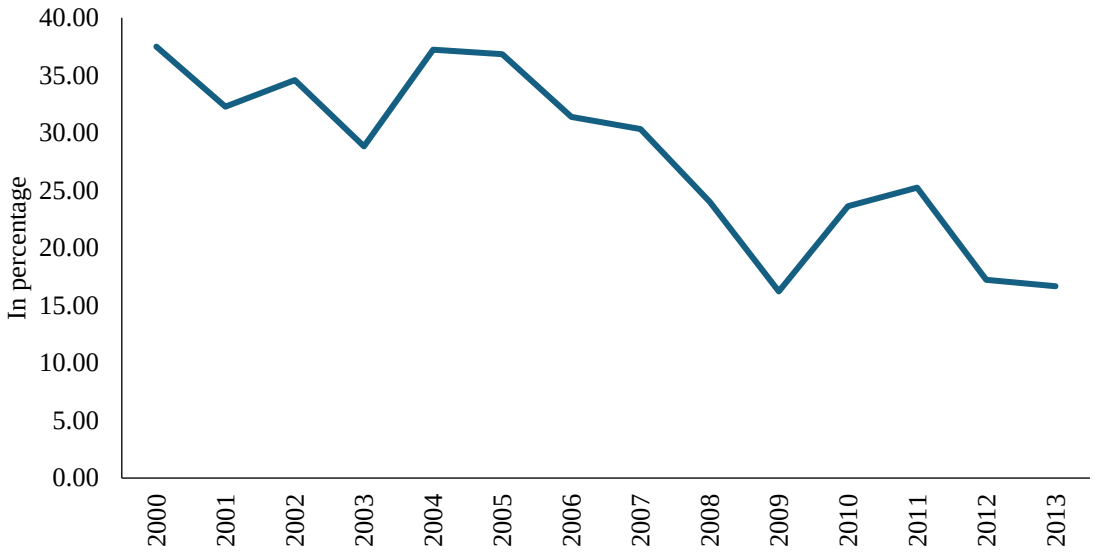


Figure 6.6: Initial Government Funding per Tertiary Student as a Percentage of GDP per capita

Source: Authors' illustration based on data from the World Bank Group (World Bank, 2024).

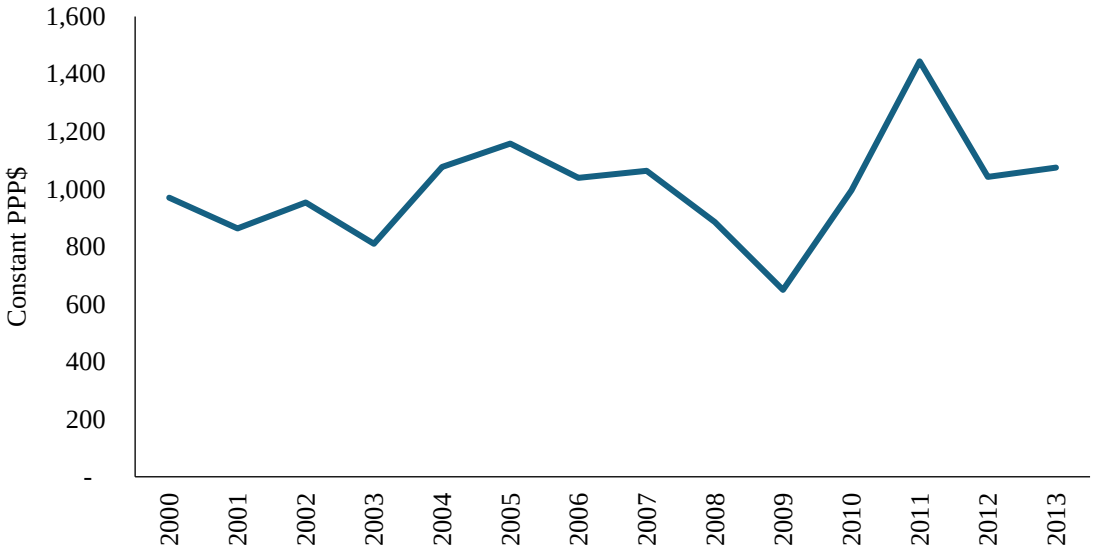


Figure 6.7: Initial Government Funding per Tertiary Student, constant PPP$

Source: Authors' illustration based on data from the World Bank Group (World Bank, 2024).

6.5 Policy Recommendations

6.5.1 Short-term Strategies

- **Standardise education systems:** Review the various types of primary and secondary education systems to develop a consolidated system and align it with the national education policy.
- **Update teaching and students' assessment methods**: Review the feasibility and scope of revising teaching methods to incorporate enjoyable, less stressful pedagogical practices in the teaching methods, with a focus on core subjects as well as moral education, life skills and extra-curricular activities. Review the current examination and grading systems to make a balance between examination and continuous classroom assessment.
- **Conduct comprehensive need assessment:** Conduct a comprehensive need assessment of facilities, including libraries, digital classrooms, playgrounds, and sanitary toilets (considering girls' menstrual hygiene).
- **Allocate additional resources to expand ICT access**: Invest in digital infrastructure, scale up initiatives such as smart classrooms and provide digital learning materials. System needs to be in place to overcome learning loss due to the challenges posed by recurring floods, especially in Char areas, and other disruptions, and to be resilient against future disruptions.
- **Provide socioeconomic support:** Offer scholarships and implement school meal programmes to reduce financial barriers and promote nutrition. Assign a focal person at the ministry to monitor the progress and ensure timely disbursement of the scholarship and update the report.
- **Enhance Safety:** Install CCTV cameras and improve the security of teachers and students.
- **Conduct Public Expenditure Tracking (PET)**: Conduct public expenditure tracking in the primary and secondary education sector to assess the efficiency and equity of resource utilisation.
- **Rationalise engaging teachers in multiple other activities (e.g. surveys, election duty):** Review the existing workload of teachers, rationalise those and explore other government stakeholders who can conduct those activities instead of primary and secondary school teachers.
- **Increasing availability of technology and the Internet:** Access to computers and broadband Internet should be increased, particularly in rural areas. Programming and coding should be introduced in the mainstream education system to increase the probability of securing jobs in the rapidly modernising manufacturing and services sectors, where there is a shortage of high-quality human resources.
- **Developing a single university entrance examination:** A single university entrance examination, based on internationally recognised aptitude tests such as the SAT and

GRE, should be developed and implemented for all public and private university admissions.

- **Merging universities:** The government should consider merging some universities, both public and private, to optimise limited educational funds, increase cooperation among institutions through resource sharing, and improve global ranking.
- **Increasing use of the English language at university**: The government should encourage top universities to adopt American curriculum and English books and use English as a medium of instruction in the classroom to attract foreign teachers and students.
- **Ending auto pass and question paper leaks**: Provisions for auto pass in examinations should be revoked, and no auto pass should be allowed to any student in any examination under any circumstances. Those involved with leaking question papers should be punished with a 3 to 10-year prison term as per the Public Examinations (Offences) (Amended) Act, 1992.
- **Banning on-campus student politics**: All public and private universities should completely ban on-campus student politics.
- **Ensuring merit-based recruitment and performance-based promotion of university teachers**: All teachers in public and private universities should be recruited based on merit alone. A standardised mechanism for assessing teachers' performance in public and private universities should be introduced based on student teaching evaluation feedback, research output, and other common criteria in top universities worldwide.
- **Implementing a "No PhD, No Professor" policy**: No public or private university teacher should be recruited or promoted to assistant professor, associate professor, or professor without a PhD from an internationally recognised university.
- **Safeguarding academic freedom and operational autonomy of universities**: The government should encourage the autonomous operation of universities in response to market needs and protect academic freedom from political influence.

6.5.2 Medium to Long-term strategies

- **Providing substantial government funding to both public and private universities:** The government should implement special financial programmes to assist selected top Bangladeshi universities in becoming world-class institutions by improving their quality of education and research.
- **Increasing international cooperation and exchanges:** International cooperation and exchanges between universities in Bangladesh and universities in developed countries should be encouraged.
- **Offering incentives to the best international academics, professors, and scholars:** The government should entice the best academics, professors, and scholars from around the world to come to Bangladesh and teach and conduct research in

Bangladeshi universities by offering lucrative incentives such as housing discounts, high salaries, jobs for spouses, international schools for children, residence permits, and modern laboratories and equipment

- **Improve teacher-student ratios:** Recruit required teachers to enhance teaching effectiveness and also assess the feasibility of reducing students per class at the primary and secondary education levels. Review the smart classroom initiative (30 students per class) in Chandpur and Sylhet (by the Chinese embassy) and scale up if effective.
- **Recruit qualified teachers with pay scale:** Review teacher recruitment criteria for primary and secondary schools, the existing quota for recruitment, and also their existing pay scale to make it acceptable to attract suitable candidates.
- **Strengthen training programs:** Review the existing teachers' training package, update the teachers' training manuals/curriculums, and provide one-year mandatory training and continuous professional development for teachers. This needs to include teaching methods, engaging students, making the session interactive with students, relationship building relationships, and improving communication skills. Explore opportunities for public and private sector collaborations to fund and implement training programmes that address specific skill deficits of teachers, such as communication and problem-solving.
- **Targeted interventions for girls:** Address menstrual hygiene challenges at school and provide proper education and counselling at schools to reduce dropout rates. Design appropriate intervention in partnership with NGOs to enrol students, especially from the hard-to-reach areas, urban slums and floating children.
- **Support for students with disabilities:** Introduce inclusive programmes and allocate resources for special needs education.
- **Enhance monitoring:** Strengthen the role of educational officers in supervision and hold contractors accountable for infrastructure quality. Strengthen monitoring of the quality of school buildings, constructed by the Local Government Engineering Department (LGED,), Department of Public Health and Engineering (DPHE).
- **Resolve administrative problems:** Resolve conflict of interest in selection of school governing committee members and strengthen coordination among primary educational institutions.

6.6 Conclusion

Strengthening primary, secondary and higher education systems in Bangladesh is crucial for sustainable development. Addressing systemic, quality, infrastructure, and equity challenges requires coordinated efforts by government, private sectors, and NGOs. Effective implementation of these recommendations can ensure a more inclusive, resilient, and high-quality education system in Bangladesh.

References:

Adhikary, R. W., Lingard, B., & Hardy, I. (2022). Global-national networks in education policy: Primary education, social enterprises and 'teach for Bangladesh'. Bloomsbury Publishing Plc. https://doi. org/10.5040/9781350169210

Ahmed, M. (2024). How much you can pay decides what education your child gets. The Daily Star. https://www.thedailystar.net/opinion/views/news/how-much-you-can-pay-decides-what-education-your-child-gets-3588381

bdnews24.com. (2024, November 14). When will the staffing shortage in MPO institutions go away? bdnews24.com. https://bdnews24.com/bangladesh/c0864112c664?utm_source

BANBEIS. (2024). BANBEIS Education Statistics 2023. Ministry of Education. Retrieved January 2, 2025, from https://banbeis.gov.bd/sites/default/files/files/banbeis.portal.gov.bd/files/e9d388d8_3ac7_4444_a3ce_c0e61c66b525/Bangladesh%20Education%20Statistics%202023_compressed.pdf

BANBEIS. (2023). Bangladesh Bureau of Educational Information and Statistics 2023. Ministry of Education, Government of Bangladesh. https://banbeis.portal.gov.bd/sites/default/files/files/banbeis.portal.gov.bd/npfblock/Bangladesh%20Education%20Statistics%202023%20%281%29.pdf

BBS. (2021). Gross domestic product of Bangladesh. Bangladesh Bureau of Statistics (BBS). Retrieved January 13, 2025, from https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/057b0f3b_a9e8_4fde_b3a6_6daec3853586/2022-02-08-08-05-3347c0f140eaa82212bc87e82f6181c5.pdf

BBS. (2023). Gross domestic product of Bangladesh. Bangladesh Bureau of Statistics (BBS). Retrieved January 13, 2025, from https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/057b0f3b_a9e8_4fde_b3a6_6daec3853586/2023-05-16-10-44-dbee2f57222c72fc4695eeec11f317b0.pdf

Chandan, M.S.K. (2023) All that ails our primary education. Available at: https://www.thedailystar.net/opinion/views/news/all-ails-our-primary-education-3409841

CPD. (2023). Weak primary base pose challenges to pursue advanced education. Available at: https://cpd.org.bd/weak-primary-base-pose-challenges-to-pursue-advanced-education/

Directorate of Primary Education (DPE). (2023). Annual primary school census (APSC) 2023: Final report. Ministry of Primary and Mass Education, Government of Bangladesh.

https://dpe.portal.gov.bd/sites/default/files/files/dpe.portal.gov.bd/publications/bfe86b94_5ace_4216_8d21_05b99550b57f/APSC%202023_Final%20Report%20(2).pdf

Hossain, M.A. (2016). Parents', teacher's, and head teacher's perceptions of the Primary Education Stipend Programme (PESP) in improving access and quality of primary education in Bangladesh Submitted for the Degree of International Professional Doctorate in Education, School of Education, University of Sussex

Islam, K.M.M., & Asadullah, M.N. (2018). Gender stereotypes and education: A comparative content analysis of Malaysian, Indonesian, Pakistani, and Bangladeshi school textbooks. PLOS ONE, 13(1), e0190807. https://doi.org/10.1371/journal.pone.0190807

ITU. (2025). Data Hub. Retrieved January 8, 2025, from International Telecommunication Union (ITU). https://datahub.itu.int/

Jahan, S., & Islam, M. M. (2017). Budgetary allocation in primary education of Bangladesh: A right based analysis. Journal of Asian and African Social Science and Humanities, 3(2), 21-29.

Khatun, F., & Saadat, S. Y. (2019). Youth Employment in Bangladesh. Palgrave Macmillan. Retrieved January 20, 2025, from https://cpd.org.bd/publication/youth-employment-in-bangladesh/

Khatun, F., Saadat, S. Y., Ashraf, K., & Taki, M. A. (2022). Skills Gap and Youth Employment in Bangladesh. Centre for Policy Dialogue (CPD). Retrieved January 20, 2025, from https://cpd.org.bd/publication/skills-gap-and-youth-employment-in-bangladesh/

Khatun, F., Saadat, S. Y., Mahbub, A., Joita, M. R., & Taki, M. A. (2024). Gen Z's Employment Expectations- An Exploratory Study in Bangladesh. Centre for Policy Dialogue (CPD). Retrieved January 20 , 2025, from https://cpd.org.bd/publication/gen-zs-employment-expectations-an-exploratory-study-in-bangladesh/

Mahbubul, S., & Al-Hasani, S. M. (2020). Madrasah Education In Bangladesh: A Comparative Study Between Aliya And Qawmi. Journal of Creative Writing, 4(2). https://doi.org/10.70771/jocw.v4i2.60

Masoom, M.R., and Siddik, I.A. (2024) Beyond the classroom: structural and qualitative challenges in Bangladesh's primary education. Research on Preschool and Primary Education. DOI: https://doi.org/10.55976/rppe.22024124238-49

Ministry of Education, Bangladesh (2023). Annual Report on Primary and Secondary Education. Dhaka: Government of Bangladesh.

MoF. (2017a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF).

MoF. (2017b). Budget in Brief. Finance Division. Ministry of Finance (MoF).

MoF. (2018a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF).

MoF. (2018b). Budget in Brief. Finance Division. Ministry of Finance (MoF).

MoF. (2019a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF).

MoF. (2019b). Budget in Brief. Finance Division. Ministry of Finance (MoF).

MoF. (2020a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF).

MoF. (2020b). Budget in Brief. Finance Division. Ministry of Finance (MoF).

MoF. (2021a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF).

MoF. (2021b). Budget in Brief. Finance Division. Ministry of Finance (MoF).

MoF. (2022a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF). Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%A7-%E0%A7%A8%E0%A7%A8/%E0%A6%8F%E0%A6%AE-%E0%A6%9F%E0%A6%BF-%E0%A6%AC%E0%A6%BF-%E0%A6%8F%E0%A6%AB

MoF. (2022b). Budget in Brief. Finance Division. Ministry of Finance (MoF). Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%A7-%E0%A7%A8%E0%A7%A8/%E0%A6%AC%E0%A6%BE%E0%A6%9C%E0%A7%87%E0%A6%9F%E0%A7%87%E0%A6%B0%20%E0%A6%B8%E0%A6%82%E0%A6%95%E0%A7%8D%E0%A6%B7%E0%A6%BF%E0%A6%AA%E0%A7%8D%E0%A6%A4%E0%A6%B8%E0

MoF. (2023a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF). Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%A8-%E0%A7%A8%E0%A7%A9/%E0%A6%8F%E0%A6%AE-%E0%A6%9F%E0%A6%BF-%E0%A6%AC%E0%A6%BF-%E0%A6%8F%E0%A6%AB

MoF. (2023b). Budget in Brief. Finance Division. Ministry of Finance (MoF). Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%A8-%E0%A7%A8%E0%A7%A9/%E0%A6%AC%E0%A6%BE%E0%A6%9C%E0%A7%87%E0%A6%9F%E0%A7%87%E0%A6%B0%20%E0%A6%B8%E0%A6%82%E0%A6%95%E0%A7%8D%E0%A6%B7%E0%A6%BF%E0%A6%AA%E0%A7%8D%E0%A6%A4%E0%A6%B8%E0

MoF. (2024a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF). Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%A9-%E0%A7%A8%E0%A7%AA/%E0%A6%8F%E0%A6%AE-%E0%A6%9F%E0%A6%BF-%E0%A6%AC%E0%A6%BF-%E0%A6%8F%E0%A6%AB

MoF. (2024b). Budget in Brief. Finance Division. Ministry of Finance (MoF). Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%A9-%E0%A7%A8%E0%A7%AA/%E0%A6%AC%E0%A6%BE%E0%A6%9C%E0%A7%87%E0%A6%9F%E0%A7%87%E0%A6%B0%20%E0%A6%B8%E0%A6%82%E0%A6%95%E0%A7%8D%E0%A6%B7%E0%A6%BF%E0%A6%AA%E0%A7%8D%E0%A6%A4%E0%A6%B8%E0

MoF. (2025a). Medium Term Budgetary Framework (MTBF). Finance Division. Ministry of Finance (MoF). Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%AA-%E0%A7%A8%E0%A7%AB/%E0%A6%8F%E0%A6%AE-%E0%A6%9F%E0%A6%BF-%E0%A6%AC%E0%A6%BF-%E0%A6%8F%E0%A6%AB

MoF. (2025b). Budget in Brief. Finance Division. Ministry of Finance. Retrieved January 13, 2025, from https://mof.gov.bd/site/view/budget_mof/%E0%A7%A8%E0%A7%A6%E0%A7%A8%E0%A7%AA-%E0%A7%A8%E0%A7%AB/%E0%A6%AC%E0%A6%BE%E0%A6%9C%E0%A7%87%E0%A6%9F%E0%A7%87%E0%A6%B0%20%E0%A6%B8%E0%A6%82%E0%A6%95%E0%A7%8D%E0%A6%B7%E0%A6%BF%E0%A6%AA%E0%A7%8D%E0%A6%A4%E0%A6%B8%E0

Østby, G., Gjerløw, H., Karim, S., & Dunlop, E. (2023). Left Further Behind after the COVID-19 School Closures: Survey Evidence on Rohingya Refugees. Journal on Education in Emergencies, 9(1), 64-94. https://doi.org/10.33682/a1zn-5nda

Shohel, M. M. C. (2014). Impact of childhood poverty on education for disadvantaged children in Bangladesh. Child Studies in Asia-Pacific Contexts, 4(2), 77-94. https://doi.org/10.5723/csac.2014.4.2.077

UIS. (2025). UIS.Stat. Retrieved January 8, 2025, from UNESCO Institute for Statistics (UIS). https://data.uis.unesco.org/

UNICEF. (2021). Addressing Dropout Rates in South Asia: Strategies and Interventions

World Bank. (2022). Education Sector Review: Bangladesh Education 2030. Washington, DC: World Bank.

World Bank. (2024). Data Bank: World Development Indicator (WDI). Retrieved January 5, 2025, from World Bank Group. https://databank.worldbank.org/source/world-development-indicators

Annex a

SL No.	Designation Name	Teacher in Service			Teachers Getting MPO		Vacant Post
		Total	Female	% of Female	Total	Female	
1	Headmaster	17677	1735	9.82	15402	1128	192
2	Assistant Headmaster	13895	2227	16.03	10798	11377	164
3	Assistant Teacher (Bangla)	21838	10752	49.24	33444	6286	845
4	Assistant Teacher (English)	24173	6511	26.94	13942	3108	1030
5	Assistant Teacher (Mathematics)	24253	2901	11.96	16048	1302	669
6	Assistant Teacher (Social Science)	33468	15681	46.85	22293	10064	560
7	Head Maulana	589	35	5.94	370	11	7
8	Assistant Teacher (Religion)	530	125	23.58	184	22	6
9	Assistant Teacher (Islamic Education/Assistant Moulavi/Religion))	18840	2018	10.71	13714	1173	259
10	Assistant Teacher(Hindu/Buddist/Christian)	10531	4594	43.62	8317	3647	130
11	Assistant Teacher (Physical Science)	7301	1881	25.76	3826	803	434
12	Assistant Teacher (Biology)	10632	3217	30.26	7428	1857	350
13	Assistant Teacher Business Education/ Commerce	12086	3066	25.37	7024	1458	445
14	Assistant Teacher (Geography)	728	251	34.48	264	86	23
15	Assistant Teacher (Drawing/Fine Arts)	911	358	39.3	41	21	61
16	Assistant Teacher (Physical Education)	17128	3103	18.12	13169	2207	275
17	Assistant Teacher (Agriculture)	16721	4289	25.65	13187	3394	146
18	Assistant Teacher (ICT)	14200	5137	36.18	10574	3891	357
19	Assistant Teacher Home Economics	1313	1163	88.58	610	560	52
20	Assistant Teacher (Trade)/Trade Instructor	1453	312	21.47	1040	218	117
21	Assistant Teacher (Junior)	3529	1727	48.94	796	192	22
22	Assistant Teacher (Music)	304	160	52.63	7	2	0
23	Assistant Teacher (Wooden Tread)	351	62	17.66	260	35	13
24	Assistant Teacher (Library and Information Science)	14117	5527	39.15	11635	4338	96
Total:		266568	76832	28.82	204373	57180	6253

Source: BANBEIS, 2021.

Chapter 7: Reaping the Benefits of Demographic Dividends: Investing in Health (Public and Private)[1]

7.1 Introduction

The microeconomic studies on health and worker productivity, education, and savings strongly indicate that improved health enhances economic growth (Clements et al, 2012). Hence, health reforms and investing in health along with greater efficiency in resource use are increasingly becoming a top priority in all countries to improve the accessibility, affordability, and availability of quality services (Francis et al, 2023). Moreover, investing in health reduces out-of-pocket (OOP) expenditure, leading to a decline in poverty and socio-economic, geographic and gender inequalities. Improved health outcomes foster equity, employment, literacy level, women's education and empowerment, income, productivity, local wealth and lifestyle. Indirect benefits of improved health outcomes also include promoting local partnerships with communities, innovations and implementation of technology, upscaling of human resources and infrastructure development, and opportunities for advancement and career development (Francis et al, 2023). Despite the importance of strategic investments in health, the health sector remains a lesser priority in Bangladesh with inadequate focus, thereby missing the opportunities to apply health as a tool for development. Though the budget of the Ministry of Health and Family Welfare (MOHFW) has increased in absolute terms overtime, its budget (both operating and development) has been stagnant at around 5% of the national budget and around 0.7- 0.8% of GDP over the last 10 years. In addition, the available resources are used inefficiently. This low public investment in health with inefficient resource use forces many people to seek health care from the private sector, which increases their OOP health expenditure. The national plans, strategies and policy documents have often been partially implemented, and many of the underlying structural and institutional weaknesses still persist in the sector.

Though Bangladesh has performed well in achieving the health Millennium Development Goals (MDGs) with a modest investment in health; achieving Universal Health Coverage (UHC) would require a big push to reform the health systems and move away from treating disease to creating health. A considerable shift is required in the way the sector is organised and in the delivery of healthcare in order to increase the service coverage to the entire population with adequate quality of care and without financial hardship. The country's demographic advantage, with around 66% of its population in the working-age group (15-64 years), provides an opportunity to enhance productivity and support economic growth through greater investments in health and aligning health financing strategies with demographic needs.

[1] This chapter is prepared by Rumana Huque with research assistance from Zunayed Al Azdi

The challenges of the Bangladesh health sector and the possible solutions are well documented in policies, strategies, guidelines and research reports/academic publications and are widely discussed. Hence, the questions remain – why many of those challenges are still persisting and how to prioritise the key strategies to overcome the challenges. Based on document review and stakeholder consultations, the following sections reveal a few critical challenges the health sector is facing and propose policy recommendations. Though many experts believe that a complete reform and rehauling of the health system is required, the scope of this chapter is limited to prioritising the investment opportunities that can be implemented immediately and in the short and medium term. The newly formed interim government can take initiatives to address several critical challenges in the health sector immediately and take preparation for further reforms.

7.2 Key Health Indicators: A Brief Overview

Available data shows that Bangladesh has made considerable progress in improving various health indicators such as neonatal mortality rate (NMR), infant mortality rate (IMR), under-5 mortality rate (U5MR), maternal mortality ratio (MMR), total fertility rate (TFR), malnutrition, stunting, and under-weight. There is a notable decline in under-5 mortality from 58 to 31 deaths per 1,000 live births between 2007 and 2022, while NMR declined from 29 to 20 deaths per 1,000 live births over the same period. Antenatal care rate (four or more) has increased from 31.2% in 2014 to 41% in 2022, and post-natal care has increased from 37.3% in 2014 to 55.2% in the same period (BDHS, 2022). The successive rounds of the survey suggest that facility deliveries increased from 19% in the 2 years preceding the 2007 Bangladesh Demographic and Health Survey (BDHS) to 65% in the 2 years preceding the 2022 BDHS, while equity in use of facilities for delivery care among the poorest and richest women has improved notably over time. However, a high proportion of births are still conducted via caesarean section (C-section): 45% of live births in the 2 years preceding the 2022 BDHS were delivered via C-section, which shows a sharp increase from 8% in 2007.

Contraceptive prevalence rate (CPR) has gone up from 56% in 2007 to 64% in 2022 and the unmet needs have decreased to 10% in 2022 (BDHS, 2022). The total fertility rate (TFR) declined from 2.7 children per woman in 2007 to 2.3 in 2022.

Over the past decade, malnutrition has decreased, and stunting is now below the WHO's "critical" threshold of 40%. The proportion of children suffering from stunting (height-for-age) decreased from 43% in 2007 to 24% in 2022. The proportion of underweight (weight for age) children decreased from 41% to 22%, while wasting decreased from 14.3% to 11% in the same period (BDHS, 2022). Life expectancy at birth has increased from 69.61 in 2010 to 73.7 in 2022 (World Bank, 2022).

Despite the improvements, MOHFW is yet to meet the Sustainable Development Goal (SDG) targets for NMR, MMR, TFR and essential newborn care (see 7a). Other challenges such as stagnant progress in tuberculosis control, high non-communicable disease death rates, and environmental factors continue to impact the country's ability to fully meet SDG targets (SIP, 2023). With rapid urbanisation (see 7b), economic development and rise in lifestyle-related risk factors, the disease burden is shifting from

infectious diseases to non-communicable diseases (NCDs) in Bangladesh, leading to morbidity and premature mortality, high OOP health costs and productivity losses.

Though on average, health outcomes are better for urban populations than rural, several health outcomes (e.g. postneonatal mortality, percentage of children aged 12-59 months given deworming medication and vitamin A supplements) are poorer for urban people than their rural counterparts (BDHS, 2022). Some indicators, such as wasting, newborn care, child nutritional status have worsened in urban areas between 2017 and 2022 (BDHS, 2022). In addition, within urban areas, health outcomes are often poorer for slum-dwellers than non-slum residents. The rate of having four or more antenatal care visits was 39.8% in slums compared to 53.1% in non-slum parts of the city corporations. Total fertility rate (TFR) was 2.1 in slums and 1.9 in non-slum areas. Stunting rate (height-for-age) was 34% in slums and 27% in non-slum areas (Bangladesh Urban Health Survey, 2021). While age, education attainment, and household economic status are consistently associated with nutrition and health outcomes, overcrowding with poor housing, environment, water, and sanitation conditions result in poor Health, Population and Nutrition (HPN) outcomes, particularly for slum dwellers (Yurani et al, 2018; Ramesh et al, 2018).

The COVID-19 pandemic caused disruption of health services due to increased need for critical care facilities and collateral damage to routine healthcare services, which was exacerbated due to the under-prepared curative health system. Moreover, MOHFW faced major challenges since August 2017, when more than one million Forcibly Displaced Myanmar Nationals (FDMNs) started living in Cox's Bazar district of Bangladesh, requiring more effective provision of basic health services to both the host population of Cox's Bazar and FDMN.

The following sections outline the key challenges of the health sector, grouped in line with the WHO health systems building blocks and a few emerging issues, followed by the policy recommendations.

7.3 Key Challenges of the Health Sector

7.3.1 Sustainable Health Financing

Increasing out-of-pocket health expenditure: The per capita health expenditure is only USD 58 in Bangladesh (far below the WHO recommendation of $88 minimum per person per year), and a large portion of this is paid by the people themselves. The OOP health expenditure is 74% as a proportion of current health expenditure and 68.5% as a proportion of total health expenditure (HEU, 2020) (much higher than the global average of 17.05%), and is increasing over time (see Table 7.1). Around 65% of the OOP expenditure was spent on medicine, and 11.7% on diagnostic tests in 2020 (HEU, 2020). Total Pharmaceutical Expenditure (TPE) was BDT 38,897 crore (50% of THE) in 2020, of which 94% (BDT 36,519 crore) was spent by the households, mainly buying medicines from pharmacy (35%), quacks (17.3%) and qualified private chamber (16.1%) (HEU, 2020a)

Table 7.1: Health Spending by Sources, 1997 and 2020

Source	1997		2020	
	Spending (current BDT billion)	% THE	Spending (current BDT billion)	% THE
OOP	26.1	55.9	532.7	68.5
Government	16.9	36.1	179.7	23.1
Development partners (contribute directly to NGOs)	2.7	5.8	38.9	5.0
NGOs	0.5	1.0	13.4	1.7
Private sector	0.6	1.3	12.5	1.6

Source: Bangladesh National Health Accounts (BNHA) 1997-2020.

Lack of necessary medicines and diagnostic services at the public facilities and consequent use of private providers, self-referral and buying over the counter medicines from pharmacy without prescription (Barua et al, 2023), over-prescribing of medicine and unnecessary diagnostic tests suggested by health professionals violating treatment protocol, aggressive marketing of the pharmaceutical industries, high price of medicines, high fees of private providers, and the absence of insurance or pre-paid mechanism are the key reasons for high OOP (Hamid, 2022). The national list of essential medicines consisting of 'a list of 117 medicines' is inadequate and obsolete in the current context (SIP, 2023). This also compels patients to buy medicine from private pharmacies if any medicine is prescribed beyond the list, which is not available in the public health facilities. Outward medical tourism also increases the OOP expenditure. In 2023, around 4.5 lakh Bangladeshis travelled abroad for health care, and such medical tourism costs around USD 4 to 5 billion annually, as reported by experts in a recent workshop (The Business Standard, 2024).

High catastrophic health expenditure: Catastrophic health expenditure (CHE) is increasing over time, from 14.8% in 2000 to 26.1% in 2016 (CHE at 10% of total household consumption expenditure) (Sheikh et al, 2022). Around 58% faced distress financing on hospitalisation while the highest incidence of CHE was for cancer (50%), followed by liver diseases (49.2%), and paralysis (43.6%) (Sheikh et al, 2022). About 3.7% of the population had fallen below the poverty line due to out-of-pocket (OOP) expenditure in 2022, which consisted of 6.13 million people (BIDS, 2024). About 43% of households who used healthcare did so by selling properties, borrowing, or receiving assistance from relatives (Sarker et al, 2021), indicating negative consequences on the well-being of the households.

Inefficiency in resource use: Around 25.5% of overall MOHFW budget (21.7% operating and 31.4% development) remained unspent in 2019/20 across all line items (World Bank, 2022), and 22% in 2021/22, indicating a major source of inefficiency. Underspending was high for repair and maintenance, medical and surgical requisites and utility bills (World Bank, 2022). The key reasons for chronic underspending include complexity of the budget approval process for the development budget, weak capacity in budget planning, poor procurement planning causing long processing times and slow

spending, and fear of audit (World Bank, 2022), while the situation of fund disbursement has improved considerably after the functioning of Integrated Budget and Accounting System (iBAS+). Due to this underspending, MoF raises questions about the justification for requesting additional funding for MOHFW, and their capacity to use the additional budget.

Medicine, reagent, x-ray films, medical equipment and logistics are often procured centrally without requisition requests from the health facilities, reflecting centralised decision-making process and inefficiency of resource use. A national newspaper reported that around 3,331 medical equipment worth over Tk 800 crore were lying idle in 84 public hospitals across the country, while about 933 of them were damaged beyond repair and the rest could be used if repaired (The Daily Star, 2023). Interestingly, though under-spending of the budget allocation is high for repair and maintenance, non-functional medical equipment is deliberately left in a state of disrepair which compels patients to seek diagnostic services from the private sector.

Gaps in resource allocation and Public Financial Management (PFM): Incremental, norm-based resource allocation mechanisms do not consider the local health and health care needs of the population. Misalignment of the operating and development budgets causes duplication in spending, and mismatch between infrastructure development and allocation of staff, medicine or equipment. In addition, though doctors and nurses are deployed, recruitment of support staff remains insufficient, leading to productivity loss of existing human resources and compromised quality of care (World Bank, 2022). Moreover, after discontinuation of project aid (PA) supported projects, regular maintenance of capital investment (facilities, equipment, and vehicles) and payments of salaries for staff transfers the liabilities to GOB (Quayyum et al, 2021).

The health sector in Bangladesh introduced a Sector Wide Approach (SWAp) in 1998, called the Health and Population Sector Program (HPSP). MOHFW is currently implementing the 4th SWAp (4th Health, Population and Nutrition Sector Program (HPNSP)). Though the financing mechanism was shifted from project-based to a programme-based approach under SWAp, there remained a continuing lack of understanding among policy makers and faciality managers about financial management under SWAp. In addition, inadequate involvement of senior management in budget setting process, inadequate time of facility managers devoted to manage financial matters, frequent turnover of staff trained in financial management, weak asset management, weak internal control and internal audit, ad hoc method of preparing repair and maintenance budget, and unstructured delegation of power of the health facility administrative authorities to procure physical services in line with market needs are identified as critical challenges of PFM (Hossain, 2024;World Bank, 2022).

Inadequate supply of medicine and equipment: Medical and Surgical Requisites (MSR), printed materials are contracted for procurement on a one-off basis annually. Line Directors and government health facilities need to procure 75% of allocation for medicines and supplies from Essential Drug Company Limited (the state-owned pharmaceutical manufacturing company established in 1962), which poses a serious

challenge of procurement on time due to limited capacity of EDCL (World Bank, 2022). In the year 2021-22, EDCL sold medicine amounting to approximately Taka 830 crore (SIP, 2023). Other important units, such as, Central Medical Stores Depot (CMSD, responsible for procuring medical equipment), the National Electromechanical Unit (NEMU of DGHS, responsible for maintenance of equipment of the public health facilities), and Transport and Equipment Maintenance Organisation (TEMO) also lack human resources and capacity, operate mainly from central level without local office, which limits their work and fund utilisation capacity.

Strategic direction for health care financing not agreed yet: Consensus could not be made yet to set the strategic direction for health care financing in Bangladesh and answer the question of which systems the country should stride in the long term: (i) Beveridge system – national health service financed by tax revenue-based system (e.g. UK, Finland, Spain, most of Scandinavia, Cuba, China, Hong Kong, New Zealand); ii) Bismarck system – employers and employees contributed social health insurance (SHI) system (e.g. Japan, South Korea, Germany, France, Belgium, the Netherlands, Switzerland, the Czech Republic); or (iii) a mixed system (the government funds healthcare services through taxation, and the delivery of healthcare services is provided mostly through private organisations) (Bitran et al, 2023; The Daily Prothom Alo, 2024). Unless the long-term vision and strategic direction are set, it would be a challenge to revise the existing Health Care Financing Strategy (HCFS, 2012-2032), prepare the implementation plan of the revised HCFS, and initiate any institutional reforms which must be in line with the strategic direction.

Lack of health insurance: Currently 79 insurance companies are in operation in Bangladesh (46 non-life insurance and 33 Life insurance companies). Both life and non-life insurance companies provide health insurance.

MOHFW is implementing a health protection scheme - Shasthyo Shurokhsha Karmasuchi (SSK) for the below poverty line (BPL) population (currently on hold due to delay in approval of 5th HPNSP) and maternal health voucher schemes. Shortage of human resources supplies and medicines, and low awareness about the programmes among the target population were identified as obstacles to smooth implementation of the programmes (Chowdhury et al, 2021; HERA, 2013).

Non-Government Organisations (NGOs) and Micro Finance Institutions (MFIs) provide health insurance, however, most of which are project based and thus suffer from non-continuity. University of Dhaka, and a number of organisations in the Corporate Sector have mandatory health insurance for their employees. Institute of Health Economics, University of Dhaka launched health insurance for their students, which was later been replicated in other departments.

A large informal sector, lack of capacity of providers and managers to administer health insurance (designing benefit package, establishing beneficiary identification system, designing and managing claims database, managing purchaser-provider split, ensuring output-based payment method, developing guidelines, and payroll tax-funded contributions for formal sector), lack of knowledge of actuary, image crisis of insurance,

unaware of insurance necessity, absence of dedicated health insurance company, absence of regulation for mandatory health insurance, 15% Value Added Tax (VAT) charge on the premium, lack of reliable health service providers in all the locations of the country and inadequate supply side-readiness are the major challenges of implementing the health insurance in Bangladesh (Abdullah et al, 2021).

7.3.2 Human Resources for Health (HRH)

Improving the quality and availability of health services depends on skilled health professionals, including doctors and the allied health workforce. However, shortage and maldistribution of health personnel, inappropriate skill-mix, negative work environment and inadequate capacity are the key HR challenges of the health sector.

Shortage of health personnel: Health professional vacancy rates are a common phenomenon at health facilities and in all the Directorates under the MOHFW. Overall, 34% of the sanctioned posts of Directorate General of Health Services (DGHS), 31% in Directorate General of Family Planning (DGFP) and 11% in Directorate General of Nursing and Midwifery were vacant, respectively, in 2023 (see Table 7.2, Table 7.3)

Table 7.2: Availability of Human Resources for Health (HRH) in Bangladesh

Discipline	Number in 2022	Number in 2023
MBBS professionals	93,051	101,559
Dental professionals	11,593	12,940
Nursing and midwifery practitioners	83,376	93,147
Registered Medical Assistant	23,374	26,922
Registered Pharmacists (A/B grades)	32,582	34,656
Diploma Medical Technologists	29,037	30,795
Total	**273,013**	**300,019**

Source: HRH data sheet, MOHFW, 2022 and 2023.

Table 7.3: Sanctioned and Vacant Positions at DGHS, DGFP, DGME and DGNM

	DGHS		DGFP		DGNM	
Grades	**Sanctioned**	**Vacant**	**Sanctioned**	**Vacant**	**Sanctioned**	**Vacant**
Grade 1-9	38,056	7,253 (19%)	748 (General) 1636 (Medical)	361 (48%) 686 (42%)	915	660 (72%)
Grade 10	1,195	584 (49%)	1,163	932 (80%)	47,820	4,106 (9%)
11-16	72,881	24,350 (33%)	17,997	5,003(28%)	972	310 (32%)
17-20	30,538	15,865 (52%)	32,651	9,939 (30%)	768	257 (33%)
Total	142,670	48,052 (34%)	54,195	16,921 (31%)	50,475	5,333 (11%)

Source: HRH data sheet, MOHFW, 2023.

The observed vacancy at upazila level has diverse reasons, including: i) posted as attachment, on deputation, officer on special duty (OSD) to take care of installations whose posts are not created but started functioning, has less number of posts than required as the installation is upgraded (in number of beds or students) and additional required posts yet to be sanctioned, placed for training/higher education; ii) lack of proper systems or policies (recruitment and promotions are more contingent on post-graduation and relevant expertise not leveraged, porous and unplanned career progression, people without necessary expertise or experience were deployed to high positions by lateral migration from unrelated career tracks or ministries as oppose to vertical promotion); and iii) vested interest and imbalanced power and position of some stakeholders (Joarder et al 2018; Sabur, 2022). In the absence of proper incentives for the human resources, their motivation remains low leading to productivity loss.

Skill-mix imbalance, deputation/attachment and deployment practices in the public health system remained major concerns. According to WHO recommendations, a national health system should have a balanced supply of HRH, with a 1:3:5 ratio of doctors to nurses/midwives and other staff. The HRH ratio in Bangladesh is 1: 0.75:0.74, which indicates the need for recruitment/filling the vacant posts for all workforce levels (HRH data sheet, MOHFW, 2023). Moreover, there remains a disparity in density of health workforce per 10,000 by division; it was highest in Dhaka (128.42) and lowest in Rajshahi (15.34) in 2019 (HRH data sheet, MOHFW, 2022).

Retention of staff in rural or hard-to reach areas and absenteeism are critical challenges for providing quality health care to the population. Only 14% of medical doctors from government health facilities preferred staying in a rural workplace (HEU, 2024). Limited job opportunities for spouses, lack of quality education for children and compromised quality of life are the key obstacles for working in rural areas, while a supportive relationship with the community, and future opportunities for higher studies, training or promotion with higher incentive payments positively influence the preference to work in rural areas.

Limited career progression opportunities for doctors and allied health workforce: Medical doctors are appointed in the 9th grade. With 66% posts at the entry-level and 24% posts at the 6th grade, medical doctors' career progression opportunities are very limited, which is further aggravated by the requirement of post-graduate qualifications for the post of junior/senior consultants and assistant/associate/professors posts. Since all the disciplines/subjects do not have equal numbers of posts at consultant/professor levels, career progression varies among the disciplines/subjects (Mahbub et al, 2023). Existing practice of promotion for 80% by the Departmental Promotion Committee (DPC)/Superior Selection Board (SSB) and 20% by the Bangladesh Public Service Commission (BPSC) further complicate the situation as BPSC initiative (depends on the requisition of the concerned ministry) is hardly observed and DPC/SSB initiatives are also not regular. High number of vacancies exist in the senior posts despite availability of suitable candidates. Many of the medical doctors are not aware of the requirements (quite diversified depending on the promotional pathways) and thus unable to get the

promotions. Appropriate posts are not created in due time. Comparatively less career progression opportunities among the administrative sub-steam are further limited due to the existing practice of filling-in administrative posts by the academic and clinician from within the cadre violating existing rules and posting of army medical corps and administration cadre persons (Mahbub et al, 2023). Additionally, community healthcare providers do not receive adequate salaries, which may deteriorate the quality-of-service delivery in the long run.

Positions of Sub-Assistant Community Medical Officer (SACMO) and lab technician are block-post with no career progression and their designation remains the same till they retire. Career progression of nurse, midwife and other allied health workforce are also limited. With the expansion of new technology and increase number of beds, new categories of HRH need to be included such as Biomedical Engineers and Technicians, Medical Physicists, Dieticians, Dialysis Technologists, Optometrists/ Refractionists, Electrician, Plumber, Carpenter for optimal functioning of health facilities without disrupting the services (Mahbub et al, 2023). Additionally, community healthcare providers do not receive adequate salaries, which may deteriorate the quality-of-service delivery in the long run.

7.3.3 Service Delivery

7.3.3.1 Rural Primary Health Care

Bangladesh has established 14,327 Community Clinics (CC) with three CCs in one union, the lowest level of local government institution (LGI). The DGHS has 1,323 union-level facilities known as Union Sub centre (USC) and 792 Union Health and Family Welfare Centres (UHFWC) (DGHS, 2023b), while the DGFP runs 3,829 UHFWC respectively. The 430 Upazila Health Complexes (UzHC) provide a full range of preventive, promotive and curative services. The DGFP also has 192 Maternal and Child Welfare Centres (MCWC) providing a full range of maternal and childcare services (SIP, 2023).

Essential Service Package (ESP): The Essential Service Package (ESP) is a key component of the PHC system provided from rural facilities to allow all citizens' access to healthcare services, regardless of their ability to pay. The ESP has not been updated recently by tiers to ensure service provision at different tiers and does not include major NCDs in the service package including diabetes, hypertension, cardiovascular disease, cancer and mental health.

Inadequate resource allocation to PHC level and preventive care: The MOHFW set a target of channelling 60-65% of healthcare resources to PHC facilities (through funding ESP) in the Health and Population Sector Programme (HPSP, 1998-22003). However, in 2012, 49% of the total healthcare expenditure was incurred at PHC facilities, which has further decreased in recent years (World Bank, 2022).

Absence of a unified laboratory system: Lack of a unified laboratory and proper monitoring systems causes inaccurate and redundant testing, which creates confusion and imposes unnecessary burdens on patients.

Inadequate human resources: In the CC, the lone full-time worker is the Community Health Care Provider (CHCP), being trained for 12 weeks after recruitment and entrusted with prescribing medicines, contradicting the Bangladesh Medical and Dental Council (BMDC) law 2010 (clause # 22) (Sabur, 2022). Though experts are advocating to deploy trained paramedics, such as SACMO, at the CCs, it has not been initiated yet. In rural areas, only one Health Assistant (HA) is assigned from DGHS and one Family Welfare Assistant (FWA) from DGFP to provide domiciliary services for around 6-8,000 population. BDHS 2022 found that only 17% of currently married women reported a visit by a fieldworker in the past six months, among which 60% were visited by a government family planning fieldworker, while 28% were visited by a government health worker (BDHS, 2022). Moreover, doctors and community medical officers are often pulled out from union facilities and assigned to the overcrowded UzHC, creating a vacuum of competent providers (SIP, 2023). Mentoring, monitoring and supportive supervision are inadequate at PHC level. There is a lack of coordination between PHC officers and staff with the national-level managers (SIP, 2023).

Inadequate infrastructure and equipment: Many facilities lack adequate infrastructure, essential equipment, and supplies. Only 47% of UzHCs have a functioning X-ray machine and 49% of UzHCs have a functioning ultrasonography machine, see Figure 7.1 (BHFS, 2022). Stockouts of medicines and delayed maintenance of diagnostic tools further hinder service delivery, leaving healthcare workers and patients struggling to meet basic needs. Delayed maintenance and procurement inefficiencies further impede service delivery. Frequent stockouts of essential medicines and delays in equipment repair disrupt consistent service delivery. Budgetary constraints and lengthy procurement processes exacerbate these issues.

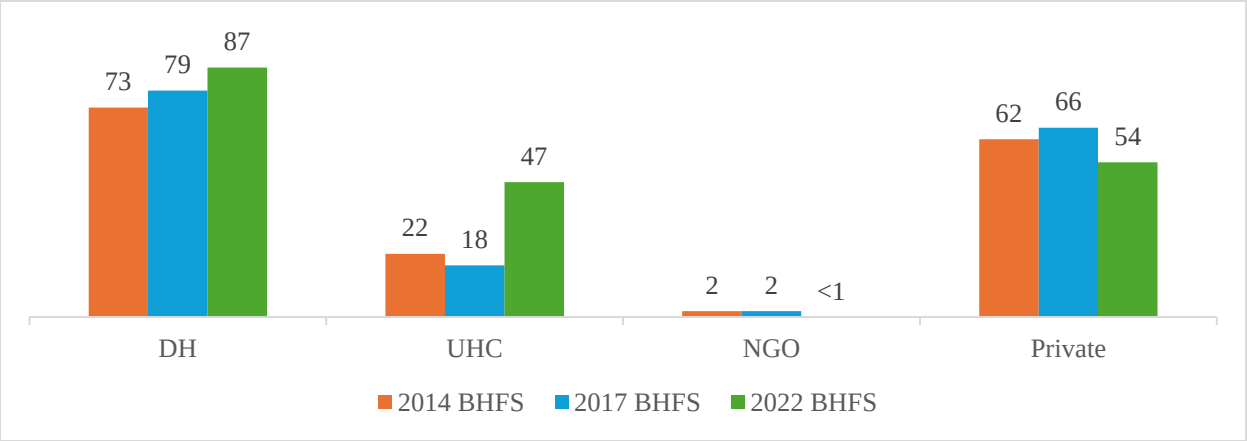


Figure 7.1: Percentage of Health Facilities (Public) having Functioning X-Ray Machine, by Facility Type

Source: Bangladesh Demographic and Health Survey (2014-2022).

Inadequate preventive and NCD Services: While the PHC system has traditionally emphasised on communicable diseases, the growing burden of non-communicable diseases (NCDs) such as diabetes and hypertension remain largely unmet. Preventive care services are inadequate, and diagnostic tools at primary levels are often unavailable.

Additionally, the absence of a dedicated NCD counsellor limits access to lifestyle modification counselling, critical for managing chronic conditions such as diabetes and hypertension. The share of preventive care in total public expenditure on health is declining over time - from 38% in 2010 to 15% in 2020 (HEU, 2020).

Weak referral systems: The lack of mandatory gatekeeping systems and referral protocols leads to overcrowding at higher-level facilities and underutilisation of primary care services. This disrupts the continuum of care, particularly for patients requiring specialised treatment.

7.3.3.2 Urban PHC

Inadequate infrastructure and service provision: The urban primary healthcare services are largely inadequate in view of the needs of the fast-growing urban population. As the country was predominantly rural, the health infrastructures were developed to address the needs of the vast majority of the rural population, with less attention to the urban health systems. Urban PHC is fragmented and underdeveloped, relying heavily on private providers and NGOs. The key challenges of urban PHC include: i) the urban PHC centres mainly prioritise maternal and child health (MCH) and sexual and reproductive health (SRH) services, hence, male patients seldom come to these centres to seek healthcare; ii) the urban health centres do not follow any standard Essential Service Package (ESP). The existing providers have different benefits packages with varying service quality. Equipment for specific services is also lacking; iii) less prioritisation of 'health' by the city corporations with inadequate budgets. There was no budget line item and respective financial code for resource allocation and disbursement of funds of MOLGRD till 2022. A budget line for health has only been approved in 2022; iv) NCD care has not been prioritised in the urban PHC centres, the health workforce lacks training in NCD management; v) though the Urban Primary Health Care Services Delivery Project (UPHCSDP) will phase out their service delivery in June 2025, there is inadequate preparation and capacity of the city corporations and municipalities to take over the responsibility; which may create a huge vacuum in accessing urban PHC; vi) City Corporations and municipalities experience a lack of human resources and staff with inadequate training on service delivery, project management, and financial management. There are insufficient senior-level officers to manage assigned work areas under the Chief Health Officer (CHO); vii) Government dispensaries (GODs), run by MOHFW, have limited geographical coverage with limited operating hours. Laboratory facilities are also scarce, and there is a weak referral mechanism; viii) Private health care providers are the primary source for urban curative care, especially private pharmacies, and also tertiary and specialised services with minimal preventive and promotional health care.

Weak coordination: One of the major challenges is the non- coordination of the two ministries – health and local government – for providing urban PHC. Various inter-ministerial committees have been set up to achieve intergovernmental coordination for urban health. For example, the inter-ministerial and Urban Primary Health Care Provider (UPHCP) Steering Committee links the MOHFW and the MOLGRDC under the

leadership of the MOHFW. These bodies were formed as part of the Health, Population, and Nutrition Service Delivery Programme (HPNSDP, 2011-2017) to serve as a forum for coordinating the related inter-ministerial activities. Despite these efforts, there is inadequate coordination between the MOHFW and the MOLGRDC. Effective coordination mechanisms in programme design, planning, review, and budgeting underscore a need for purposeful leadership and considerable mentoring to bring desired results.

Inadequate record keeping and reporting: Though data for some programmes (e.g., vaccination, TB control) delivered in urban areas are shared with the MOHFW, the data from non-governmental organisations (NGO) or private health care providers is not linked to the District Health Information System 2 (DHIS 2) under the MOHFW. In the absence of comprehensive data, it is not possible to measure the performance of the urban health system and plan accordingly.

7.3.4 Emergency Healthcare

Emergency health care is weak in Bangladesh. During disease outbreaks (e.g., COVID-19), natural calamities (e.g., flood), disasters (e.g., fire outbreak) or road traffic accidents, the health service does not often respond immediately, due to limited capacity and resources.

7.3.5 Private Sector

In Bangladesh, the private sector is vast, heterogeneous and fragmented, and has surpassed the public sector both in terms of number of beds and the number of facilities, especially in urban areas. Private health care consists of hospitals, nursing and maternity homes, clinics, pharmacies, private practitioners, diagnostic facilities such as laboratories and radiology units, private medical colleges, and nongovernmental organisations (NGOs)- or community-run hospitals. It also includes informal practitioners who are largely unregulated and unlicensed, including faith healers, herbalists and traditional birth attendants (Adhikari et al, 2021). Pharmacies and non-formal or traditional doctors consist of 75% of the private sector while consultation chambers account for 20% in urban areas (Adams et al, 2015). The number of hospitals and nursing homes has increased greatly, and in 2020, the number of registered private hospitals and clinics were 5577 with 94,398 beds, while the number of hospital beds under the DGHS were 66,560 (DGHS, 2022). Total number of registered private diagnostic centres was 9,529 in 2020 (DGHS, 2022). In 2005, there were 34 private medical and dental colleges (DGHS 2007) and in 2020 those grew to 72 (DGHS 2022). DGME's capacity is too limited to regulate such a vast number.

Inadequate private investment in the health sector: There is limited private investment in the health sector, and inadequate strategic purchasing and public private partnerships in the delivery of health service. Initiating public private partnerships requires strong contract management from the public sector and a major shift for MOHFW to transition from a role of managing facilities and delivering care directly, to one of holding others accountable for delivery, via contract performance management.

This shift requires a range of new skill sets, including contract management, legal, finance, risk management and monitoring and evaluation (Huque et al, 2020), which are currently limited in MOHFW. Moreover, the Public Financial Management (PFM) rules do not permit MOHFW to purchase services from the private health care providers (Huque, 2022).

Weak regulation of private sector: The diverse private health care sector is poorly regulated (Adams et al 2019) leading to challenges in maintaining quality, equity, and access to healthcare services. The Medical Practice and Private Clinics and Laboratories (Regulation) Ordinance, 1982 aimed to regulate medical practice, private clinics and laboratories. The DGHS (Director, Hospital on behalf of DGHS) is responsible to perform the regulatory functions of the private healthcare facilities through licensing, accreditation and regular monitoring and inspection; however, they have limited capacity to monitor such a large and diverse private sector. Initiation of an online registration system since 2018 has streamlined the process of registration, however, monitoring still remains weak. Moreover, DGHS does not have any system for licensing of non-profit facilities (SIP, 2023).

Unethical medical practices: The widespread issue of commission-based business practices and unethical medical promotions require urgent attention. Private medical institutions set daily targets for doctors to increase profitability, leading them to prescribe unnecessary tests in order to meet those targets. Moreover, the pharmaceutical industry's aggressive and unethical promotional practices have become a pressing concern, driving up healthcare costs. Medical representatives, driven by annual sales targets, use tactics such as offering gifts, sponsoring overseas trips, and helping in case of personal emergencies to sway doctors' prescription decisions (The Daily Star, 2016).

7.3.6 Information and Digitalisation

Bangladesh has taken initial steps towards digital health, supported by national and international policies and strategies such as the WHO's Global Digital Health Strategy (2020-2025), National ICT Policy 2018 and the 8th Five-Year Plan (Ahmed et al, 2020; Alam et al, 2020). These frameworks aim to achieve Universal Health Coverage (UHC) by 2030 by leveraging ICT to improve efficiency, accessibility, and equity in healthcare (SIP, 2023). The country is a leading global implementer of the District Health Information System 2 (DHIS2), which aggregates health data across service levels, supported by 18 MIS platforms under the DGHS and 4 systems under the DGFP (SIP, 2023). Integration of platforms such as DHIS2 and OpenMRS+ has enabled systematic data aggregation and real-time data entry in selected facilities. The Shastho Batayan 16263 health hotline offers remote consultations, especially benefiting underserved areas (Ahmed et al, 2020). Enhanced data-driven decision-making took place with platforms like the COVID-19 tracker and cancer surveillance systems (SIP, 2023). However, considerable gaps remain in achieving a cohesive and efficient digital health ecosystem.

Major challenges in digitalisation: Despite notable progress in the digital health domain, Bangladesh faces significant systemic challenges that hinder the realisation of an efficient, inclusive, and sustainable digital health ecosystem, including: i) coexistence

of multiple standalone systems, such as DHIS2, OpenMRS, and eMIS, across DGHS and DGFP creates inefficiencies. The lack of interoperability between these platforms prevents comprehensive data sharing and impedes evidence-based decision-making; ii) the lack of private sector reporting to a centralised system, compromising comprehensive data aggregation and oversight; iii) insufficient regulatory frameworks and unclear accountability structures; iv) overlapping responsibilities between DGHS and DGFP exacerbate inefficiencies; v) absence of a dedicated governance framework for digital health systems; vi) inconsistent data entry practices, inadequate validation mechanisms, and the underutilisation of community-level data result in unreliable datasets; vii) non-functional or outdated IT equipment, poor internet connectivity in remote and underserved areas, hampering real-time data collection and reporting; viii) existing telemedicine initiatives lack scalability and robust infrastructure to meet the growing demand for virtual care; ix) Considerable differences exist in digital health readiness and infrastructure between urban and rural settings; x) no population-based surveillance system, and no unique patient ID.

Capacity gaps for evidence-informed decision making: Health personnel often lack adequate training in digital literacy and the use of health information systems, which undermines their ability to collect and utilise data effectively, impacting overall service delivery quality. Moreover, in the absence of real time reliable data and inadequate skills hinder evidence-informed decision making, planning and budgeting.

Security and Privacy Risks: The absence of robust legal protections for health data increases the vulnerability of digital systems to breaches and misuse. There is limited awareness among stakeholders regarding cybersecurity measures, compounding these risks.

Financial Constraints Funding for initiatives like telemedicine and eHealth remains inconsistent, affecting their sustainability.

7.3.7 Environment and Climate Change

There are numerous emerging environmental concerns in Bangladesh and many of these such as air pollution, lead poisoning, salination and flooding contribute to the current levels of preventable diseases. Poor sanitation, inadequate waste management, and exposure to environmental pollutants undermine public health efforts, particularly in densely populated urban areas.

In Bangladesh, illegal recycling of used lead-acid batteries in the open air, lead in water from the use of leaded pipes, lead from active industry, such as mining and battery recycling, lead-based paint and pigments, leaded gasoline, lead solder in food cans, and lead in spices, cosmetics, ayurvedic medicines, toys and other consumer products are the major sources of lead exposure to children and adults (Mitra et al, 2012). This causes a marked health risk for both children and adults, such as elevated lead blood levels in children and adults, increased risk of kidney damage and cardiovascular diseases in later life, children's ability to fully develop and prevents them from taking the maximum advantage of the opportunities in life. It is particularly destructive to babies and children

under the age of five as it damages their brains before they have had the opportunity to fully develop, causing them lifelong neurological, cognitive and physical impairment, mental health and behavioural problems. Bangladesh has the world's fourth-highest rate of death due to lead exposure with an average population blood lead level of 6.83 μg/dL, which is the eleventh highest in the world (UNICEF, 2020). The economic loss due to lead-attributable IQ reduction in Bangladesh is equivalent to 5.9% of the country's GDP.

Bangladesh faces severe climate-related health challenges. In 2023, Dhaka's Air Quality Index (AQI) averaged 171 (Very Unhealthy), while summer temperatures in 2021 rose by 0.49°C, with extreme weather events increasing 46% since 2000. Dengue outbreaks linked to heavy rainfall and humidity further strained healthcare systems. Extreme heat waves are also associated with mental health problems.

Currently, climate, health, and gender issues are often overlooked, with no coordinated early warning systems due to sectoral silos. Additionally, vulnerable groups such as low-income communities, informal settlements, and women remain underrepresented in climate-health strategies. This could be addressed by fostering participatory governance while focusing on community-specific plans and gender-responsive monitoring frameworks.

Drinking water from natural sources in coastal Bangladesh has become contaminated by varying degrees of salinity due to saltwater intrusion from rising sea levels, cyclone and storm surges, and upstream withdrawal of freshwater, leading to increased risk of hypertension (Scheelbeek et al, 2017) and can be alarming for pregnant women (Khan et al, 2011).

7.3.8 Governance and Leadership

Organisational structure of the MOHFW: There has been much debate on the organisational structure of the MOHFW given its division between health services and family welfare, the large number of Operational Plans (OPs)[2] and duplication between them. A new administrative structure in the MOHFW was established in March 2017 comprising two divisions: (i) Health Services Division (HSD), and (ii) Medical Education and Family Welfare Division (MEFWD), This has led to some intra-organisational (as well as inter-organisation) issues impacting performance of the MOHFW. These bifurcations are seen as critical bottlenecks to progress on health delivery and health outcomes as well as being a cause of duplication and inefficiency.

The CCs started under DGHS and administratively transferred to an autonomous Trust recently. In the 4th HPNSP, CCs received resources from an Operational Plan (OP) of DGHS called Community Based Healthcare (CBHC), while the 'Trust' received around BDT 3 crore annually from the operating budget. However, the coordination of the 'Trust' and the 'CBHC' programme is complex, and the modality and strategies of functioning these two entities and the role and relevance of the 'Trust' is less understood.

[2] OPs are detailed activity plans of each programme under the HPNSP. Currently, there are 31 OPs in the 4th HPNSP (2017-2024)

Moreover, the decision-making process is criticised as 'centralised system' and top-down allocation decisions are ultimately made by central level.

Patient grievance mechanisms: Multiple parallel patient feedback systems exist at public health facilities including Grievance Redress System (GRS), Health Call Centre: Shastho Batayon, sending SMS to designated numbers, complaint and general suggestion box, and provision of verbal and written feedback. Key strengths across all systems included common goals of ensuring accountability and patient voice. However, common weaknesses included lack of documented processes, limited awareness of available channels among patients, no promotion of the system within healthcare centres, lack of documented actions following feedback, lack of policy and operating guidelines at central and local levels leading to subjective solutions, inadequate staff numbers to process and follow up, access depends on literacy, and sending SMS is not free, which can be discouraging (Huque et al, 2021).

Engagement of Civil Society Organisations and NGOs: CSOs and NGOs considerably complement the government efforts by bridging gaps in service delivery and advocating for policy reforms. Organisations such as BRAC and Save the Children have implemented maternal health and nutrition initiatives, while platforms like Bangladesh Health Watch (BHW) promote accountability and transparency in healthcare. However, restrictions on civil society activities and reduced funding have hindered their effectiveness in advocacy and project implementation.

Community engagement: Hospital Management committees are mandated to oversee operations in health facilities, promoting transparency and tailoring services to local needs. However, many committees remain non-functional, limiting community oversight and participation. Community engagement in urban areas, especially in informal settlements, remains underdeveloped.

7.4 Recommendations

Quality of care, inequity, inefficiencies, inadequate budget allocation to health which is below the global standard, high OOP and weak regulation are the critical challenges of the health sector of Bangladesh. Long-term commitments with leadership and management capacity are essential to achieve and sustain universal health coverage, while short-term wins are also important to gain public support for reforms and pave the pathway for health service providers and policymakers to implement longer term transformation agenda. It needs to be acknowledged that economic growth is not sufficient to ensure equitable health coverage, rather policies and appropriate measures need to be adopted and implemented to allocate and redistribute resources as per need, minimise inefficiency in resource use, and reduce inequity in access to affordable and quality health care.

7.4.1 Immediate to Short-term Strategies

i) **Update the Essential Service Package (ESP):** Update the ESP appropriately based on evidence in order to ensure service provision at different tiers, especially to include NCDs including mental health, and also taking into account the need for urban population, with a provision for update on a regular interval.

ii) **Update the National List of Essential Medicine:** Review, update and expand the list of essential drugs including those distributed from CCs based on current disease burdens including NCDs, population size, environmental issues and WHO guidelines, and approve immediately.

iii) **Free medicine for below poverty line population:** Distribute essential medicine including selected NCD drugs at free of cost to the below poverty line population (who are not included under any social protection scheme) from all government facilities and allocate adequate financial resources for this.

iv) **Initiate a pilot project in one district to strengthen primary health care (rural) and document the lessons learnt for future scale up:** Design and initiate a pilot project in a district to test the feasibility of integrating multiple interventions for ensuring supply-side readiness, and document the lessons learnt: a) assess the local need for medicines, allocate adequate fund as per need, and plan for procurement and distribution on time to ensure regular supply of adequate and quality drugs at the PHC facilities throughout the year; b) update the list of functional equipment, allocate adequate resources for carrying out diagnostic tests; c) update the Recruitment and Deployment Plan and an up-to-date HR information system (HRIS), fill existing vacant posts on an urgent basis; d) take initiatives to partner with private entities, where applicable. Contracting out the underutilised health facilities (such as 10/20 bedded hospitals) and partnering with private entities to provide healthcare services to hard-to-reach areas can be initiated; e) assess optimum organisational fit for service delivery at PHC level; f) strengthen monitoring and supervision, and track for resource availability; g) ensure community engagement, and rewarding and showcasing the examples of good practices; g) implement grievance redressal mechanism appropriately.

v) **Maximising resource utilisation to curb capital outflow:** Bangladesh must capitalise on its underutilised medical resources to reduce dependency on foreign healthcare and curb capital outflow due to medical tourism. According to a recent CareEdge Ratings report, Bangladesh accounts for around 50–60% of India's total medical tourism inflow (CareEdge Rating, 2024). With anticipated declines in medical tourism inflow to India, Bangladesh has a strategic opportunity to enhance its healthcare system by optimising resource utilisation. Health managers should carry out the local-level planning and act accordingly, ensuring better healthcare delivery and reducing the need for patients to seek treatment abroad.

vi) **Strengthen urban PHC:** City corporation needs to act immediately for taking greater leadership and mobilise adequate resources to continue providing primary health care in urban areas after the phase out of UPHCSDP in June 2025. Consider

PPP and strategic purchasing including framework contracting to increase service and population coverage.

vii) **Design and implement social and behaviour change communications (SBCC):** Take initiative to design, update and implement SBCC to sensitise, create awareness, improve health-seeking behaviours and health literacy among the population on relevant public health issues, such as, dengue prevention, nutrition services, antibiotic resistance and appropriate use of antibiotics, lifestyle modification for preventing NCDs (e.g. reduce tobacco, alcohol, sugar-sweetened beverage and fast-food consumption, promote physical activity and healthy diet), prepare preventive and promotive care, water and sanitation, child marriage, and other contextualised and needs-based issues. Allocate adequate budget to respective ministries to prepare and implement the plan in a coordinated way.

viii) **Initiate institutional reforms**: Review the possibility of unification of the two divisions (HSD and MEFWD).

ix) **Enhance private sector participation in health, promote public-private partnership and attract foreign direct investments (FDI):** PPP can be introduced in case of the ambulance, security, laundry, cleaning and waste management service in the public healthcare facilities, diagnostics, dialysis, imaging, emergency services and capacity development of service providers (Huque et al, 2020). Develop partnership with private diagnostic centres to augment the capacity of public health facilities, particularly in the areas of radiology and laboratory services. Prepare a PPP guideline for the rural and urban health sector and a legal framework for strategic purchasing of services from the private partners. Update relevant financial and procurement rules, especially for NGO engagement in the public procurement process, in consultation with Implementation, Monitoring and Evaluation Division (IMED)/Central Procurement Technical Unit (CPTU) (SIP, 2022). Explore the possible ways to attract foreign investments in the health sector, and review and update the existing guidelines and rules for creating an enabling environment to foster FDI in the health sector. Assess the feasibility of creating a health city/special zone to reduce medical tourism for Bangladeshis and save foreign currency. Develop policies and incentives for local manufacturing of medical equipment to reduce reliance on imports.

x) **Reduce expenditure for less-priority projects:** Identify the projects which do not need to be implemented immediately, for example, establishing new medical colleges or teaching hospitals. Physical facilities development should focus more on making the existing infrastructure functional through synchronised provision of adequate equipment and human resources, rather than building new infrastructure.

xi) **Increase capacity of PFM and resolve the pending audit objections:** Conduct a training need assessment across all the tiers and relevant personnel and develop and implement a comprehensive training plan on PFM and procurement for at least three weeks. Develop a comprehensive monitoring framework for reducing fiduciary risks and audit objections. Provide Technical Assistance to FMAU to resolve the current

pending audit objections and strengthen internal audit in HSD and MEFWD. Create a comprehensive database for all assets owned by the Departments / Directorates of HSD and MEFWD to track their existence and functioning/operational status (Hossain, 2024). Ensure close coordination between the budget and development wings of HSD and MEFWD to avoid overlaps in the operating and development budgets. Execution of procurement plan from the beginning of the fiscal year to avoid rush of expenditure. Strengthening internal audit in HSD and MEFWD.

xii) **Promote Digitalisation and use of technology:** Identify areas where digitalisation and technology can be better utilised, such as: a) establish a nationwide electronic health platform integrating patient records, diagnostics, and referrals; b) expand telemedicine services to underserved regions and explore feasibility for scaling up; c) strengthen patient feedback mechanism at all tiers of public facility; d) use technology to increase efficiency in procurement process while increasing the capacities of the relevant stakeholders; e) adopt real time digital tracking systems for health expenditures; f) develop a roadmap to integrate existing MIS systems such as DHIS2, eMIS, and OpenMRS into a National Digital Health Information Exchange (NDHIE). Conducting needs assessments, establishing interoperability standards, and piloting integration to enable data sharing between DGHS and DGFP systems. In addition, ensure interoperability of surveillance systems and data sharing among health, livestock and environment departments/ministries to address pandemic preparedness and readiness (for One Health approach) and AMR containment. Develop capacity of health managers at district and sub-district levels to use data for evidence-informed decision making.

xiii) **Allocate additional resources to health, nutrition and population sector:** Prepare an investment case with justification of additional funding needs, plan for efficient utilisation of the fund and enhanced absorption capacity, impact of investing additional resources in health, and possible ways of resource mobilisation for the health sector and negotiate with Ministry of Finance for additional budgetary allocation for health.

7.4.2 Medium to long-term strategies

i) **Strengthen primary health care and improve referral systems:** Review the structure of the primary health care in the current context and redefine the PHC level accordingly. In order to streamline the roles of CC trust and CBHC programme, review the role of CC trust, identify the opportunities, constraints and prerequisites for making the 'Trust' meaningfully functional, and take the follow-on steps accordingly. Review the possibility of deploying SACMO in terms of recruitment, budget implication, and operational issues such as coordination with existing staff (CHCPs, HAs, FWAs), space availability, monitoring and supervision. In addition, assess the feasibility of implementing a General Practitioner model to act as the first point of contact in the healthcare system, ensuring efficient primary care and referrals.

ii) **Initiatives to reduce drug price:** Negotiate with pharmaceutical industries to produce medicines under generic name and reduce drug price, especially for chronic conditions. Establish a national pricing framework to introduce price caps on essential medicines and diagnostics, introduce measures to limit promotional and marketing expenses for pharmaceuticals to reduce medicine prices and ensure compliance through regular audits. Recruit additional staff and provide training to enhance DGDA's regulatory enforcement capabilities. Mandate display of price schedules in all healthcare facilities under regulations. Promote local production of APIs to reduce dependence on imports and lower medicine costs. Measures need to be taken to address Trade-Related Aspects of Intellectual Property Rights (TRIPS) Obligations After Graduation from LDC. Establish a national pharmaceutical pricing council to oversee drug prices and restrict expenses of pharmaceutical marketing.

iii) **Private sector regulation**: Introduce accreditation and empanelment for private (and public) providers and strengthen regulations against exploitative practices to ensure quality of care. Equip DGHS and DGDA with advanced digital tools to monitor private medical institutions and pharmaceutical companies in real-time. Electronic prescription systems can be mandated to track unnecessary tests or prescriptions, while independent third-party audits should assess compliance regularly. All monitoring data and malpractice reports should be made publicly accessible to hold institutions accountable. Additionally, the patient feedback systems need to be strengthened to report malpractice anonymously and take actions accordingly.

iv) **Develop career path for health professionals**: Initiate robust stakeholder consultation to come to a consensus to design a clear career progression path along with incentives for the health professionals. Take initiatives to provide housing, security, school and other facilities to health personnel and their family to ensure rural retention.

v) **Initiate institutional reforms**: a) restructure the DGHS to ensure greater attention for promoting public health, improving the health of urban populations, enforce regulation of the private healthcare sector through the introduction of comprehensive service standards and a standards-based approach to improving the quality of health care provided in government facilities; enhance access to legal advice and services and other mandates of the DGHS (OPM, 2020); b) strengthen EDCL through rationalising human resources to reduce its inefficiencies and production cost of medicine; c) strengthen the capacity of DGDA to oversee pharmacies and regulate the sale of over-the counter antibiotics; d) strengthen the capacity of CMSD, TEMO and NEMU; e) establish partnership with research organisation(s) to conduct Health Technology Assessment for researching most appropriate and low-cost interventions.

vi) **Detail implementation plan for phase out of SWAp**: Prepare detailed implementation plan for phase out of SWAp after the 5th HNPSP, and take preparation accordingly.

vii) **Set strategic direction for health care financing**: Build consensus to set long-term vision and strategic direction for health care financing in Bangladesh and initiate any

institutional reforms in line with the strategic direction. Carry out a comprehensive assessment to explore the feasibility of introducing health insurance for formal and informal sectors taking into account the supply-side readiness. Increase social safety nets for the health sector and synchronise schemes such as the Maternal Voucher Scheme (MVS) which is provided by MOHFW and MOWCA. There is a demand for establishing an independent National Health Security Office (NHSO), which would enhance accountability by separating the service delivery function of the Ministry of Health and Family Welfare (MoHFW) from its purchasing function. Assess the feasibility of establishing an independent body, which may also support setting the vision, strategic priorities, implementation and monitoring plan to achieve UHC and track progress against targets. In addition, review the financial authority of the local level managers. Moreover, initiate needs-based resource allocation systems considering the regional population and their demographics, disease patterns and poverty status, to ensure equity and efficiency of resource allocation.

viii) **Policy review:** Examine current legal arrangements and recommend for provision of NGO participation in procurement process of HNP sector. Review and update National Health Policy 2011; Update National Drug Policy 2016; regulatory instruments as required for WHO Maturity Level 3. Review the public service rules and regulations for designing incentives (cash, kind) for the HRH with proper implementation plan and resource requirements.

ix) **Address challenges related to environment and climate change**: Update health protocols, develop heat stress management guidelines and initiate targeted workforce capacity development programmes. Construct climate-resilient healthcare facilities equipped to handle disasters and pandemics. Develop inclusive early warning systems and strengthen multi-level coordination. Adopt a multisectoral approach for initiating one health approach. Develop systems to capture climate-health related data.

References

Abdullah, M., Sabur, M. A., Begum, N., & Huque, R. (2021) *Health Insurance in Bangladesh: Perception*
and Experience of People having Insurance. Health Economics Unit. Ministry of Health and Family
Welfare.

Adams, A.M., Islam, R., & Ahmed, T. (2015). Who serves the urban poor? A geospatial and descriptive
analysis of health services in slum settlements in Dhaka. Bangladesh.*Health Policy and Planning*; 30:i32i45

Adhikari, R.P., Shrestha, M.L., Satinsky, E.N. *et al.* Trends in and determinants of visiting private health facilities for maternal and child health care in Nepal: comparison of three Nepal demographic health surveys, 2006, 2011, and 2016. *BMC Pregnancy Childbirth* **21**, 1 (2021). https://doi.org/10.1186/s12884-020-03485-8

Ahmed, T., Rizvi, S. J. R., & Rasheed, S. (2020). Digital health services in Bangladesh: A means for addressing disparities in access to health services. *JMIR mHealth and uHealth*.

Alam, M. Z., Hu, W., & Uddin, M. A. (2020). Digital transformation in healthcare services sector of Bangladesh: Current status, challenges, and future direction. *RISUS – Journal on Innovation and Sustainability*, 11(1), 30-38.

Bangladesh Demographic and Health Survey 2022 (2022). *Bangladesh Demographic and Health Survey 2022: Key Indicators Report*. National Institute of Population Research and Training (NIPORT), Dhaka, Bangladesh, and Rockville, Maryland, USA.

Bangladesh Health Facility Survey 2022. *Bangladesh Health Facility Survey 2022*. NIPORT - ICF.
NIPORT, MOHFW, & ICF. (2020b).

Bangladesh Urban Health Survey (2021) *Bangladesh Urban Health Survey 2021*. National Institute of
Population Research and Training (NIPORT).

Barua, D., Anee, S., Salauddin, M., Jahan, N. B., Chowdhury, T. F., Kashfi, F., & Huque, R. (2023). Where do Bangladesh's urban poor go for NCD care, and do they receive adequate advice for NCD prevention and control?. In *Tropical Medicine & International Health* (vol. 28, pp. 254-254). 111 river st, hoboken 07030-5774, NJ USA: WILEY.

BIDS (2024) *Catastrophic Health Shocks and Impoverishment in Bangladesh: Insights from HIES 2022. Available at*: https://www.bids.org.bd/page/news-events?rid=501

Bitran, R., Jahan, N.A., Huque, R., & Islam, M.T. (2023) *Review of Bangladesh's health care financing strategy 2012-32.* World Health Organisation.

CareEdge Ratings (2024) *Bangladesh Crisis May Reduce India's Medical Tourism by 10-15% in 2024.* Available at: https://www.careratings.com/uploads/newsfiles/1723639183_Bangladesh%20Crisis%20May%20Reduce%20India's%20Medical%20Tourism%20by%2010-15pc%20in%202024.pdf

Clements, B., Coady, D., Gupta, S eds. (2012) *The Economics of Public Health Care Reform in Advanced and Emerging Economies.* International Monetary Fund.

Directorate General of Health Services (DGHS) (2022). *Health Bulletin 2020.*Dhaka. Management Information System, DGHS

Francis, D.L., Dumka, N., Kotwal, A., PK, D. (2023) Why should we invest in health? Evidence from the lens of second-order benefits of health. *Journal of Global Health Reports*;7:e2023059. doi:10.29392/001c.85124

Hamid, S.A. (2022) *Health System Financing.* Health Needs Assessment Report. Asian Development Bank.

HEU (2020). *Bangladesh National Health Accounts 1997-2020*. Health Economics Unit, Health Services
Division, Ministry of Health and Family Welfare.

HEU (2022a). *Bangladesh Pharmaceutical Expenditure Tracking 1997-2020*. Health Economics Unit,
Health Services Division, Ministry of Health and Family Welfare.

HEU (2024) *Retention of Medical Doctors in Rural Area in Bangladesh: Challenges and Way out.* Health
Economics Unit, Health Services. Division, Ministry of Health and Family Welfare.

Hossain A (2024). *Public Financial Management Bottlenecks and Budget and Expenditure Efficiency in MOHFW*. Presentation by Atia Hossain, Senior Economist (Health), HNP Global Practice, World Bank Bangladesh.

Huque, R., Azdi, Z., and Kanan, S. (2020) *Public Private Partnership in Improving Access and*
Utilization of Health Care Services: Scopes, Opportunities and Challenges. Health Economics Unit.
MOHFW.

Huque, R., Al Azdi, Z., Ebenso, B., Nasreen, S., Chowdhury, A. A., Elsey, H., & Mirzoev, T. (2021).
Patient Feedback Systems at the Primary Level of Health Care Centres in Bangladesh: A Mixed Methods
Study. *Sage Open*, *11*(2). https://doi.org/10.1177/21582440211011458

Joarder, T., Rawal, L.B., Ahmed,S.M., Uddin,A., & Evans, T.G. (2018). Retaining Doctors in Rural Bangladesh: A Policy Analysis. *International Journal of Health Policy and Management*. Volume 7, Issue 9, Pages 847-858.

Khan, A.E., Ireson, A., Kovats, S., Mojumder, S.K., Khusru, A., Rahman, A., et. Al. (2011) Drinking Water Salinity and Maternal Health in Coastal Bangladesh: Implications of Climate Change. *Environmental Health Perspectives*. Volume 119, Issue 9. https://doi.org/10.1289/ehp.1002804 2011

Ministry of Health and Family Welfare (2022) *HRH data sheet*. MOHFW, 2023.

Ministry of Health and Family Welfare (2023) *HRH data sheet.* MOHFW, 2023.

Mitra A K, Ahua E, Saha P K. Prevalence of and Risk Factors for Lead Poisoning in Young Children in Bangladesh. *J Health Popul Nutr*. 2012 Dec; 30(4): 404–409.doi: 10.3329/jhpn.v30i4.13292

Unicef (2020). *The Toxic Truth: Children's exposure to lead pollution undermines a generation*

Ramesh, G., Dhushyanth, R., Federica, S., Sadia, C., & Jean-Jacques, F. (2018) *Health and Nutrition in Urban Bangladesh: Social Determinants and Health Sector Governance.* Washington DC, World Bank.

Mahboob, R.E., Abdullah, M., Sabur M.A., Faisel A.J., & Huque R. (2023). *Redesigning Career Path of Public Sector Health Care Providers for Effective Service Delivery in Bangladesh.* Dhaka. Health Economics Unit, Health Services Division, Ministry of Health and Family Welfare, Government of Bangladesh and ARK Foundation

Quayyum, Z., Begum, T., Hossain, A., Huque, R., Nazneen, B., & Sabur, M. A. (2021). *Health Care Financing: Fifty years of Independence.* Bangladesh Health watch (Bangla). Bangladesh Health watch.

Sabur M A (2022). *Human Resources Planning and Management*. Thematic Report for preparation of the Strategic Investment Plan (SIP) for the 5th Health, Population and Nutrition Sector Programme 2024-2029

Sarker, A.R., Sultana, M., Alam, K., Ali, N., Sheikh, N., Akram, R., et al. (2021) Households' out-of-pocket expenditure for healthcare in Bangladesh: A health financing incidence analysis. *Int J Health Plann Manage*; 36:2106–17.

Scheelbeek, P.F.D, Chowdhury M.A.H., Alam D.S, Hoque, A., Butler A.P., Khan, A.E., et al. (2017) Drinking water salinity and raised blood pressure: Evidence from a cohort study in coastal Bangladesh. *Environmental Health Perspectives.* Volume 125, Issue 5. https://doi.org/10.1289/EHP659

Sheikh, N., Sarker, A.R., Sultana, M. *et al.* (2022) Disease-specific distress healthcare financing and catastrophic out-of-pocket expenditure for hospitalization in Bangladesh.

International Journal for Equity in Health 21:114 https://doi.org/10.1186/s12939-022-01712-6

Strategic Investment Plan (2023). *Strategic Investment Plan of the 5th Health, Nutrition and Population Sector Programme 2024-2029*. Ministry of Health and Family Welfare.

The Business Standard (2024) *Experts call for healthcare reform, investment to curb outbound medical tourism.* 21 December, 2024. Available at: https://www.tbsnews.net/bangladesh/health/experts-call-healthcare-reform-investment-curb-outbound-medical-tourism-1024266

The Daily Star (2016) *Unethical promotion raises healthcare cost*. Available at: https://www.thedailystar.net/city/unethical-promotion-raises-healthcare-costs-1303933

The Daily Star (2023) *When will public hospitals be accountable*? 5 November, 2023. Available at: https://www.thedailystar.net/opinion/editorial/news/when-will-public-hospitals-be-accountable-3462161

The Daily Prothom Alo (2024) *Universal health coverage in Bangladesh: Challenges and Opportunities.*30 November, 2024. Available at: https://www.prothomalo.com/roundtable/1j8qj3bx8a

World Bank (2022). *Bangladesh Public Expenditure Tracking Survey (PETS): Case Study of the Health Sector.* The World Bank.

Yurani, A. G., Haque, S. S., Joseph, G., & Pagans, M.Y. (2018). *Water and sanitation in Dhaka slums: access, quality, and informality in service provision.* World Bank Policy Research Working Paper 8552.

Annex:

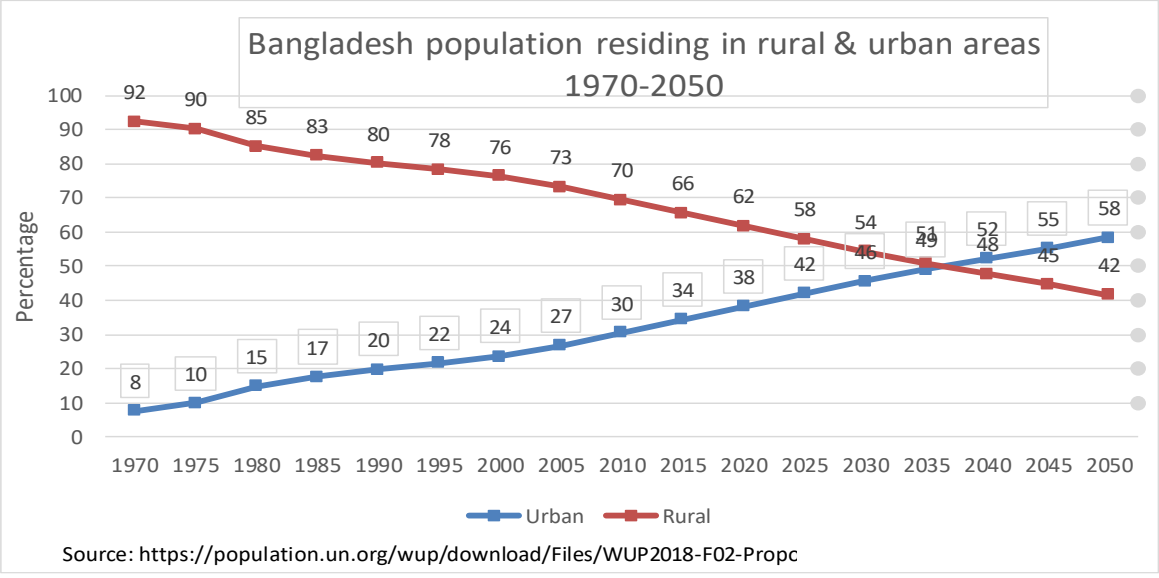
Annexe 7a: Progress of Bangladesh towards Health and Nutrition-related SDGs

Indicator	Value	Year	Rating	Trend
SDG 3: Good Health and Well-being				
Maternal mortality rate (per 100,000 live births)	173	2017	●	□
Neonatal mortality rate (per 1,000 live births)	17.5	2020	●	□
Mortality rate, under-5 (per 1,000 live births)	29.1	2020	●	□
Incidence of tuberculosis (per 100,000 population)	218.0	2020	●	→
New HIV infections (per 1,000 uninfected population)	1.0	2020	●	→
Age-standardised death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30–70 years (%)	18.9	2019	●	→

Indicator	Value	Year	Rating	Trend
Age-standardised death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	149	2016	●	●
Traffic deaths (per 100,000 population)	15.4	2019	●	→
Life expectancy at birth (years)	74.3	2019	●	→
Adolescent fertility rate (births per 1,000 females aged 15 to 19)	74.0	2019	●	□
Births attended by skilled health personnel (%)	52.7	2018	●	→
Surviving infants who received 2 WHO-recommended vaccines (%)	97	2020	●	□
Universal health coverage (UHC) index of service coverage (worst 0–100 best)	51	2019	●	↗
Subjective well-being (average ladder score, worst 0–10 best)	5.3	2020	●	□
SDG2: Zero Hunger				
Prevalence of stunting in children under 5 years of age (%)	28.0	2019	●	→
Prevalence of wasting in children under 5 years of age (%)	9.8	2019	●	→
Prevalence of obesity, BMI ≥ 30 (% of adult population)	3.6	2016	●	□

Legend			
Major Challenges	●	On track or maintaining SDG achievement	□
Significant Challenges	●	Stagnating	→
Challenges Remain	●	Moderately improving	↗
SDG Achieved	●	Information unavailable	●

Source: SIP, 2023.



Annexe 7b: Past and Future Projections of Bangladesh's Rural-Urban Population (1970-2050)

Part II: Cross-Cutting Themes

Chapter 8: Infrastructure and Connectivity: A Pathway to Economic Prosperity[1]

8.1 Introduction

The transport sector is a cornerstone of Bangladesh's economy, playing a crucial role in driving development and fostering economic growth. Its close connections with various other sectors underscore its significant contribution to national progress. The efficiency and reach of the transport network facilitate trade, enhance accessibility, and support the movement of goods and people, making it a vital component of the country's overall development strategy.

Bangladesh has made significant strides in transport infrastructure development with several completed mega projects that have transformed connectivity and economic prospects. The Padma Bridge, spanning 6.15 km over the Padma River, stands as the longest bridge in the country, significantly improving connectivity between the southwestern region and the rest of Bangladesh. Complementing this, the Padma Rail Link enhances both road and rail transport efficiency. Another remarkable achievement is the Bangabandhu Sheikh Mujib Tunnel under the Karnaphuli River in Chittagong, a 3.4 km structure that connects the city with Anwara Upazila, reducing travel time and distance. In urban transportation, the inauguration of Dhaka Metro Rail Line-6 in December 2022, covering the stretch from Uttara to Agargaon, marks a significant milestone in addressing Dhaka's traffic congestion. Additionally, the expansion of Hazrat Shahjalal International Airport through the construction of Terminal-3 aims to increase passenger handling capacity from 8 million to 24 million per year. Collectively, these projects are pivotal in enhancing Bangladesh's transport infrastructure, fostering economic growth, and improving the overall quality of life for its citizens.

However, despite these achievements, it appears that these successes have come at a hefty cost in terms of both time and resources, leading to significant resource leakage, as highlighted in the recent White Paper (White Paper Committee, 2024)[2]. These issues reveal deep-rooted structural and institutional weaknesses that pose critical challenges to the long-term sustainability of infrastructure and connectivity development. Addressing these weaknesses and implementing meaningful structural reforms are imperative to ensure that future projects are executed efficiently and transparently, maximising their socio-economic impact.

The newly formed interim government stands at a crucial crossroads, tasked with addressing longstanding challenges in the transport sector and uncovering the root causes

[1] This chapter is prepared by Md. Shamsul Hoque, Prof. BUET

[2] White Paper on State of the Bangladesh Economy: Dissection of a Development Narrative Government of Bangladesh, Nov 2024.

of persistent issues that previously remained unaddressed. In pursuit of this goal, a 12-member task force has been established to prepare a comprehensive report titled *"Re-strategizing the Economy and Mobilizing Resources for Equitable and Sustainable Development."* This initiative aims to lay the groundwork for a fair, sustainable, and dynamic economic framework. As the transport sector strives to achieve ambitious national targets, deep-seated structural and institutional inefficiencies demand immediate and strategic intervention. At this critical juncture, the urgency of implementing far-reaching reforms cannot be overstated, as they are essential for building resilience and ensuring the sector's capacity to support Bangladesh's economic prosperity and long-term vision of becoming a developed nation by 2041.

8.2 Methodology

The reform study primarily draws on existing sectoral master plans, five-year plans, and reports, including the Delta Plan 2100, Integrated Multimodal Transport Policy 2023, and Land Use Plan, along with information from various relevant ministries and institutional websites. Best practices in transport infrastructure and connectivity planning, development, and maintenance were sourced from reference countries with integrated multimodal sustainable transport systems and supplemented by insights from Wikipedia. Stakeholder engagement, including input from non-resident Bangladeshis (NRBs), also played a crucial role in shaping the study.

The authors' academic research studies and extensive involvement in numerous mega and multi-sectoral projects, as Advisors, Members of Expert Panels, Consultants, and Chairpersons of Dispute Boards, provided valuable firsthand insights. This experience enabled a thorough analysis of the inherent weaknesses, challenges, and gaps in the transport system development process, leading to well-informed recommendations. Notably, the authors have contributed to major studies in the transport sector, including the *Strategic Transport Plan (STP) 2004*, the *Revised Strategic Transport Plan (RSTP) 2015*, the transport sector chapter of the *7th Five-Year Plan*, the review of the *Bangladesh Delta Plan 2100*, the transport sector chapter for the *International Union for Conservation of Nature (IUCN)*, the *Country Strategic Opportunities Program (COSOP) for 2023–2028*, and the *IFAD Sectoral Study on Rural Infrastructure*. This extensive engagement has ensured a comprehensive understanding of the transport sector's challenges and opportunities in Bangladesh.

8.3 An overview of the Infrastructure and Connectivity in Bangladesh[3]

The article will review the existing transport infrastructure project development planning, implementation, monitoring and evaluation, and maintenance practices of the transport sector, as well as identify institutional and procedural shortcomings needed for reforms, with special focus on the multimodal integrated transport initiative aspect.

[3] Based on the author's different writeups.

8.3.1 Project Planning Process:

8.3.1.1 Project Selection and Formulation

Bangladesh's transport system includes roads and highways, railways, inland waterways, seaports, maritime shipping, and civil aviation. However, project selection and formulation are carried out independently by line ministries without integration or adherence to spatial zonal, and multimodal transport master plans. This fragmented approach leads to numerous issues, causing an imbalance and entanglement in transport system development, ultimately hindering the creation of an efficient and cohesive transport network.

Imbalance in Transport System Development

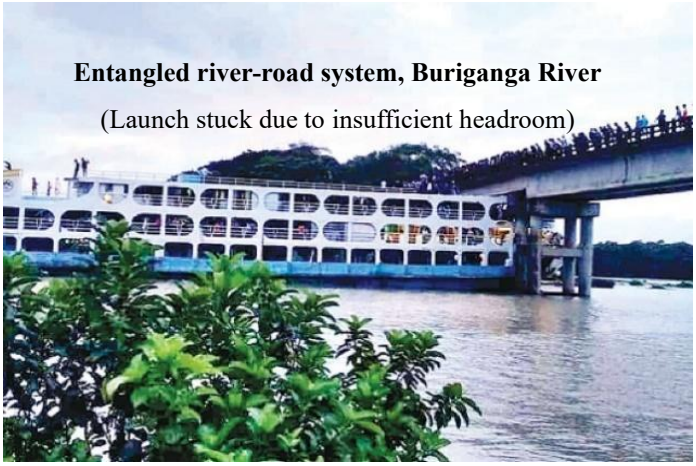
As of 2019, the modal share for passenger transportation in Bangladesh was predominantly dominated by road transport (Table 8.1), which accounted for approximately 88% of the total passenger movement. In contrast, railways contributed around 4% to passenger transport. The lack of unitary development authority has led to an overemphasis on road development, also increasing the freight modal share from 35% in 1975 to 77% in 2021. Conversely, during the same period, the contribution of rail and inland water transport (IWT) modes has significantly decreased from 28% to 16% and 37% to 7%. While road transport provides personalised door-to-door service, it is resource-intensive and environmentally unfriendly, posing significant challenges to Bangladesh's limited land resources and food security. For sustainable development, there is a need for a balanced multimodal transport system that capitalises on the enormous potential of riverine topography connected to the sea, as well as the opportunity for railway intermodal container services.

Table 8.1: Modal Share for Freight Transportation in Bangladesh

Year	Total freight ton-km (billion)	Model Share (Percentage)		
		Road (%)	Rail (%)	IWT (%)
1975	2.6	35	28	37
1985	4.8	48	17	35
1989	6.3	53	17	30
1997	12	65	7	28
2005	20	80	4	16
2019	31	77	16	7

Source: Working Paper "Mainstreaming inland waterways into national logistics network: national experience of Bangladesh," ESCAP, 2021.

Entangled Transport System Development



Entangled river-road system, Buriganga River

(Launch stuck due to insufficient headroom)

Unsustainable entangled rail-road system, Dhaka

(Level crossing at a busy road intersection)

The absence of integrated planning authority has resulted in indiscriminate road infrastructure development, often compromising navigational headroom for marine vessels and creating unauthorised level-crossings that hinder railway operations. This road-biased development policy has led to an imbalanced and unsustainable transport system characterised by chronic congestion, excessive pollution, and increasing safety hazards. The potential of railways and waterways remains underutilised, preventing the establishment of a balanced, multimodal transport system that conserves land and resources. Road infrastructure has also induced inefficient ribbon development along roadways, while the potential for railway-based, transit- oriented sustainable land use planning has not been explored. For Bangladesh to achieve middle-income status, an integrated and balanced transport system is crucial. This requires developing a network where roads, railways, inland waterways, air transport, ports, shipping, and urban and rural transport complement each other effectively.

Bangladesh in Global Business Competitiveness Ranking

Bangladesh has not been included in the recent Global Competitiveness Index (GCI) rankings, primarily due to limited or inconsistent data availability. According to the Global Competitiveness Report 2019, the World Economic Forum (WEF) ranked Bangladesh 105th out of 141 countries, down from 103rd previously. The country saw declines in 10 out of 12 key pillars, notably in macroeconomic stability, labour market efficiency, ICT adoption, and infrastructure. In South Asia, India leads at 68th, followed by Sri Lanka at 84th, while Nepal (108th) and Pakistan (110th) rank below Bangladesh. Bangladesh's infrastructure ranking has notably fallen from 72nd in 2010 to 100th in 2019, reflecting persistent challenges in transport, connectivity, and urban mobility.

Pillars	2018	2019
Overall	103	105
Institution	108	109
Infrastructure	109	114

Addressing these weaknesses is essential to improving competitiveness and achieving the nation's long-term development goals.

Fragmentation of Transport Ministries

Bangladesh's transport infrastructure is developed through separate entities, such as the Ministry of Road and Bridge, Ministry of LGRD, Ministry of Railway, Ministry of Shipping and Port, and Ministry of Civil Aviation and Tourism. This division results in uncoordinated development, leading to conflicts, inefficiencies, higher costs, and longer travel times. While most of the countries around the world integrate river, rail, road, and air transport into a cohesive system, Bangladesh has instead fragmented its transport network over time. In 2014, the railway ministry was separated from roads and highways, and in 1985, the BBA division was created to manage larger bridges. Furthermore, the responsibility for road infrastructure development is divided between two organisations: the LGED department oversees rural road development, while RHD handles national and regional high-standard roads. This fragmentation is widely considered the main cause of the country's deteriorating transport system and the costly, disjointed infrastructure development it has experienced.

8.3.1.2 Practical Problems Justifying the Merging of Four Separate Ministries

The following are a few practical problems that justify merging the four separate ministries responsible for river, railway, roadway, and civil aviation:

- **Avoiding Unnecessary Conflicts:** Among various infrastructure development departments, the lack of a land-sharing attitude creates conflicts. For example, the Chittagong Port Authority (CPA) did not provide land at Karnaphuly Container Terminal for railway intermodal facilities. At the HSIA airport railway station, a proposed multimodal hub could not materialise due to acute land-sharing problems. The Civil Aviation Authority of Bangladesh (CAAB), Railway, and Roads and Highways Department (RHD) all wanted to implement this transfer hub without any success, losing a golden opportunity to connect the airport with multimodal connectivity. Similar difficulties were faced in implementing the multimodal hub at Kamalapur Railway Station, and serious problems arose between the Dhaka Elevated Expressway (DEE) and railway authorities over corridor sharing.

- **Separate Land Acquisitions:** Implementing the Padma Bridge rail link project by Bangladesh Railway and the Dhaka Mawa Expressway N8 by RHD required separate land acquisitions, sacrificing significant agricultural land, even when food security is a national priority. These two modes of transport could be implemented integrally using the same right of way (r.o.w)

- **Compromised Infrastructure:** At Padma and Jamuna bridges, the BBA compelled the railway to build single-track railways. At the Jamuna Multipurpose Bridge (JMB), the BBA allowed the railway a very restrictive 20 km/h operating speed, triggering Bangladesh Railway (BR) to build a separate dedicated dual-gauge double-line railway bridge at Jamuna River, causing unwanted huge resource leakages.

- **Constrained Road Expansion:** The 170 km Padma Bridge rail link project constricted LGED's future road expansion to nearly 300 locations by constructing narrow overpasses with low headroom.

- **Hegemonic Attitude Among Ministries:** Among the four separate ministries and their many divisions, a hegemonic attitude is observed in implementing infrastructure development, often violating institutional mandates.

Box 8.1:Ministry of Transport (MOT) or Department of Transport (DOT) [4]

From a review of information obtained from 84 countries only Bangladesh and India have four separate ministries to manage the four modes of transport. In contrast, the other 82 countries have unified Ministries or Departments of Transport. Considering the immense benefits of implementing integrated multimodal transport infrastructure and connectivity, it is observed that most countries around the world completed this vital reform early in the century by merging their transport ministries using a big-bang approach. For instance, China merged its vast Railway Ministry in 2008 to develop multimodal transport hubs that support seamless long and short-distance passenger and freight movements, thereby enhancing infrastructure safety, efficiency, and productivity.

Some countries, such as Japan and South Korea, have even included land and tourism within their super Ministries of Transport for integrated spatial and transport development.

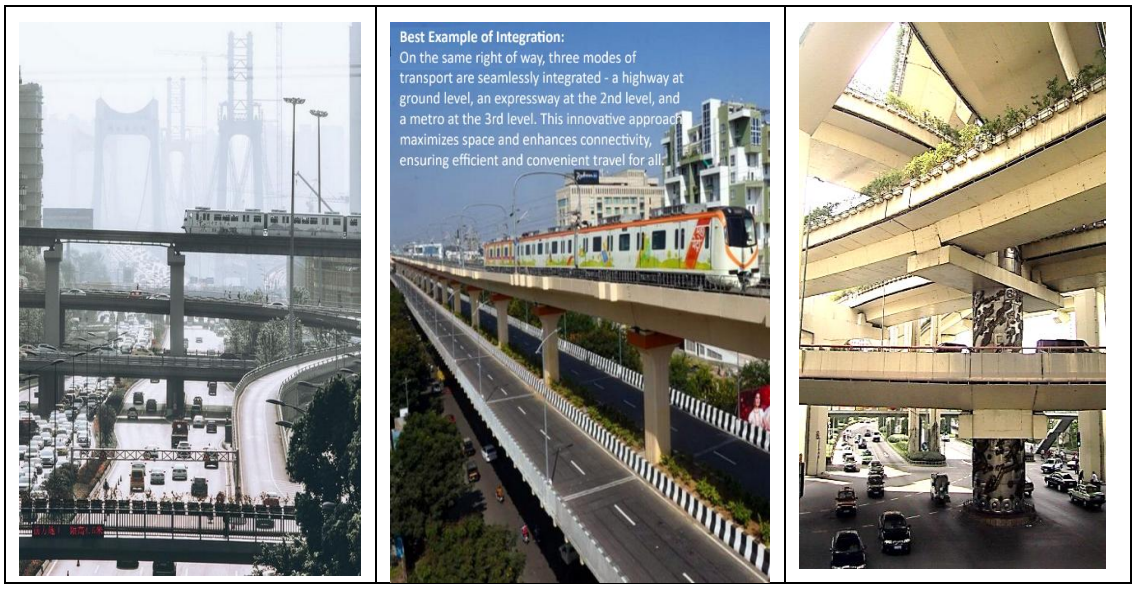
- **Manipulated Bridge Lengths:** Due to conflicts between LGED, RHD, and BBA, they deliberately manipulated bridge lengths, shortening and lengthening them to keep bridge development projects within their permitted scope. This fierce competition among these institutions started when the BBA was created solely to construct bridges, a unique situation globally. The overlapping functions related to bridge construction among these three organisations cause unnecessary resource wastage.

- **Lack of Seamless Multimodal Connectivity:** There are no successful multimodal transport systems with seamless connectivity and transfer hubs. Bus, truck, railway, airport, seaport terminals, EPZ/SEZ, ICD, and transport logistics semi-trailer hubs lack multimodal connectivity.

[4] https://en.wikipedia.org/wiki/List_of_ministries_of_transport_by_country; accessed on 25.12.24.

- **Weak Implementation of Policies:** In Bangladesh, the National Integrated Multimodal Transport Policy (NIMTP) of 2013, prepared by the Ministry of Road Transport and Bridges (MoRTB), aimed to integrate these transport modes. Despite its formulation, weak implementation led to infrastructure projects that failed to align with its guidelines. The NIMTP of 2023, prepared by the Ministry of Commerce (MoC), has raised concerns due to the MoC's lack of institutional mandate and technical expertise in infrastructure development and transport planning. Globally, Integrated Multimodal Transport Policies are typically prepared and overseen by ministries directly responsible for transportation and infrastructure planning.

These costly experiences suggest that, like in other countries, all four modes of transport should be under one Transport Ministry. Globally, such integration is typically managed by a national Ministry of Transport (MOT) (Box 8.1) or a dedicated Department of Transport (DOT), ensuring the coordination and planning necessary to achieve these benefits. For Bangladesh, establishing a clear, authoritative body with the mandate and expertise to oversee multimodal transport integration is crucial for achieving an efficient, sustainable, and resilient transportation network.



a. Chongqing, China b. Nagpur, India c. Tokyo, Japan

Figure 8.1: Best Examples of Integration - Multiple Transport Facilities on a Common Pier

8.3.2 Project Approval Process

Globally, the Planning Commission (PC) is a key institution for project appraisal and approval across various government institutes. It plays a pivotal role in aligning development efforts across all transport modes, optimising resource utilisation, and ensuring cost-effective and sustainable progress. Strong and empowered Planning Commissions are widely recognised as essential for achieving these objectives. In China,

the Planning Commission holds substantial authority, ranking third among 26 ministries and constituent departments, following Foreign Affairs and Defence[5]. In Bangladesh, the concerned ministry conducts a feasibility study for their selected projects and submits the proposal, along with estimated costs, to the Planning Commission for approval. However, project submissions are highly fragmented, with nearly 57 line ministries sending proposals to the Commission. In 2024 alone, around 1,200 projects were submitted, making it difficult to thoroughly verify feasibility studies, ensure alignment with national strategies, and establish clear priorities. The presence of multiple implementing agencies in the transport sector further intensifies issues of fragmentation and coordination.

Inherent Shortcomings of the Planning Commission (PC)

The Planning Commission (PC) is the apex body responsible for scrutinising development projects in Bangladesh. It plays a critical role in guiding the nation's development, overseeing a budget of nearly BDT 3.0 lac crore for 2024-25. However, despite its importance, the institution faces several inherent shortcomings:

- **Lack of Experienced Infrastructure Planners:** The PC lacks sufficient skilled professionals in infrastructure planning to effectively comprehend the complexities of large-scale development projects. Examples of non-integrated projects approved by the Planning Commission are provided in Annex-1.
- **Inadequate Expertise for Feasibility Studies:** Line ministries often conduct feasibility studies (FS) hastily, inflating benefits while overlooking key ground-level challenges. These studies are treated as formalities, with unrealistic assumptions and a lack of in-depth analysis. The PC lacks the necessary expertise and systems to thoroughly examine FS reports and approve projects that align with national strategic land-use and transport masterplans.
- **Failure to Implement Balanced Transport Infrastructure Development:** The PC struggles to ensure conflict-free and multimodal transport infrastructure development, which is essential for national integration.
- **Absence of a National Project Dashboard:** There is no comprehensive system in place to collect, analyse, and utilise data for reliable demand forecasting or monetising benefits, limiting the PC's ability to make informed decisions. Additionally, the PC lacks a centralised national dashboard with project-related data for easy access and coordination, which hampers transparency and tracking.
- **No Information on Ongoing or Committed Projects:** There is no centralised information on the status of ongoing or committed projects, making it difficult to monitor progress and avoid duplication.
- **Lack of a Multimodal Transport Infrastructure Master Plan:** The PC does not have an integrated national transport infrastructure master plan, instead allowing

[5] *https://en.wikipedia.org/wiki/Constituent_departments_of_the_State_Council*

individual departments to create separate sector-specific plans that lack coordination. Line ministries submit sector-specific projects without proper assessments or integration with other transport modes, which results in siloed development and missed opportunities for coordination.

- **No System for Feedback or Reforms:** The PC does not have systems in place to collect feedback from Project Directors (PDs) or line ministries, nor does it initiate periodic reforms to address internal procedural issues.
- **Absence of Research and Development Support:** The Planning Commission lacks its own research and development wing to support spatial zonal planning and multimodal integrated national transport policies. Like in other countries, it also lacks an independent think tank or technical research entity to provide the necessary support.
- **Lack of Strategic Planning:** Without a strategic spatial zonal plan or a comprehensive multimodal masterplan, project approvals result in haphazard land use and transport infrastructure development that is not aligned with long-term goals.
- **Lack of Transparency:** The approval process is not transparent, with no mechanisms for beneficiaries to access essential project-related information, such as implementing agencies, intervention areas, objections, feasibility reports, and costs.
- **Institutional Weakness from Merging with Administrative Cadres:** The merger of the specialised economic-focused Planning Commission with the general administrative cadre has reduced its institutional capacity, weakening its ability to evaluate and approve complex infrastructure projects effectively.

These shortcomings undermine the Planning Commission's ability to guide sustainable and integrated multimodal infrastructure development. The result is often disjointed, counterproductive development that creates long-term financial liabilities. Addressing these issues is vital for the effective and sustainable progress of Bangladesh's transport system

Global Best Practices in Approving Infrastructure Projects

Globally, Planning Commissions or their equivalents, like China's National Development and Reform Commission (NDRC), Vietnam's Ministry of Planning and Investment (MPI), and Japan's Ministry of Land, Infrastructure, Transport, and Tourism (MLIT), hold similar powers to appraise and approve public projects, coordinate policies, and oversee development plans. In China, the NDRC focuses on major infrastructure projects such as high-speed rail networks and expressways, making strategic investments to boost trade and economic development. Vietnam's MPI, in collaboration with the Ministry of Finance, ensures financial feasibility and sectoral compliance for project appraisals. Japan's MLIT, along with the Ministry of Finance, overseas infrastructure project

[6] *https://en.wikipedia.org/wiki/Planning_Commission_(India)*

approvals and budgetary alignment. Thailand and Vietnam adopt a decentralized approach where specific ministries and agencies appraise and approve projects, ensuring technical compliance and relevance.

South Korea's Korea Transport Institute (KOTI) is a think tank under the Prime Minister's Office, ensuring transport projects align with long-term plans. Established in 1987, KOTI collaborates with national planning agencies and local governments, conducting research and maintaining exchange programmes with international organizations. Australia's Infrastructure Australia (IA) provides evidence-based advice to the government, identifying priorities, guiding investments, and suggesting policy reforms. Established in 2008, IA maintains the Infrastructure Priority List, evaluates major projects, and develops research to support better decision-making, ensuring well-planned and efficient infrastructure development. In the USA, the Department of Transportation (DOT) oversees federal transportation projects and sets safety regulations. Planning is conducted by state and local officials in rural areas, while Metropolitan Planning Organizations collaborate with state governments in urbanized areas. The Office of Management and Budget (OMB) and think tanks like the Brookings Institution shape national policies and investment strategies, with the OMB preparing the president's budget and reviewing agency programmes to ensure alignment with the president's agenda. In line with the best global practices, structural reforms in the Planning Commission (PC) are urgently required to address ongoing challenges. Without these critical reforms, Bangladesh risks continuing its fragmented and unsustainable infrastructure development, resulting in further economic inefficiencies and long-term setbacks.

Box 8.2: The Abolishment of the Planning Commission of India in 2014

In India, the Planning Commission, which played a pivotal role in approving national projects and guiding development plans, was abolished in 2014 by Prime Minister Narendra Modi [46]. It was replaced by the National Institution for Transforming India (NITI Aayog), which functions as an autonomous policy think tank. Unlike the Planning Commission, which had centralised power over resource allocation and project approval, NITI Aayog operates as a strategic advisory body focusing on cooperative federalism, policy innovation, and fostering partnerships between the central and state governments. It provides directional policy inputs, promotes sustainable development strategies, and emphasises result-oriented governance. Organisations like the Boston Consulting Group (BCG) have collaborated with NITI Aayog on initiatives like Development Support Services for States (DSSS) to provide transaction management and sectoral support for state-level projects.

8.3.3 Project Implementation Process

Transport infrastructure development projects are frequently criticized for excessively high unit costs, along with recurring time and cost overruns. A review of various completed transport infrastructure and connectivity projects as shown in Table 8.2 highlights several factors contributing to these delays and cost escalations. During

implementation, these projects often face numerous avoidable challenges. According to the World Bank[7], road construction in Bangladesh is among the most expensive, with costs ranging from 2.5 million to 11.9 million dollars for constructing four-lane or larger roads. The World Bank attributes these high construction costs to factors such as high levels of corruption, delayed project completion, and a lack of competition in the bidding process.

Table 8.2: Reasons for Project Cost Increases, Implementation Time Delays, and Cost Overruns

Project Name	Initial Cost (USD)	Final Cost (USD)	% Increase	Implementation Time (years)	Cost Overrun Observations
Padma Bridge	$1.2 billion	$3.86 billion	221%	2009–2022 (13)	Design revisions, political delays, escalation costs
Padma Bridge Rail Link	$3.1 billion	$4.5 billion	45%	2016–2025 (9)	Design complexity, procurement delays
Jamuna Railway Bridge	$884 million	$1.53 billion	73%	2016–2025 (9)	Escalation, limited bidding competition
Dhaka-Mawa Expressway	$1.12 billion	$1.47 billion	31%	2016–2021 (5)	Design changes, increased land acquisition cost
Karnaphuli Tunnel	$0.98 billion	$1.2 billion	22%	2015–2024 (9)	Geological challenges, delayed approvals
MRT Line-6	$2.1 billion	$3.3 billion	57%	2012–2023 (11)	Escalation, delays in land acquisition
BRT-3 (South)	$0.44 billion	$0.58 billion	32%	2012–2024 (12)	Poor planning, management inefficiencies
HSIA 3rd Terminal	$1.3 billion	$2.2 billion	69%	2019–2025 (6)	Design changes, procurement delays

Source: Project Implementation Units (PIU) of project implementing agencies.

Identified Key Issues to be Reformed:

1. **Infrastructure Project Planning and Implementation Culture:** So far mainly Top-Down Approach -
   - Projects are often formulated through a top-down approach, with political and external influences playing a major role.
   - The project idea is conceived and dictated by the Minister, influential politicians, Ministries, Secretaries, and Donors.

[7] https://www.thedailystar.net/editorial/high-cost-road-construction-1423594?form=MG0AV3

- The project is presented to the Prime Minister for approval and to obtain her concurrence.
- It is then handed over to the relevant allied ministry for undertaking target-oriented feasibility studies (FS) and preparation of the Development Project Proposal (DPP) keeping incentives/benefits for those in the project approval chain, with instructions for quick implementation, as it is a project committed by the Prime Minister.
- The department has minimal input in the process.
- Projects are mostly not aligned with the department's master plan implementation sequence and priorities.

2. **Time and Cost Overruns in Project Implementation:** These are primarily caused by -

- **Poor and Faulty Feasibility Studies (FS):**
  - FS are often undertaken merely as a formality to comply
  - There is a tendency to inflate project benefits and underestimate costs, making the Internal Rate of Return (IRR) appear more attractive, especially with so-called "crazy mega projects" committed by the Prime Minister.
  - Ground challenges (Utility shifting, Education & Religious Institutions), environmental, social, and climate impacts are not properly documented. Even when these are recorded, they are often not monetized adequately in the cost.
  - Project-related issues, such as the delayed availability of rolling stock and human resources, as well as high operational and maintenance (O&M) costs due to realistically unattainable operating speeds, are rarely considered.
  - Traffic projections are based on forecasts with only base-year data, relying heavily on assumptions and lacking comprehensive considerations.
- **Indiscipline in Undertaking Feasibility Studies (FS)**
  - **FS Conducted for Clearly Non-Feasible Projects**
    - Feasibility studies are often carried out for projects that are evidently impractical, with the FS itself becoming the main deliverable rather than a means to a viable project (e.g., high-speed train and subway projects).
  - **Duplicate FS for the Same Project by Multiple Agencies**
    - Multiple agencies frequently conduct separate feasibility studies for the same project, leading to redundancy and resource wastage (e.g., FS for N1 Expressway by RHD and BBA, or the Ring Road project by RHD and BBA).
    - Other examples include Circular Rail studies by BR and Embankment-cum-Beaster/Western Bypass Road by BWDB and the Bangladesh Army.

- **FS Conducted by Agencies Without Mandates**
    - Some feasibility studies are undertaken by agencies that lack the legal or operational authority for the project, leading to jurisdictional inefficiencies (e.g., the Bridge Master Plan bypassing RHD or Subway planning bypassing DMTCL).

- **Land Acquisition (LA)**
    - Delayed Land Acquisition During Project Implementation
        - Despite being a complex process prone to legal challenges, LA is often initiated only during the project implementation phase, causing significant delays.
    - Prolonged and Corrupt Land Valuation Processes
        - The process of valuing land, identifying affected individuals, and assessing losses (property, livelihoods, and rehabilitation needs) is time-consuming and frequently marred by corruption, fuelled by the prospect of lucrative compensation payments. The time constraints of land acquisition (LA) often lead to unethical practices.
    - Misuse of Acquired Land
        - Significant portions of the acquired land, intended for service areas to support project construction, are instead used for purposes better suited to leased arrangements.
    - Non-Project Activities on Project-Acquired Land
        - Acquired land is often diverted to non-project activities, such as constructing luxury bungalows, seven-star hotels, large-scale cantonments, or facilities like ports and shipyards, which may not align with the project's objectives or intended purpose.
        - Foreign funded projects (e.g., WB, ADB, JICA) often require very high land acquisition costs due to their liberal Land Acquisition and Resettlement guidelines, which are highly prone to abuse.

- **Conflicts with Other Projects**

  During project implementation, conflicts with ongoing or proposed projects can lead to coordination challenges, resulting in additional time and increased costs. Examples include:

    - Conflicts between Bangladesh Bridge Authority (BBA) and Bangladesh Railway (BR) in the Jamuna Bridge and Padma Bridge projects.
    - MRT6 conflicts with Dhaka Elevated Expressway (DEEP), and DEEP also conflicts with RAJUK’s Kuril Flyover and BR’s 3rd & 4th track projects.

  - Hanif Flyover (MMHF) and Mouchak Moghbazar Flyover (MMF) conflict with the STP-2004 master plan, which proposed all BRT and MRT projects, ultimately leading to the scrapping of the master plan.
  - RAJUK Jhilmil Flyover conflicts with MRT6, leading to its abandonment.
  - Dhaka Ashulia Elevated Expressway conflicts with the MRT6 extension line.

- **Followed Sequential Approach**
  - The sequential approach followed during project implementation, such as conducting and approving feasibility studies, preparing detailed designs, drafting and approving DPPs, securing funding or negotiating loans, obtaining project approval, selecting Project Directors (PDs), preparing tender documents, completing tendering, selecting supervision consultants and contractors, mobilising to start work, and most importantly securing donor concurrence at every step, often takes 1-3 years to complete.
  - By the time the process is finalised, the Bill of Quantities (BoQ) or the estimated project cost becomes outdated and no longer reflects the prevailing market prices during the implementation period.
  - The current DPP revision process is excessively rigid and centralised, resulting in bottlenecks in DPP and Revised DPP (RDPP) approvals and significant delays. This process requires urgent simplification and increased flexibility. To reduce the time and effort involved in DPP revisions, the Planning Commission (PC) should adopt a more liberal approach by delegating greater financial authority for DPP revisions to the line ministry.

- **Frequent Change of Project Director (PD)**
  - It is challenging to ensure well-trained and experienced Project Directors for large-scale projects.
  - Project Directors are often changed frequently, and many are appointed from outside the host department. This practice disrupts project continuity, undermines a sense of ownership, and, most importantly, hampers the establishment of accountability.
- **Institutional Weaknesses**

  Lack of In-House Effective R&D and P&D Units in Development Organizations

  - Development organizations lack dedicated in-house Research and Development (R&D) and Planning and Development (P&D) units to promote homegrown, knowledge-based advancements in the infrastructure sector, as well as to keep project implementation time to the shortest possible and minimize costs.

- Often, there are no clearly defined employer requirements (ER) for Planning and Design Consultants, resulting in geometric inefficiencies and structural overdesign in project planning and execution.

- **Project Financing Issues**

Non-competitive Bidding Practices

- Infrastructural project funding in Bangladesh often relies on soft loans, Public-Private Partnerships (PPP), Government-to-Government (GtoG) agreements, and Lines of Credit (LOC). However, these funding mechanisms frequently come with stringent and unfavourable conditions, coupled with sluggish fund disbursement processes that delay project execution. While GtoG funding is perceived to offer relatively lower interest rates and favourable grace periods, it is heavily criticized for resulting in exorbitantly high construction costs, primarily due to the reliance on Direct Procurement Methods (DPM) or non-competitive bidding practices.

Conflict of Interest

- For some times Bangladesh is getting infrastructure project finance from JICA, China, Indian soft loan-based project implementation under government to government (GtoG) under bilateral framework with limited tendering causes high project cost, particularly those project where FS & Detail Design, Construction and Supervision from the funding country make conflict of interest and tend to results high cost of construction. A few examples of this type of projects are
- Railway Bridge on Jamuna River (JICA funded, Detail design, Supervision Consultant & Contractor from Japan)
- 3rd Terminal (JICA funded, Detail design, Supervision Consultant & Contractor from Japan)
- Karnaphuli Tunnel (China funded, Detail design, Supervision Consultant & Contractor from China)

Geopolitical Factors Introduce Uncertainty and Risks

- India's Lines of Credit (LoCs) are presented to support Bangladesh's development across various sectors. However, these loans come with stringent conditions that raise concerns about sovereignty and long-term economic sustainability. A key stipulation is that 75% of project content, including goods and services, must be sourced from India, limiting Bangladesh's flexibility in procurement and often resulting in inflated costs and compromised quality. Additionally, these loans are frequently criticized for their slow fund disbursement processes, causing significant delays in project implementation. As of September 2022, only about $1.5 billion of the

total LoC amount had been disbursed, indicating a utilization rate of approximately 19% [8].

- Beyond these structural constraints, the release of GtoG loan funds, particularly from India and China, is increasingly influenced by geopolitical dynamics. This dependency on geopolitical factors introduces uncertainty and risks into Bangladesh's critical infrastructure projects, posing significant challenges for future planning and sustainable development.

8.3.4 Project Monitoring and Evaluation Issues

In infrastructure and development projects, quality control is crucial to ensure compliance with regulatory standards, enhance sustainability, and maintain long-term operational efficiency.

Implementation Monitoring and Evaluation Division (IMED)

IMED, under the Ministry of Planning, is responsible for monitoring and evaluating the implementation of development projects. The project cycle includes stages such as project formulation, appraisal, approval, implementation, monitoring, and evaluation. Each stage is carefully managed to ensure the project's success. They emphasize ensuring that projects adhere to timelines, budgets, and quality standards. However, IMED faces several critical challenges in effectively controlling and ensuring project quality. These challenges include:

- A shortage of trained professionals and technical expertise undermines the effectiveness of quality assurance measures.
- The absence of robust, real-time monitoring mechanisms results in lapses in identifying and addressing quality issues during project execution.
- Excessive dependence on contractors, without stringent oversight, increases the risk of substandard work and materials being used in projects.
- Inadequate data collection and analysis mechanisms hinder the ability to track project performance, identify recurring quality issues, and make evidence-based improvements.
- IMED primarily focuses on financial audits, due to lack of technical staff, it often neglects broader project quality and performance assessments, which are equally critical for project success.
- Quality control is highly technical and requires specialized personnel supported by advanced in-situ and laboratory testing facilities. However:

[8] *https://www.tbsnews.net/economy/only-16-73b-indian-locs-disbursed-12-years-494498?form=MG0AV3*

  - IMED lacks the necessary destructive and non-destructive testing equipment to carry out meaningful quality assessments.
  - Without such tools, critical elements like foundation work, subsurface earthwork, soil compaction, and proper reinforcement placement cannot be adequately verified.

- IMED does not perform ex-post evaluations to audit whether project objectives have been successfully achieved.
- Neglect of Process Audits:
  - Process audits, essential for establishing accountability and identifying systemic weaknesses at decision-making levels (e.g., ministries and agencies involved in land acquisition, utility shifting, and most importantly, instances where non-technical or non-project-related individuals take undue advantage by using project vehicles, travelling abroad for Factory Acceptance Tests (FAT), or attending technical training), are often overlooked.
  - These audits are crucial to pinpoint procedural weaknesses, bureaucratic entanglements, conflicts of interests and the root causes of time and cost overruns.

Addressing these weaknesses requires systemic reforms, capacity building, and adoption of modern tools and technologies to enhance IMED's effectiveness in quality control.

8.3.5 Project Operation Issues

8.3.5.1 Operational and Performance issues

To assess the operational and performance issues, the following four large-scale transformational infrastructure projects, which held high hopes, were evaluated, and a very short summary is presented below.

1. ***Dhaka Mawa Expressway:*** Spanning 55 kilometres and costing approximately Tk 200 crore per kilometre, this project aimed to enhance connectivity between Dhaka and Bhanga. Despite its high cost, the expressway faces issues such as long queues, traffic congestion at entry points, and the lack of ring roads around Dhaka city. Additionally, the absence of a synchronized industrial plan for job creation in the southwestern districts has increased traffic inflow into Dhaka, rather than hindering decongestion and decentralizing economic activities as originally envisioned. The project has also negatively impacted traditional waterways, crippling sector operators and investors. Instead of developing a multimodal transport system, the expressway has posed a significant threat to sustainable water transport modes, which could have helped alleviate road congestion by offloading traffic efficiently.
2. ***Padma Bridge Rail Link:*** With a total cost of BDT 392,467.98 crore, this project aimed to reduce travel time between Dhaka and Jessore from ten hours to two hours, boost economic growth, and enhance regional connectivity by linking the southwestern and eastern regions of the country. However, despite initial projections,

the project currently operates only three intercity and two mail trains daily, with no freight services in operation. Revenue generation has also fallen significantly short of pre-construction estimates, with only BDT 370 million earned in six months against a projected BDT 13.39 billion annually. Challenges such as poor integration with multimodal transport networks, operational inefficiencies, and limited freight movement have hindered the project's full potential, delaying anticipated trade benefits, travel time savings, and economic impacts.

3. ***Dohazari-Cox's Bazar Rail Line:*** The Dohazari–Cox's Bazar Rail Line, with an estimated cost of BDT 18,034.47 crore, is funded by the Asian Development Bank and the Government of Bangladesh. Initially projected to enhance tourism, economic development, and connectivity in the region, the rail line aimed to support major projects such as power plants, special economic zones, and a deep-sea port, while reducing road traffic and travel time. However, operational performance has been significantly below expectations, with only two pairs of trains operating daily instead of the planned 22 passenger and six freight train pairs. The project's ability to boost tourism and regional economic activity has been hampered by a shortage of rolling stocks, requisite manpower and poor last-mile connectivity. Additionally, passenger traffic and revenue projections remain unmet, undermining the project's long-term financial sustainability and limiting its intended benefits.
4. ***Karnaphuli Tunnel:*** The Karnaphuli Tunnel, officially named the Bangabandhu Sheikh Mujibur Rahman Tunnel, is Bangladesh's first underwater expressway tunnel, constructed at a cost of BDT 10,374.82 crore. The tunnel was designed to improve connectivity between Chittagong city and Anwara Upazila, reduce travel time, boost industrial development, tourism, and economic activity, and accommodate over 17,000 vehicles daily. However, actual traffic has fallen significantly short, averaging only 3,934 vehicles per day, resulting in daily operating losses of over BDT 26.50 lakh and cumulative losses exceeding BDT 90 crore since its opening. The tunnel's underutilization is linked to the lack of planned industrial development in southern regions and poor integration with the existing road network. As a result, neither the expected traffic flow, economic growth, nor financial returns on investment have materialized, leaving the tunnel's full potential unrealized.

These revelations suggest that while the project objectives are highly ambitious, there is a lack of institutional capacity to critically evaluate feasibility studies, determine whether the objectives are achievable, and identify the necessary complementary activities, including project-related essential land use planning. Proper synchronized planning in rolling stock procurement, ensuring the availability of skilled manpower, and integrated execution strategies are crucial to fully realizing the intended benefits of these projects. This demands improvements in the project implementation process and capacity building of the relevant institutions, particularly the Planning Commission, through structural reforms, following the best practices of successful countries.

8.3.5.2 Vehicle Overloading Accelerates the Deterioration of Road Serviceability

Vehicle overloading is one of the main operating problems associated with high infrastructural maintenance costs and the quick deterioration of transport assets. On 1st December 2019, under the directives of the Former Minister of Road Transport and Bridges of Bangladesh, the Bangladesh Road Transport Authority (BRTA) increased the permissible axle load limits for trucks due to undue pressure from trade union leaders. This decision, however, contradicts several key international technical standards and hampers the sustainable usage of roadways:

- ***Violation of International Standards:***
    - The increased axle load violates the UN Vienna Conventions, which mandate uniform axle load and traffic control designs for transboundary vehicular movement among member countries. These conventions aim to maintain consistency in road infrastructure use across borders, ensuring structural integrity and cost efficiency.
- ***Contradiction with Manufacturer Standards:***
    - The revised axle load limits exceed the standards set by truck chassis and tyre manufacturers, who design vehicles based on international gross vehicle weight limits. Operating above these limits increases road wear and tear, reduces vehicle lifespan, and raises operational risks.
- ***Impact on Road Infrastructure:***
    - Axle overloading is highly detrimental to road durability, significantly reducing the lifespan of transport infrastructure. It leads to higher maintenance costs, frequent repairs, and ultimately increases the financial burden on public funds.

Table 8.3: Comparison of Axle Load Standards

Vehicle Type	New BRTA Standards (2019)	International Standards
Two-Axle Vehicles (6-wheels)	22 tonnes	15.5 tonnes
Three-Axle Vehicles (10-W)	30 tonnes	22 tonnes
Four-Axle Vehicles (14-W	40 tonnes	32 tonnes

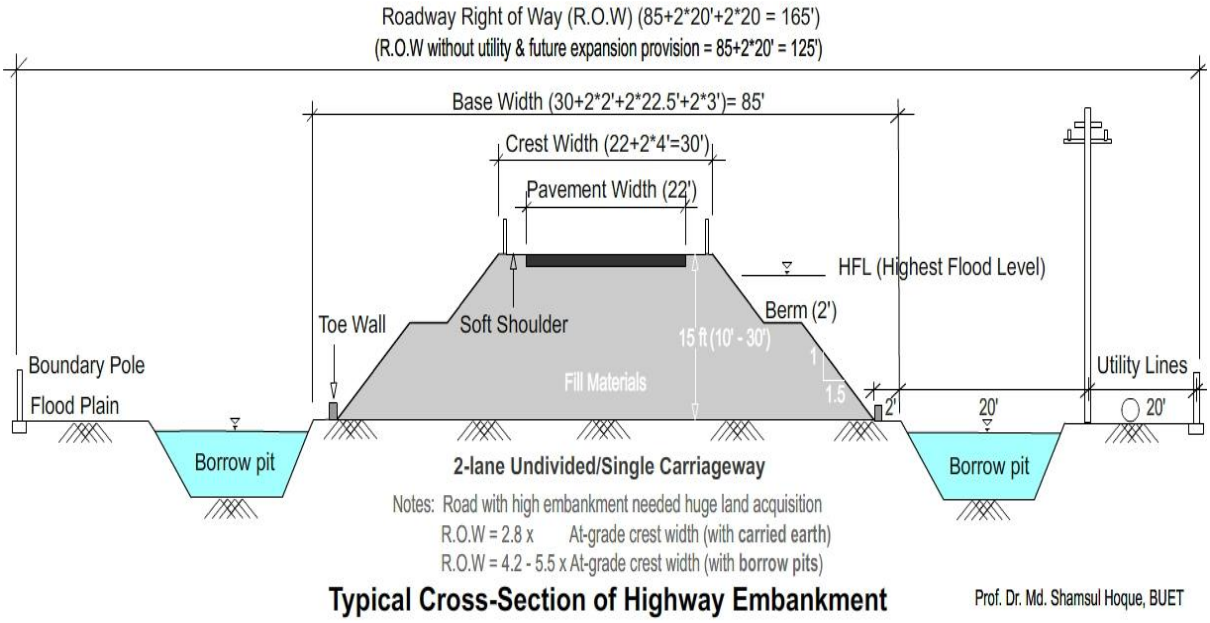
Sources: https://www.thedailystar.net/backpage/checking-vehicle-overloading-highways-get-21-more-weighbridges-1794574

https://brta.gov.bd

This sharp increase, from 25% to 41%, as shown in Table 8.3, with respect to internationally accepted axle load limits that prevailed in Bangladesh before 2019, raises significant engineering, economic, and legal concerns regarding the safety and sustainability of Bangladesh's transport infrastructure.

8.3.5.3 Infrastructure Development and Safe Operation

The development of roads and highways on floodplains often requires more than double (see attached schematic diagram) the width of land acquisition to accommodate embankments and carriageways. This significant land consumption directly impacts agricultural productivity by reducing arable land. Furthermore, artificially constructed embankments disrupt aquatic ecosystems, increase the frequency and magnitude of floods, and negatively affect agricultural yields. High road and railway embankments on floodplains, particularly on unconsolidated alluvial deposits, not only require high land acquisition cost, extensive slope protection measures but also pose severe traffic safety due to continues decline operating speed due to encroachment, conflicting use of right of way (RoW), frequent disruptions from junctions, level crossings, and pedestrian activities.



8.3.5.4 Operational Disruption due to Flood

In August 2024 floods in Feni and Noakhali besides affecting population in those areas also severely disrupted Chittagong Port connectivity for 11 days, bringing export-import activities to a standstill. Such climatic shocks are expected to become more frequent in the future. Therefore, infrastructure design must align with climate-adaptive, resilient, and smart sustainable policies by constructing rail and roads on embankment-less elevated structures.

8.3.5.5 Strategic Infrastructure Solutions

- Elimination of embankment construction, extensive fill material requirements, and slope maintenance
- Reduced land acquisition and environmental footprint, minimizing the loss of agricultural land.
- Preservation of natural resources and biodiversity.
- Prevention of social and environmental divides caused by embankments.
- Prevention of ribbon development and side friction along highways.
- Enhanced operational safety with reduced risks from encroachment and conflicting land usage, ensuring self-enforced sustained high operating speeds, improved efficiency, and resource-optimized service delivery.
- Uninterrupted flood water flow, minimizing environmental impact.
- Minimal drainage-induced submergence issues.
- Enhanced infrastructural resilience to floods and climatic shocks.

Box 8.3: Viaduct based Infrastructure

Another bold way of conserving land while attaining a full level of service is by constructing elevated roads on a pier system instead of conventional embankments, which not only demand more land area but also require huge fill materials. By default, the elevated roadway system is fully access-controlled and is considered the most productive, safest, environmentally, and eco-friendly roadway infrastructure. Though the construction cost of this category of road is usually high, its resource-conserving attributes justify the investment. Moreover, in this regard, Bangladesh can avail climate change (CC) funds under the framework of climate justice to make its infrastructure climate-adaptive by leveraging international support and partnerships. Bangladesh has already availed such funds in Coastal Climate Resilient Infrastructure Projects (CCRIP).

Many countries around the world, including our neighbouring countries, are building these types of high-speed elevated railway and roadway facilities. Such quality infrastructures are prerequisites for faster economic growth in Bangladesh, as at-grade facilities are unable to ensure sustained high operating conditions.

This viaduct-based infrastructure development approach has the potential not only to address Bangladesh's unique geographical and climatic challenges but also to ensure sustainable, efficient, high-speed, and future-proof infrastructure development.

Figure 8.2: Land and Resource Conservation Potential Elevated Highways in Sri Lanka and Pakistan.

Figure 8.3: Full Excess Controlled Elevated Highways and Railways in Vietnam and China, Minimizing Ground Footprint

8.3.5.6 Infrastructure Finance – Introduction of Infrastructure bond

Infrastructure bonds are debt instruments issued by governments, financial institutions, or corporations to raise long-term capital for infrastructure projects like roads, bridges, power plants, and airports. They attract investors through tax incentives, fixed returns, and low risk due to government backing, making them effective financial tools for Public-Private Partnership (PPP) projects. A few success stories are**:**

- **India:** The India Infrastructure Finance Company Limited (IIFCL) and Tax-Free Infrastructure Bonds (2011–2016) have successfully funded major infrastructure projects. The National Infrastructure Pipeline (NIP) initiative aims to drive growth with a $150 billion USD investment, partially funded through bonds.
- **China:** Special Purpose Bonds (SPBs) fund infrastructure projects, especially in transportation and urban development.

- **Malaysia:** Sukuk Bonds (Islamic Infrastructure Bonds) finance large-scale projects, adhering to Shariah principles.
- **Indonesia:** Infrastructure Sukuk attract both domestic and international investors for public infrastructure projects.
- **Vietnam:** Government-backed infrastructure bonds focus on mega projects, leveraging public-private partnerships (PPPs).

For Bangladesh, adopting similar models with robust regulatory frameworks and clear investment incentives can be an effective alternative infrastructure financial tool to drive sustainable infrastructure development through PPP initiatives.

8.3.6 Project Maintenance Issues

According to the Asian Development Bank (ADB) report titled "Road Maintenance Financing and Effectiveness (2019–2021)," there are significant shortfalls in road maintenance budgets for the Local Government Engineering Department (LEGD) and the Roads and Highways Department (RHD) every year. This persistent underfunding hinders effective road maintenance, leading to deteriorating road conditions and increased costs for repair and rehabilitation. Addressing these budget shortfalls is crucial to ensure sustainable and well-maintained road infrastructure in Bangladesh.

Table 8.4: Summary of the Maintenance Budget Shortfalls and Allocations for LGED and RHD

Year	LEGD Maintenance Budget Requirement	LEGD Maintenance Budget Allocation	RHD Maintenance Budget Requirement	RHD Maintenance Budget Allocation
2019	$50 million	$30 million	$100 million	$44 million
2020	$55 million	$35 million	$105 million	$48 million
2021	$60 million	$40 million	$110 million	$52 million
2022	$65 million	$45 million	$115 million	$56 million
2023	$70 million	$50 million	$120 million	$60 million

Source: South Asia Subregional Economic Cooperation Dhaka–Sylhet Corridor Road Investment Project: Road Maintenance Financing and Effectiveness (2019–2021).

Table 8.4 highlights the gap between the required maintenance budgets and the actual allocations for LGED and RHD over recent years. The shortfalls indicate the need for increased funding to ensure proper maintenance and sustainability of road infrastructure.

Dedicated Road Fund for Road Maintenance

Bangladesh's road infrastructure spans thousands of km, with approximately 22,000 km managed by the Roads and Highways Department (RHD) and around 378,000 km under

the Local Government Engineering Department (LGED). However, insufficient budgetary allocation, irregular funding, and reliance on external loans have created significant barriers to effective road maintenance. Maintenance activities are often deprioritized in favour of new construction projects, resulting in deteriorating road conditions, reduced road safety, and increased vehicle operating costs. Often, repair works become acts of rehabilitation work. A dedicated Road Fund ensures that a consistent stream of resources is allocated exclusively for timely routine and emergency maintenance of road infrastructure.

Global Practices and Lessons for Bangladesh

Many countries, including Kenya, Uganda, and Ghana, have successfully implemented Road Funds financed through fuel levies, tolls, and vehicle registration fees. These funds operate autonomously, with strong governance mechanisms to ensure transparency and accountability. For instance, Kenya's Road Maintenance Levy Fund (RMLF) has significantly improved road conditions and reduced maintenance backlogs. Bangladesh can adopt similar models to ensure timely allocation of maintenance works.

A dedicated Road Fund for maintenance work is critical for preserving and improving road infrastructure in Bangladesh. Adopting global best practices, diversifying funding sources, and ensuring strong governance can enable the country to tackle its road maintenance challenges more efficiently. Investing in road maintenance not only extends the lifespan of infrastructure but also fosters economic growth, lowers transportation costs, and improves road safety. The government established the fund by enacting the Road Maintenance Fund Board Act on July 14, 2013, with the aim of facilitating the maintenance, repair, and renovation of roads managed by the RHD. However, despite its creation, the Road Maintenance Fund (RMF) has remained non-functional for the past eleven years.

8.4 Dhaka’s Urban Structural Planning and City Governance Issues

8.4.1 Shift of Capital

Capital city Dhaka faces significant challenges that undermine its ability to function as a modern and liveable capital. The city suffers from a poorly designed road network, covering only 7% of the area, with an absence of hierarchy among primary, secondary, and tertiary roads, and a lack of arterial routes. Traffic management systems remain outdated, with no implementation of modern solutions such as one-way traffic flows, tidal traffic management, road pricing, or mass transit infrastructure, including terminals or multimodal transport hubs. The already tangled multi-modal transport system is further complicated by approvals for additional railway tracks and multiple flyovers, all while chaotic and dysfunctional traffic operations persist. Moreover, capital-intensive flyovers have caused irreversible damage, significantly limiting the potential for future mass transit improvements.

Reliable accessibility to essential services such as hospitals, offices, and schools remains inadequate. This issue is further exacerbated by chronic drainage problems and

groundwater depletion. The Central Business District (CBD) is eccentrically located in the south, whereas most residential areas lie in the north, resulting in high travel demand across the city. Alarmingly, 85% of urban development is unauthorized and does not comply with firefighting standards. Additionally, restricted zones around airports and cantonment areas have suppressed urban densification. Meanwhile, due to the unavailability of buildable land, wetlands are being filled with unplanned development, causing severe environmental damage.

Dhaka's traffic operating speed has seen a dramatic decline over the years, dropping from 25 km/h in 1997 (DUTP Study) to 15 km/h in 2005 (STP Study), further decreasing to 6.7 km/h in 2015 (RSTP Study), and showing even worse performance in the most recent URSTP findings (unpublished). This downward trend indicates that Dhaka is gradually becoming a standstill, nearly motionless city. According to Google, Dhaka is officially the slowest city in the world. The following Table 5 summarizes Dhaka's liveability index, pollution rank, and travel speed rank, providing a clear snapshot of the city's critical challenges.

These rankings highlight Dhaka's critical challenges in liveability, pollution, traffic management, water quality, and economic competitiveness. Many of these damages are irreversible, such as pattern-less road networks that are incompatible with modern traffic management and mass transit systems. There is no space for wider footpaths, bikeways, or public transport facilities. The railway system is entangled with road infrastructure, and rail and road bridges have constricted waterways and their potential. The densified, uncontrolled fringe areas, including riverside ribbon development, greatly diminish the potential for planned expansion through redevelopment. Additionally, immovable restricted zones spanning nearly 11.5 km in the north-south direction (from Tejgaon Airport to HSIA) further constrain urban mobility and growth. Moreover, Dhaka operates with a single airport and a single runway, unlike neighbouring countries that have strategically developed multiple airports and runways to support their growing urban and economic needs.

Table 8.5: Summarises Dhaka's Liveability Index, Pollution Rank, and Travel Speed Rank

Index	Ranking/Status	Key Highlights	Source
Global Livability Index	Bottom Position	Ranked among the least livable cities globally.	Economist Intelligence Unit (EIU)
Air Pollution Index	Top Position	Consistently ranks as one of the most polluted cities in the world.	IQAir World Air Quality Report
Traffic Speed Index	Slowest City Globally	Dhaka is recognized as the city with the slowest average traffic speed.	Google Traffic Data
Urban Congestion Index	Among the Worst	Severe congestion impacting productivity and mobility.	TomTom Traffic Index
Water Quality Index	Very Poor	Unsafe water quality for consumption and daily use.	World Bank Report
Drainage and Flood Index	Highly Vulnerable	Poor drainage and frequent urban flooding issues.	UN Habitat Report
Economic Competitiveness Index	Low Ranking	Limited infrastructure and poor ease of doing business.	World Economic Forum (WEF)
Resilience Index	Low Resilience Score	Poor preparedness for natural disasters and urban shocks.	FM Global Resilience Index

Source: Summarising information from Wikipedia.

These structural weaknesses indicate that Dhaka is ill-equipped to function as a modern, smart, and investment-friendly capital. Despite these glaring issues, there is no strategic plan to relocate or decentralize the capital, even though neighbouring countries have successfully executed similar transitions. The question of shifting Dhaka is no longer about feasibility, but about survival- socially, economically, and environmentally. Without immediate and decisive action, Dhaka's capacity to function as a sustainable capital will continue to erode, posing a significant threat to the nation's long-term growth and stability.

Box 8.4: Shift of Capital around the world

Around 40 countries worldwide have either shifted or planned to shift their capitals. Notable examples include India, Pakistan, Brazil, Nigeria, Myanmar, Malaysia, Indonesia, Egypt, and South Korea. The primary reasons for these relocations include overcrowding and congestion, which strain infrastructure in existing capitals; the need for better accessibility within the country; and environmental concerns, such as risks posed by ground water depletion, sinking land, natural disasters, or pollution, as seen in Jakarta's planned move to Nusantara. Most importantly, these shifts aim to enable the new city to become a modern, smart city with minimal physical travel demand, resilient, environmentally sustainable, innovative, 21st-century, and investment-friendly capital.

8.4.2 City Government Reforms [9]

Currently, Dhaka's governance is managed by multiple agencies, including DNCC, DSCC, WASA, DESCO, DPDC, RAJUK, and DMP, leading to overlapping responsibilities, inefficiencies, and poor service delivery. Similarly, mass transit services are overseen by BRTC, BRTA, DTCA, DMTCL, and DBRTCL, creating disorganization and inefficiency. Global best practices suggest establishing a unified service-providing authority under a single city government to streamline operations and enhance service quality.

While shifting the capital from Dhaka is a long-term objective, addressing governance and service delivery challenges requires immediate structural reforms aligned with global best practices. A unified city government under an elected mayor, merging all infrastructure development and service providers, is essential to ensure integrated urban planning, efficient resource allocation, and sustainable growth.

Box 8.5: Delhi Municipal Corporation (MCD) [10]

The MCD was reunified in 2022 to resolve the challenges and inefficiencies that emerged following its trifurcation into North, South, and East Delhi Municipal Corporations in 2012. While the split aimed to decentralize governance, it instead led to significant operational and financial hurdles. The division created duplicative administrative structures, increased bureaucratic overhead, and delayed decision-making processes. Coordination among the three corporations was inadequate, particularly in managing essential civic services such as waste management and infrastructure maintenance. Additionally, overlapping responsibilities and jurisdictional confusion weakened accountability.

The reunification sought to streamline governance, eliminate redundancies, and ensure better resource allocation. It centralized responsibility, improved financial stability, enhanced administrative efficiency, and facilitated more effective service delivery—ultimately strengthening urban local governance in Delhi.

Globally, cities like Tokyo, London, New York, and Seoul thrive under unified city governments led by elected mayors, who effectively oversee all service-providing organizations. In contrast, Dhaka's fragmented governance, split between multiple authorities, has resulted in dysfunctionality and inefficiencies. The bifurcation of Dhaka into DNCC and DSCC, intended to promote decentralization, has instead introduced resource allocation disparities, coordination gaps, and administrative inefficiencies, underscoring the urgent need for reintegration under a unitary authority. For instance, Delhi successfully unified its fragmented municipal structures, and Dhaka's two City Corporations must follow a similar path to ensure a liveable, functional, and vibrant urban environment.[10]

[9] *https://www.tbsnews.net/economy/only-16-73b-indian-locs-disbursed-12-years-494498?form=MG0AV3*

[10] *https://en.wikipedia.org/wiki/Municipal_Corporation_of_Delhi#:~:text=of%20the%20corporation.-,Trifurcation,Municipal%20Corporation%20contained%2064%20wards*

8.5 Public Transport: Challenges and Way Forward

Public transport in Bangladesh remains highly disorganized, plagued by fragmented ownership despite its immense ridership potential. Multiple bus companies compete for passengers along the same routes, resulting in service duplication and operational inefficiencies. Services are provided without essential infrastructure such as designated bus stoppages, turnaround facilities, or dedicated bus priority lanes. Passengers are often picked up and dropped off across the carriageway and haphazardly at terminal entrances instead of designated platforms, contributing to traffic congestion and safety hazards. Moreover, the presence of non-motorized vehicles (NMVs) without any numeric or lane control has seriously affected the productivity of buses.

Uncontrolled NMVs Outnumber Buses and Take the Lead with 4-Buses.

Highlights the Sheer Wastage of Roadway Capacity Caused by Uncontrolled NMVs

Demonstrates the Sheer Wastage of Bus Productivity Caused by Congestion

Since the Strategic Transport Plan (STP) of 2004, the introduction of a Bus Route Franchising (BRF) system has been recommended as a cost-effective yet impactful solution to address the disorganized and fragmented bus operations in Dhaka. In 2009, a detailed study was conducted by Advanced Logistics Group (ALG) from Barcelona, Spain, highlighting the flaws in the existing bus operations and offering actionable recommendations. The study revealed that the existing bus licensing system was unscientific, leading to fragmented ownership and overlapping routes. These inefficiencies resulted in low profitability due to reduced trips per day and increased

operating costs caused by persistent traffic congestion. Unhealthy competition arose from multiple operators running buses on the same corridors, compounded by the income pressure on drivers under the problematic lease-based system.

To address these challenges, ALG recommended replacing the fragmented 'multi-owner' model with a 'single-operator' system and replacing the lease-based driver income system with salaried 'appointed drivers.' The creation of 'Bus-Net,' a single mass transit regulatory agency, was identified as a critical requirement for overseeing bus operations. Other key recommendations included route rationalisation (reducing 156 routes to 22, with trunk-feeder integration and elimination of mini and para-transit on trunk routes), bus fleet consolidation and replacement, development of essential bus infrastructure, introduction of bus priority measures, and fare integration to ensure operational efficiency. Despite these clear and actionable recommendations, successive city mayors and administrative bodies have repeatedly failed to implement the BRF system. Committees formed to oversee the process often included representatives from various organisations, including bus owner associations, but lacked professionals with expertise in mass transit systems. This leadership gap has been a significant barrier to meaningful reform. Meanwhile, a few capital-intensive flyovers on the mass transit playground are implemented to ensure vehicle mobility, not people mobility. This makes the introduction of BRF more complicated.

Box 8.6: Global Practices in Traffic Management

Effective traffic management and signal operations require specialised Traffic Engineers (TE), often referred to as "road doctors," as they diagnose and address chronic traffic-related issues. However, in Bangladesh, this critical field of transportation engineering remains unrecognised in institutional organograms. Currently, Dhaka North City Corporation (DNCC) employs only two Traffic Engineers, while Dhaka South City Corporation (DSCC) has three, with overlapping responsibilities and limited authority.

In contrast, global cities with complex urban transportation systems, such as London and New York City, have robust traffic engineering departments. Transport for London (TfL) employs approximately 26,289 professionals, while the New York City Department of Transportation (NYC DOT) has around 5,500 personnel dedicated to managing public transport, traffic signals, signage, road markings, pedestrian pathways, and overall traffic operations. This glaring disparity highlights the urgent need for institutional reforms and capacity building in Bangladesh's urban traffic management sector.

Besides, according to the STP and global best practices, all mass transit modes, including buses, trams, BRT, LRT, monorails, suburban commuter rails, and MRT, should ideally fall under a unified mass transit authority. Such an authority is typically overseen by mayoral and local government offices to ensure seamless integration, efficient operations, and user-friendly services. However, instead of a unified mass transit authority, services here are overseen by multiple agencies without any integration.

8.6 Traffic Signal

It is both unique and surprising that there is no functional signal-based traffic operation in Bangladesh. While the majority of countries around the world rely on automated traffic signal systems, Bangladesh continues to depend on manual operations requiring substantial human resources. This reliance, combined with the presence of rickshaws in the traffic stream even in this modern era and the absence of an organised bus system, has contributed to a negative image of the country.

To establish signal-based traffic operations, Bangladesh has undertaken at least several major consultant driven projects in the past, including digital automated signals, synchronised signals, and AI-based signal systems. Despite these initiatives, all have ended in failure, resulting in significant financial losses and no accountability. Over the past two decades, approximately Tk 1.90 billion has been spent on installing digital traffic signal systems in Dhaka alone. Similar attempts have also been made in other metropolitan cities, yet the outcomes remain the same: persistent reliance on manual traffic control.

Key reasons for repeated traffic signal failures:

- Heavy reliance on foreign consultants unfamiliar with local traffic systems and driver behaviour.
- Absence of qualified traffic engineers in city authorities.
- Mixed traffic conditions with motorised and non-motorised vehicles sharing roads.
- Over 85% smaller-sized vehicles, causing oversaturated traffic conditions.
- Intersections frequently exceed capacity, leading to gridlock during peak hours.
- Lack of a hierarchical road network, preventing measures like one-way flows or optimised signal phasing.
- Indiscipline in bus operations, with arbitrary stops and lack of queuing areas.
- Conflicting road activities, including unauthorised vendors, illegal parking, and pedestrian encroachments.
- Inconsistent enforcement of traffic rules.

8.7 Importance of Transport and Land Use Planning

Transport and land use planning are inherently interconnected disciplines that significantly influence urban growth, economic development, and environmental sustainability. Land use patterns create demand for transportation, while transportation networks shape land use development. Effective integration of these two sectors ensures organised urban expansion, reduces congestion, and enhances the quality of life for citizens.

Challenges in Bangladesh's Transport and Land Use Planning

- Lack of adherence to the Dhaka Structure Plan, Detail Area Plan and transport masterplan. No spatial provision for mass transit multimodal hub interchange for passengers or cargo systems.
- Absence of Traffic Impact Assessments (TIA) for new developments including densified residential areas within the heart of the urban areas.
- Utilise regulatory authority unethically involved in land development activities.
- Uncontrolled urban development, driven by political and administrative inefficiencies as well as individual initiatives, has resulted in Dhaka's eastern and western fringe areas developing without any provision for public transport.
- Poor integration between different urban infrastructure projects.
- Fragmented governance and lack of accountability among agencies.
- Ineffective spatial planning, resulting in ad-hoc land acquisition and infrastructure projects.

8.8 Freight Transportation in Bangladesh

Freight transportation plays a crucial role in Bangladesh's economic growth, serving as the backbone for trade, commerce, and industrial activities. As a developing nation with a rapidly expanding economy, efficient freight transport is essential for ensuring smooth logistics, supply chain operations, and connectivity between production hubs, markets, and ports.

Modes of Freight Transport in Bangladesh: Freight transportation in Bangladesh primarily relies on three major modes: road, rail, and inland waterways, with limited contributions from air cargo. Among these, road transport dominates, handling approximately 70-75% of the country's freight movement. The road network connects major economic zones, including Dhaka, Chattogram, and other industrial cities. Trucks and lorries are the primary vehicles used for road freight transport. Rail transport accounts for about 8-10% of freight movement, primarily focused on bulk goods such as cement, petroleum, and agricultural products. The Bangladesh Railway network connects key cities and port areas, offering cost-effective transportation over long distances. However, limitations in capacity, outdated infrastructure, and insufficient investment hinder the full potential of rail freight. Currently, less than 5% of land freight is transported by rail. The Railways Ministry launched the initiative to enhance Bangladesh Railway's capacity for transporting containers and increase revenue through a multimodal transport system, modelled after the Container Corporation of India Ltd (CONCOR), as recommended by the Asian Development Bank and other donors. Although the Container Company of Bangladesh was established in 2016, it has yet to become operational.

Inland waterways contribute around 15-20% of freight movement in Bangladesh. With over 24,000 km of navigable waterways during the monsoon season, rivers remain a crucial freight transport mode, especially for low-value, high-volume goods such as sand, coal, and construction materials. The efficiency of river transport is hampered by siltation, navigational challenges, and a lack of modern port facilities. Air freight plays a negligible role in the overall freight transport sector, primarily catering to high-value, time-sensitive goods such as garments and perishable items. Hazrat Shahjalal International Airport in Dhaka serves as the main cargo hub but without multimodal transport connectivity. The Chattogram port plays a pivotal role in Bangladesh's economy, handling 92% of the country's total sea trade and 98% of its container traffic. However, containers account for only 27% of the total cargo transported through the port, with the remaining 73% transported by bulk carriers and tankers. Freight modal share has become heavily skewed towards road transport, increasing from 35% in 1975 to 77% in 2021. Conversely, during the same period, the contribution of rail and inland water transport has significantly decreased from 28% to 16% and from 37% to 7%, respectively.

Currently, most freight is distributed via covered van-based road transport, which is inherently inefficient, resource-intensive, and costly. A double-decker container freight train, by comparison, can carry the equivalent load of about 750 semi-trailer trucks or 1,500 covered vans. The fragmented covered van-based freight system contributes to low productivity and inefficiency in both port and road operations.

Challenges in Freight Transport Bangladesh's freight transport sector faces several key challenges:

- ***Road Transport:*** Congestion, poor road conditions, and overloaded trucks increase costs and reduce efficiency.
- ***Rail Transport (BR):*** Limited track and container yard capacity, insufficient freight wagons, and outdated logistics facilities restrict growth. Institutionally, BR has no freight focus; they have not implemented the Dhaka-Laksha chord line, which could reduce the 99 km travel distance along the export-import corridor. They have not shifted the ICD from Kamalapur and have not added any new ICD since 1988. Despite the completion of the Dohazari-Cox’s Bazar and Padma Rail Link projects, there are no freight-related services yet. Despite the potential for seamless connectivity, no SEZ/EPZ mouth ICDs have been built.
- ***Inland Waterways:*** Navigational challenges, seasonal variations, and insufficient infrastructure reduce reliability. No new inland container terminals (ICT) have been added since the Pangaon Container Terminal (PCT) opened in 2013. Additionally, the contribution of PCT in container transport has not been enhanced due to connectivity problems with the industrial zones.
- ***Fragmented Logistics:*** The absence of integrated multimodal transport systems prevents seamless coordination among transport modes.

As a whole, all the freight generation and distribution infrastructure development actors, such as BEZA, BIDA, BR, BIWTA, Land and Sea Port Authorities, have invested significantly in land use and infrastructure developments over the past 15 years. However, these efforts have been made separately, without any integration and without a specific focus on freight transportation logistics systems, which are critical components of Bangladesh's economic infrastructure. The Planning Commission also did not fulfil its responsibility to guide the multimodal framework following a nationally integrated spatial and transport masterplan when approving development projects due to its inherent capacity constraints. Despite the challenges, there is significant potential for improvement through structural reforms, including the proposed formation of a Ministry of Transport and the strengthening of the Planning Commission. These vital reforms will not only reduce the cost of doing business but also enhance the country's competitiveness in the global trade arena.

8.9 Human Resources Development

Globally, many countries focus on homegrown, knowledge-based sustainable development to cultivate skilled professional human resources. Ministries of Transport in several nations have developed their own universities, colleges, training schools, and research institutes specialising in infrastructure planning, development, management, project management, and contractual aspects. In Southeast Asia, Vietnam, Indonesia, and Thailand are prime examples of sustainable development initiatives. Vietnam, in particular, utilises the local chapters of the Asian Institute of Technology (AIT), while Indonesia leverages the Institute of Transport Development and Planning (ITDP) to ensure low-cost overseas training. This strategy has enabled Indonesia to develop the world's largest BRT system (13 lines) cost-effectively, using their own trained professionals for planning, design, operation, and maintenance.

Successful countries have adopted continuous upfront training programmes for developing skilled human resources and creating overseas training opportunities in local settings, rather than relying on expensive overseas training during project implementation periods under the Transfer of Technology (ToT) model, as followed in Bangladesh. In Bangladesh, the lack of training initiatives involving overseas specialist institutions is one of the main reasons for the difficulty in finding specialised, well-trained professionals, including project directors. This also hinders the increase of local participation in project development, thereby reducing project costs. Additionally, there is no programme to retain skilled manpower within institutions for future development programmes.

8.10 Recommendations

8.10.1 Short-Term Reforms

These include policies that can be immediately implemented, primarily through initiatives led by the Planning Commission.

- **Feasibility Studies (FS)**

  To ensure meaningful and accountable Feasibility Studies (FS), the following recommendations are proposed:

  1. **Ensuring Accountability:**
     - FS should be conducted by firms enlisted with the Central Procurement Technical Unit (CPTU).
     - Similar to contractors, there should be a defect liability period, along with a bank guarantee or performance bond to ensure accountability and security, serving as retention money.
  2. **Role of the Planning Commission (PC):**
     - PC should create a cloud-based centralised platform for storing, managing, and disseminating transportation and planning data, socio-economic parameters, historical traffic data, current user cost data, benefit monetisation factors, and details of ongoing and committed projects.
     - Establish an official platform to disseminate FS project-related information, ensuring transparency and citizen engagement.
  3. **Scrutiny and Review Process:**
     - Following international best practices, all feasibility and impact assessment reports should undergo a blind review process.
     - Professionals from enlisted think-tank institutions should act as a decision support system under the PC's oversight.

- **Updating the DPP and RDPP Approval Process**
  - To reduce the time and complexity associated with DPP revisions, the Planning Commission (PC) should adopt a more flexible policy by delegating greater financial authority for DPP revisions to the line ministry.
  - According to the Delegation of Financial Power for works, the Departmental Head can approve BDT 30 crore, and the Ministry can approve BDT 100 crore, which came into effect about 15 years ago. Considering inflation and the significant increase in development activities, these threshold values need to be doubled, along with the threshold values for goods and consulting services, to expedite the project approval process. For donor-funded development projects, the limit should be set higher than for government-funded projects, as donors have robust internal scrutiny systems in place.

- Additional recommendations for updating the DPP and RDPP approval process are outlined in Annex-2.

o **Appointing Qualified Project Directors (PD)**

Finding a competent Project Director (PD) is challenging due to the numerous difficulties and immense pressure associated with the role. These challenges include ensuring timely project implementation, managing multiple audits, and facing scrutiny from various agencies. The role is often perceived as thankless, compounded by the fear of pensions being withheld due to unintentional irregularities. This fear is especially prevalent if project costs overrun or if funds are not spent within the designated timeframe. To ensure the appointment of qualified PDs and minimise the impact of frequent PD changes, the following measures are recommended:

1. ***Appointment of Qualified Younger PDs:*** Appoint well-trained project directors, preferably mid-level professionals such as executive engineers with at least three years of remaining service, to address follow-up audit queries.
2. ***Upfront Training:*** Provide upfront training to PDs in project-related knowledge, contract management, and project execution to ensure preparedness from the outset, as this is more effective than training during the implementation phase.
3. ***Single Project Responsibility:*** Ensure that a PD is not assigned to manage multiple projects simultaneously to maintain focus and efficiency.
4. ***Early Appointment:*** Appoint PD early in the approval phase of the Detailed Project Proposal (DPP) to allow sufficient time for preparation and familiarisation.
5. ***Incentives:*** Introduce a monthly PD in-charge allowance, similar to the risk allowance provided to police and judges, to recognise the demanding nature of their responsibilities.
6. ***Recognition System:*** Establish a structured recognition process to reward and motivate the best-performing PDs for their contributions to successful project implementation.

o **Land Acquisition (LA)**

Land acquisition is a major contributor to project time and cost overruns, often characterised by inefficiencies and corruption. To make the LA process more transparent, efficient, and resource-optimised, the following measures are recommended:

1. Begin LA immediately after the project's detailed design, following the approved Land Acquisition Plan (LAP) and Rehabilitation Action Plan (RAP). Complete the process as a support project with government funding and resettlement guidelines before contractor mobilisation.
2. With the long-term structural reforms, including the establishment of a unified Ministry of Transport (MoT) and the strengthening of the Planning Commission

(PC), it is expected that the LA process will become less resource-consuming. The PC will then be mandated to ensure:

- Availability of:
  - A strategic spatial zonal land-use and integrated multimodal transport master plans.
  - Detailed ongoing project information online.
  - Digital land records and utility lines maps.
  - Enlisted agencies for vetting feasibility studies.
  - Superimposed LAP Mouza map on high resolution Google Map.
  - A digital LA process tracking system.
- MoT integrates projects with the multimodal framework.
- Streamline the LA process for development projects with minimal administrative steps, aligning with international best practices to ensure efficiency, transparency, and timely execution.

- **Road Infrastructure Development**

- RHD should:
  - Urgently undertake a support project to acquire land for the development of interchange facilities along all national highway corridors to enhance productivity.
  - Prepare a national expressway network master plan using the multipurpose utilisation of existing corridor rights-of-way, as well as identify other vital new corridors, ensuring all areas of Bangladesh have access to an expressway within 30 minutes to promote the decentralization policy.
  - Take the initiative to develop ring roads around all major cities.
  - Like India, prioritise concrete roads over traditional bituminous roads.
- LGED should:
  - Develop quality roads with provisions for land acquisition.
  - Undertake the straightening of existing road alignments to improve levels of service.
- Local administrations (UNO): Must not allow the development of hats, bazaars, or markets alongside highways.
- RHD, LGED, and BBA should:
  - Construct bridges with higher navigational headroom and longer spans rather than just meeting BIWTA’s minimum requirements.
  - Prefer suspension or cable-stayed bridges over energy-intensive tunnels.

- **Road Maintenance**

Recognising that road maintenance is a crucial component of sustainable road network development:

1. RHD and LGED should adopt globally proven, resource-efficient, performance-based, and preventive maintenance practices, carried out in a timely manner. This approach should replace the current delayed, reactive rehabilitation methods and shift away from the unsustainable 'build, neglect, and rebuild' cycle.
2. To ensure longer pavement life, RHD and LGED:
    - Should consider drainage as an integral part of the pavement work.
    - Should restrict overloaded vehicles.
3. Concrete pavements provide notable advantages in life cycle cost (LCC) compared to traditional bituminous flexible pavements. To minimise frequent highway maintenance, the focus should transition from water-sensitive bituminous pavements to maintenance-insensitive, “fit-and-forget,” and “perpetual” concrete pavements, which are better suited for climate resilience. Therefore, concrete pavements should be prioritised, particularly in low-lying, flood-prone areas.
4. The traditional practice of selecting pavement construction projects based on the least-cost option should be replaced with a more sustainable, resource-conserving life cycle cost (LCC)-based selection criterion that accounts for both construction and long-term maintenance costs.
5. Considering that loaded trucks destined for remote rural areas utilise both RHD and LGED road networks, and given the growing demand for rural development, axle load control is an unrealistic and uncontrollable solution for rural roads. In the long term, the most resource-conserving and transformative strategy would be to adopt a consistent and unified road structural design standard for both RHD and LGED networks. This approach would minimise the need for frequent maintenance of rural road infrastructure caused by heavy vehicular movements, ensuring sustainable development.
6. PC should promote PPP-based infrastructure development, which inherently ensures well-maintained facilities throughout the concessionaire period.

- **Road Maintenance Fund**

A dedicated Road Fund is crucial for maintaining and improving road infrastructure in Bangladesh. This fund would provide a consistent and reliable allocation of resources exclusively for routine and emergency road maintenance. Drawing from successful practices in other countries that utilise similar mechanisms, the Roads and Highways Department (RHD) should actively advance the long-standing initiative to establish and effectively operate a dedicated Road Fund. Operationalising the

Road Fund Board is not just an option but a critical step toward ensuring sustainable transportation infrastructure in the country.

- **Rationalising Axle Limit**

The new axle load limits, illegally introduced in 2019 under intense pressure from transport leaders, represent a significant increase of 25% to 41% above the internationally recognised axle load limits that existed in Bangladesh before 2019. This surge raises serious concerns regarding the accelerated deterioration of Bangladesh's transport infrastructure, the increase in maintenance costs, and the need for alignment with international standards and conventions. To control overloading and ensure longer pavement life, the following measures should be implemented:

1. The previous axle load limits should be reinstated to align with the UN Vienna Conventions and the gross vehicle weight (GVW) guidelines set by commercial vehicle manufacturers, while the BRTA postpones the 2019 axle load regulation to prevent further infrastructure damage.
2. Strict monitoring and enforcement mechanisms must be implemented to prevent axle load violations and to reduce road damages caused by overloading.
3. Vehicle modification, such as increasing length, height, and width beyond the manufacturer's recommended dimensions, is a root cause of overloading and premature pavement damage. To address this, the BRTA's vehicle fitness process needs to be made more effective and accountable, ensuring no oversized truck receives a fitness certificate. Additionally, random roadside inspections and strict enforcement should be implemented to curb drivers' overloading tendencies.
4. To prevent premature failure of roadway infrastructures, heavy vehicular movements should be controlled during pavement submergence conditions.

- **Elevated Transport Infrastructures**

Bangladesh must shift its focus from merely expanding road networks to emphasising quality, sustainability, and innovation in transport infrastructure. Elevated railways and roads present a strategic solution to address the country's unique geographical and climatic challenges while minimising environmental impact and reducing land acquisition requirements. Many countries around the world, including our neighbouring nations, are investing in high-speed elevated railway and roadway facilities. Such quality infrastructure is a prerequisite for faster economic growth in Bangladesh, as traditional at-grade facilities are unable to ensure sustained high operating conditions. Therefore, the Planning Commission (PC) should:

1. Promote elevated viaduct-based systems and align infrastructure projects with climate-resilient policies to ensure long-term efficiency and sustainability. Furthermore, project planning and implementation must prioritise environmentally friendly designs, efficient land utilisation, and advanced, future-proof engineering solutions to address the evolving needs of the country effectively.

2. Explore accessing climate change (CC) funds under the framework of climate justice to make infrastructure climate-adaptive by leveraging international support and partnerships. By accessing these funds, Bangladesh can invest in climate-resilient infrastructure projects, such as elevated highways and railways, which minimise environmental impact and enhance connectivity.

- **Implementation Monitoring and Evaluation Division (IMED)**

Recommendations aim to strengthen IMED's technical capacity in undertaking both physical and process audits robustly, in addition to financial audits.

1. ***Technical Empowerment:*** IMED should be technically empowered to act as a professional entity, capable of providing technically sound observations that are taken seriously by relevant stakeholders. IMED should collaborate with technical universities to access modern technical tools and laboratory facilities for more effective quality control and project assessment.

2. ***Qualified Technical Evaluation:***
   - Infrastructure quality control evaluations must be conducted by qualified technical professionals with expertise in relevant fields.
   - Reports prepared by non-technical individuals often lack credibility and are less likely to be accepted by the Project Implementation Unit (PIU).

3. ***Real-Time Monitoring and Inspection System:***
   - Introduce real-time monitoring systems to track project progress and identify quality lapses.
   - Develop a Field Inspection Management System (FIMS) as both a mobile and desktop-based application to facilitate evidence-based project monitoring.
   - Key features of the FIMS App should include:
   - Records the exact time and date of inspections.
   - Captures the IDs of officials conducting inspections.
   - Logs essential project details, including item ID and GPS coordinates.
   - Allows inspectors to document observations with photo and video evidence.
   - Creates a chronological record of visits, observations, evidence, and test reports.
   - All records should be securely stored in a cloud archive, enabling easy access for future reference and ensuring accountability by tracking the individuals involved in quality control.

4. ***Process Audits for Accountability:***
   - Implement process audits to identify and address inefficiencies during:

- Project approval stages, including Feasibility Study and Land Acquisition Process.
- Development Project Proposal (DPP) revisions.
- Administrative decision-making.

o Ensure accountability in cases where individuals exploit projects for personal benefits, such as availing project vehicles or participating in foreign tours.

o In line with practices in other compliant countries, it is essential to assess whether it is appropriate for government servants involved in decision-making processes to receive monetary honorarium for attending tender and project evaluation meetings, Project Steering Committee (PSC) meetings, as well as overseas trip per-diem etc.

5. ***Ex-Post Evaluations:*** Like global best practices, conduct ex-post evaluations to assess whether project objectives have been successfully met, ensuring transparency and value for money, with enlisted independent research-based enterprises undertaking the assignment.

o **Freight Transport System**

To align with the best practices of the globe and ensure an efficient, sustainable, and cost-effective freight transport system, the Ministry of transport (if reformed) or Planning Commission should prioritise the following measures:

1. ***Integrated Logistics Systems:*** Develop multimodal transport policies to ensure seamless connectivity between ports, rail, roads, and inland waterways. Enhance road-rail intermodal connectivity to promote efficient container movement.
2. ***Infrastructure Investment:*** Promote investment in rail and inland waterway infrastructure to reduce over-reliance on road transport. Gradually develop dedicated double-decker container train systems and automated freight-handling facilities to increase track and port yard throughput.
3. ***Customs Modernisation:*** Improve off-dock customs clearance services to reduce dwell time and increase operational efficiency.
4. ***Strategic Inland Container Depots (ICD):*** Railway should establish ICD facilities at key Export Processing Zones (EPZs) and Special Economic Zones (SEZs) to enable cost-effective and reliable point-to-point export-import railway connectivity. Side-by-side development of hub-and-spoke-based freight logistics facilities with multimodal connectivity should be explored to provide cost-effective cargo movement for non-EPZ/SEZ industrial belts.
5. ***Export-Oriented SEZ Development:*** BEZA **s**trategically develop export oriented SEZs near deep seaports to reduce transport infrastructure demand and improve supply chain reliability.

6. ***Efficient Cargo Distribution:*** BRTA, in association with port authorities, should initiate the transition from covered van-based cargo systems to organised freight logistics companies using semi-trailers and specialised freight vehicles.
7. ***River Management:*** BIWTA should enforce strict monitoring to prevent river encroachment and unauthorised vessel operations. Also, implement both capital and maintenance dredging projects to ensure year-round navigability of waterways.
8. ***Infrastructure Planning:***
    - PC should ensure all bridges and culverts maintain adequate navigational clearance for uninterrupted waterway traffic.
    - BIWTA and Land Port Authority (LPA) should equip all inland jetties and land ports with mechanical cargo handling systems and multimodal connectivity.
    - Develop ICTs at strategic locations, integrated with industrial hubs and road networks, to facilitate containerised freight transport via waterways.
9. ***Port Infrastructure and Automation:***
    - Railways, in support of port authorities, should develop all seaports with integrated intermodal facilities to support regional and sub-regional trade.
    - Implement advanced port automation technologies to optimise cargo handling, reduce dwelling and turnaround times, and enable 24-hour operation schedules.
10. ***Operationalising the Container Company*** of Bangladesh Railway is essential for achieving sustainable freight transportation in the country, making it a necessity rather than merely an option.

- **Bus Route Franchise and Traffic Signal Implementation Policies**

To successfully implement bus route franchise (BRF) by consolidation and route rationalisation policies in Bangladesh, the following major steps should be undertaken:

1. ***Establish a Single Mass Transit Regulatory Authority:*** Create a unified mass transit regulatory unit under the Mayor's office to ensure seamless coordination, planning, and oversight of public transportation systems.
2. ***Establish dedicated Traffic Engineering Units (TEU):*** Similarly, establish a TEU within the Mayor's office, staffed by qualified traffic engineers capable of designing, operating, and maintaining signal systems like those in Dhaka Cantonment, where they successfully run smart 2-phase signals without any external support.
3. ***Declare a Clear Policy Roadmap:*** Announce the government's firm commitment to implementing bus consolidation and route rationalisation policies. Set a

definitive target date for the cancellation of all previous bus route licenses, aligning it with the timeline for BRF system implementation.

4. ***Develop Bus Operational and Business Models:*** Design comprehensive operational and business models, including detailed Concessionaire Franchise Agreements, to ensure transparent and efficient management of bus services.
5. ***Conduct Comprehensive Surveys:*** Update the inventory of existing buses and conduct an origin-destination-based bus trip demand survey to accurately map passenger needs and optimise route planning.
6. ***Build Supporting Infrastructure:*** Develop essential infrastructure, including designated bus stops, bus priority lanes integrated with feeder services, turnaround-capable terminals, and provisions for electric bus charging stations.
7. ***Promote Space-Efficient Transit Solutions:*** Develop restrictive travel demand management strategies that prioritise mass transit systems, address congestion, and limit the dominance of smaller vehicles. These strategies are also helpful for making traffic signals functional. They include:
    - Implementing numeric control and road pricing policies to discourage the excessive use of private vehicles, particularly high-polluting and space-consuming ones.
    - Minimising soft car loan facilities that encourage private car ownership.
    - Prohibiting the procurement of luxury vehicles under development projects and preventing the misuse of project vehicles.
    - Enforcing strict parking control policies with substantial fines and charges for illegal parking.
    - Regulating the number of rideshare vehicles and imposing mandatory display of vehicle identification for those involved in rideshare services. Moreover, promoting genuine ridesharing instead of the current ride-hailing practices and prohibiting services outside the designated applications. Rideshare service providers should be held more accountable for their services, customer care, and corporate responsibilities, including sharing relevant data with the BRTA.
    - Banning unregulated paratransit vehicles such as battery-powered rickshaws, easy bikes, *lagunas*, and *durantas* along major bus corridors while integrating them as complementary feeder services.
8. ***Stop Flyover/Expressway Project:*** Immediately halt the construction of supply-driven, unsustainable, and counterproductive flyover-based solutions in built-up areas to enable the implementation of more effective, space-efficient, and demand-driven sustainable mass transit systems for peak hours.

9. ***Define BRTC's Role:*** Clearly define the operational role of BRTC buses within the BRF corridors and address the issue of BRTC and staff bus parking on active roads to minimise congestion.
10. ***Provide Rehabilitation Packages:*** Develop a structured rehabilitation and compensation package for existing bus operators to ensure a smooth transition to the new system.
11. ***Invite International Participation with Local Joint Ventures:*** Launch an international tender, in collaboration with local joint venture partners, to introduce an electric double-decker bus-based BRF system, focusing on environmentally friendly and space-efficient public transport solutions.

Implementing these measures with strong political will, professional expertise, and institutional reforms can transform Bangladesh's urban transport system into an efficient, sustainable, and commuter-friendly network.

- **Project Finance**

Infrastructure Bond

Bangladesh can adopt Infrastructure bond financing models by implementing robust regulatory frameworks and clear investment incentives. This approach can drive sustainable infrastructure development through PPP initiatives, ensuring long-term capital mobilisation and investor confidence. Additionally, ensuring government backing and offering tax incentives can make infrastructure bonds an attractive financing option, contributing to the country's economic growth and development.

GtoG Financing

The foreign aid policy, particularly the GtoG framework for infrastructural development, needs to be reformed. The framework agreement, prepared in the 1980s with a focus on multilateral funding agencies, needs to be revised with special emphasis on the following aspects to reduce resource leakages and improve governance:

- ***Terms and Conditions****:* Prevent terms and conditions that inhibit open competition. Do not allow bidders to be pre-selected by the donor country. Avoid accepting loan commitment fees.
- ***Avoiding Conflict of Interest****:* Avoid situations where feasibility studies (FS), detailed design, award of Design Supervision Consultant, and contractor selection are all from the donor country.
- ***Material and Human Resource Clause****:* Do not accept mandatory clauses requiring the use of materials and human resources from the donor country, such as the 75% requirement in LOC projects.
- ***Simplifying Project Activities****:* Simplify the lengthy concurrence process, which is a major reason for time and cost overruns in GtoG-funded projects.

- ***Local Insurance and Bank Guarantees****:* Insurance and bank guarantees should come from local institutions to ensure accountability in case of any irregularities.
- ***Donor Accountability****:* Donors should be accountable for sharing financial disbursement details.
- ***Arbitration Location****:* The place of arbitration should not be in the donor country.

o **Development of Skilled Manpower in the Transport Infrastructure Sector**

1. Like Thailand and Vietnam:
    - o Develop local training institutions, including universities, colleges, and training schools, focused on infrastructure planning, development, management, project management, and contractual aspects.
    - o Partner with renowned international institutions to offer overseas training programmes locally. This can be achieved through setting up local chapters or forming partnerships with institutions such as the Asian Institute of Technology (AIT) and engaging Non-Resident Bangladeshis (NRB).
    - o Implement continuous training programmes for professionals, rather than relying solely on expensive overseas training during project implementation periods under ToT.
2. Develop programmes to retain skilled professionals within institutions for future development initiatives. This could include offering competitive salaries, career development opportunities, and recognition for their contributions.
3. Activating Key Institutional Wings:
    - o Revitalise the Planning and Development (P&D) and Research and Development (R&D) wings within all infrastructure-implementing agencies, supported by special incentives to drive innovation and effectiveness.
    - o Enhance the capacity of National Academy for Development Administration (NADA) and National Academy for Planning and Development (NAPD) to improve the skills of government personnel in strategic planning, implementation, and monitoring of administrative, economic, and infrastructural development.
    - o Operationalise the Institute of Civil Engineering and Management (ICEM), established under the provisions of the Concession Agreement of the Dhaka Elevated Expressway (DEE) Project, to focus on developing expertise in structural engineering, transportation, geotechnical engineering, land reclamation, and construction management for civil megastructures.

By implementing these recommendations, Bangladesh can develop a robust pipeline of skilled technical manpower, which is essential for increasing local participation in sustainable infrastructural development.

- **Good Governance:**
  - Feasibility studies (FS) should not be accepted without independent vetting.
  - Projects should not be awarded:
    - To departments that lack the mandate and have no or weak engineering units for implementation.
    - Without checking institutional capacity in terms of the number of ongoing projects, the availability of competent Project Directors (PD), and assessing implementation and cumulative loan repayment capacity.
  - Improper practice in determining bridge lengths should not be allowed to persist among LGED, RHD, and BBA.
  - The DPP should not be allowed:
    - To offer direct incentives for individuals involved in project approval and monitoring the projects they oversee, causing a conflict of interest.
    - Provisions for numerous luxury vehicles of the latest models and overseas trips with generous per-diems under the Transfer of Technology (ToT) programme, as well as for attending Factory Acceptance Tests (FAT).
    - The cost of developing cantonment as well as bungalow facilities in service areas.
  - Non-tendered soft opening events should not be allowed to prevent undue cost escalation requests from event organisers and contractors.
- **Other Progressive Policies**

  To protect multimodal transport infrastructure and urban mass transit opportunities, as well as to allow for future expansion, PC should not allow:

  1. Railway and roadway development projects with narrow overpasses and low headroom, which constrict local roads.
  2. Rail and road bridges with abutments squeezing river width, inadequate headroom, and pier positioning in deep water.
  3. Larger-sized bridges over major rivers, merely complying with the BIWTA's minimum vertical and horizontal clearance requirements to make them future-proof.
  4. SEZ/EPZ developments without multimodal connectivity.
  5. Footbridge construction projects at intersections to make traffic signals functional.

6. Development at intersection corners without proper setbacks.
7. Construction of box culverts along a water channel or as a cross-drainage structure.
8. Flyover/expressway projects within urban core areas to provide space for more sustainable mass transit systems.

8.10.2 Long-Term Reforms

- **Formation of Ministry of Transport (MoT)**

  A review of 84 countries shows that only Bangladesh and India have separate ministries for four transport modes (River, Ports, Rail, Road, and Air), while 82 countries operate under a unified Ministry of Transport (MoT) or Department of Transport (DOT). To improve coordination, efficiency, and multimodal integration, Bangladesh should merge its transport ministries into a single MoT, following global best practices and a structured reform approach.

  The implementation of this radical reform will require firm determination from the political government and must be guided by a detailed study and action plan. Fortunately, there are many successful merging models around the world to draw inspiration from. The initiative will also need wholehearted support and prudent understanding of bureaucratic leadership and key stakeholders. Moreover, it is essential to carefully consider the consequences of inaction, such as the continued deterioration of transport mobility conditions, even after significant investments in infrastructure development. The interim government should promptly initiate a detailed background study to guide this reform effectively.

- **Reforming the Planning Commission (PC)**

  Transform the Planning Commission from a budget-focused unit to a comprehensive planning body, incorporating experienced and successful infrastructure and land use planners. Structural reforms in the PC are urgently required to address ongoing challenges.

  1. ***Enhance Institutional Capacity:*** The PC must strengthen its institutional capacity by recruiting technical professionals with specialised expertise and establishing robust sectoral planning divisions within key infrastructure ministries.
  2. ***Leverage Think-Tanks:*** Similar to practices in other countries, enlisted think-tank institutions should act as a decision support system, preparing and updating the national spatial and integrated multimodal infrastructure development master plan for Bangladesh.
  3. ***Custodian of Sectoral Plans*:** The PC should assume the role of custodian for all sectoral master plans, ensuring alignment with a comprehensive, strategic, and integrated multimodal master plan that conforms to the national spatial zonal master plan.

4. ***Develop a National Project Dashboard:*** This dashboard should include reliable planning and socio-economic parameters, historical traffic descriptive data, benefit monetisation factors, etc., for reproducible feasibility study results and data-driven decision-making.
5. ***Create a Dedicated Website:*** Establish an official platform to disseminate project-related information, ensuring transparency and citizen engagement.
6. ***Restructure Staffing Pattern:*** Increase the proportion of technical professionals to over 85%, aligning with successful international models.
7. ***Implement Reforms Based on Global Best Practices:*** Drive reform initiatives internally, following proven global methodologies and involving affiliated professional organisations.

- **Dhaka City Governance**

Based on the experience of Delhi's unification of its Municipal Corporations, the following recommendations could be considered to improve governance and service delivery in Dhaka:

1. ***Unification of City Corporations****:* Similar to Delhi's reunification of its municipal corporations, Dhaka could benefit from unifying the North and South City Corporations into a single entity in the form of *'Metropolitan Government'*. This would streamline governance, reduce redundancies, and improve resource allocation.
2. ***Integrated Urban Planning****:* Develop a comprehensive urban master plan that integrates land use, transport infrastructure, and public services.
3. ***Unified Mass transit unit****:* Establish a unified mass transit unit that consolidates all modes of transit and paratransit services, including bus route franchised (BRF) services, trams, BRT, LRT, monorails, suburban commuter rails, MRT, and rideshare services, under one administrative body. This unified unit should be overseen by the mayoral office or a dedicated local government office to ensure coordinated management and planning of different modes of public transport to provide seamless.

Implementing these reforms will require strong political will, effective leadership, and sustained efforts from all stakeholders involved. By adopting these recommendations, Dhaka can address its current challenges and move towards becoming a more liveable and efficiently governed capital city.

- **Integrated Land use and Transport Planning Policy**

Bangladesh must prioritise integrated land use and transport planning to address current urban challenges and achieve long-term sustainability by adopting the following policies:

1. ***Develop a National Spatial Planning Framework:***
    - The Planning Commission (PC) should formulate a Strategic Spatial Plan for the entire country with a special focus on the country's natural resources such as wetlands, water bodies, hills, and forests, to guide land use and transportation development. This plan should ensure proper project planning, transparency, and eliminate political bias in project selection.
    - Strengthen the Urban Development Directorate (UDD) to effectively oversee land use planning and implementation of detailed Urban Master Plans.
    - Introduce legislation akin to the Town and Country Planning Acts in the UK to ensure transparency, accountability, and systematic coordination in land use and transport projects.
    - Mandate Traffic Impact Assessments (TIA), like Environmental Impact Assessments (EIA), for all major urban development projects to evaluate their impact on traffic flow and urban mobility.
2. Promote Transit-Oriented Mixed-Use Development (TOD):
    - While approving projects, the PC should emphasise transit-oriented urban development strategies and ICT-enabled quasi-transport, as well as densified, compact, 15-minute smart city development configurations. This approach aims to significantly reduce travel demand through innovative planning.
    - Encourage the integration of public transportation systems, pedestrian-friendly infrastructure, and cycling lanes in new township developments to promote sustainable urban mobility and reduce reliance on private vehicles.

8.11 Road Safety Recommendations

1. **Strengthen the National Road Safety Council (NSRC):** Elevate the NSRC as the apex body responsible for implementing targeted measures to reduce road accidents.
2. **Accident Data Collection:** Ensure accident statistics are reliable and geo-referenced to accurately identify accident-prone areas (black spots).
3. **Road Safety Audits (RSA):**
    - Mandate RHD and LGED to conduct regular Road Safety Audits to enhance road infrastructure safety.
    - Introduce pre-safety audits as a policy requirement for all new highways and expressways.
4. **Vehicle Tracking and Driver Monitoring:**
    - Require all vehicles, especially heavy commercial vehicles, to install low-cost tracking devices to monitor driving speed and enforce speed limits through remote surveillance.

- Implement mandatory uploading of drivers' rosters and driving registries for commercial vehicles to ensure compliance with driving duration regulations (e.g., 5-hour limits).

5. **Speed Control:** Along national highways and expressways, install digital Variable Message Signage (VMS) systems to enforce condition-responsive speed limits.
6. **Tyre Quality Control:** Equip BSTI with modern destructive and non-destructive testing facilities to ensure the quality of imported tyres and related components
7. **Regulatory Measures by BRTA:**
    - Impose vehicle tracking devices as a condition for vehicle registration.
    - Prohibit lease- or trip-based bus operations.
    - Revamp Road Transport Committees (RTC) with public transport professionals.
    - Adopt policies to discourage motorcycle registration, such as increasing registration fees and implementing numeric control, considering the high fatality index.
    - Halt the registration of commercial vehicles unless a sufficient pool of trained heavy vehicle drivers is available.
    - Ensure driver competency through on-road challenge assessments before issuing driving licenses.
    - Transition to third-party enlisted vehicle inspection centres for issuing fitness certificates.
8. **Highway Police Initiatives:** Instead of the current drive-based occasional enforcement practice, effective and sustained enforcement should be implemented round-the-clock, incorporating both physical monitoring and remote surveillance to ensure traffic discipline on roads and highways.
9. **Capacity Building:** Enhance the capabilities of both BRTA and the Highway Police to address road safety challenges.
10. **Crash Investigation Reforms:**
    - Reconstitute the Crash Investigation Committee (AIC) to include independent technical professionals, excluding members from BRTA, Police, and RHD, to ensure unbiased investigations.
    - Promote accurate crash reporting to avoid driver-centric blame narratives that may obscure broader safety issues.

11. **Cultural and Systemic Change:** Advocate for a collective responsibility to approach crash events with care and objectivity to improve roadway safety and prevent unnecessary fatalities.

8.12 Concluding Remarks

The *Infrastructure and Connectivity* chapter, under the *"Re-strategizing the Economy and Mobilizing Resources for Equitable and Sustainable Development"* initiative by the newly formed interim government, has highlighted critical structural and policy reforms necessary for achieving economic prosperity in Bangladesh. These reforms are proposed based on an in-depth analysis of the infrastructure development system to identify areas for improvement, ensure stakeholder engagement, and, most importantly, align institutional reforms with practices successfully adopted by many other nations long ago, which remain relevant to Bangladesh.

The short-term recommended reforms can be implemented within two years, with the present interim government providing the necessary directives for immediate action. In contrast, long-term structural reforms require more extensive study, unwavering political commitment, and active support from bureaucratic leadership. Ideally, such reforms should have naturally originated from governing institutions as part of their core responsibilities. However, fragmentation and the gradual weakening of public institutions have significantly impeded this process. Given the substantial political and economic interests tied to the sector, with an annual development budget of approximately 3 lakh crore taka for the 2023-24 FY, it is clear that strong political will must be complemented by sustained external pressure to successfully implement these critical reforms. To this end, after the report is submitted, a sustained media campaign should be initiated to ensure the recommendations gain the necessary attention by educating and engaging the public on the importance of implementation. Furthermore, efforts should focus on raising awareness among political parties regarding these vital policy changes and institutional reforms, encouraging them to commit to these initiatives in their manifestos.

The majority of countries worldwide, 82 out of 84, have undertaken these essential reforms, prioritising the unification and strengthening of key institutions through an urgent, big-bang approach. In contrast, Bangladesh and India remain exceptions. While institutional mergers are inherently complex, painful and challenging, they are often the most effective solution, comparable to critical life-saving surgeries performed without anaesthesia. Without these difficult yet necessary reforms, the risks to a nation’s long-term prosperity are profoundly significant. This perspective is further underscored by the 2024 Nobel laureates Simon Johnson and James Robinson, who emphasise the importance of competent institutions and necessary reforms for economic development. Their findings have significantly influenced policy discussions and development strategies worldwide, highlighting the need for institutional reforms to achieve effective, sustainable, and equitable development policies.

Given that initiating institutional merger-related reforms is often challenging for a political government, the present interim government is uniquely positioned to kickstart

the implementation of these structural reforms. This can be achieved by establishing a dedicated steering committee with clear, target-oriented terms of reference to identify the necessary course of action for implementing these vital reforms. This approach will ensure that when a political government assumes office, it can seamlessly begin discussions, steer the process, and work toward ratification.

References:

1. Saha, R. C. (2021). *The benefits of intermodal freight transportation system: An analytical study for Bangladesh* (Doctoral dissertation). Bangladesh University of Professionals.
2. Ministry of Environment, Forest and Climate Change. (2021). *Bangladesh national conservation strategy 2021–2036* (pp. 118–127). Government of the People's Republic of Bangladesh.
3. Local Government Engineering Department. (2022, September). *Country strategic opportunities programme (COSOP) for 2023–2028*. International Fund for Agricultural Development.
4. General Economics Division. (2018, October). *Bangladesh Delta Plan 2100*. Bangladesh Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh.
5. General Economics Division. (n.d.). *Seventh five-year plan FY2016–FY2020*. Bangladesh Planning Commission, Ministry of Planning, Government of the People's Republic of Bangladesh.
6. Dhaka Transport Coordination Board. (2006). *Strategic transport plan for Dhaka (STP 2004): Final report*. Ministry of Communications, Louis Berger Group Inc., Bangladesh Consultants Ltd.
7. Dhaka Transport Coordination Authority. (2015, November). *Revision and updating of the strategic transport plan for Dhaka (RSTP 2015): Urban transport policy*. Ministry of Road Transport and Bridges, Japan International Cooperation Agency (JICA).
8. Ministry of Commerce. (2023, February). *Policy review/policy study/policy paper preparation on national integrated multimodal transport policy*. Government of the People's Republic of Bangladesh.

Chapter 9: Climate Policy for the Future: Prioritising Adaptation and Mitigation[1]

9.1 Introduction

Bangladesh is particularly susceptible to natural disasters due to its geographical location, defined by flat and low-lying topography, high population density, and economic circumstances. Due to such features, the country frequently experiences a range of natural disasters almost every year including tropical cyclones and storm surges, monsoon floods, flash floods, droughts, sea-level rise, salinity intrusion, and ocean acidification. Such prevalent occurrences of events owing to climate change have profound implications on the country's development progress, hindering socioeconomic advancement and well-being, which is further intensified by climate change. In addition, the resulting environmental degradation presents significant challenges, especially in the context of a growing population, widespread poverty, rapid urbanisation, and industrial development. Additionally, dependence on climate-sensitive sectors such as water resources, agriculture, fisheries, and livestock for food and water security contributes to the country's heightened vulnerability to climate change. Climate change and environmental issues have thus emerged as critical, cross-cutting concerns across all development sectors.

While Bangladesh repeatedly feels the full wrath of anthropogenic climate change, the country has contributed very little to global warming. Recent research has shown that from 1990 to 2015, the richest 1% of the global population caused twice as much carbon emissions as the poorest 50% of the global population (Gore, Alestig, & Ratcliff, 2020). Such extreme carbon inequality means that the ostentatious lifestyles of a small group of super-rich individuals in developed countries are causing anthropogenic climate change, which is endangering the basic survival of millions of poor people in the Least Developed Countries (LDCs) like Bangladesh. This underscores the need for urgent and concerted national and global efforts to address the challenges of environmental degradation and climate change.

9.2 Key Environmental Challenges

Air Pollution: The urban air quality in major cities in Bangladesh ranks among the worst in the world and South Asian countries (Figure 9.1). Air pollution can cause severe health risks, including chronic respiratory diseases, lung cancer, cardiovascular diseases, and potential damage to the brain, nerves, liver, or kidneys. Globally, outdoor air pollution is responsible for 4.2 million premature deaths annually (Mazeli, Pahrol, Shakor, Kanniah,

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& Omar, 2023). This accounts for 29% of all deaths and diseases related to lung cancer, 17% from acute lower respiratory infection, 24% from stroke, 25% from ischemic heart disease, and 43% from chronic obstructive pulmonary disease (AQI, 2025). According to a household survey conducted by the Centre for Policy Dialogue (CPD) in 2023, approximately seven out of ten individuals in Dhaka city suffer from symptoms related to probable diseases induced by air pollution (Khatun, Saadat, Mahbub, & Islam, 2023). Respiratory problems were reported more frequently during the survey among the vulnerable age groups, which include children under five years and individuals above 65 years. It was reported in the survey that individuals tend to take more days off from either work or school due to breathing problems than any other symptoms attributed to air pollution. To underscore the severity, Dhaka residents missed 2,117 work and school days in one year and spent an average of BDT 4,000 annually on diagnosing and treating air pollution-related symptoms (Khatun, Saadat, Mahbub, & Islam, 2023).

Major contributors to outdoor air pollution include the reliance on fossil fuels for energy, emissions released from industrial plants, notably brick kilns, vehicular emissions without sufficient emission control systems, and the release of harmful gases due to the inadequate treatment and disposal of solid and liquid wastes. The primary indicators of air quality used to assess pollution levels are particulate matter (PM) 2.5 and PM10 concentrations. According to the Department of Environment (DoE) annual report 2017-2018, while other indicators of air pollution were within permissible limits, Particulate Matter (PM), particularly PM2.5 and PM10 exceeded safe thresholds by a significant margin. This was primarily due to industrial activity, brick kilns, and high traffic volumes in urban areas. It should be underscored that the acceptable limits for average PM10 and PM2.5 are 100 and 50 $\mu g/m^3$, respectively. However, in industrialised and densely populated regions like Dhaka, Gazipur, and Narayanganj, PM10 levels ranged from 150 to 220 $\mu g/m^3$, and PM2.5 ranged from 80 to 90 $\mu g/m^3$ in 2017 (DoE, 2017). By 2020, these levels escalated further, with PM10 ranging from 154 to 312 $\mu g/m^3$ and PM2.5 from 107 to 210 $\mu g/m^3$. During 2021-2022, PM2.5 levels in Dhaka ranged from 50 to 350 $\mu g/m^3$ for most of the year (DoE, 2022).

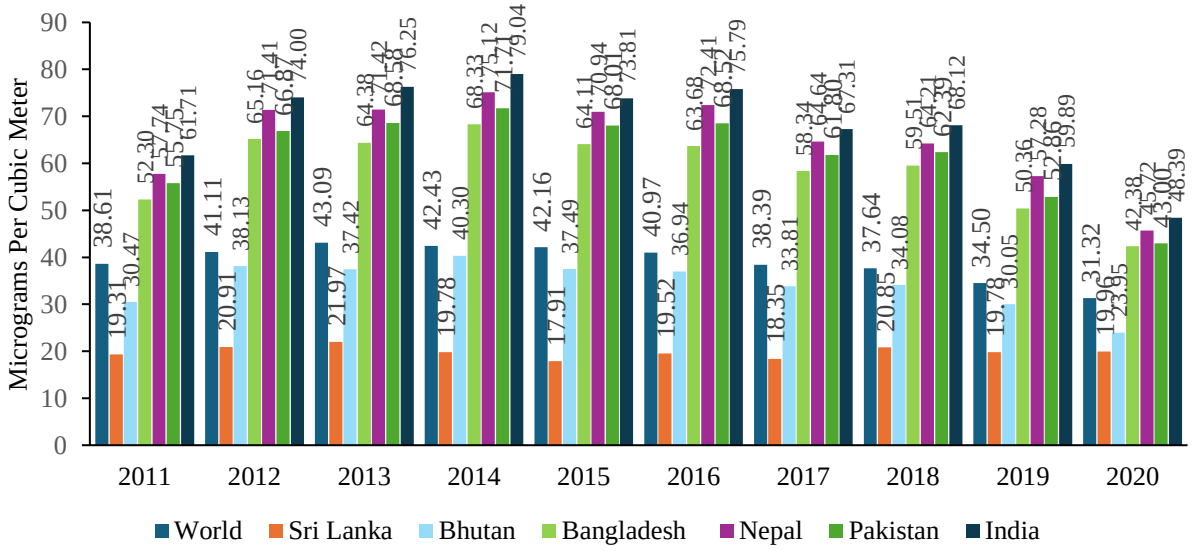


Figure 9.1: PM 2.5 Air Pollution, Mean Annual Exposure (Micrograms Per Cubic Metre)
Source: World Development Indicators (2024).

Air pollution worsens significantly during dry winter months (November to February), while during the wet season (March to October), PM levels often remain below 100 µg/m³ (DoE, 2022). If the value for the Air Quality Index (AQI) is 100 or below, it is considered healthy, however, according to the annual report published by DoE in 2022, Dhaka's AQI exceeded 100 on 82% of days. Similarly, high percentages were recorded in Mymensingh (93%), Rangpur (83%), and Rajshahi (73%). Each year, the situation deteriorates further, with air quality worsening dramatically during the dry periods.

Water Pollution: In Bangladesh, water pollution primarily results from industrial discharges, municipal waste, agrochemical runoff, salinity intrusion, and arsenic contamination, significantly worsening water quality in rivers over time. The rapid pace of industrialisation is a key driver behind the severe degradation of river systems.

Table 9.1: Level of Water Quality Parameters in Some Selected Rivers

River	Parameters Value (standard level *)					
	DO (7.3 – 10.9)		pH (6.5 - 9)		BOD (< 10)	
	Min	Max	Min	Max	Min	Max
Buriganga	0	6.20	6.78	7.89	2.60	50.20
Shitalakkhya	0	12	6.60	7.98	0.80	38
Turag	0	6.10	6.68	8.11	1.80	70.30
Meghna**	4.7	8.1	6.50	7.47	1.00	7.00
Jamuna	4.60	8.50	6.76	8.19	1.2	4.2
Padma	5.25	8.50	6.89	7.69	1.70	2.65
Rupsha	5.30	6.80	7.66	7.92	0.70	0.90
Surma**	5.20	6.70	6.40	7.60	1.60	32

*Note: Standard level retrieved from 'UNEP Standard of Inland Water Quality Parameters'.
**Note: Updated data as of 2015 as per the availability of data
Source: Author's compilation based on BBS (2020).

During the dry season, inland surface water quality falls below the accepted thresholds set by the DoE, although it shows slight improvement during the wet monsoon season (Table 9.1) Dhaka city and the surrounding areas hold significant economic hubs, which are highly industrialised. They host—numerous tanneries, factories for dyeing fabrics, apparel washing and chemical processing units, and plastic manufacturing facilities—contributing to the pollution of nearby water bodies. The Buriganga, Turag, Shitalakhya, and Balu rivers, which surround Dhaka, have experienced rapid water quality degradation. Dissolved oxygen (DO) levels in these rivers are critically low, while Biological Oxygen Demand (BOD) levels are excessively high, posing severe threats to the ecosystem and environment. Although other parameters, such as Chemical Oxygen Demand (COD) and Total Dissolved Solids (TDS), remain within permitted limits for many rivers, these thresholds are often exceeded in rivers around Dhaka.

Furthermore, the Karnafuli, Karatoa, and Surma rivers are also subjected to declining water quality due to the increasing industrial activity along their banks. Nonetheless, the water quality in the Northeastern region remains within permissible standards. In industrial areas, rivers, canals, and other water bodies are heavily polluted by the unregulated disposal of solid and liquid waste, including toxic heavy metals. Even though relevant ministries and agencies are now undertaking various initiatives to strengthen environmental law enforcement and regulate industrial wastewater discharge to improve water quality, the historical lack of strict enforcement of environmental laws has significantly contributed to the current state of water pollution in Bangladesh.

Noise Pollution: Sound pollution has emerged as a critical issue near the divisional headquarters in Bangladesh as sound levels exceed the thresholds considered safe for human hearing to a substantial degree (Table 9.2). Some of the key sources of sound pollution include road, rail, and air traffic, industrial activities, construction work, and the use of hydraulic horns. The impacts of noise pollution are both immediate and long-term, affecting mental health, causing hearing impairment, increasing stress levels, and reducing productivity (Rahman, et al., 2022). Vulnerable groups, including children and the elderly, are particularly at risk. Previous research has observed that in Dhaka city, between 500 and 1,000 vehicles often simultaneously use their horns during traffic congestion (Bangladesh Planning Commission, 2023). The DoE has several guidelines to reduce noise pollution. However, these guidelines are not sufficient to reduce noise pollution in the country.

Table 9.2: Acceptable Sound Limit and Noise Levels in Bangladesh

Acceptable Sound Limit	
Areas	**Sound limit (Night-Day)**
Residential areas	45dB-55dB
Educational institutions, hospitals, places of worship	40dB-50dB
Public areas	60dB-70dB
Commercial or industrial areas	70dB-75dB
Noise Levels in Divisional Headquarters of Bangladesh	
City	**Noise levels**

Dhaka	43.5-135.6 dB
Chattogram	41.9-132.1 dB
Sylhet	42.2-130.6 dB
Khulna	40.6-133.2 dB
Barisal	44.5-133.8 dB
Rangpur	37.3-130.1 dB
Rajshahi	44.2-134.4 dB
Mymensingh	47.0-130.7 dB

Source: Authors' compilation based on DoE (2017).

Plastic and Waste Pollution: In Bangladesh, the prevalent throwaway culture is characterised by the deliberate disposal of waste materials in the streets. According to a household survey conducted in Dhaka city, 57% of the representative population reported that their local neighbourhoods had extremely high levels of plastic pollution. More notably, 43% of the surveyed population admitted to fostering a habit of discarding plastic waste onto the streets (Khatun, Saadat, Mahbub, & Islam, 2023). This phenomenon gives rise to a substantial burden on city corporations and municipalities. Plastic recycling poses significant challenges in Bangladesh due to the absence of a comprehensive waste management system and a lack of waste segregation at the source. For instance, the household survey revealed that around 79% of households do not segregate their waste at source, mainly because they are unaware of the importance of waste segregation. The majority of household waste is collected by the informal sector. According to the survey, 47% of household waste is managed by representatives from the informal sector, while 44% is collected by city corporations (Khatun, Saadat, Mahbub, & Islam, 2023).

This highlights the inadequacy of Dhaka's waste management system, particularly because the waste collectors from the informal sectors are also unaware of the importance of waste segregation, recycling, and proper waste management. It is important to underscore that the composition of plastic waste mostly includes single-use plastic items such as polythene bags, plastic plates and wraps, plastic food containers, drinking straws, drinking cups, disposable cutlery, beverage bottles, and cans, as well as cotton buds and dental floss with plastic sticks. These items are used only once and are discarded indiscriminately, contributing to the dominance of plastic pollution in Bangladesh (Khatun, Saadat, Mahbub, & Islam, 2023).

The river Ganges is the second largest river source of plastic pollution in the world's oceans (Chowdhury, et al., 2020). The Ganges branches out into the Padma and Meghna rivers, converging into the Bay of Bengal. According to a study, about 89% of plastic waste is mismanaged in the coastal areas of Bangladesh (Jambeck, et al., 2015). Wastewater is often discharged into the river systems of Bangladesh from urban and industrial areas. Amidst different variants of pollutants, mismanaged plastic waste is identified to be a significant source of contamination in the water system (Kibria, 2017). Around the coastal areas of Bangladesh, nearly 25,000 metric tonnes of plastic waste is dumped each year into the ocean (Meijer, Emmerik, Ent, Schmidt, & Lebreton, 2021). The Meghna River accounts for about 37.9% of the total plastic waste being discharged

from major riverine sources in Bangladesh, while the Karnaphuli River accounts for 34.5% (Figure 9.2) (The Ocean Clean Up, 2022).

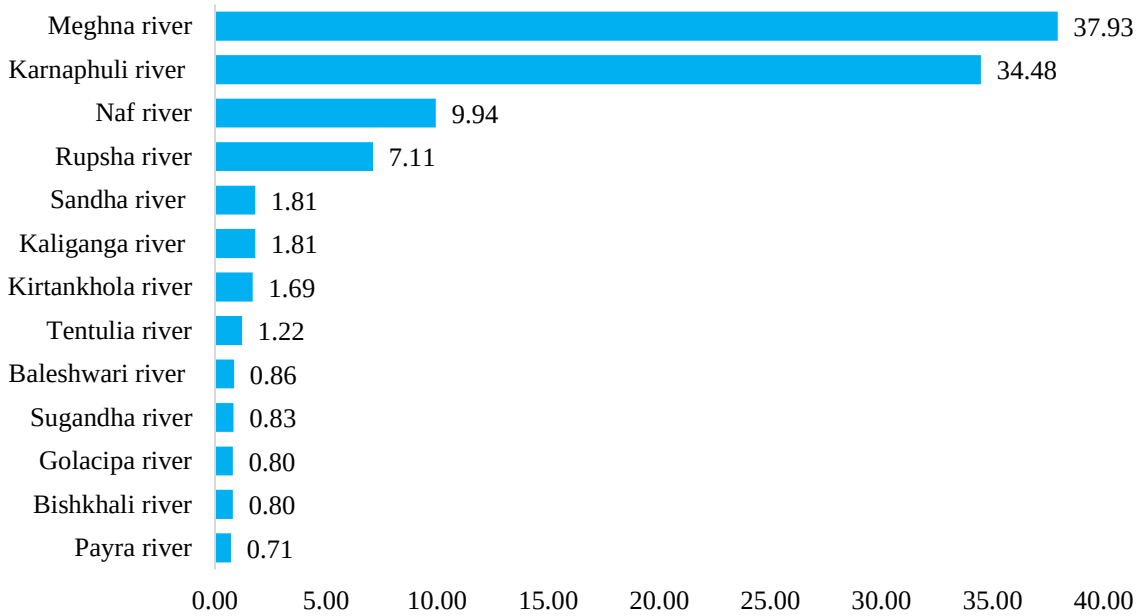


Figure 9.2: Amount of Discharged Plastic as a Percentage of Total Plastic Discharged from Major Riverine Sources in Bangladesh

Source: Author's illustration based on data from The Ocean Clean Up (The Ocean Clean Up, 2022).
Note: The Ocean Clean Up is an interactive database that records the amount of plastic waste entering the ocean from the top 1000 rivers. The figure has been illustrated using the data reported as of 7 August 2022.

Additionally, approximately 1 million metric tonnes of mismanaged plastic are generated every year around the coastal areas of Bangladesh (Meijer, Emmerik, Ent, Schmidt, & Lebreton, 2021). The Karnaphuli and Rupsha rivers account for 39% and 31.7% of the plastic waste that is inadequately disposed of (Figure 9.3). (The Ocean Clean Up, 2022). It should be mentioned that most of Bangladesh's rivers are transboundary. Therefore, a significant amount of plastic waste near coastal areas is not locally produced but comes from neighbouring countries. Managing plastic waste entering Bangladesh from other countries is an additional burden on Bangladesh (Khatun et al.,2023).

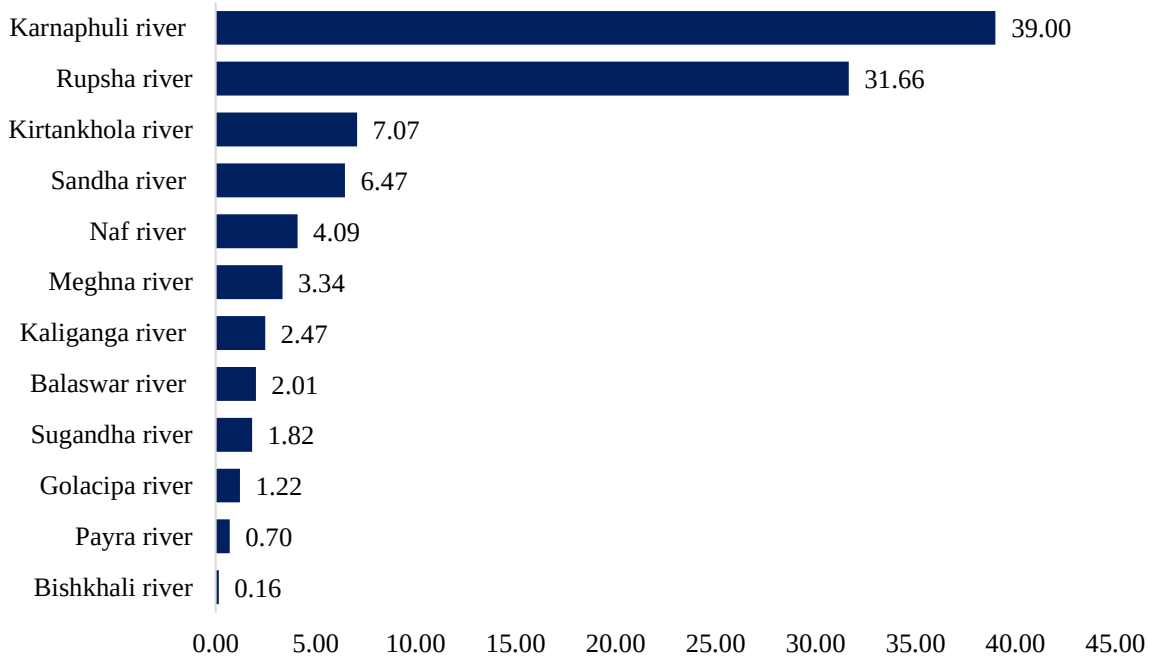


Figure 9.3: Amount of Mismanaged Plastic as a Percentage of Total Mismanaged Plastic from Major Riverine Sources in Bangladesh

Source: Author's illustration based on data from The Ocean Clean Up (The Ocean Clean Up, 2022).
Note: The Ocean Clean Up is an interactive database that records the amount of plastic waste entering the ocean from the top 1000 rivers. The figure has been illustrated using the data reported as of 7 August 2022.

The average per capita plastic consumption increased from 3 kilogrammes (kg) per year in 2005 to 9 kg in 2020. In Dhaka alone, the average consumption of plastic has increased from 9.2 kg annually in 2005 to 22.3 kg per year in 2020 (The World Bank, 2021). Despite the ban on polythene bags in Bangladesh since 2002, these disposable single-use plastic bags have only increased. Polythene bags are the primary source of single-use plastic waste in Bangladesh (ESDO, 2021).

The most harmful effect of plastic waste on the surrounding air may be ascribed to deliberate or unintentional open-fire burning. Burning solid waste is a prevalent practice in Bangladesh to minimise the amount of litter in landfills and urban areas. However, due to a lack of awareness and segregation, these wastes contain plastic items, which are also burned. Incinerating plastics made of Polyvinyl Chloride (PVC) presents the greatest threat to air pollution (Hossain, Rahman, Chowdhury, & Mohonta, 2021). The most apparent effect of plastic waste mismanagement has been observed in water bodies. Burning plastic wastes releases toxins such as furans and dioxins like Persistent Organic Pollutants (POPs), worsening respiratory diseases and heart ailments and damaging the nervous system (Verma, Vinoda, Papireddy, & Gowda, 2016).

Plastic waste accounts for much of the marine pollution in coastal areas of Bangladesh. In places like Cox's Bazar, tourists and visitors throw away single-use plastic items on the beach, ultimately ending up in the sea. Due to rainfall, plastic waste from landfills in Bangladesh is also deposited in canals and riverways in the surrounding urban cities.

Plastic wastes clog canals and sewage systems as well. In the city of Dhaka, 22 out of 65 canals are now transformed into dumping zones, primarily due to plastic pollution (Hossain, Rahman, Chowdhury, & Mohonta, 2021). Plastic waste has collapsed sewage systems by disrupting natural channels and suffocating drainage systems. This causes several days of flooding during the monsoon season in the streets of Dhaka and Chittagong. Flooded streets lead to mosquito-borne diseases such as dengue and malaria (Hossain, Rahman, Chowdhury, & Mohonta, 2021).

Plastic articles degrade into microplastic, which endangers marine biodiversity significantly. Microplastics are mistaken for food by marine species, who eventually suffer from indigestion and digestive system damage from cellular necrosis, swelling, and tearing. According to a survey conducted in Bangladesh's three major cities of Dhaka, Chittagong, and Sylhet, larger fish such as catfish were found to have more microplastic in their bodies as opposed to the smaller fish (ESDO, 2016).

Products made from plastic contain various additives such as Bisphenol A (BPA), phthalates, and other chemicals that can be hazardous to the environment and human health. Often, street vendors in Bangladesh serve tea and coffee in plastic cups. Under heat, these additives can leach out and enter the human bloodstream which may cause adverse health impacts (Proshad, et al., 2018). Plastic affects human health at every stage: from extraction to production to utilisation and disposal (Azoulay, et al., 2019). From the consumer end, the impact of plastics is felt either through skin contact or inhalation and ingestion. Plastic pollutants can also enter the human body through the food chain as individuals may consume fish contaminated with plastic particles. This might also affect the export volume of fish in the long run as Bangladesh may not meet partner countries' Sanitary and Phytosanitary (SPS) measures.

In Bangladesh, the tourism business has a vast potential to contribute significantly to the country's Gross Domestic Product (GDP) and provide jobs and employment for millions of individuals. However, plastic pollution or improper waste management could negatively impact the tourism, aquaculture and fishing industries. The persistent accumulation of plastic debris near coastal areas with the associated putrid odour can make such regions less appealing to tourists. Additionally, the clean-up costs can burden local governments and municipalities. Municipalities in every region are stipulated to a designated budget. However, most of the budget is often used to cover clean-up costs, as waste collectors transport waste from the streets and secondary dumping stations to landfills. In 2020, Bangladesh's clean-up cost was highest, which was 30% of the revised budget for the Ministry of Environment, Forest, and Climate Change (MoEFCC) in 2020. (The Ocean Cleanup, 2022; MoF, 2021)

Deforestation and Biodiversity Loss: Forest area as a share of the total land area of Bangladesh has decreased from 14.80% in 1990 to 14.50% in 2022 (FAO, 2024). However, not all forests are the same. Depleting naturally regenerating forests causes irreversible damage to flora and fauna, depriving communities of essential ecosystem services. Alarmingly, naturally, regenerating forest area as a share of the total forest area in Bangladesh has fallen from 96.1% in 1990 to 91.6% in 2022. This deforestation poses

serious threat to people's livelihoods, reduces biodiversity, and causes climate change, making these figures deeply disconcerting.

Although Bangladesh has designated 38 protected forest areas and 13 ecologically critical areas (GED, 2018a), the proportion of land in the country covered by forests continues to decline yearly (Figure 9.4). Additionally, the level of protection offered to wildlife in protected areas and world heritage sites of Bangladesh is somewhat dubious. For example, the International Union for Conservation of Nature (IUCN) has classified the Sundarbans as a World Heritage Site in Danger due to threats from coal power plants and industries that are being developed close to the forest (IUCN, 2019).

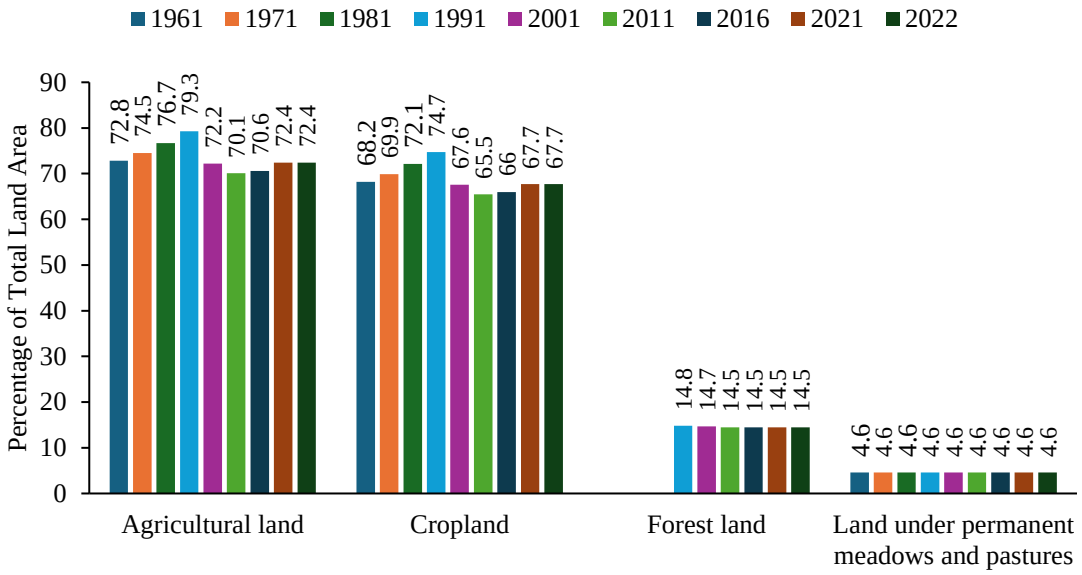


Figure 9.4: Land Use in Bangladesh by Purpose (as a Percentage of Total Land Area)
Note: Cropland is a subset of agricultural land.
Source: Author's compilation based on FAO (2024).

Deforestation has resulted in the loss of biodiversity in Bangladesh. Among the South Asian countries, Bangladesh holds the third position in terms of the number (253) of vulnerable animals (Table 9.3). Besides, the global population of the Royal Bengal Tiger, Bangladesh's national animal, has dropped below 2500, and IUCN has categorised the species as endangered (Chundawat, Khan, & Mallon, 2011). Empirical evidence suggests deforestation has resulted in biodiversity loss in Bangladesh. The median value of the IUCN Red List Index for all mammals, birds, amphibians, corals and cycads in Bangladesh declined from 0.83 in 2000 to 0.75 in 2019 (UN, 2019b). This means that many forms of wildlife are moving closer to extinction.

Table 9.3: Number of Threatened Species in Each Major Taxonomic Group by Country in South and Southeast Asia

Country	Mammals	Birds	Reptiles*	Amphibians	Fishes*	Molluscs*	Other Invert s*	Plants*	Fungi*	Chromists*	Total
Bangladesh	39	35	30	0	84	0	12	53	0	0	253
Bhutan	28	19	10	1	5	0	1	67	2	0	133
India	98	83	106	139	334	7	216	663	3	0	1,649
Maldives	2	3	3	0	48	0	128	0	0	0	184
Nepal	30	38	17	2	11	1	2	33	2	0	136
Sri Lanka	29	16	113	71	137	0	217	326	0	0	909

Source: Author's compilation based on IUCN (2024).

It has been estimated that 75% of emerging infectious diseases are zoonotic, which means that they spread from animals to human beings (UN, 2020). Deforestation, habitat encroachment, hunting and poaching have increased the risk of highly infectious zoonotic diseases such as COVID-19, bird flu and Ebola, which have seriously harmful consequences for public health and the global economy.

Pangolins, which are widely believed to be responsible for spreading the coronavirus from bats to humans, were killed and trafficked in massive numbers before the start of the pandemic. As the number of pangolins decreased in other Asian countries, demand for pangolins from Bangladesh began to increase. As a result, between 2010 and 2014, pangolins were virtually eradicated from the Chittagong Hill Tracts. However, some specimens remained in other parts of the country with a shortage of skilled hunters (Trageser, et al., 2017). As of January 2016, one kg of pangolin scales was sold for as much as USD 500 in Bangladesh (Trageser, et al., 2017). Globally, the number of whole pangolin equivalents seized increased from 11.5 in 2008 to 141.9 in 2018 (UN, 2020).

In Bangladesh, infiltration of forest land by commercialised agriculture and expanding industries is causing biodiversity loss, decreased clean water, soil erosion, land degradation, increased carbon emissions and disruption of livelihoods. Wildlife poachers and illegal loggers thrive on the forest authorities' lack of supervision and good governance. Deforestation increases the risk of damage and destruction from natural disasters such as landslides, floods and cyclones. An integrated approach to natural resource planning and management that considers the central importance of biodiversity and ecosystem services in food security, nutrition, water and health is urgently required. As a party to the 'Convention on Biological Diversity', Bangladesh should radically reinvigorate its commitment to fulfilling four goals for 2050 which includes protecting and improving the environment, preserving natural resources, conserving biodiversity a wetlands, forests, and wildlife. Along with this, Bangladesh is committed to achieving 23 targets for 2030 under the Kunming-Montreal Global Biodiversity Framework (GBF) (Convention on Biological Diversity, 2022).

Land Degradation: Land degradation poses significant challenges for Bangladesh, particularly as it is one of the most densely populated countries in the world. The availability of per-capita arable land is steadily declining, with current net cultivable land accounting for only 15 decimals per person in Bangladesh. Natural contributors to land degradation include waterlogging, salinity intrusion, landslides, and soil erosion. Additionally, key anthropogenic drivers include soil erosion, water pollution, riverbank erosion, coastal salinisation, soil contamination, acid sulphate soil, acidification, waterlogging, loss of soil fertility, sedimentation, deforestation, unusual cropping patterns, infrastructure development, industrialisation, and improper solid waste disposal.

In the North-Western regions of Bangladesh, approximately 50,000 km^2 of land, fall below the level for sustainable land management, with an average conversion of 690 km^2 of cropland to other uses between 2000 and 2010. This change has resulted in a depletion of organic matter, and around 5,000 km^2 of land, which is less than 10% of the total degraded area nationally, is projected to experience reduced productivity (DoE, 2019). In the coastal and offshore regions, out of the 2.86 million hectares (ha) of land, around 1.056 million ha of arable land, which approximates 37%, are affected by different levels of salinity (SRDI, 2010). Furthermore, 97,147 ha of land are affected by waterlogging, and 8.36 million ha of arable land are affected by acidification in Bangladesh (SRDI, 2020). These combined factors contribute to the country's ongoing degradation of land resources.

9.3 Climate Change and Natural Disaster

Rising Temperatures and Rainfall Variability: The Sixth Assessment Report (AR6) published by Intergovernmental Panel on Climate Change (IPCC) also highlights a substantial rise in global temperatures, with an increase of 0.99°C observed from 2001 to 2020 compared to the pre-industrial baseline of 1850 to 1900. In addition, the global surface temperature from 2011 to 2020 was 1.09°C higher than in 1850 to 1900, with land areas heating more significantly (1.59°C) than ocean regions (0.88°C). Future projections from the IPCC estimate global temperature increases ranging between 1.0°C and 1.4°C for 2046 to 2065 and between 1.0°C and 3.7°C for 2081 to 2100.

In Bangladesh, climate change has manifested in extreme weather events such as elevated temperatures, unpredictable rainfall, floods, droughts, more frequent and intense tropical cyclones, rising sea levels, and ocean acidification. These events are severely affecting the lives and livelihoods of millions, undermining the socio-economic progress of Bangladesh, and exacerbating vulnerabilities.

Sea Level Rise: In Bangladesh, one of the most significant impacts of climate change is sea-level rise. This has created several challenges in the coastal regions, including salinity intrusion, land degradation, severe waterlogging, crop damage, and scarcity of drinking water. Sea-level rise occurs primarily due to global warming, which affects two main processes, including the thermal expansion of ocean water due to higher temperatures and the melting of land-based ice caused by atmospheric warming. According to the AR6 published by the IPCC, the global mean sea levels rose by

approximately 0.2m between 1901 and 2018. The rate of sea-level rise has accelerated over time, increasing from 1.3 mm/year between 1901 and 1971 to 1.9 mm/year between 1971 and 2006, and further to 3.7 mm/year between 2006 and 2018.

A study conducted by the DoE in 2016 revealed that sea-level rise in Bangladesh's coastal regions has been occurring at a rate of 6–20 mm/year. This trend is particularly pronounced in the Chattogram coastal plain area compared to the Ganges and Meghna subzones. The rate of sea-level rise in Bangladesh exceeds the global average, and according to estimates, by 2050, sea levels in the country could rise to 4 cm higher than the global mean, with the increase reaching up to 10 cm above the global average by the end of the century (IPCC, 2021).

Intrusion of Salinity in Coastal Areas: In the coastal regions of Bangladesh, river salinity levels are notably higher during the dry season compared to the monsoon period due to reduced freshwater flow from upstream sources. Salinity levels typically increase almost linearly from October to late May as freshwater flow decreases. Observations indicate a significant rise in salinity in Khulna, where the salinity of the Rupsa River increased from 0.7 ppt to 16.8 ppt over a 50-year period (1962 to 2011). In contrast, salinity levels in the south-central and southeastern coastal zones remain comparatively low. The south-central region, including much of Barisal, maintains a low salinity range (0 to 2 ppt) throughout the year due to substantial freshwater inflows from the Padma River and the Lower Meghna River, which flow through the Arial Khan, Buriswar, and Bishkhali rivers.

However, the problem of river salinity is most acute in the southwest coastal zone. Salinity intrusion diminishes freshwater availability, leading to a decline in agricultural productivity across various parts of the coastal zone, particularly in the Khulna region, the southernmost areas of the Patuakhali region, and localised areas within the Noakhali and Chittagong regions (Bangladesh Planning Commission, 2023). Estimates suggest that climate change will further exacerbate river salinity during the dry season by 2050 (SRDI, 2020). Studies indicate that approximately 19.3% of Khulna Division will be exposed to salinity concentrations exceeding one parts per thousand (ppt), indicating reduced freshwater availability in the river systems, ppt being a measure of the amount of dissolved salt in water. Furthermore, around 13.5% of the coastal region may face irrigation water shortages due to increased salinity (SRDI, 2020). Soil salinity is also on the rise, as evidenced by maps produced by the Soil Resource Development Institute (SRDI) for the years 1973, 2000, and 2009. These maps reveal a growing severity of soil salinity over the past 24 years in districts such as Jashore, Magura, Narail, Faridpur, Gopalganj, and Jhalokathi, underscoring the long-term impacts of salinity intrusion in Bangladesh's coastal regions.

Storm Surge and Cyclone: The southern boundary of Bangladesh is entirely exposed to the Bay of Bengal and, consequently, the Indian Ocean, making the country highly vulnerable to tropical cyclones. Between 1961 and 2013, a total of 61 tropical cyclones impacted Bangladesh and its neighbouring territories, generating storm surges ranging from 1.5m to 10m in height (Bangladesh Meteorological Department, 2020). In addition,

the devastating cyclone of 1970, which struck the Barisal region, caused approximately 300,000 fatalities. In contrast, Cyclone SIDR in 2007, despite having similar wind speeds, resulted in significantly fewer casualties, with approximately 3,406 deaths (Bangladesh Meteorological Department, 2020). This reduction is attributed to advancements in cyclone warning systems, the construction of more cyclone shelters, awareness campaigns, and improved disaster risk management strategies.

In 2020, Cyclone 'Amphan' severely affected more than a million people across 26 districts, including Satkhira, Bagerhat, and Patuakhali, which were the hardest-hit areas. The cyclone claimed more than 26 lives and caused extensive damage, including the destruction of 55,667 houses, 149,000 ha of agricultural land, 180,500 hatcheries, 150 km of embankments, 200 bridges and ducts, and 100 km of roads, resulting in an estimated loss of BDT 11 billion (IFRC, 2020).

Storm surges reaching 10 m in height impact the coastline of Bangladesh roughly once every 20 years, while surges of 7 m occur approximately once every 10 years. Historical records reveal that the most significant damage during cyclones is primarily caused by flooding resulting from cyclone-induced storm surges. Although time-series data on storm surge heights are limited, existing literature suggests a range of 1.5 m to 9 m during severe cyclones (Bangladesh Meteorological Department, 2020).

Riverbank Erosion: A substantial portion of arable lands and settlements are lost each year due to riverbank erosion. The major rivers often make islands or Chars within their braided channels, many of which are inhabited. These chars are quite sensitive to the changes in river conditions and tend to shift with the water flow. Even though the accretion process can offset erosion, they remain unpredictable. In Bangladesh, around 10,000 ha of land is eroded by rivers each year (NWMP, 2001). The districts most vulnerable to erosion along the Jamuna River include Kurigram, Gaibandha, Jamalpur, Bogra, Sirajganj, Tangail, Pabna, and Manikganj, with the left bank experiencing greater erosion of land and settlements than the right bank. This encompasses the districts along the Padma River, including Rajbari, Faridpur, Manikganj, Dhaka, Munshiganj, Shariatpur and Chandpur. Estimates by CEGIS reveal that between 1973 and 2021, the Jamuna River experienced 93,965 ha of erosion and 14,545 ha of accretion. During the same period, the Ganges River saw 30,300 ha of erosion and 29,100 ha of accretion, while the Padma River recorded 33,585 ha of erosion and 5,485 ha of accretion.

Greenhouse Gas Emissions: Bangladesh's share of global CO_2 emissions is less than 0.47%, yet the country bears the severe brunt of climate change, facing extreme weather events almost every year (MoEFCC, 2022). Among the South Asian countries, Bangladesh is in the second position in terms of per capita CO_2 emission with only 0.64 t CO_2e/capita (Figure 9.5). Research indicates that climate change already exerts severe effects on various sectors in Bangladesh, hindering economic activities and job creation (World Bank, 2022; Misal, Hoare, & Miles, 2022). Therefore, prioritising adaptation measures becomes imperative for the country. Bangladesh has formulated several national plans and strategies in response to adaptation measures for climate change. National policies and strategies are pivotal in charting the course for economic

transformation in the face of the profound challenges posed by the impact of climate change.

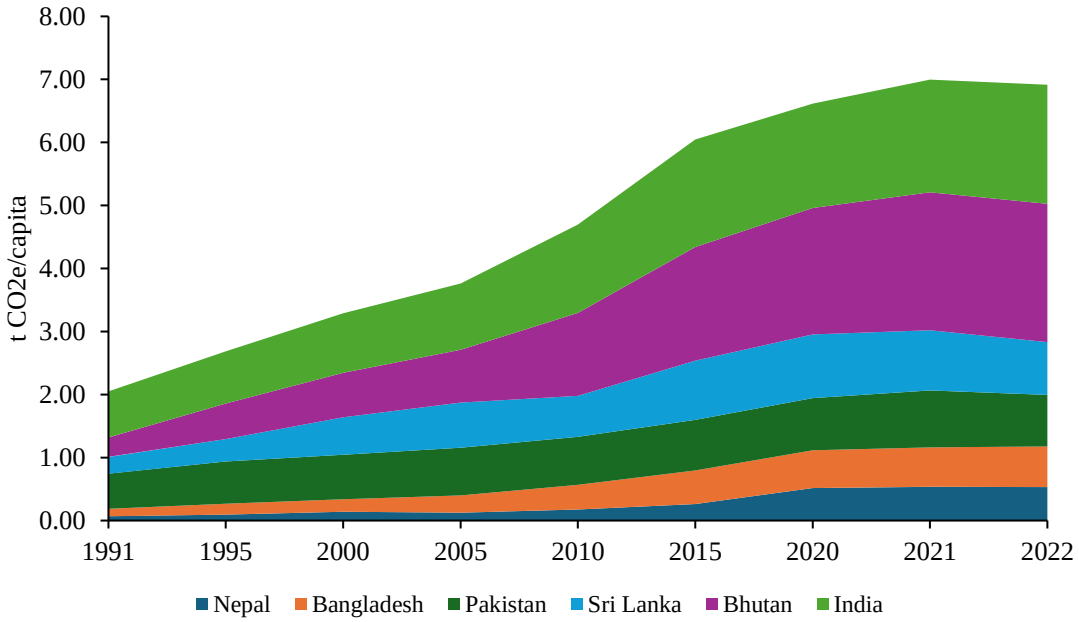


Figure 9.5: Per Capita CO_2 Emissions Excluding Land Use, Land Use Change, and Forestry (t CO_2e/Capita)

Source: Emissions Database for Global Atmospheric Research (2024).

9.4 Impact of Climate Change and Environmental Degradation

9.4.1 Economic Consequences

Being a low-lying delta, Bangladesh is hit by natural disasters almost every year due to climate change. The climate related disasters have direct, primarily economic, and indirect, mostly social, impacts on the livelihoods of Bangladesh. Direct impacts include tangible economic losses, the disruption of agricultural activities crucial for food security, and the displacement of communities due to climate-induced migration (Hossain, Delin, & Mingying, 2022; Thurlow, Dorosh, & Yu, 2012; Roy & Haid among others).

Additionally, infrastructure suffers damage, compromising essential services and hindering economic growth. The adverse effects on human health further exacerbate the situation, straining healthcare systems and amplifying vulnerabilities among populations. Indirect impacts manifest in various social spheres, such as exacerbating gender inequalities by disproportionately affecting women and girls, diminishing educational hours due to disruptions caused by climate-related events, and increasing the incidence of child marriage as families seek economic stability amidst environmental uncertainties (Eastin, 2018; Reggers, 2019; Rainard et, 2023).

Bangladesh suffers substantial losses and damages due to climate change. A study conducted by the Asian Development Bank (ADB) projected that due to climate change, Bangladesh may experience a loss of 2% annual GDP by 2050 and more than 9% of GDP by 2100 under a business-as-usual scenario (Ahmed & Suphachalasai, 2014). Furthermore, the IPCC has estimated that climate change impacts could result in a net increase in poverty of about 15% in Bangladesh by 2030 (IPCC, 2014).

Total economic loss and damage due to climate change-induced natural disasters increased from BDT 184,247 million in 2009-2014 (BBS, 2016) to BDT 1,791,988 million in 2015-2020 (BBS, 2022). Floods emerge as the most economically damaging disaster, escalating losses from BDT 42,807 million in 2009-2014 to a staggering BDT 1,010,882 million in 2015-2020 (Table 9.4). This highlights Bangladesh's vulnerability to flooding, severely affecting infrastructure, agriculture, and overall economic productivity. Cyclones and river and coastal erosion also contribute substantially to economic losses. Cyclones, for instance, resulted in economic losses of BDT 28,385 million in 2009-2014 (BBS, 2016), which increased to BDT 255,382 million in 2015-2020 (BBS, 2022). Similarly, river and coastal erosion-induced economic losses rose from BDT 36,409 million (BBS, 2016) to BDT 268,703 million (BBS, 2022) during the same period. These figures highlight the multifaceted challenges posed by climate change in the form of extreme weather events and environmental degradation.

Table 9.4: Total Loss and Damage Due to Climate Change Induced Natural Disasters and Floods During 2009-2014 and 2015-2020 (in Billion BDT)

Natural Events	All sectors		Crops		Livestock		Poultry		Fishery		Land		Houses		Homestead & Forestry	
	2009-2014	2015-2020	2009-2014	2015-2020	2009-2014	2015-2020	2009-2014	2015-2020	2009-2014	2015-2020	2009-2014	2015-2020	2009-2014	2015-2020	2009-2014	2015-2020
Damage caused by all natural disasters (Billion BDT)	184	1,792	67	518	9	71	2	27	11	66	49	942	32	132	15	35
Damage caused by floods (Billion BDT)	43	1,011	22	242	2	43	1	13	2	41	9	632	5	33	2	6
Damage due to flood as a percentage of total damage (%)	23.4	56.4	32.8	46.7	22.2	60.6	50.0	48.2	18.2	62.1	18.4	67.1	15.6	25.0	13.3	17.1

Source: Bangladesh Bureau of Statistics (BBS, 2016 and 2022).

While the absolute figures are striking, it is crucial to consider the broader implications of these losses, including their impact on livelihoods, poverty levels, and overall economic stability. Analysing economic loss as a proportion of household income further emphasises these disparities. In quintile 1, the proportion increased dramatically from 15.70% in 2009-2014 (BBS, 2016) to 97.20% in 2015-2020 (BBS, 2022). Similarly, in quintile 5, the proportion increased from 3.10% to 9.30%. These percentages illustrate that the economic losses due to climate change have a much more significant impact on the lower-income quintiles (Table 9.5), where the proportion of losses relative to household income is substantially higher (Table 9.5). These numbers manifest the severity of economic losses due to climate change-induced natural disasters in Bangladesh. The substantial increase in total economic losses over the two periods indicates the urgent need for comprehensive and resilient strategies to mitigate and adapt to the impacts of climate change, particularly in vulnerable regions like Bangladesh. These findings underscore the critical importance of considering socioeconomic disparities when assessing the impacts of climate change. Lower-income households bear a disproportionate burden of economic losses, as evidenced by the higher percentages of economic losses relative to their annual incomes. Policymakers and researchers must consider these disparities to develop targeted and equitable climate change mitigation and adaptation strategies.

Table 9.5: Vulnerability Assessment Among Disaster Affected People

Description	Household Group	Average Annual Income (BDT)	Proportion of Loss to Total Income
Bottom Income Group	Q1	31001	97.17
	Q2	100628	29.66
Median Income Group	Q3	158014	21.23
	Q4	239275	16.27
Top Income Group	Q5	722903	9.33

Source: Author's compilation based on BBS (2021).

The country experienced a rise in its average mean temperature from 1971 to 2020, with an increase of 0.16°C per decade (Figure 9.6). The most significant temperature changes were recorded in the eastern divisions, with warming being particularly widespread during the summer and fall months (World Bank, 2024). The increased temperature causes natural calamities such as recurrent severe cyclones, droughts, heavy rainfall, and floods. For instance, there had been nine severe cyclones from 2007 to 2020 in Bangladesh, which caused damage to both livelihood and wealth (Bangladesh Meteorological Department, 2020). The historical data shows that floods have inundated 22.51% of land on average every year from 1985 to 2021 (Figure 9.6) (Flood Forecasting and Warning Centre, 2021). The country also faces adverse consequences of drought of different intensities which affect three to four million arable land every year (MoEFCC, 2018). These extreme weather events due to global climate change toll the country from various aspects. The compounding impacts of rising temperatures and intensified extreme weather events due to global climate change present multifaceted challenges for Bangladesh including economic losses.

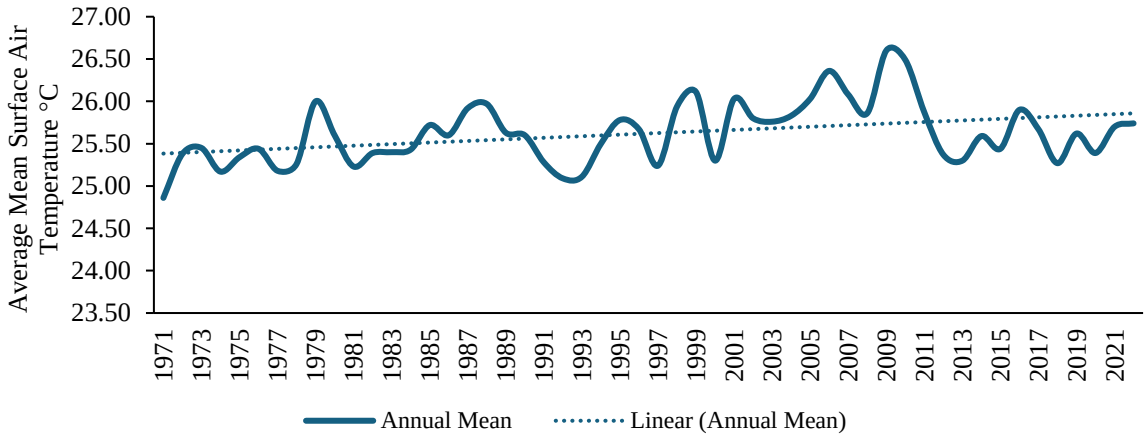


Figure 9.6: Average Mean Surface Air Temperature in Bangladesh (1971 to 2022)
Source: World Bank (2024).

The cost of climate-related shocks for Bangladesh is high. For instance, The World Bank (2022) estimated that Bangladesh is losing around USD 1 billion per year on average due to tropical cyclones. Between 2000 and 2019, Bangladesh incurred economic losses totalling USD 37.2 billion due to extreme weather events attributable to climate change (Eckstein et al., 2021). In 2020, Bangladesh suffered an estimated loss of around USD 11.3 billion due to extreme weather events (World Meteorological Organisation, 2021). On average, flooding during the wet monsoon season leads to the inundation of approximately 25% of Bangladesh's territory.

However, instances of flooding beyond this threshold have occurred at least six times over the past six decades (MoEFCC, 2018). For instance, the flood of 1998 inundated over two-thirds of the nation (Figure 9.7) and resulted in damage reaching USD 2.2 billion, accounting for 4.5% of the GDP which disproportionately impacted agriculture, infrastructure, and health sectors (World Bank, 2024). According to the World Bank (2024) significant floods in 2004 and 2007 caused damage totalling USD 1.8 billion and USD 1.1 billion, respectively. It is also estimated that climate variability and extreme events by 2050, such as riparian flooding in central Bangladesh and drought in northwestern Bangladesh, could result in the loss of up to one-third of the agricultural GDP (World Bank, 2022). Such significant agricultural losses, flooding, and sea level rise can displace 3.3 million people in the next 30 years (World Bank, 2024; World Bank, 2022).

The extent of the impact of climate change will also affect industrial productivity. For instance, Bangladesh stands to face a significant loss of USD 27 billion in annual apparel exports by 2030 unless it embraces a climate-adaptive strategy to address challenges like high temperatures and flood sand around 250,000 employees in the sector are projected to lose their jobs as a result of climate-induced disruptions by that time (Bauer *et al.*, 2023). Hence, the cost of climate-related shocks for Bangladesh is substantial and multi-faceted, encompassing economic losses and infrastructural damages.

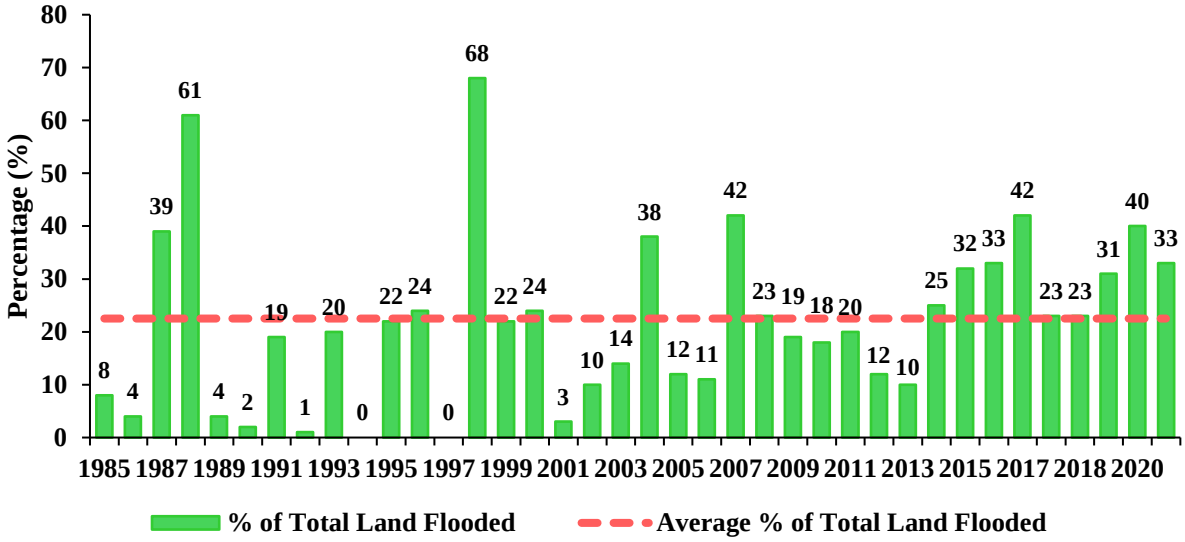


Figure 9.7: Percentage of Land Inundated Due to Flooding from 1985 to 2021
Source: Flood Forecasting and Warning Centre (2021).

9.4.2 Social Cost of Climate Change in Bangladesh

Climate change and environmental pollution have profound social impacts in Bangladesh, affecting various aspects such as gender inequality, domestic violence, human health, loss of educational hours, and social well-being. Clogged drains and sewage systems due to plastic waste increase the potential for waterborne diseases in urban areas. The cost of treatments for health conditions caused by plastic pollution, especially for the waste collectors in the informal sector, is a cause of concern. Such a health burden will increase out-of-pocket expenditure towards medical bills, affecting waste collectors' savings and further pushing them towards poverty.

People living in coastal and cyclone-prone regions in the Southwest and Southeast of Bangladesh and those living in the Brahmaputra-Jamuna floodplain areas frequently bear the impact of severe climatic events. These events often lead to the loss of lives ((Figure 9.8) and forced migration to urban centres such as big cities, secondary cities, and district city centres across Bangladesh in pursuit of employment opportunities (Ahsan et al., 2014; Islam & Hasan, 2016; Roy et al., 2017; Barua *et al*., 2020). Compared to men, women often face greater economic vulnerability, as they may need to resort to distress sales of agricultural land before migration (Ahmed & Eklund, 2021). The climate-affected people often marry off their school-going female children as a cost-cutting coping mechanism during their migration process (Ahmed *et al*., 2019).

By 2050, one in every seven people will be displaced by the impact of climate change (Chowdhury et al., 2020). Khatun et al. (2021) showed that from 2008 to 2020, a total number of 15.42 million people were internally displaced due to climate change, with an average of 1.2 million per year. Between 2019 and 2020, 4.1 million people (2.1% of the total population) and 4.4 million people (2.7% of the total population) were internally displaced. During the migration, women, children, and elderly individuals are susceptible

to experiencing violence and sexual harassment. They are engaged in an unequal competition for food and shelter with men and comparatively younger members of migrating groups, exacerbating their vulnerability. (Sams, 2019). Besides, women, children and older groups of people also suffer from malnutrition, social uncertainty and lack of healthcare services (Gomes, 2020).

Children suffer from loss of educational hours in the aftermath of adverse climatic events and during the migration process (Ahmed *et al*., 2019; Ferdous & Mallick, 2019). Climate-displaced individuals encounter significant hurdles in earning a livelihood, primarily engaging in low-skill and semi-skilled jobs that provide barely enough for sustenance. The upward trend of climate migration to big cities puts tremendous pressure on the presently overcrowded, unsafe, and unhealthy city slums and significantly contribute to the high urbanisation growth in Bangladesh. The pressure of climate migration leads to critical environmental consequences such as water and air pollution and jeopardises the city's plan for the future (Khatun et al., 2021).

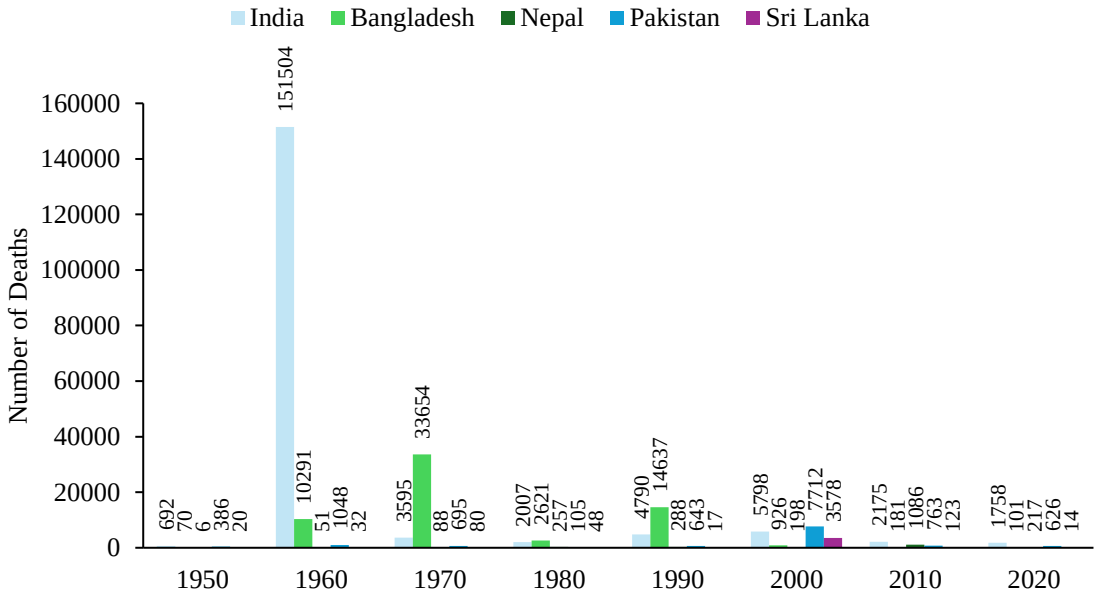


Figure 9.8: Annual Number of Deaths from Disasters (Decadal Average)

Source: EM-DAT (2024).

9.5 Bangladesh's Climate Change Commitments

Nationally Determined Contribution (NDC) (2021): NDC serves as a pivotal component of the Paris Climate Agreement, functioning essentially as a Climate Change Plan (MoEFCC, 2021). The updated NDC considers four sectors for reducing CO_2, which are Energy (which includes the previous three sectors), Industrial Processes and Product Use (IPPU), Agriculture, Forestry & other Land Use (AFOLU), and Waste. According to the NDC (2021), greenhouse gas (GHG) emissions are targeted to be reduced by 27.56 Mt CO_2e (6.73%) below business-as-usual (BAU) levels by 2030 in the respective sectors (unconditionally). In the conditional scenario, GHG emissions will decrease by 61.9 Mt CO_2e (15.12%) below BAU by 2030 in the respective sectors. The total estimated costs

of these mitigation actions amount to USD 176 billion over ten years (2021-2030). The Government of Bangladesh (GoB) is committed to reducing GHG emissions from the considered sectors.

In Bangladesh, energy is the highest contributing sector to GHG emissions, accounting for 55.07% of total emissions, followed by AFOLU (27.4%), waste (14.3%), and IPPU (3.3%) (MoEFCC, 2021). One of the key mitigation strategies is the adoption of clean energy. The key energy platforms in Bangladesh consist of solar energy, wind power, hydropower, biogas, and biomass for electricity generation. In recent years, the adoption of clean energy in industry has gained much attention. Clean energy will be crucial for the country's smooth transition to an equitable and sustainable economy.

While community-led efforts and government emphasis on the adoption of solar energy have gradually increased the adoption of solar energy, several challenges continue to hinder the progress (Amin, Chowdhury, Ehsan, & Iqbal, 2021; Rahman, Sujan, Alam, & Akter, 2024). These challenges include overdependence on fossil fuel, access to finance, inadequate infrastructure, investment challenges, technical capacity gaps, and limited policy implementation and coordination (Islam, et al., 2024).

Implementation of Montreal Protocol: Bangladesh has successfully implemented the required obligation under the Montreal Protocol. More than 2.14 $MtCO_2e$ emissions will be reduced by 2025 as per Montreal Protocol targets. The country ratified the Kigali Amendment on 08 June 2020 and enacted a Statutory Regulatory Order (SRO) to reduce the import and consumption of HFCs on 11 Feb 2021 with a view to HFC phasing down (80%) by 2045 (UNDP, 2020).

Adoption of National REDD+Strategy: Bangladesh has developed its forestry sector capacity to engage in mitigation co-benefit process manifested by estimating baseline emissions, preparing monitoring systems and adopting the National REDD+Strategy for reducing emissions and enhancing forest carbon stocks. The baseline emission is 1.18 $MtCO_2e$ per year from 2000 to 2015. To arrest this trend, the National REDD+Strategy targets to restore all degraded forest and afforest all newly accreted coastal lands, increasing tree cover from the current 12% to 25% by 2030 (MoEFCC, 2022).

9.6 The Climate Finance Landscape

Bangladesh requires substantial financing from national and international sources to implement these plans and strategies. For instance, over the long term, implementing the National Adaptation Plan (NAP) will require USD 230 billion from 2023 to 2050. Climate resilience will require a sevenfold increase in current spending, totalling USD 8.5 billion annually, with USD 6.0 billion in support from external sources or international climate funds and development partners (MoEFCC, 2022). In the medium term, Bangladesh will require at least USD 12.5 billion, roughly equivalent to 3% of GDP by 2025, for climate action (World Bank, 2022).

Considering the huge requirements for climate action, the GoB formulated the Bangladesh Climate Change Strategy and Action Plan (BCCSAP) in 2009. Following BCCSAP, Bangladesh Climate Chang Trust Fund (BCCTF) were established by

formulating BCCTF Act in 2010. However, this has proven to be insufficient, given the requirements of climate financing. For instance, the budgetary allocation of Bangladesh for achieving climate action is quite low against the requirements. For instance, Bangladesh faces a budgetary financing gap of BDT 5,792.34 billion to achieve SDG 13 by 2030 (Khatun, Saadat, & Kabir, 2024). Against this humongous financing gap, the total budgetary allocation for 25 ministries and divisions to achieve climate action in FY2025 was BDT 42206.89 crore, which is only 10.09% of the total budgetary allocations for these ministries and divisions (Figure 9.9). Given the requirement of financing, the budgetary allocation for climate action is insufficient. This is due to limited fiscal capacity and a low rate of resource mobilisation from both domestic and international sources, driven by the absence of scalable and bankable climate action projects.

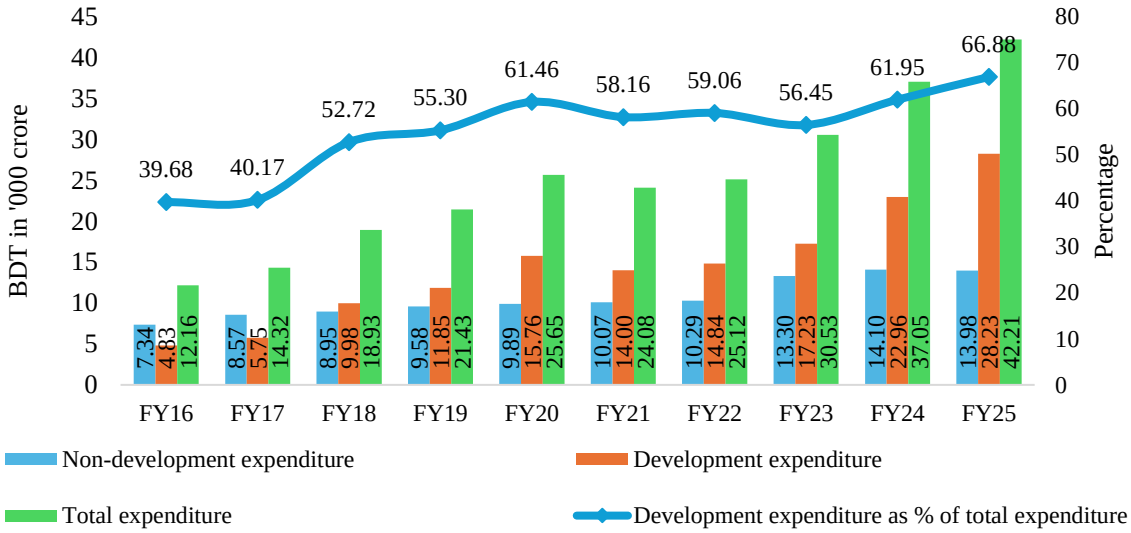


Figure 9.9: Climate Budget Allocation and Utilisation over the Years

Source: Authors' illustration based on Ministry of Finance (2024).

Bangladesh could avail a total of USD 441.20 million so far from the Green Climate Fund (GCF) for 9 projects (GCF, 2025). Out of these 9 projects, 'Promoting Private Sector Investment through Large Scale Adoption of Energy Saving Technologies and Equipment for Textile and RMG Sectors of Bangladesh' was designed to reduce 14.50 million tonnes of CO_2 from the country's textile and Readymade Garment (RMG) sectors. The total project value for this project is USD 340.50 million until 2034. Out of total financing, GCF provides USD 250 million in loans, USD 6.50 million in grants, and the rest of the financing comes from co-financing mode. However, given the country's narrow fiscal space and the current pressure on the external sector, Bangladesh must strategies its resource mobilisation strategy for climate action.

9.7 Plans and Strategies for Adaptation and Mitigation

Bangladesh has formulated plans and strategies for adaptation and mitigation to address climate change-related challenges. Some of these are briefly discussed here to understand how climate change and environmental issues have been addressed in these policies to achieve holistic and sustainable development.

9.7.1 Plans and Strategies for Adaptation Measures

National Sustainable Development Strategy (NSDS) (2013): The NSDS of Bangladesh, formulated in 2013, serves as a comprehensive roadmap for guiding the country's development efforts towards achieving sustainable growth while addressing social, economic, and environmental challenges. The strategy prioritised agriculture and rural development, industry, energy, transport, and human resource development (GED, 2013). The NSDS of Bangladesh delineated five strategic priorities to realise its vision and tackle long-term sustainability challenges related to productive capital. These priorities encompass sustained social security and protection, environmental conservation, sustainable management of natural resources, and effective disaster management.

Bangladesh Country Investment Plan for the Environment, Forestry, and Climate Change (CIP-EFCC) Sectors (2017): The Cross-Sectoral Investment Plan for Environmental and Climate Change (CIP-EFCC) is a comprehensive strategic framework designed to assist government, ministries and agencies in making informed investment decisions across various sectors related to environmental, climate, and natural resource management (MoEFCC, 2017). It serves as a tool to translate national priorities into achievable goals and targets, with the overarching aim of enhancing the contribution of Environmental, Forestry, Climate Change (EFCC) sectors to the country's long-term development by enhancing ecosystem services provision.

The CIP-EFCC is structured around four key pillars: (a) Natural Resource Management, (b) Pollution Reduction and Control, (c) Climate Change Adaptation, Mitigation, and Resilience, and (d) Environmental Governance. The plan also integrates ten of the United Nations' 17 Sustainable Development Goals (SDGs), as well as Bangladesh's commitments and targets submitted to the United Nations Framework Convention on Climate Change (UNFCCC). By aligning investments with these strategic priorities and targets, the CIP-EFCC aims to catalyse sustainable development, enhance environmental resilience, and contribute to the achievement of national and international development agendas.

National Agriculture Policy (2018): The National Agriculture Policy of 2018 highlights various key areas crucial for climate-resilient crop production and sustainable agricultural practices (Ministry of Agriculture, 2018). These include climate-resilient crop production methods, efficient fertiliser and irrigation management techniques, adoption of farm mechanisation for enhanced productivity, integration of biotechnology for agricultural innovation, promotion of quality seed production and distribution, strengthening agriculture cooperatives and improving marketing channels, empowering

women in agriculture for inclusive growth, sustainable management of natural resources, ensuring the production of safe and nutritious food, utilising Information and Communication Technology (ICT) in agricultural practices. The policy prioritises several key objectives, including enhancing productivity, fostering coordination among various ministries and organisations under the agriculture sector, and leveraging knowledge and expertise from both the private and public sectors. These strategies aim to drive sustainable agricultural development, enhance food security, and improve the livelihoods of farmers across Bangladesh.

Bangladesh Delta Plan (BDP) 2100 (2018): The Bangladesh Delta Plan (BDP) 2100 is an exhaustive, long-term strategy designed to address the challenges presented by natural disasters and climate change. The central goal of BDP 2100 is to transform Bangladesh into a safe, climate-resilient, and affluent delta by the end of the 21st century (GED, 2018b). The primary objective of the Delta Plan emphasises ensuring sustainable water and food security, fostering economic growth, and facilitating environmental resilience while concurrently reducing susceptibility to natural disasters. This strategy is anchored upon implementing adaptive, integrated strategies and equitable water governance while adopting a holistic and evolving framework to tackle the multifaceted interconnections between water management, climate change, natural disasters, agriculture, land use, and environmental sustainability.

The overarching strength of the Delta Plan lies in its integrated approach, combining infrastructural development and institutional capacity building by encompassing 80 projects- 65 projects targeting infrastructural growth and 15 projects aimed at improving knowledge and institutions as part of its initial investment plans. However, to successfully implement the strategies delineated in the BDP 2100, a significant amount of annual expenditure equivalent to 2.5% of the GDP is required. Based on the current prices and GDP, the estimated investment for projects under BDP 2100 has grown substantially, rising from approximately USD 1.8 billion in FY2016 to USD 3.5 billion in FY2017, and is projected to escalate further to nearly USD 29.6 billion by FY2031. This highlights the considerable financial burden which might hinder effective resource mobilisation for its implementation.

SDG Action Plan (2018): The SDG Action Plan aims to implement the SDGs (MoDMR, 2018). It acts as a conduit, transforming essential SDG evaluations and frameworks into actionable initiatives, such as SDG targets, Data Gap Analysis, SDG Financing Strategy, and SDG Monitoring & Evaluation Framework. Crafted to operationalise the goals and associated targets delineated in the SDGs, the Action Plan spans three consecutive Five-Year Plans (7th, 8th, and 9th FYP), aligning seamlessly with the development budget of the government. This strategic integration ensures optimal utilisation of resources to support SDG implementation efforts across various sectors. The SDG Action Plan serves as a comprehensive roadmap for ministries/divisions entrusted with executing global goals in Bangladesh. It defines the types of projects/programmes that must be initiated to realise the targets outlined in the SDGs, thereby fostering effective coordination and strategic alignment towards sustainable development objectives.

Bangladesh Climate Smart Agriculture Investment Plan (CSAIP, 2019): The Climate Smart Agriculture Investment Plan (CSAIP) represents possible investments in Climate Smart Agriculture (CSA) to meet Bangladesh's objectives to facilitate a climate-resilient agriculture sector (MoFL, 2019). Several strategic initiatives are included as a part of CSAIP for different agricultural sub-sectors which is in line with BDP 2100 to be implemented during the 8th Five-Year Plan. Additionally, CSAIP adds significant value to Bangladesh's NAP. This plan, overall, communicates a vision for agricultural growth by 2040, supplemented by measurable standards for each of the three CSA components.

The Eighth Five-Year Plan (8FYP; 2020–2025): The 8th Five-Year Plan (8FYP) was crafted in anticipation of Bangladesh's 50th anniversary of independence, aiming to foster economic growth and inclusive development (GED, 2020). Its primary objective is to propel Bangladesh towards achieving upper middle-income country status by 2031 and attaining the Sustainable Development Goals (SDGs) while effectively managing the challenges associated with Least Developed Country (LDC) graduation. The 8FYP revolves around six key themes: (a) Rapid recovery from COVID-19, (b) Accelerated GDP growth, employment generation, and rapid poverty reduction through a comprehensive strategy of inclusiveness, (c) Development of a sustainable development pathway resilient to disasters and climate change, (d) Sustainable utilisation of natural resources and successful management of the inevitable transition towards urbanisation, (e) Strengthening and improvement of critical institutions, (f) Attainment of SDG targets and mitigation of the impacts of LDC graduation. Notably, the last four themes are closely interconnected with climate change, underscoring the significant importance nations attribute to this pressing issue.

Climate Prosperity Plan (2021): Bangladesh has developed the Climate Prosperity Plan to drive the implementation of renewable energy and climate resilience initiatives, aiming to enhance climate change adaptation and mitigation efforts while sustaining ongoing development (MoEFCC, 2021). This plan marks a strategic shift in Bangladesh's trajectory, transitioning from vulnerability to resilience and prosperity. Aligned with eight goals outlined in the Perspective Plan of Bangladesh (2021–2041), this plan comprises eleven strategies and three Hubs: locally led adaptation, resilient well-being, and energy hub. The plan estimates that USD 89.7 billion will be required over the next decades to fund initiatives focused on adaptation, resilience, loss and damage, and low-carbon growth. Key initiatives identified include the development of renewable energy infrastructure, the establishment of energy storage facilities, the modernisation of power grids, and the implementation of a carbon market regime. These initiatives aim to future-proof locally led adaptation outcomes and enhance Bangladesh's Micro, Small, and Medium Enterprises (MSMEs).

National Industrial Policy (2022): The National Industrial Policy of 2022 aims to foster inclusive growth by nurturing labour-intensive and export-driven industries within the nation (Ministry of Industry, 2022). Its primary strategy revolves around cultivating a conducive atmosphere for foreign investment. Additionally, the policy underscores the necessity of adapting domestic industries to mitigate the effects of climate change. A key

objective is to augment the prevalence of green jobs within export-oriented sectors such as RMG, leather, jute and jute products and pharmaceuticals by promoting eco-friendly practices in factory operations. The policy also intends to incentivise industries to procure environmentally sustainable machinery.

National Adaptation Plan (NAP) (2022): Bangladesh has recently developed the NAP spanning the period 2023–2050, placing a strong emphasis on long-term, multi-sectoral investment in adaptation, programme planning, budgeting, and financial tracking (MoEFCC, 2022). The NAP serves as a pivotal tool for integrating climate change adaptation into the country's primary development frameworks, including the Five-Year Plan, Delta Plan, and various sectoral plans and policies. Given the imperative to reduce vulnerability, adaptation is seen as indispensable.

Building upon the successful implementation of the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), the country is updating the BCCSAP, which will significantly contribute to the Climate Resilient Development Pathway (CRDP). However, the NAP and BCCSAP must coordinate and align with each other, leveraging ongoing plans and strategies to prevent duplication of efforts and ensure synergies. Anticipated outcomes of the NAP include contributions to the CRDP and the promotion of socioeconomically and environmentally beneficial, technically sound, locally appropriate, and enduring adaptation measures.

9.7.2 Plans and Strategies for Mitigation Measures

Renewable Energy Policy of Bangladesh (2008): Bangladesh's Renewable Energy Policy underscores the country's commitment to harnessing the potential of renewable energy to meet its growing energy demand, promote sustainable development, and mitigate the impacts of climate change (Power Division, 2008). Bangladesh aims to accelerate the transition towards a cleaner, more resilient, and energy-secure future through strategic planning, investment, and collaboration with international partners. Key features of Bangladesh's Renewable Energy Policy include diversification of energy sources, promotion of renewable energy technology, grid integration and off-grid solutions, rural electrification, capacity building through research and development, and regulatory framework and institutional support. The policy also encourages private sector investment in renewable energy production. However, the policy did not explicitly mention green job creation and industrial development for sectoral growth.

Energy Efficiency and Conservation Master Plan (EE&C) 2015: The EE&C master plan intends to improve energy intensity by 20% in 2030 compared to 2013, resulting in a total savings of 95 million tonnes of emissions (113 billion m^3 of gas equivalent) throughout that time period (SREDA, 2016). It is anticipated in the EE&C scenario that the electricity demand will be reduced by 8 GW in 2030, which is in contrast to the BAU situation. The EE&C master plan outlined that between 2015 and 2030, three EE&C Programmes, such as Energy Management, EE labelling, and EE buildings, can save a total of 5.3 million tonnes of emission per year or approximately BDT 135 billion in

energy. Although the EE&C master plan considered the economic cost of energy savings, it did not consider any potential job loss from the traditional energy sector.

The analysis of the plans and strategies for adaptation and mitigation revealed that these plans and strategies considered factors such as employment generation and the implications of climate change. However, it remains ambiguous how these policies and strategies specifically address the intersection of climate change impacts on employment and their broader effects on the country's economic transformation.

9.8 Key Policy Recommendations

The government can adopt many strategies to control environmental degradation and mitigate climate change impacts. These are presented below.

9.8.1 Addressing Environmental Degradation

Air Pollution

- ***Phase out fixed chimney brick kilns by 2030:*** The government should mandate the transition from fixed chimney brick kilns to cleaner technologies, such as Improved Zigzag Kilns, Hybrid Hoffman Kilns, and Vertical Shaft Brick Kilns by 31 December 2030.
- ***Phase out coal-based power plants by 2030:*** To protect ecosystems such as the Sundarbans, the government should halt approvals for new coal-based power plants and decommission existing ones including Rampal, by 31 December 2030.
- ***Formulate and implement construction regulations:*** The government should regulate construction sites to ensure proper material handling and enforce strict dust control measures to minimise emissions.
- ***Exempt VAT for renewables:*** The government should introduce a VAT exemption for renewable power plant equipment, with a particular emphasis on solar power systems.
- ***Offer incentive tariffs to renewables:*** The government should incentivise renewable energy by allowing electricity generated from renewables to be priced 10% higher than the highest fossil fuel-based electricity tariff.
- ***Implement environment surcharge:*** The government should fully enforce the 1% environmental protection surcharge on goods from polluting industries as stipulated in the Finance Act 2014.
- ***Phase out fossil fuel subsidies:*** The government should eliminate fossil fuel subsidies starting next fiscal year, adjust prices to align with international markets, and redirect funds toward green energy development.
- ***Encourage hybrid, electric, and hydrogen vehicles:*** To reduce air pollution originating from the transport sector, the government should reform the Advance Income Tax (AIT) structure for private motor vehicles. The AIT on fossil fuel-

driven motor vehicles should be 5% to 50% higher than the AIT on hybrid, fully electric, and hydrogen-powered vehicles, depending on engine size and electric motor capacity of the vehicle. A detailed proposal is presented in Table 9.6.

Table 9.6: Proposed Advance Income Tax Structure for Private Motor Car Owners

Type and engine capacity or electric motor power of motor car	AIT for hybrid, fully electric vehicles, and hydrogen vehicles (in BDT)	AIT for conventional fossil fuel vehicles (in BDT)
A car or a jeep, not exceeding 1500cc or 75kw	25,000	26,250
A car or a jeep, exceeding 1500cc or 75kw but not exceeding 2000cc or 100 kw	50,000	55,000
A car or a jeep, exceeding 2000cc or 100 kw but not exceeding 2500cc or 125 kw	75,000	90,000
A car or a jeep, exceeding 2500cc or 125 kw but not exceeding 3000cc or 150 kw	125,000	162,500
A car or a jeep, exceeding 3000cc or 150 kw but not exceeding 3500cc or 175 kw	150,000	210,000
A car or a jeep, exceeding 3500cc or 175 kw	200,000	300,000
A microbus	30,000	36,000

- ***Introduce computerised emissions testing:*** The Bangladesh Road Transport Authority (BRTA) should implement computerised emissions testing and issue fitness certificates exclusively to vehicles that pass these tests and meet the required standards.
- ***Improve air quality monitoring:*** The DoE should establish air quality monitoring stations nationwide in Dhaka, displaying real-time data publicly and through online platforms.
- ***Promote non-motorised transport:*** The government should develop dedicated cycling lanes and pedestrian-friendly infrastructure to encourage walking and cycling.
- ***Create and protect green spaces:*** The government should protect green spaces in established cities and ensure burgeoning cities allocate one-third of urban areas to parks, green spaces, and urban forests.
- ***Increase public understanding of air pollution:*** The government should launch nationwide campaigns to educate citizens on the health risks of air pollution and ways to reduce individual contributions.
- ***Broadcast air quality indicators with weather forecasts:*** The Ministry of Information and Broadcasting should require media outlets to include air quality indicators alongside weather forecasts.

Water Pollution

- ***Update National Water Policy of 1999:*** The government should revise the National Water Policy of 1999 to address emerging climate challenges, incorporate modern water management practices, integrate with economic transformation and social inclusion, and align with the broader economic development plans.
- ***Improve the governance in the water sector:*** The government should strengthen the governance in the water sector by enhancing transparency and ensuring accountability of relevant government agencies.
- ***Implement water pricing for industrial use:*** A structured water pricing system need to be established by the government for industrial use. Industrial processing relies extensively on free groundwater extraction, leading to significant depletion of groundwater levels in the country's northern, central, and southwestern regions. A pricing mechanism for industrial water use would promote more efficient and sustainable groundwater management.
- ***Promote efficient water use:*** Measures should be enforced by the government to improve efficiency across all sectors, ensuring sustainable management of surface and groundwater resources.
- ***Enhance wastewater treatment:*** Investments should be made in infrastructure and technology by the government to increase wastewater treatment capacity and reduce water pollution.
- ***Improve water quality standards:*** The government should establish and enforce stricter regulations to ensure safe and clean water for all.
- ***Provide adequate water and sanitation in critical facilities:*** Access to safe drinking water and sanitation facilities in schools and healthcare centres, especially in underserved areas, needs to be ensured by the government.
- ***Address urban-rural disparities in water access:*** Efforts should be made to address urban-rural disparities in water access by bridging the gap in water and sanitation services between rural and urban areas, including slums and formal settlements.
- ***Revise the water pricing scheme:*** Dhaka Water Supply and Sewerage Authority (WASA)’s pricing system should be reformed to include individual household water meters, encouraging economical water use and ensuring fair access.
- ***Ensure water access for low-income households:*** Regulating water vendors and expanding legal water connections will ensure affordable access to water for the poorest households.
- ***Adopt integrated water management:*** The government should develop and implement sustainable integrated water management practices that address current and future water and sanitation needs.
- ***Revise existing water-sharing treaties:*** Bangladesh should seek to update existing treaties, such as the Ganges Water Treaty of 1996, to ensure fair water distribution and include minimum water flow guarantee provisions.

- ***Adopt a multilateral whole basin approach:*** Bangladesh should push for multilateral negotiations that involve all riparian countries in the Ganges-Brahmaputra-Meghna basin to promote equitable and sustainable management of shared water resources.
- ***Strengthen regional cooperation on water:*** Regional cooperation among South Asian countries is essential to comprehensively addressing transboundary water issues.
- ***Develop 20-feet-high embankments and adopt a live-with-watering policy:*** The coastal embankments are currently built at 15 feet. Considering the future climatic conditions that IPCC projects, we recommend building at least 20 feet higher embankments and adopting a 'life with flooding' policy rather than building infrastructure to prevent flooding.

Plastic Pollution

- ***Maintain the enforcement of the ban on polythene bags:*** The government must strictly enforce the ban by seizing manufacturing equipment, imposing heavy fines on retailers, and creating an environment for alternatives to thrive.
- ***Promote polythene alternatives:*** The government should ensure affordable access to alternatives like paper, cloth, and jute bags, encouraging widespread adoption by all retailers and vendors.
- ***Promote the use of sustainable materials:*** To foster eco-friendly practices, the government should mandate recycled content in packaging, enforce the Mandatory Jute Packaging Act, and monitor compliance.
- ***Phase out single-use plastic by 2030:*** A regulation should be passed to eliminate 17 identified single-use plastic products by December 31, 2030.
- ***Develop a national framework for Extended Producer Responsibility (EPR):*** The government, in consultation with stakeholders, should create an EPR framework requiring producers to manage their plastic products' lifecycle, including recycling.
- ***Introduce a plastic tax:*** Plastic products with less than 30% recycled content should be taxed to encourage recycling and reduce reliance on virgin plastic.
- ***Reinstate the 5% supplementary duty on plastic bags:*** The government should immediately restore the 5% supplementary duty on plastic bags which was withdrawn in FY2023.
- ***Increase customs duty on plastic waste:*** The government should raise customs duty on plastic waste imports to boost domestic recycling and reduce reliance on imported plastic waste.
- ***Invest in technology to support the recycling of Multi-Layer Plastic (MLP):*** Firms should be equipped with technologies to recycle MLP, reducing dependency on virgin plastic resin.
- ***Invest in pyrolysis technology:*** The government should promote advanced pyrolysis technology to convert plastic waste into fuel, reducing reliance on imported petroleum.

- ***Provide low-interest loans to plastic recycling industries:*** The Bangladesh Bank should direct the commercial banks to offer low-interest loans to support the growth and innovation of plastic recycling industries.
- ***Establish recycling centres:*** The government should set up recycling centres nationwide, incentivising waste collection through trash-to-cash schemes and creating a market for single-use plastic waste.
- ***Improve links between recyclers and manufacturers:*** Stronger connections between recycling shops and manufacturers should be established to enhance the collection and processing of polythene bags and Polyethylene Terephthalate (PET) bottles.
- ***Engage the informal sector:*** Municipalities should formalise the informal sector by providing training and resources for plastic waste segregation at households and collection sites.
- ***Undertake monitoring and reporting:*** The government should implement a transparent system for monitoring plastic pollution levels and share data publicly to ensure accountability.
- ***Launch public awareness campaigns:*** Educational campaigns should engage communities, schools, NGOs, and media to raise awareness about plastic pollution and promote sustainable practices.

Noise Pollution

- ***Ban the use of hydraulic horns in vehicles permanently:*** The government should enforce a permanent ban on the use of hydraulic horns by enacting strict regulations and ensuring rigorous enforcement.
- ***Promote the adoption of noise-absorbing technology in urban areas:*** Adoption of noise-absorbing technology in urban areas should be encouraged. RAJUK, city corporations, and pourashavas can implement this by establishing rules and codes for residential and commercial buildings by the roadside.
- ***Adopt advanced traffic management solutions:*** Advanced traffic management systems, including synchronised traffic lights, speed controls, and designated low-noise zones should be implemented to minimise noise pollution in urban areas.
- ***Enhance public awareness campaigns on noise pollution:*** Nationwide public awareness initiatives should be launched, partnering with schools, local communities, and media platforms, to disseminate information effectively and educate citizens about the adverse effects of noise pollution and encourage noise-minimising behaviours.
- ***Strengthen the enforcement of noise regulation policies:*** Regular updates and strict enforcement of existing noise pollution laws are necessary to address evolving urban and industrial challenges, increasing the capacity and authority of regulatory bodies to monitor, penalise, and mitigate non-compliance.

9.8.2 Climate Adaptation and Resource Conservation

- ***Promote climate-smart agriculture:*** Sustainable agricultural practices should be promoted to reduce chemical fertiliser and pesticide use. Smallholder farmers should be supported in adopting climate-smart agriculture and improving their productivity.
- ***Combat deforestation and land degradation:*** Stringent measures should be implemented to prevent forest land encroachment by commercial agriculture and industries to protect biodiversity, water resources, and soil health.
- ***Enhance forest governance:*** Forest authorities' supervision and governance should be strengthened to combat illegal logging and wildlife poaching effectively.
- ***Adopt an integrated approach to resource management:*** A comprehensive natural resource management plan should be developed that prioritises biodiversity and ecosystem services to ensure food security, nutrition, water, and health.
- ***Protection of urban spaces:*** Urban green spaces in established cities like Dhaka and Chittagong should be protected from encroachment, and burgeoning cities across the country should be designed with at least one-third of urban built-up areas reserved for green spaces.

9.8.3 Mitigating Climate Change Impact

- ***Prioritise the adoption of renewable energy:*** The adoption of renewable energy should be prioritised by enhancing sectoral and inter-ministerial coordination. While the MoEFCC sets a target of reducing GHG emissions from the energy sector by increasing the share of renewable energy in the energy mix, the government significantly increased the use of fossil fuels in the energy mix. This is a case of sectoral and inter-ministerial coordination failure to achieve the target stated in the NDC. Hence, enhanced sectoral and interministerial coordination is crucial to attain the climate goal stated in the NDC.
- ***Prioritise renewable energy-based projects:*** Considering the importance of energy security, the GoB should prioritise renewable energy-based projects under SREDA by designating them as fast-track initiatives. Efforts should focus on mobilising financial and technological resources to increase the share of renewable energy in the overall energy mix. Simultaneously, the institutional capacity of SREDA must be strengthened to support these objectives effectively.
- ***Integrate national carbon accounting:*** The government should take immediate initiative to integrate carbon accounting in the energy, IPPU, AFOLU, and waste sectors. The national integration of carbon accounting is necessary to achieve the NDC target. This integration will also contribute to Article 14 of the Paris Agreement for global stocktake in implementing the agreement. Although Bangladesh submitted its updated NDC in 2021, there is a lack of stocktaking for progress in reducing GHG emissions in the targeted sectors.
- ***Introduce carbon trading to generate revenue for climate action:*** The government should identify sectors and areas for carbon trading and generate

revenue from such initiatives. Reducing road congestion by improving road quality and modal shift from road to rail are the essential strategies for Bangladesh to reduce GHG emissions from the transport sub-sector. Currently, metro rail, elevated expressways, and other improved road infrastructures are contributing to reducing the emissions from transport sectors. This is a potential opportunity for Bangladesh to engage in global carbon trading by integrating national carbon accounting and generating revenue for climate action.

- ***Mitigate disaster risks through reforestation:*** Reforestation and sustainable forest management should be promoted to reduce the risks of natural disasters like landslides, floods, and cyclones.
- ***End capacity payments to fossil-fuel-based power producers:*** This should be stopped as a step towards achieving the emission reduction commitments outlined in the NDC.
- ***Establish a robust system for accessing green financing for industries:*** An online portal dedicated to factories seeking investments in sustainable practices can significantly enhance access to green finance. The government's ICT Division can develop this portal, consolidating all relevant information on green financing opportunities and application procedures. To further support this initiative, it is crucial to increase funding allocations for green financing programmes, set up a help desk to provide guidance, streamline the application process, minimise documentation requirements, and expedite approval timelines. Collaborative efforts among the Ministry of Finance (MoF), Bangladesh Bank (BB), and the Ministry of Industries (MoI) will be essential to achieve these goals.
- ***Develop a unified framework for green standards and certification procedures aligned with the international best practices and market requirements:*** The absence of a standardised definition of greening creates significant operational challenges for firms. To address this, government agencies such as the MoI and the MoEFCC and non-state actors, including industry associations, buyers, academia, and think tanks, should collaborate to establish a common framework for green standards and certification. This framework would ensure that all firms comply with uniform environmental benchmarks. Additionally, a standardised certification process would simplify and reduce the cost of obtaining green certifications required by buyers, eliminating the need for multiple audits or certifications.
- ***Withdraw fiscal support from the polluters:*** Financial incentives currently provided to polluting industries and fossil fuel-based power generation should be redirected towards developing and acquiring clean technologies. Textile and RMG factories investing in green production processes should be given priority to access green funds. Recognising the potentially contentious nature of this initiative, strong leadership and coordinated efforts from the MoI, MoF, and Ministry of Power, Energy, and Mineral Resources (MoPEMR) will be essential to ensure its successful implementation.

- ***Strengthen research and innovation:*** Research, innovation and knowledge management should be strengthened to foster long-term planning and innovative solutions for adaptation and mitigation.
- **Launch public awareness and education:** Nationwide campaigns should be initiated to educate people on environmental conservation and sustainable practices.

9.8.4 Mobilisation of Climate Finance

Public Finance for Climate Change

- ***Strengthen domestic resource mobilisation:*** Bangladesh must urgently increase tax revenue, expand its tax base, improve compliance, and reduce illicit financial outflows to address its rising budget deficit and avoid perpetual indebtedness.
- ***Increase budget allocation:*** The share of the budget allocated to climate action is crucial for addressing the impact of climate change. The share of budgetary allocation for climate action goals should be increased gradually to 1% of GDP by 2041.
- ***Enhance the effectiveness of the climate budget:*** The effectiveness of the climate budget should be ensured through efficient utilisation of both development and non-development funds. Establishing a green Public Financing Mechanism (PFM) will be crucial in ensuring effective climate budget utilisation.
- ***Increase allocation in ADP:*** The allocation for climate change-related projects should be enhanced in the Annual Development Programme (ADP) to achieve the ambitious clean energy goals and to invest in mitigation and low-carbon development activities.
- ***Allocate more for the vulnerable people in the national budget:*** Since the poor are more vulnerable to the impact of climate change, the allocation for Social Safety Net Programmes (SSNP), dedicated to climate-focused programmes should be increased in the national budget.
- ***Integrate provisions for loss and damage***: This should be integrated within the climate budget by establishing a specific allocation to support climate-affected vulnerable people.

Private Finance for Climate Change

- ***Green bonds:*** Green bonds should be promoted to raise money from the market for financing green projects at a discounted or low interest rate.
- ***Venture capital and equity investment:*** Such funds can be very useful for Small and Medium Enterprises (SMEs) which have just started to work on green projects.

International Finance for Climate Change

- ***Leverage the Loss and Damage Fund:*** Bangladesh should actively seek international support for the Loss and Damage Fund to manage climate-induced

economic shocks while prudently utilising borrowings for environmental resilience.

- ***Renegotiate climate loans as grants:*** External climate loans should be renegotiated as grants to lower Bangladesh's debt burden, enhance financial stability, and ensure sufficient funding for climate mitigation and adaptation.
- ***Debt-for-nature or climate swaps:*** Bangladesh can request donors to cancel or reduce the debt stock by agreeing to use the saved money for climate projects.

9.9 Examples of Pilot Projects for Pollution Control

• Supervisory Control and Data Acquisition System for Water Treatment

The DoE plans to integrate 20 Central Effluent Treatment Plants (CETPs) with a central Supervisory Control and Data Acquisition (SCADA) system. This system will remotely monitor, control, and collect data from the CETPs through a dashboard. The IoT technology will transmit data to a centralised control centre for continuous analysis and compliance checks. Alerts for anomalies or non-compliance will be generated, enabling prompt action to prevent industries from bypassing treatment processes. This initiative aims to reduce pollution and protect environmental and public health. The DoE may consider public-private partnerships or technology transfers to establish the necessary infrastructure.

• Deposit Refund System (DRS) for Waste Management

Germany has become a global leader in recycling and waste management through robust government policies and widespread public awareness. Central to this success is the Deposit Refund System (DRS), which mandates labelling for recyclable bottles. Under this system, consumers pay a deposit ranging from €0.08 to €0.25 when purchasing beverages in these bottles. Single-use plastic bottles carry a higher deposit rate, while reusable glass and plastic bottles have lower rates. This financial incentive encourages consumers to return bottles for recycling, effectively discouraging the use of environmentally harmful plastics. Since its implementation, the DRS has achieved remarkable success, boasting a 98.4% return rate in Germany (Igini, 2022).

A DRS in Bangladesh could significantly enhance plastic waste collection, especially in urban areas. A pilot initiative could be launched in cities like Dhaka or Chattogram, targeting high-traffic locations such as supermarkets, transport hubs, and markets. These areas could host dedicated return stations, streamlining the waste management process and encouraging public participation in recycling efforts.

• Using ANPR Technology for Pollution Charges and Traffic Control

Automatic Number Plate Recognition (ANPR) technology has played a pivotal role in law enforcement across England, Wales, Scotland, and Northern Ireland. By identifying and disrupting criminal activities, it effectively addresses issues such as travelling criminals, organised crime groups, and terrorism. The system captures vehicle registration numbers as they pass ANPR cameras, instantly cross-referencing the data with a database of vehicles of interest. This not only aids in crime investigation by

providing valuable leads and evidence but also ensures minimal disruption to law-abiding drivers. Moreover, ANPR allows officers to focus on offenders, enhancing traffic management and enforcement efficiency.

If implemented in Bangladesh, ANPR technology could address multiple challenges, including environmental pollution and traffic violations. For instance, high-emission vehicles could be flagged by ANPR systems and subject to additional charges, encouraging a shift toward eco-friendly transportation. This would align with Bangladesh's increasing emphasis on reducing air pollution, particularly in urban areas. In addition, ANPR could transform traffic management and law enforcement by automating the identification of violations such as speeding, running red lights, and illegal parking. Violators could be fined automatically, streamlining the enforcement process, minimising human error, and improving compliance with traffic regulations.

To assess its feasibility, a pilot project could be initiated in Dhaka, a city grappling with severe traffic congestion and air pollution. ANPR cameras could be installed at critical intersections and high-traffic zones, linked to a database categorising vehicles based on emission levels and traffic law compliance. The pilot could impose extra charges on high-emission vehicles entering environmentally sensitive zones such as Gulshan or Motijheel, known for their environmental and traffic challenges. Insights from the pilot could evaluate the system's effectiveness in mitigating pollution and enhancing traffic management. If successful, the initiative could be extended to other major cities like Chattogram and Sylhet, contributing to Bangladesh's overarching goals of sustainable urban development and improved governance.

• Lottery System to Address Air Pollution

In September 2013, Beijing, China, launched a five-year action plan to combat severe air pollution, aiming to safeguard public health and support sustainable development. A significant focus of the plan was the transport sector, where measures included implementing a city-wide lottery for license plates required to purchase new fossil fuel-powered vehicles. In contrast, plates for electric vehicles were made more accessible, encouraging a shift toward cleaner transportation (UNEP, n.d.).

The GoB could consider introducing a similar lottery system for vehicle registrations to limit new registrations, particularly for individuals who already own a vehicle. This approach would discourage multiple car ownership within a single household, helping to control excessive vehicle numbers and foster more sustainable transportation practices. A pilot programme could initially be launched in Dhaka, where vehicle density is highest. The programme could create a meaningful impact by targeting popular and in-demand car brands. Additionally, this initiative would allow authorities to assess the system's feasibility in the most traffic-congested areas, generating valuable insights for potential expansion.

In addition to a few examples for pilot projects in pollution control, the GoB can undertake other projects to be implemented by various ministries, departments and organisations of the government. These are presented in Table 9.7.

Table 9.7: Potential Projects on Climate Change and Environment

Area	Proposed Project	Related ministries/dept
Air pollution	Technical and financial assistance for installing efficient brick kiln technologies in Demra/Keraniganj/Amin bazar/Savar Gazipur/Narayanganj	MoF, MoPEMR, Bangladesh Bank
	Financing Eco-friendly brick manufacturing project	MoF, MoPEMR, MoEFCC, DoE, Bangladesh Bank
	Feasibility study of Hoffman/Hybrid Hoffman/Tunnel brick kiln project in Dhaka/Narayanganj to improve efficiency and to reduce air pollution	IDCOL, MoPEMR, DoE, MoF
	Financing for scaling-up hydroelectricity generation in Bangladesh	MoF, MoPEMR, Ministry of Water Resources (MoWR), Bangladesh Bank, Sustainable and Renewable Energy Development Authority (SREDA)
	Feasibility study of future energy mix to ensure long-term energy security of Bangladesh	MoPEMR, Bangladesh Energy Regulatory Commission (BERC), SREDA
	Tariffs and incentives for financing renewable energy transition	MoF, MPEMR, BERC, SREDA
	Revisiting state policies promoting hybrid and electric vehicles	MoP, GED, MoRTB
	Incentives for scaling e-mobility investment in Bangladesh	MoF, BB, MoRTB
Water pollution and scarcity	Designing a water pricing mechanism for industrial/agricultural usages	MoP, GED, MoWR, MoI, Ministry of Agriculture (MoA), Department of Agricultural Extension (DAE)
	Blue network: Revitalisation of Dhaka's canals	MoWR, City corporation
	Efficient water management (using meters) at individual households in Dhaka/Khulna city project	WASA, MoWR, City corporation, Bangladesh Water Development Board (BWDB)
	Piloting less-water consuming but high-yielding crops in Barind region	MoA, International Rice Research Institute (IRRI), Department of Agriculture (DoA)
	Reducing the water footprint of the cotton-textile industries	MoWR, Institute of Water Modelling (IWM), MoPEMR
	Implementation of low-cost/efficient water recharge systems in water-scarce areas of Bangladesh (Barind region)	Local Government Engineering Department (LGED), MoWR, IWM, BWDB
Salinity intrusion	Construction of freshwater reservoirs in saline-prone regions (Satkhira and Khulna districts)	LGED, LGRD, IWM, MoWR, BWDB
	Scaling-up salt tolerant crop farming in coastal districts (Satkhira, Bagerhat, Khulna, etc)	MoA, DAE
Climate-smart agriculture	Provide support to small farmers to adopt climate-smart agriculture and improve productivity	MoF, MoA

Flash flood	Financing for improving flash flood early warning system for northeastern part of Bangladesh	BB, MoF, MoDMR, BWDB
	Scaling-up community-led Early Actions (EA)s on flash flood events in north-eastern Bangladesh	LGRD, MoDMR, MoWR, BWBD
	Techno-economic feasibility study of increasing combine harvester and reaper for harvesting in flash flood-prone areas (Sylhet, Habiganj, Sunamganj, Netrokona, Moulvibazar, etc)	MoA, DAE, MoDMR
Flood	Construction of 20 m high embankment in flood prone area of Khulna and Satkhira	LGED, MoDMR
Wastewater treatment	Financing of wastewater treatment plants through public-private partnerships	BB, MoF, MoDMR, BWDB

9.10 Conclusion

Given increased environmental degradation and vulnerability to the impact of climate change, the GoB should design policies that combine economic development goals with social and environmental objectives. This requires a vision for sustainable development backed by a strong commitment to taking appropriate policies and actions. Successful implementation of these actions is, of course, dependent on the institutional capacity of the government. Policymakers must recognise that economic development and environmental sustainability are intrinsically linked. There is no scope for being economically developed first and becoming environmentally sustainable later. The recommendations in this chapter on climate change and environmental degradation are to be implemented in the short to medium term, which can help achieve the government's goal of achieving a sustainable and just society.

References:

Ahsan, R., Kellett, J., & Karuppannan, S. (2014). Climate Induced Migration: Lessons from Bangladesh. *The International Journal of Climate Change: Impacts and Responses, 5*(2014), 1-14. Retrieved from https://www.researchgate.net/profile/Reazul-Ahsan/publication/281549970_Climate_Induced_Migration_Lessons_from_Bangladesh/links/55ed527a08ae3e121847ff82/Climate-Induced-Migration-Lessons-from-Bangladesh.pdf

Ahmed, M., & Suphachalasai, S. (2014). *Assessing the Costs of Climate Change and Adaptation in South Asia.* Manila: Asian Development Bank. Retrieved from https://www.adb.org/sites/default/files/publication/42811/assessing-costs-climate-change-and-adaptation-south-asia.pdf

Ahmed, I., Ayeb-Karlsson, S., Geest, K., Huq, S., & Jordan, J. C. (2019). Climate change, environmental stress and loss of livelihoods can push people towards illegal activities: a case study from coastal Bangladesh. *Climate and Development, 11*(10), 907-917. doi: https://doi.org/10.1080/17565529.2019.1586638

Ahmed, S., & Eklund, E. (2021). Climate change impacts in coastal Bangladesh: Migration, gender and environmental injustice. *Asian Affairs, 52*(1), 155-174. doi: https://doi.org/10.1080/03068374.2021.1880213

Amin, S., Chowdhury, M., Ehsan, S., & Iqbal, S. (2021). Solar energy sustainability in Bangladesh: tackling the management challenges. In A. Azar , & N. Kamal, *Design, Analysis, and Applications of Renewable Energy Systems* (pp. 705-734). ScienceDirect. doi:https://doi.org/10.1016/B978-0-12-824555-2.00015-0

AQI. (2025, January 6). *Air quality in the world*. Retrieved January 6, 2025, from IQAir: https://www.iqair.com/world-air-quality

Azoulay, D., Villa, P., Arellano, Y., Gordon, M., Moon, D., Miller, K., & Thompson, K. (2019). *Plastic and Health: The Hidden Costs Of A Plastic Planet* . Center for International Environmental Law (CIEL). Retrieved August 8, 2022, from https://www.ciel.org/reports/plastic-health-the-hidden-costs-of-a-plastic-planet-february-2019/

Bangladesh Planning Commission (2023). *Sector Action Plan on Environment and Climate Change*. Bangladesh Planning Commission, Government of the People's Republic of Bangladesh.

Bangladesh Meteorological Department (2020). *List of Major Cyclonic Storms from 1960 to 2017*. HYPERLINK "https://live8.bmd.gov.bd/p/Historical-Cyclones/" https://live8.bmd.gov.bd/p/Historical-Cyclones/

Barua, P., Rahman, S. H., Barua, S., & Rahman, I. M. (2020). Climate change vulnerability and responses of fisherfolk communities in the south-eastern coast of Bangladesh. *Water Conservation And Management (WCM), 4*(1), 20-31. doi:http://doi.org/10.26480/wcm.01.2020.20.31

BBS. (2016). *Bangladesh Disaster-related Statistics 2015: Climate Change and Natural Disaster Perspectives.* Dhaka: Bangladesh Bureau of Statistics (BBS). Retrieved January 17, 2024, from http://203.112.218.65:8008/WebTestApplication/userfiles/Image/National%20Account%20Wing/Disaster_Climate/Disaster_Climate_Statistics%2015.pdf

BBS. (2020). *Bangladesh Environment Statistics.* Dhaka: Bangladesh Bureau of Statistics.

BBS. (2022). *Bangladesh Disaster-related Statistics 2021: Climate Change and Natural Disaster Perspectives.* Dhaka: Bangladesh Bureau of Statistics (BBS). Retrieved January 17, 2024, from

http://203.112.218.65:8008/WebTestApplication/userfiles/Image/latesreport/BDRS%202021%20Report.pdf

Chowdhury, G. W., Koldewey, H. J., Duncan, E., Napper, I. E., Niloy, M. N., Nelms, S. E., . . . Nishat, B. (2020). Plastic Pollution in Aquatic Systems in Bangladesh: A Review of Current Knowledge. *Science of the Total Environment*. Retrieved August 3, 2022, from https://doi.org/10.1016/j.scitotenv.2020.143285

Chundawat, R., Khan, J., & Mallon, D. (2011). *Panthera tigris ssp. tigris. The IUCN Red List of Threatened Species 2011: e.T136899A4348945.* International Union for Conservation of Nature and Natural Resources. doi:http://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T136899A4348945.en

Convention on Biological Diversity. (2022, December 19). *United Nations Biodiversity Conference COP15 / CP-MOP10 / NP-MOP4 Montreal, Canada, 7-19 December 2022*. Retrieved January 1, 2025, from Convention on Biological Diversity: https://www.cbd.int/conferences/2021-2022

DoE. (2017). *Report on Noise.* Dhaka: Department of Environment, Ministry of Environment, Forest and Climate Change.
DoE. (2019). *National Report on Land Degradation Neutrality Target Setting Programme.* Ministry of Environment, Forest and Climate Change (MoEFCC). Retrieved January 6, 2025, from https://doe.portal.gov.bd/sites/default/files/files/doe.portal.gov.bd/publications/1ae22f70_1056_475d_a238_cd08aa527222/2021-02-17-18-12-8195a3d0050a841544976bd4d42db7f9.pdf
DoE. (2022). *Annual Report 2021-2022.* Dhaka: Department of Environment, Ministry of Environment, Forest, and Climate Change. https://doe.gov.bd/sites/default/files/files/doe.portal.gov.bd/annual_reports/7b7587fa_cfe1_4b2a_aa5c_f6b27202b8fa/2023-03-24-09-12-551f98f0ffba744894abfb8100b3b2af.pdf
Eastin, J. (2018). Climate change and gender equality in developing states. *World Development*, *107*, 289-305.

Eckstein, D., Künzel, V., & Schäfer, L. (2021). *Global Climate Risk Index 2021.* Germanwatch. Retrieved January 6, 2025, from https://www.germanwatch.org/en/19777
EM-DAT. (2024). *EM-DAT*. Retrieved from The International Disaster Database: https://www.emdat.be/

Emissions Database for Global Atmospheric Research. (2024). *European Commission*. Retrieved from Emissions Database for Global Atmospheric Research: https://edgar.jrc.ec.europa.eu/

ESDO. (2016). *Microbeads! Unfold Health Risk and Environmental Pollutant.* Dhaka: Environment and Social Development Organisation. Retrieved August 17, 2022, from https://esdo.org/wp-content/uploads/Microbeads-final-report-10.11.16-1.pdf

ESDO. (2020). *COVID-19 Pandemic Pushes Single Use Plastic Waste Outbreak: No Management, No Protection: High Health and Environmental Risk Unveil.* Environment and Social Development Organization- ESDO. Retrieved August 6, 2022, from https://esdo.org/covid-19-pandemic-pushes-single-use-plastic-waste-outbreak-no-management-no-protection-high-health-and-environmental-risk-unveil-2/

ESDO. (2021). *Toxic Plastic Waste: Situation of Disposal, Management and Trade of Bangladesh.* Environment and Social Development Organization- ESDO. Retrieved July 30 , 2022, from https://esdo.org/wp-content/uploads/Toxic-Plastic-Waste-Situation-of-Disposal-Management-and-Trade-of-Bangladesh.pdf

FAO. (2024, August 19). *FAOSTAT*. Retrieved January 1, 2025, from FAOSTAT: Statistics Division, Food and Agriculture Organization of the United Nations: https://www.fao.org/faostat/en/#home

FAO. (2024, December 30). *FAOSTAT* . Retrieved from Food and Agricultural Organization of the United Nations : https://www.fao.org/faostat/en/#data/RL

Ferdous, J., & Mallick, D. (2019). Norms, practices, and gendered vulnerabilities in the lower Teesta basin, Bangladesh. Environmental Development, 31(2019), 88-96. doi: https://doi.org/10.1016/j.envdev.2018.10.003

Flood Forecasting and Warning Centre (2021). Annual Flood Report. Bangladesh Water Development Board (BWDB), Flood Forecasting and Warning Centre. HYPERLINK "http://www.ffwc.gov.bd/" http://www.ffwc.gov.bd/

GCF. (2025, January 09). *People's Republic of Bangladesh*. Retrieved from Green Climate Fund: https://www.greenclimate.fund/countries/bangladesh

GED. (2018). *Sustainable Development Goals: Bangladesh Progress Report 2018.* Bangladesh Planning Commission, General Economics Division (GED). Dhaka: Government of the People's Republic of Bangladesh.

GED (2013). *National Sustainable Development Strategy*. Planning Commission, Government of the People’s Republic of Bangladesh.

GED (2018a). *Bangladesh Delta Plan 2100*. Planning Commission, Government of the People’s Republic of Bangladesh.

GED (2020). *8th Five Year Plan*. Planning Commission, Government of the People's Republic of Bangladesh.

Gomes, T. (2020). Displacement in the Era of Climate Change: A gender sensitive approach to international environmental governance and disaster management in Bangladesh. *Displacement in the Era of Climate Change: A gender sensitive approach to international environmental governance and disaster management in Bangladesh*. Retrieved from http://hdl.handle.net/10315/38353

Gore, T., Alestig, M., & Ratcliff, A. (2020, September 21). *Confronting carbon inequality: Putting climate justice at the heart of the COVID-19 recovery.* Retrieved September 22, 2020, from Oxfam: https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621052/mb-confronting-carbon-inequality-210920-en.pdf

Hossain, B., Sohel, M., & Ryakitimbo, C. (2020). Climate change induced extreme flood disaster in Bangladesh: Implications on people's livelihoods in the Char Village and their coping mechanisms. *Progress in Disaster Science, 6*(2020). doi:https://doi.org/10.1016/j.pdisas.2020.100079

Hossain, M. A., & Arefin, S. (2015). The Role of Buyers Compliance to Improve Workplace Environment of Garments Factories in Bangladesh. *International Journal of Humanities and Management Sciences (IJHMS), 3*(4). Retrieved November 15, 2022, from https://www.researchgate.net/profile/Md-Akram-Hossain/publication/309566083_The_Role_of_Buyers_Compliance_to_Improve_Workplace_Environment_of_Garments_Factories_in_Bangladesh/links/58179cb908aeb720f689afe6/The-Role-of-Buyers-Compliance-to-Improve-Workplac

Hossain, M., Shahrukh, S., & Hossain, S. (2022). Chemical Fertilizers and Pesticides: Impacts on Soil Degradation, Groundwater, and Human Health in Bangladesh. In V. Singh, S. Yadav, K. Yadav, & R. Yadava, *Environmental Degradation: Challenges and Strategies for Mitigation.* Springer, Cham. doi:https://doi.org/10.1007/978-3-030-95542-7_4

Hossain, S., Delin, H., & Mingying, M. (2022). Aftermath of climate change on Bangladesh economy: an analysis of the dynamic computable general equilibrium model. *Journal of Water and Climate Change, 13*(7), 2597–2609. doi:https://doi.org/10.2166/wcc.2022.412

Hossain, S., Rahman, M. A., Chowdhury, M. A., & Mohonta, S. K. (2021). Plastic pollution in Bangladesh: A review on current status emphasizing the impacts on environment and public health. *Environmental Engineering Research, 26*(6). doi:https://doi.org/10.4491/eer.2020.535

IFRC. (2020). *IFRC Global Plan.* International Federation of Red Cross and Red Crescent Societies. Retrieved from https://www.ifrc.org/sites/default/files/2022-09/IFRC-Global-Plan-2020-FINAL.pdf

Igini, M. (2022, April 18). How waste management in Germany is changing the game. Earth.Org. https://earth.org/waste-management-germany/

IPCC. (2014). *Climate Change 2014: Synthesis Report. Contribution of Working Group II and II to the Fifth Assessment Report of the Intergovernmental Panel of Climate Change.* Geneva: IPCC.

IPCC. (2021). *Climate Change 2021: The Physical Science Basis.* The Intergovernmental Panel on Climate Change.

Islam, M., & Hasan , M. (2016). Climate-induced human displacement: a case study of Cyclone Aila in the south-west coastal region of Bangladesh. Natural Hazards, 81(2016), 1051-1071. doi:https://doi.org/10.1007/s11069-015-2119-6

Islam, M., Rahman, K., Ali, M., Hridoy, M., Golla, S., & Ustun, T. (2024). Barriers to Growth of Renewable Energy Technology in Bangladesh: Case of Solar Home System in Rural Regions. *Overcoming Hurdles: A Comprehensive Analysis of Renewable Energy in Bangladesh*. Retrieved from

IUCN. (2019, June 7). *IUCN advises "in danger" status for three World Heritage sites*. Retrieved July 11, 2019, from International Union for Conservation of Nature: https://www.iucn.org/news/iucn-43whc/201906/iucn-advises-danger-status-three-world-heritage-sites

IUCN. (2024). *Summary Statistics.* IUCN 2024. The IUCN Red List of Threatened Species. Version 2024.

Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., . . . Law, K. L. (2015). Plastic waste inputs from land into the ocean. *Science, 347*(6223), 768-771. Retrieved July 31, 2022, from https://www.science.org/doi/10.1126/science.1260352

Khatun, F., Shadat, W. B., & Kabir, F. A. (2021). Establishing a Blended Finance Mechanism Involving Climate Funds in Bangladesh: Opportunities and Challenges. CPD Working Paper, (141).

Khatun, F., Saadat, S. Y., & Kabir, F. (2024). *Climate Budget of Bangladesh: Balancing Needs and Building Resilience.* Dhaka: Centre for Policy Dialogue. Retrieved from https://cpd.org.bd/resources/2024/08/Climate-Budget-of-Bangladesh-Balancing-Needs-and-Building-Resilience.pdf

Khatun, F., Saadat, S. Y., Mahbub, A., & Islam, M. B. (2023). *Reducing Air and Plastic Pollution: Towards Green Cities in Bangladesh.* Centre for Policy Dialogue . Retrieved January 9, 2025, from https://cpd.org.bd/publication/reducing-air-and-plastic-pollution-towards-green-cities-in-bangladesh/

Khatun, F., Saadat, S. Y., & Mahbub, A. (2023). Plastic Pollution in Bangladesh – Drivers, Impacts and Solutions. Centre for Policy Dialogue (CPD). Retrieved January 20, 2025, from https://cpd.org.bd/publication/evidence-paper-plastic-pollution-in-bangladesh-drivers-impacts-and-solutions/

Kibria, G. (2017). Plastic Waste, Plastic Pollution- A Threat to All Nations! *Pollution and Climate Change Impacts*. Retrieved August 4, 2022, from https://www.researchgate.net/publication/319391174_Plastic_Waste_Plastic_Pollution-_A_Threat_to_All_Nations

Rainard, M., Smith, C. J., & Pachauri, S. (2023). Gender equality and climate change mitigation: Are women a secret weapon?. Frontiers in Climate, 5, 946712.

Reggers, A. (2019). Climate change is not gender neutral: gender inequality, rights and vulnerabilities in Bangladesh. In Confronting climate change in Bangladesh: Policy strategies for adaptation and resilience (pp. 103-118). Cham: Springer International Publishing.

Mazeli, M. I., Pahrol, M. A., Shakor, A. S., Kanniah, K. D., & Omar, M. A. (2023). Cardiovascular, respiratory and all-cause (natural) health endpoint estimation using a spatial approach in Malaysia. *Science of the Total Environment, 874*. doi:10.1016/j.scitotenv.2023.162130

Meijer, L. J., Emmerik, T. v., Ent, R. v., Schmidt, C., & Lebreton, L. (2021). More than 1000 rivers account for 80% of global riverine plastic emissions into the ocean. *ENVIRONMENTAL STUDIES*. Retrieved from https://www.science.org/doi/10.1126/sciadv.aaz5803

Misal, H., Hoare, V., & Miles, V. (2022). Responding to the climate crisis – taking action on the IPCC 6th Assessment Report. *Weather*, *77*(4), 149. Retrieved from https://openurl.ebsco.com/EPDB%3Agcd%3A8%3A24971960/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Agcd%3A155977453&crl=c&link_origin=scholar.google.com

Ministry of Agriculture (2018). National Agriculture Policy 2018. Ministry of Agriculture, Government of the People's Republic of Bangladesh.

MoEFCC. (2022). *Climate Change Initiatives of Bangladesh: Achieving Climate Resilience.* Dhaka: Ministry of Environment, Forest and Climate Change, Government of the People's Republic of Bangladesh. Retrieved from https://doe.portal.gov.bd/sites/default/files/files/doe.portal.gov.bd/npfblock/2022-11-02-08-08-ade27c3a48eeeedbf1394e5fa527edd2.pdf?utm_source=chatgpt.com

MoEFCC. (2022). *Mujib Climate Prosperity Plan 2022-2041*. Dhaka: Ministry of Environment, Forest and Climate Change, Government of Bangladesh. Retrieved from https://moef.gov.bd/site/publications/95fc67a4-9759-479b-8ea7-ad067bfd7ced/Mujib-Climate-Prosperity-Plan-2022-2041

MoEFCC. (2022). *National Adaptation Plan.* Dhaka: Ministry of Environment, Forest and Climate Change, Government of the People's Republic of Bangladesh

MoF. (2021). *Budget in Brief 2020-2021*. Finance Division . Ministry of Finance . Retrieved October 3, 2022, from http://www.mof.gov.bd/site/page/f9aab5cd-f644-47bb-bb94-a70cb64c15ce/Budget-in-Brief

Ministry of Finance Government of the People's Republic of Bangladesh. (2024). *Promoting Inclusive Growth and Social Inclusion: Social Security Budget Report 2024-25.* Ministry of Finance. Retrieved June 5, 2024, from: HYPERLINK "https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/03420639_b754_4e26_83bb_85cf7d6c7a5a/Social%20Security%20Budget%20Report%20%282024-25%29_compressed%20%281%29.pdf"https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/03420639_b754_4e26_83bb_85cf7d6c7a5a/Social%20Security%20Budget%20Report%20%282024-25%29_compressed%20%281%29.pdf

Ministry of Industry (2022). *National Industrial Policy (2022).* Ministry of Industry, Government of the People's Republic of Bangladesh.

MoDMR. (2018). *SDG Action Plan.* *https://modmr.portal.gov.bd/sites/default/files/files/modmr.portal.gov.bd/publications/13ad847f_7dff_4f6f_ac4b_e1622d842178/SDG%20Action%20Plan%20of%20Ministry%20of%20%20%20%20Disaster%20Management%20and%20Relief_DRAft%204.pdf*

MoFL (2019). *Bangladesh Climate Smart Agriculture Investment Plan.* Dhaka: Ministry of Fisheries and Livestock, Government of the People;s Republic of Bangladesh.
NWMP. (2001). *National Water Management Plan.* Dhaka: Ministry of Water Resources, Government of the People's Republic of Bangladesh.

Prata, J. C., Ana L.P. Silva, Walker, T. R., Duarte, A. C., & Rocha-Santos, T. (2020). COVID-19 Pandemic Repercussions on the Use and Management of Plastics. *Environmental Science & Technology, 54*(13), 7760-7765. doi:10.1021/acs.est.0c02178

Proshad, R., Kormoker, T., Islam, M. S., Haque, M. A., Rahman, M. M., & Mithu, M. M. (2018). Toxic effects of plastic on human health and environment: A consequences

of health risk assessment in Bangladesh. *International Journal of Health, 6*(1), 1-5. doi:10.14419/ijh.v6i1.8655

Power Division (2008). *Renewable Energy Policy of Bangladesh*. Power Division, Ministry of Power, Energy, and Mineral Resources, Government of the People's Republic of Bangladesh.

Rahman, M., Tasnim, F., Quader, M., Bhuiyan, M.-U.-I., Sakib, M., Tabassum, R., . . . Islam, A. (2022). Perceived Noise Pollution and Self-Reported Health Status among Adult Population of Bangladesh. *International Journal of Environmental Research and Public Health, 19*(4), 2394. doi:https://doi.org/10.3390/ijerph19042394

Rahman, M., Sujan, M., Alam, M.-U., & Akter, S. (2024). Clean energy transition in rural Bangladesh: Challenges in adoption and impact. *Energy Sources, Part B: Economics, Planning, and Policy, 19*(1). doi:https://doi.org/10.1080/15567249.2024.2420338

Roy, K., Gain, A., Mallick, B., & Vogt, J. (2017). Social, hydro-ecological and climatic change in the southwest coastal region of Bangladesh. *Regional Environmental Change*, 17(2017), 1895-1906. doi:https://doi.org/10.1007/s10113-017-1158-9a

Sams, I. S. (2019). Impacts of Climate Change Induced Migration on Gender: A Qualitative Study from the Southwest Coastal Region of Bangladesh. *International Journal of Social Science Studies*, 7.

SRDI. (2010). *Saline Soils of Bangladesh.* Soil Resource Development Institute (SRDI), Ministry of Agriculture . Retrieved January 6, 2025, from https://srdi.portal.gov.bd/sites/default/files/files/srdi.portal.gov.bd/publications/bc598e7a_df21_49ee_882e_0302c974015f/Soil%20salinity%20report-Nov%202010.pdf

SRDI. (2020). *Land Degradation in Bangladesh: Baseline Study of Land Degradation Processes 1985-2000.* Soil Resource Development Institute (SRDI), Ministry of Agriculture. Retrieved January 6, 2025, from https://srdi.portal.gov.bd/sites/default/files/files/srdi.portal.gov.bd/page/0652dd9d_22d9_4de4_b3b8_e267788e9cbd/2023-02-02-07-03-aaef3a35b65e46054213bc39791726db.pdf

SREDA (2016). *Energy Efficiency and Conservation Master Plan (EE&C) 2015.* Sustainable and Renewable Energy Development Authority (SREDA), Power Division, Ministry of Power, Energy and Mineral Resources, Government of the People's Republic of Bangladesh.

The Ocean Clean Up. (2022, August 7). *River Plastic Emissions To The World's Oceans*. Retrieved August 8, 2022, from The Ocean Clean Up: https://theoceancleanup.com/sources/

The Ocean Cleanup . (2022). *The Price Tag of Plastic Pollution* . Retrieved August 21, 2022, from The Ocean Cleanup : https://theoceancleanup.com/the-price-tag-of-plastic-pollution/
The World Bank. (2021). *Towards a multisectorial action plan for sustainable plastic management in Bangladesh.* The World Bank. Retrieved July 30, 2022, from https://thedocs.worldbank.org/en/doc/42712a1018d536bb86c35018b9600c53-0310062021/original/National-Action-Plan-for-plastic-management-Dec.pdf

Thurlow, J., Dorosh, P., & Yu, W. (2012). A Stochastic Simulation Approach to Estimating the Economic Impacts of Climate Change in Bangladesh. *Review of Development Economics*, 412-428.

Trageser, S. J., Ghose, A., Faisal, M., Mro, P., Mro, P., & Rahman, S. C. (2017). Pangolin distribution and conservation status in Bangladesh. *PLoS ON, 12*(4), 1-12.

UN. (2019b, July 8). *United Nations Global SDG Database*. Retrieved July 11, 2019, from United Nations Statistics Division: https://unstats.un.org/sdgs/indicators/database/
UN. (2020). *The Sustainable Development Goals Report 2020.* New York: United Nations.

UNDP. (2020, September 16). *Montreal to Kigali: A journey towards saving the planet*. Retrieved from UNDP Bangladesh: https://www.undp.org/bangladesh/news/montreal-kigali-journey-towards-saving-planet?utm_source=chatgpt.com

UN Environment Programme (UNEP). (n.d.). Beijing's battle to clean up its air. UN Environment Programme. https://www.unep.org/interactive/beat-air-pollution/

Verma, R., Vinoda, K. S., Papireddy, M., & Gowda, A. N. (2016). Toxic Pollutants from Plastic Waste- A Review. *Procedia Environmental Sciences, 35*, 701-708. Retrieved August 10, 2022, from https://www.sciencedirect.com/science/article/pii/S187802961630158X

World Bank. (2022, October). Country Climate and Development Report for Bangladesh. *https://www.worldbank.org/en/news/feature/2022/10/31/key-highlights-country-climate-and-development-report-for-bangladesh*. Retrieved from https://www.worldbank.org/en/news/feature/2022/10/31/key-highlights-country-climate-and-development-report-for-bangladesh
World Development Indicator. (2024, December 25). Data Bank. Retrieved from World Development Indicators: https://databank.worldbank.org/source/world-development-indicators

Chapter 10: Transforming Energy Policy for Sustainable Future[1]

10.1 Introduction

The power sector is a cornerstone of Bangladesh's economy, playing a crucial role in driving development and fostering economic growth. Its close links with various other sectors highlight its significant contribution to national progress. Over the years, the power sector has undergone substantial transformation and expansion, profoundly impacting citizens' lives. In the past decade, installed capacity and maximum generation have nearly tripled (Bangladesh Economic Review, 2024). The country has made remarkable progress in boosting power generation capacity and achieving near-universal electricity access. Furthermore, system losses have decreased by approximately 8.90% (Bangladesh Economic Review, 2024), while system reliability has improved, as evidenced by fewer and shorter outages. However, despite these achievements, the pace of reforms has slowed in recent years, revealing structural and institutional weaknesses that pose critical challenges. Addressing these weaknesses and implementing structural changes within the electricity system is imperative for ensuring a sustainable future.

The government of Bangladesh has set ambitious goals for the power sector to meet the demands of a growing population and achieve its long-term development aspirations. By 2050, when the population is projected to exceed 200 million, and by 2041, when the nation aims to attain developed-country status, the government plans to construct 60 gigawatts (GW) of new generation capacity. This target represents a threefold increase from the current installed capacity and a fivefold increase from the current average available capacity (ADB, 2020). The Power System Master Plan (PSMP) 2016, updated in 2016, envisions achieving a net generation capacity of 79,500 MW by 2041 to meet peak demand. Achieving these ambitious targets will require an estimated investment of USD 193 billion for developing generation, transmission, and distribution infrastructure (Power Division, 2018).

The newly formed interim government faces a pivotal moment to address the longstanding challenges in the power sector, which have become increasingly evident amid its rapid expansion and evolving demands. As the sector strives to meet these ambitious national targets, the underlying structural and institutional weaknesses require immediate attention. This juncture highlights the urgency of comprehensive reforms to ensure the sector’s sustainability and resilience while preparing it to support Bangladesh’s vision of becoming a developed nation by 2041.

[1] Draft prepared by Selim Raihan with research assistance from Tuhin Ahmed.

10.2 An overview of the power and energy sector in Bangladesh[2]

10.2.1 Structure of the Power Sectors

The Ministry of Power, Energy, and Mineral Resources (MoPEMR) and several state-owned corporations tend to manage Bangladesh's power and energy sector in a highly centralised manner (Figure 10.1). The MPENR consists of two divisions: the power division and the energy and mineral resource division. The Energy and Mineral Resources Division of the MoPEMR is responsible for oil and gas, while PetroBangla is the primary state oil and gas operator under this division. On the other hand, the power division is responsible for the generation, transmission and distribution of power. Under power division, there are four cells: power cell, EPRC, SREDA and EA & CEI. BPDP is the "single buyer" in Bangladesh's electricity infrastructure. It purchases electricity from generators and sells it to urban distribution companies and Bangladesh Rural Electrification Board (BREB) cooperatives, although BPDB has not been able to pass on the complete cost of electricity to distribution entities. The establishment of the Power Grid Company (PGC) of Bangladesh in 1996 occurred to run the high-voltage transmission system followed by the partial unbundling of the system in 1995. Bangladesh has established two energy regulatory agencies: the Bangladesh Energy Regulatory Commission (BERC), which was founded in 2003 to oversee tariffs and operations in electricity, gas, and oil; and the Sustainable and Renewable Energy Development Authority (SREDA), which was founded in 2014 to promote renewable energy and energy efficiency (ADB, 2020).

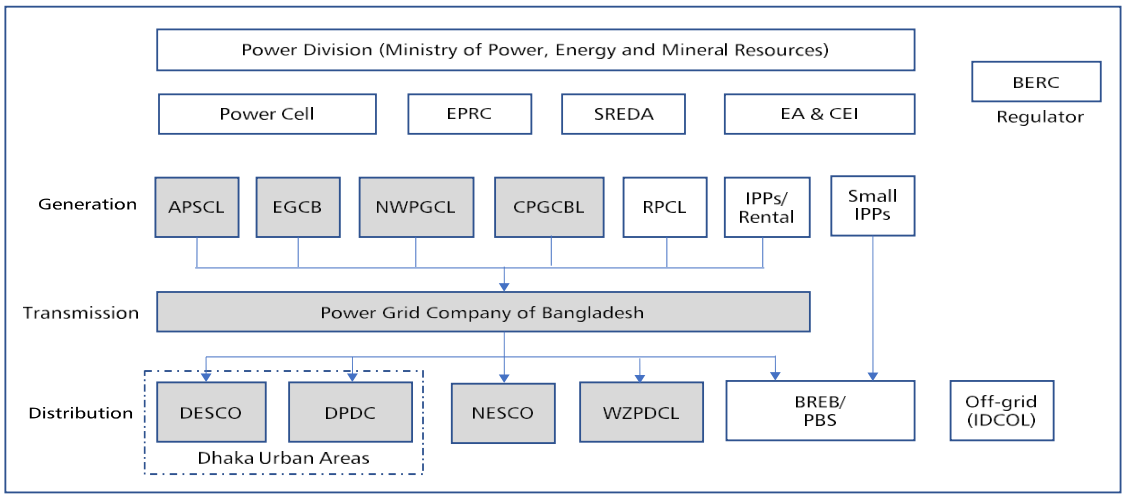


Figure 10.1: Structure of the Regulatory Body of the Power Sector in Bangladesh

Source: Power Cell and (ADB, 2020).

[2] Benefitted from Raihan et al (2024a) and Raihan et al (2024b).

10.2.2 Power Generation

Over the years, grid-based power generation capacity has experienced significant growth (Figure 10.2). In FY2023-24, the installed capacity for grid-based power generation reached 26,844 megawatts, marking a 7.76% increase compared to FY2022-23.

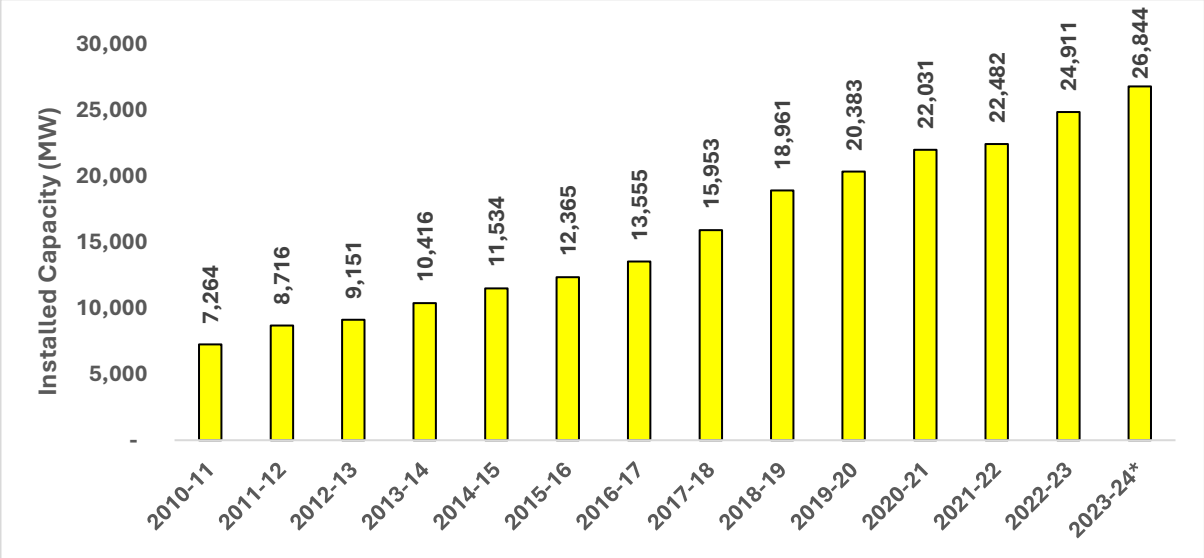


Figure 10.2: Power Installed Capacity (MW)

Source: Power Division (*Up to February 2024).

In FY2022-23, natural gas dominated power generation capacity, comprising 47.8% of the fuel mix (Figure 10.3). Furnace oil followed, contributing 26.5% to the total capacity, while coal accounted for a significant 14.2%. Power imports represented 4.8% of the capacity, with diesel contributing 3.9%. Renewable energy sources, though still emerging, made up 1.9% of the capacity, and hydropower had the smallest share at 0.9%.

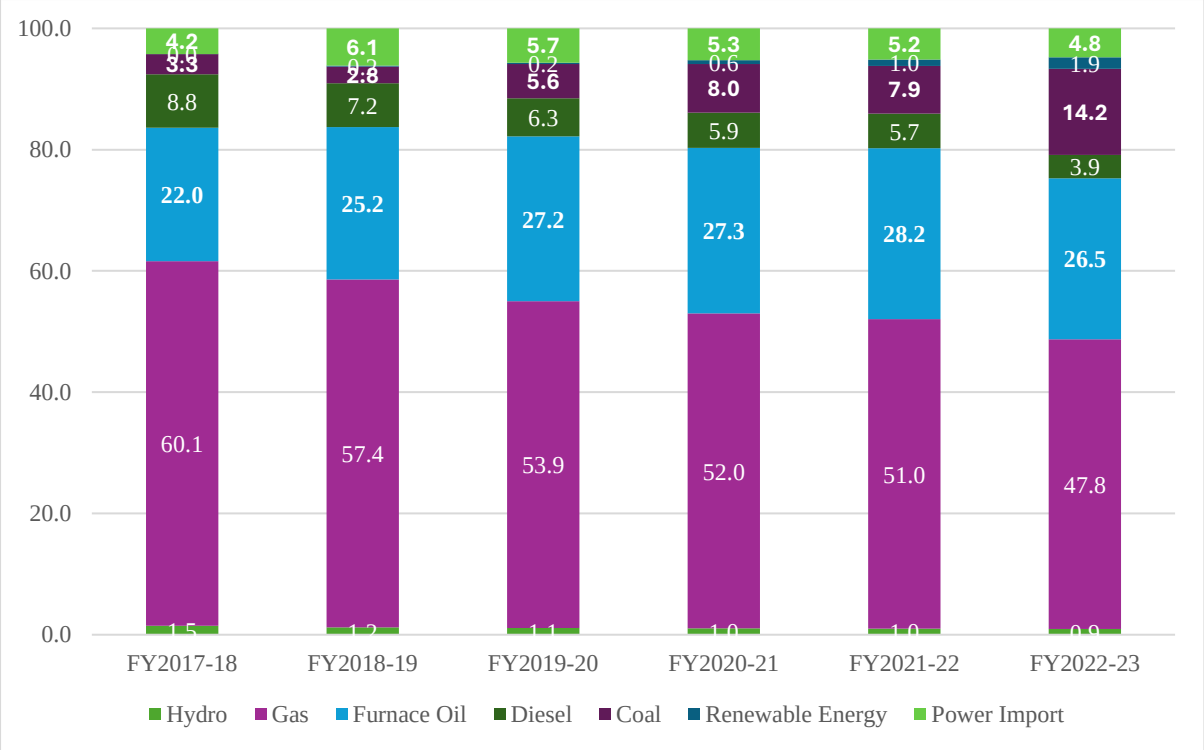


Figure 10.3: Share of Power Installed Capacity in Fuel Mix (%)

Source: Annual Reports from 2017-2023, Bangladesh Power Development Board.

10.2.3 Overgeneration Capacity

Over the years, maximum power generation has consistently fallen short of installed capacity, resulting in a growing surplus of power generation capacity. This overcapacity reached 11,680 megawatts in FY2023-24, a significant increase from 2,374 megawatts in FY2010-11 (Table 10.1). Additionally, the proportion of overcapacity relative to installed capacity has risen steadily. In FY2023-24, overcapacity accounted for 43.5% of the total installed capacity, indicating that nearly 43.5% of power plant capacity remains underutilised.

Despite this surplus generation capacity, the country has struggled to meet peak electricity demand in recent years. This shortfall is largely due to fuel shortages and the inefficiency of power plants (Moazzem, 2019), which have prevented the full utilisation of available capacity.

Table 10.1: Overgeneration Capacity of Power

Fiscal Year	Installed capacity (MW)	Maximum generation (MW)	Overcapacity (per max generation) (MW)	% share of overcapacity of installed capacity
2010-11	7,264	4,890	2,374	32.7
2011-12	8,716	6,066	2,650	30.4
2012-13	9,151	6,434	2,717	29.7
2013-14	10,416	7,356	3,060	29.4

2014-15	11,534	7,817	3,717	32.2
2015-16	12,365	9,036	3,329	26.9
2016-17	13,555	9,479	4,076	30.1
2017-18	15,953	10,958	4,995	31.3
2018-19	18,961	12,893	6,068	32.0
2019-20	20,383	12,738	7,645	37.5
2020-21	22,031	13,792	8,239	37.4
2021-22	22,482	14,782	7,700	34.2
2022-23	24,911	15648	9,263	37.2
2023-24*	26,844	15,164	11,680	43.5

Source: Power Division (*Up to February 2024).

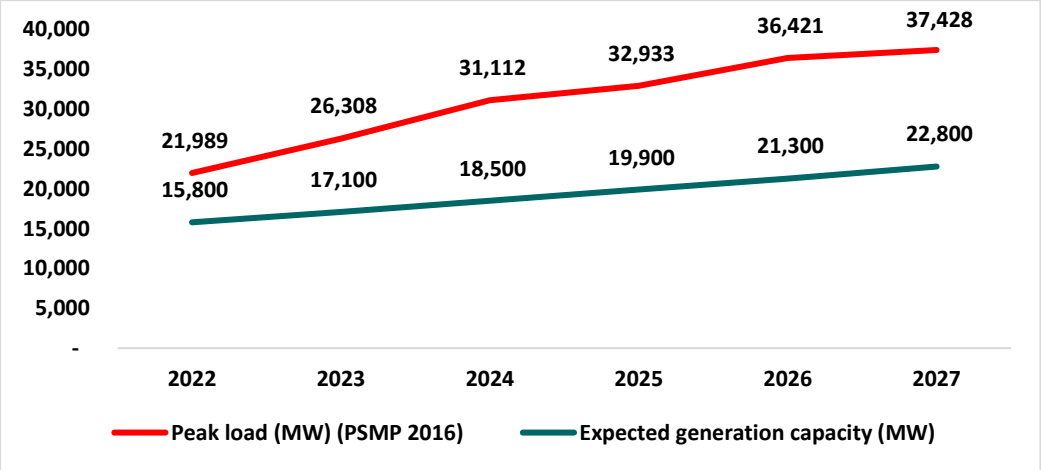


Figure 10.4: Peak Load Versus Expected Generation Capacity

Source: PSMP (2016) and TBS (2023).

The Power System Master Plan (PSMP) 2016 provided a more realistic projection of peak electricity demand, aligning it with anticipated generation capacity (***Figure 10.4***). However, the plan had a critical shortcoming: its heavy reliance on imported primary energy sources and the exclusion of renewable energy options. The PSMP 2016 prioritised cost-effective gas sources (LNG/local) and imported coal over the expensive and inefficient use of oil to meet peak demand. However, a shortage of foreign currency forced the country to suspend spot purchases of LNG and imports of other fuels, triggering the recent energy and power crisis.

10.2.4 Power Transmission, Distribution and System Loss

The Power Grid Company of Bangladesh Ltd. (PGCB) is tasked with the operation, maintenance, and expansion of the transmission systems across Bangladesh. Thanks to enhancements in the transmission infrastructure, there has been a steady growth in the length of transmission lines over the years. Specifically, the total transmission line length

has expanded from 8,665 circuit kilometres in FY2010-11 to 14,962 circuit kilometres in FY2022-23 (***Figure 10.5***).

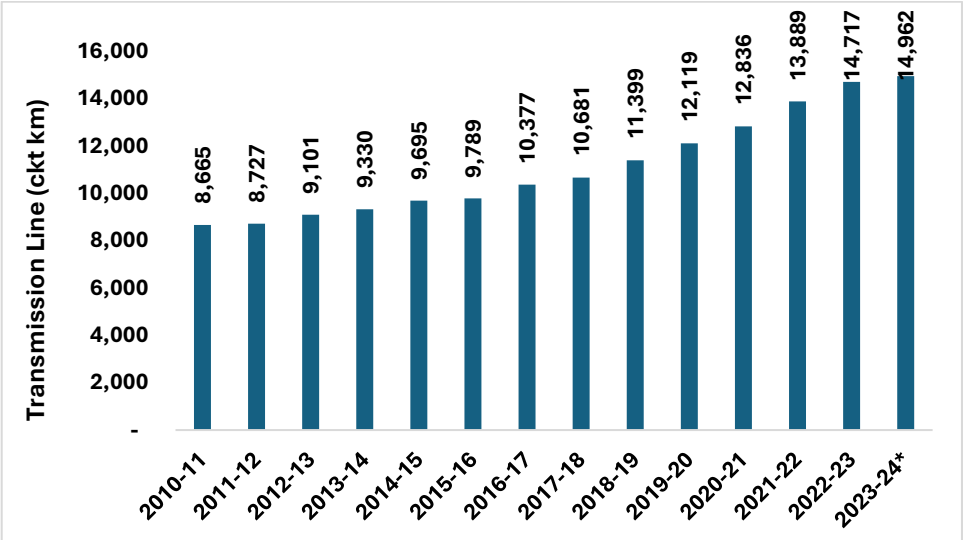


Figure 10.5: Transmission Line (ckt km)
Source: Power Division (*Up to February 2024).

In terms of electricity distribution, the responsibility falls upon six organisations or utilities, namely the Bangladesh Power Development Board (BPDB), the Bangladesh Rural Electrification Board (BREB), the Dhaka Power Distribution Company (DPDC), the Dhaka Electric Supply Company (DESCO), the West Zone Power Distribution Company (WZPDC), and the Northern Electricity Supply Company Ltd (NESCO). The distribution of purchased electricity by these different utilities is detailed in Figure 10.6, with BREB emerging as the primary distributor.

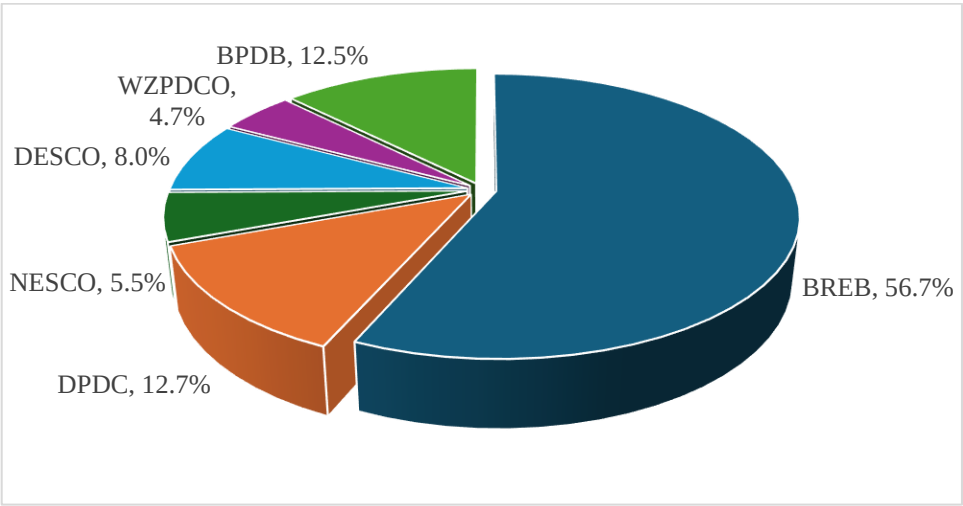


Figure 10.6: Inter-Utility Power Purchase for FY2023-24

Source: Power Division.

A critical performance indicator for these distribution entities is system loss. Various measures, including ongoing performance monitoring of power sector reforms and

targeted initiatives, have been put in place to reduce system losses. However, as of FY2023-24, system loss remains relatively high at 8.9% (***Figure 10.7***). To attain the desired performance levels within the sector, further efforts are needed to bring down system losses.

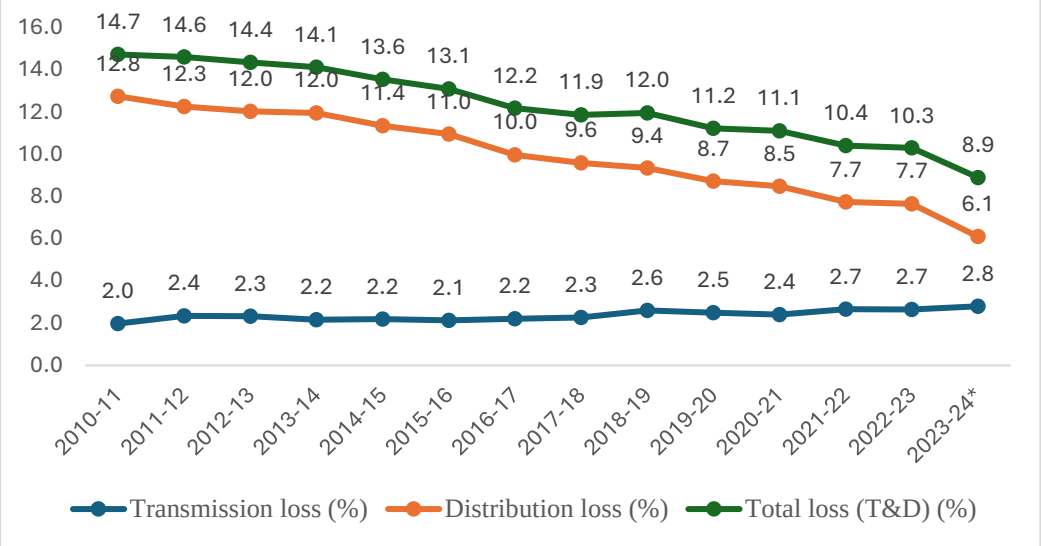


Figure 10.7: Year-Wise System Loss (%)
Source: Power Division (*Up to December 2022).

10.2.5 Cost of Electricity Generation

To address the increasing demand for electricity, BPDB places a strong emphasis on its own power generation and procures electricity from various sources, including Independent Power Producers (IPP), Rental Power Plants, Public Power Plants, and imports from India. As indicated in Table 10.2, BPDB has witnessed a 66% increase in its own generation costs, a substantial 97.4% increase in energy procurement from India, a 53.8% uptick in energy acquisition from Public Power Plants, 24.2% increase from Rental and 19.9% increase from IPP.

Table 10.2: Cost of Electricity Generation and Purchase

	FY2021-22		FY2022-23		% change of amount
	Amount (BDT crore)	Cost (BDT/kWh)	Amount (BDT crore)	Cost (BDT/kWh)	
BPDB's generation	8,014.7	5.0	13,306.6	7.6	66.0
Purchase from IPP	49,213.3	11.6	59,022.7	14.6	19.9
Purchase from Rental	2,789.4	9.8	3,743.9	12.5	34.2
Purchase from Public Plant	7,013.8	4.8	10,788.3	6.9	53.8
Purchase from India	4,673.2	6.1	9,223.4	8.8	97.4
Interest on Budgetary Support	1,294.8	0.2	1,294.8	0.2	-

	FY2021-22		FY2022-23		% change of amount
	Amount (BDT crore)	Cost (BDT/kWh)	Amount (BDT crore)	Cost (BDT/kWh)	
Provision for Power Sector Development Fund	1,224.1	0.2	1,266.8	15.0	3.5
Total	74,223.3	8.8	98,646.4	11.3	32.9

Source: Annual Report 2022-23, Bangladesh Power Development Board (BPDB).

10.2.6 BPDB's Operating Loss

As a result of capacity payments, irregularities, and various inefficiencies, the Bangladesh Power Development Board (BPDB) has accumulated substantial operating losses over the years. BPDB's operating loss has surged from BDT 6,208 crore in FY2017-18 to BDT 44, 291 crore in FY2022-23 (Figure 10.8). Remarkably, the operating loss for FY2022-23 was 60.85% higher than that in FY2021-22.

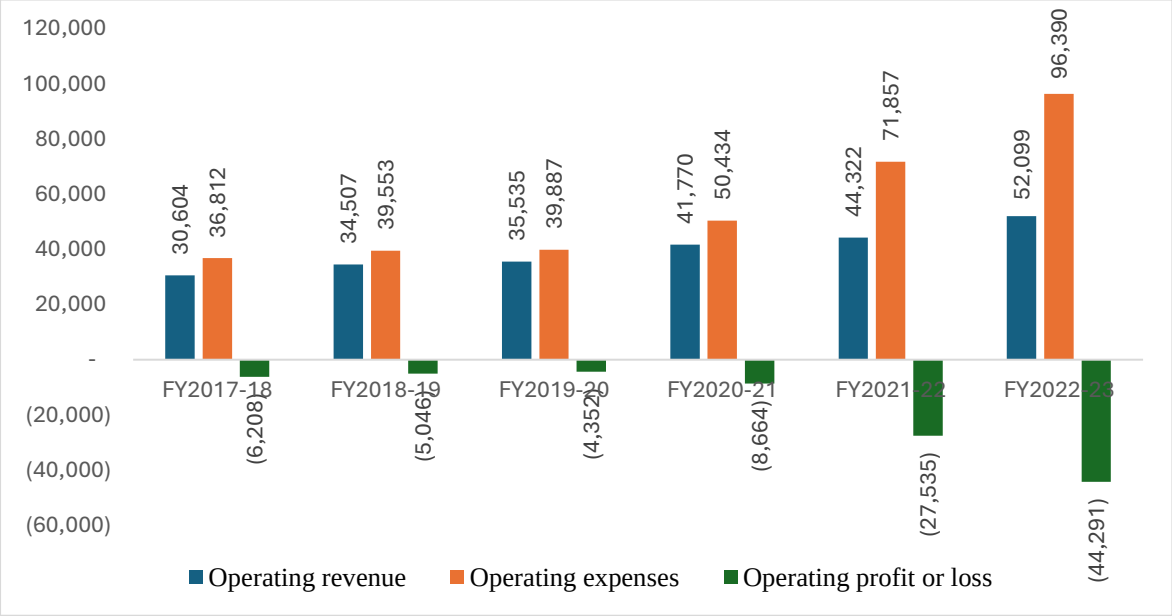


Figure 10.8: BPDB's Operating Loss

Source: Various Annual Reports, Bangladesh Power Development Board (BPDB).

10.2.7 Renewable Energy

To promote renewable and clean energy alongside fossil fuel, the PSMP 2016 attached considerable importance to the utilisation of renewable energy resources. The GoB has already established the 'Sustainable and Renewable Energy Development Authority (SREDA)' in 2014 under the Sustainable and Renewable Energy Development Authority Act, 2012 to facilitate sustainable energy/renewable energy as well as energy efficiency. So far, a 1,447.9 MW renewable energy system has been installed (Table 10.3). It is only 5.39% of the total grid-based power generation capacity in FY2023-24.

Table 10.3: The Progress of Renewable Energy in 2024

Technology	Off-grid (MW)	On-grid (MW)	Total (MW)
Solar	377.1	776.8	1153.9
Wind	2.0	60.9	62.9
Hydro	0.0	230.0	230.0
Biogas	0.7	0.0	0.7
Biomass	0.4	0.0	0.4
Total	380.2	1067.7	1447.9

Source: SREDA (2024).

10.3 Problems and Challenges in the Power and Energy Sector

10.3.1 Poor Regulatory Quality

10.3.1.1 Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010 (Amended in 2021)

The Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010, initially introduced for a two-year term, has had its tenure extended multiple times, with the most recent amendment in 2021 extending it until 2026. While the Act was intended to expedite electricity and energy supply enhancements, it has drawn significant criticism for its impact on sector transparency and accountability. Notably, the QEEES Act allows bypassing competitive bidding, leading to the sale of electricity at excessively high rates. This approach directly overrides the Public Procurement Act of 2006, which was designed to ensure transparent and accountable procurement processes within public sectors. By exempting the Bangladesh Power Development Board (BPDB) from standard procurement rules, the Act has opened the door to lobbying, favouritism, and hastily planned projects, potentially without proper cost-benefit analysis or long-term considerations. Consequently, while intended to streamline energy supply, the Act has raised concerns regarding governance practices within Bangladesh's power and energy sector.[3]

10.3.1.2 Amendment of Bangladesh Energy Regulatory Commission (BERC) Act, 2003

The Bangladesh Energy Regulatory Commission (BERC) Act, introduced in 2003, aimed to establish a competitive, transparent, and investor-friendly energy market in Bangladesh. However, the Act's amendment in December 2022 has sparked concerns regarding transparency and investor confidence. This amendment granted the government authority to set power and energy tariffs independently under "special circumstances," bypassing the public hearings typically conducted by BERC. The lack of public hearings reduces transparency and prevents stakeholders from participating in

[3] In August 2024, the interim government suspended all negotiations, selections, and purchasing processes of all power and energy projects under the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act 2010. However, this Act has not been abolished yet.

and understanding the rationale behind tariff adjustments. Additionally, frequent changes in tariffs, which often occur without stakeholder input, have discouraged both domestic and foreign investors. Foreign investors, in particular, have expressed concerns that this lack of transparency and predictability makes it difficult to plan long-term investments, ultimately undermining confidence in Bangladesh's energy market.

10.3.1.3 Integrated Energy and Power Master Plan (IEPMP) 2023

The Integrated Energy and Power Master Plan (IEPMP) 2023 has raised several concerns regarding Bangladesh's approach to energy sector planning and sustainability. The plan lacks a clear strategy to address the Bangladesh Power Development Board (BPDB)'s growing revenue shortfall, which has implications for the financial stability of the sector. While it promotes increased coal exploration and the import of LNG, these strategies risk locking the country into reliance on imported fossil fuels, leaving Bangladesh vulnerable to global market fluctuations. Notably, the IEPMP does not provide a roadmap for phasing out fossil fuels, nor does it set a target for achieving 40% renewable energy, despite references to "clean energy." Additionally, the plan proposes an energy transition dependent on unproven technologies, such as carbon capture and storage (CCS) and ammonia co-firing, which could result in disorderly and ineffective progress. Finally, the plan lacks any directive for phasing out quick rental power plants, which continue to affect sector efficiency and cost. These omissions in the IEPMP raise questions about the viability and sustainability of Bangladesh's energy transition.

10.3.2 Lack of Institutional Capacity

Bangladesh's power and energy sector governance is composed of multiple government agencies, regulatory bodies, and ministries. Key institutions include the Ministry of Power, Energy, and Mineral Resources (MPEMR), which oversees policy and planning, and the Bangladesh Power Development Board (BPDB), responsible for power generation and distribution. The Bangladesh Energy Regulatory Commission (BERC) plays a central role in setting tariffs and regulating the energy market. In addition, the Sustainable and Renewable Energy Development Authority (SREDA), under the MPEMR, is tasked with promoting renewable energy and energy efficiency. This institutional framework is complemented by policies like the Renewable Energy Policy 2008 and the Integrated Energy and Power Master Plan (IEPMP) 2023 to guide the transition to renewables.

The Sustainable and Renewable Energy Development Authority (SREDA), intended to lead Bangladesh's renewable energy transition, faces significant institutional challenges. SREDA lacks the authority and institutional capacity needed to drive an effective energy transition, as much of the decision-making power for renewable energy projects remains with the Renewable Energy Wing of the Bangladesh Power Development Board (BPDB). Additionally, SREDA's authority is limited to licensing small-scale power plants (with capacities under 10 MW), while large-scale projects fall under the jurisdiction of the Ministry of Power, Energy and Mineral Resources (MoPEMR) and the Prime Minister's Office (PMO). SREDA's institutional weaknesses are evident in its limited progress on renewable energy projects: despite issuing 32 Letters of Intent (LOI)

for projects totalling 2,815 MW, only 14 plants are currently operational, highlighting significant delays and implementation gaps (CPD, 2024).

Similarly, the Bangladesh Energy Regulatory Commission (BERC), established under the BERC Act 2003 with a mandate to regulate the energy market, has seen its authority undermined by recent amendments. The 2023 amendment to the BERC Act has diluted BERC's regulatory capabilities by enabling the government to make unilateral decisions on retail and bulk power tariffs, bypassing BERC's oversight. This change compromises the transparency and predictability of energy pricing, weakening BERC's institutional role in maintaining a balanced, investor-friendly energy market. Both SREDA's and BERC's challenges illustrate a broader need for stronger institutional authority, capacity, and independence to effectively support Bangladesh's renewable energy goals.

10.3.3 Monopoly Market Structure

The energy sector in Bangladesh is largely centralised, with significant government involvement. The Ministry of Power, Energy, and Mineral Resources (MPEMR) is responsible for formulating policies, while state-owned enterprises (SOEs) play dominant roles across different segments of the market. In the power sector, the Bangladesh Power Development Board (BPDB) oversees generation, transmission, and distribution. BPDB is the main buyer in the market, operating as a single buyer that purchases power from both public and private generators and sells it to distribution companies, creating a quasi-monopoly in electricity procurement and distribution. Six SOEs include the Bangladesh Power Development Board (BPDB), the Bangladesh Rural Electrification Board (BREB), the Dhaka Power Distribution Company (DPDC), the Dhaka Electric Supply Company (DESCO), the West Zone Power Distribution Company (WZPDC), and the Northern Electricity Supply Company Ltd (NESCO), all of which handle specific distribution responsibilities in designated regions.

The generation segment is the most liberalised part of the market, with a mix of public and private participation. Since the 1990s, the government has encouraged private investment in power generation to address energy shortages. Independent Power Producers (IPPs) play a significant role, providing a substantial share of the total power generated. The government signs Power Purchase Agreements (PPAs) with IPPs, guaranteeing them a market for their electricity. Despite the presence of private producers, the government retains substantial influence over pricing and purchasing. While the liberalisation of power generation has boosted capacity, the reliance on guaranteed pricing and subsidies creates fiscal pressures and limits true competition.

Power Grid Company of Bangladesh (PGCB), a state-owned entity, holds a monopoly over the electricity transmission network. PGCB is responsible for constructing, operating, and maintaining the transmission system nationwide. The single-buyer model restricts private sector involvement in transmission, making it entirely state-controlled. This structure centralises control over transmission but can create bottlenecks and capacity constraints as demand grows.

The distribution sector is regionally segmented, with SOEs handling distribution in different areas. Key players include DPDC, DESCO, BREB, and BPDB. Distribution is also state-controlled, and there is minimal competition, with each entity holding a monopoly in its designated region. This segmentation aims to improve service efficiency and accessibility, but it limits consumer choice and can lead to inefficiencies. Efforts to reduce distribution losses and increase reliability are ongoing, though state dominance in distribution poses challenges to introducing competition and efficiency.

Bangladesh's natural gas market is almost entirely state-controlled. Petrobangla oversees exploration, production, and distribution, with its subsidiaries handling specific activities within the gas value chain. Petrobangla has exclusive control over the natural gas supply and infrastructure. The government imports LNG to meet rising energy demand, and LNG is re-gasified and supplied through Petrobangla's distribution channels. This reliance on state control creates challenges in securing stable gas supplies and in responding to price fluctuations in the global LNG market.

The renewable energy sector is relatively new and still in a nascent stage of development. While policies to promote renewables exist, the market structure is not yet fully developed, and private participation is limited. The government has set ambitious targets for renewable energy, with a focus on solar and wind power. However, regulatory and infrastructure barriers slow the pace of renewable energy growth. Private sector involvement is encouraged through incentives, but long-term market stability and support are needed for significant progress.

10.3.4 Policy Incoherence

The current scenario of the regulatory framework in the energy sector is not satisfactory, to say the least. The biggest problem with the framework is the lack of incoherence. For instance, Power System Master Plan (PSMP) 2016, sets the goal for renewable energy (RE) at 20% of the total power generation by 2041. Whereas the Mujib Climate Prosperity plan & the Integrated Energy and Power Master Plan (IEPMP) 2023, set the goal of 40% renewable energy by 2041. This also brings up the policy myopia issue. The goal of 40% renewable energy by 2041 is a very lavish target, considering, in 2024 the percentage stood at only 4.44% (SREDA, 2024).

Table 10.4: Various Government Plans and RE Targets

Document	Organisation(s)	Renewable Energy Targets
Perspective Plan 2041	GED, MoP	- Initial target of 3% renewable energy by 2021 -Future target projection is absent.
National Solar Energy Roadmap, 2021 - 2041	PD, MoPEMR & SREPGen, UNDP	- 40,000 MW of installed solar capacity by 2041
Mujib Climate Prosperity Plan 2022-2041	MoEFCC	- 30% renewable energy by 2030 - 40% renewable energy by 2041 - 100% renewable energy by 2050
Renewable Energy Policy (2008)	PD, MoPEMR	- 5% of total power demand by 2015 - 10% by 2020
Bangladesh Delta Plan 2100	GED, MoP	- 10% renewable energy by 2020 - 30% by 2041

Integrated Energy and Power Master Plan (IEPMP) 2023	JICA, IEEJ, MoPEMR	- 40% of energy from clean and renewable by 2041 - 26.2 GW of renewable energy capacity by 2050
Power System Master Plan 2010	PD, MoPEMR, JICA, TEPC	- 5% of total electricity demand with renewables by 2015 -10% by 2020 (510 MW by 2015, 1,760 MW by 2020)
Power System Master Plan 2016	JICA, TEPC, MoPEMR and Others	- 20% renewable ratio (RE20) by 2041

Source: Authors' compilation from various documents.

The push for renewable energy, as laid out in the Renewable Energy Policy, needs to align with other objectives like reducing reliance on LNG and fossil fuels. Misalignment or contradictions between fossil fuel expansion and renewable energy goals can undermine institutional strength. Although the country wants to achieve a higher composition of RE in its mix and reduce reliance on fossil fuels, recent projects (***Table 10.5***) in the energy sector indicate otherwise. The Matarbari Powerplant project is an example of this kind of mismatch. The yet to open power plant plans to fully operate on exported coal. Although the responsible authority has claimed the ultra-critical technology used in the plant would reduce the pollution close to zero. However, coal is never a clean form of energy. Moreover, dependence on foreign-exported coal would further constrain the country's dwindling reserves. All of which stand against multiple regulatory frameworks & policies.

Table 10.5: List of Major Powerplants and their Operating Fuels

Sl. No.	Major Initiatives by GoB	Fuel
1	Rampal Power Plant (2010)	Coal*
2	500 MW Solar Programme	RE
3	Rooppur Nuclear Power Plant (2013)	Nuclear*
4	Matarbari Ultra Super Critical Coal-Fired Power Project (2013)	Coal*
5	Payra Coal Power Plant Project (2014)	Coal*
6	Bangladesh-India Power Purchase Agreement	Import
7	Banshkhali Power Plant (2016)	Coal*
8	Bangladesh-Adani Power Purchase Agreement (PPA)	Import
9	Bangladesh-India Friendship Pipeline (2017)	Import
10	Floating Solar PV Initiative 2023	RE
11	Payra LNG Power Plant	LNG*

Source: Authors' compilation from various documents.

10.3.5 Pricing Policies

Between 2022 and 2024, global prices for crude oil, LNG, coal, and natural gas declined (see Figures 10.9 to 10.12). However, during the same period, both the average per-unit electricity tariff (Figure 10.13) and the average bulk electricity tariff (Figure 10.14) increased. This contrast suggests that factors beyond global energy prices influenced the rise in electricity costs. The increase could be attributed to inefficiencies, policy

mismatches, or vested interests within the power sector or government entities. Such discrepancies highlight the need for greater transparency and accountability in electricity pricing mechanisms to ensure that consumers benefit from favourable global energy trends.

Figure 10.9: Global Price of Crude Oil

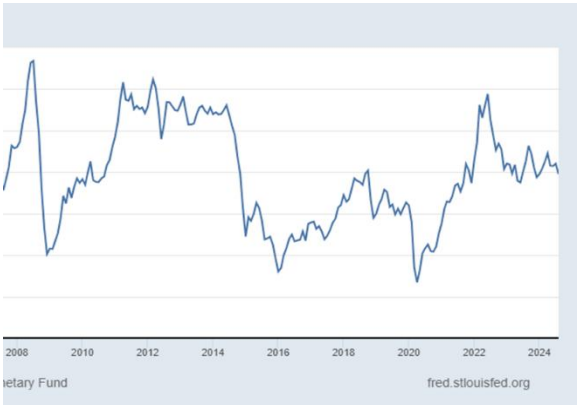


Figure 10.10: Global Price of LNG

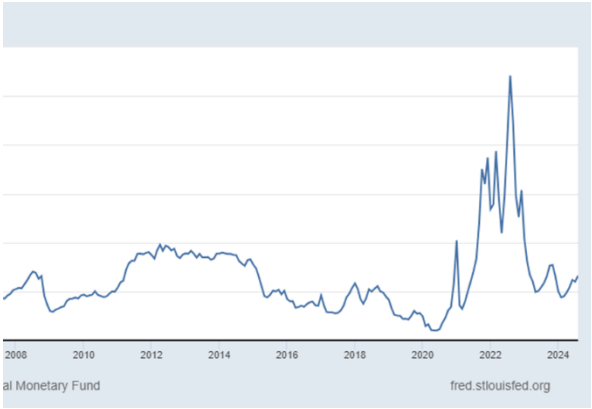


Figure 10.11: Global Price of Coal

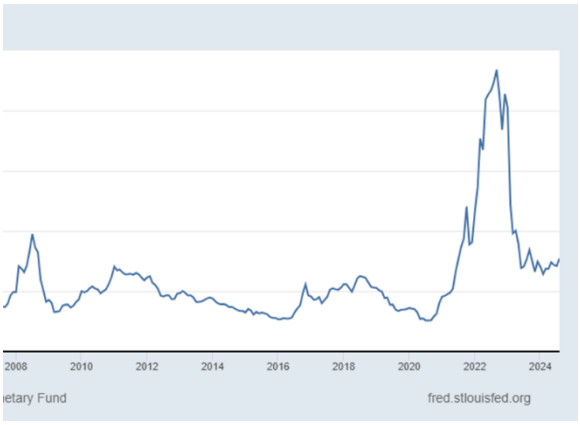
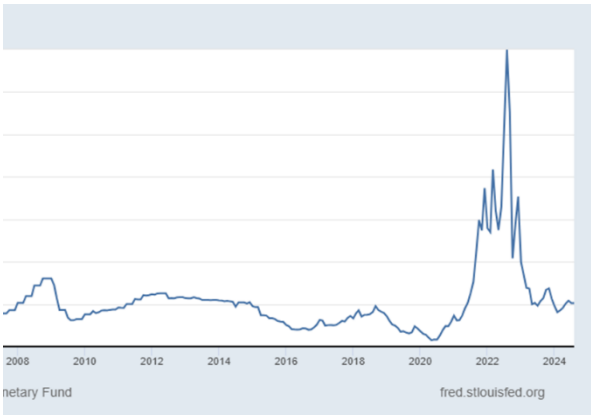


Figure 10.12: Global Price of Natural Gas



Source: Primary Commodity Prices, IMF.

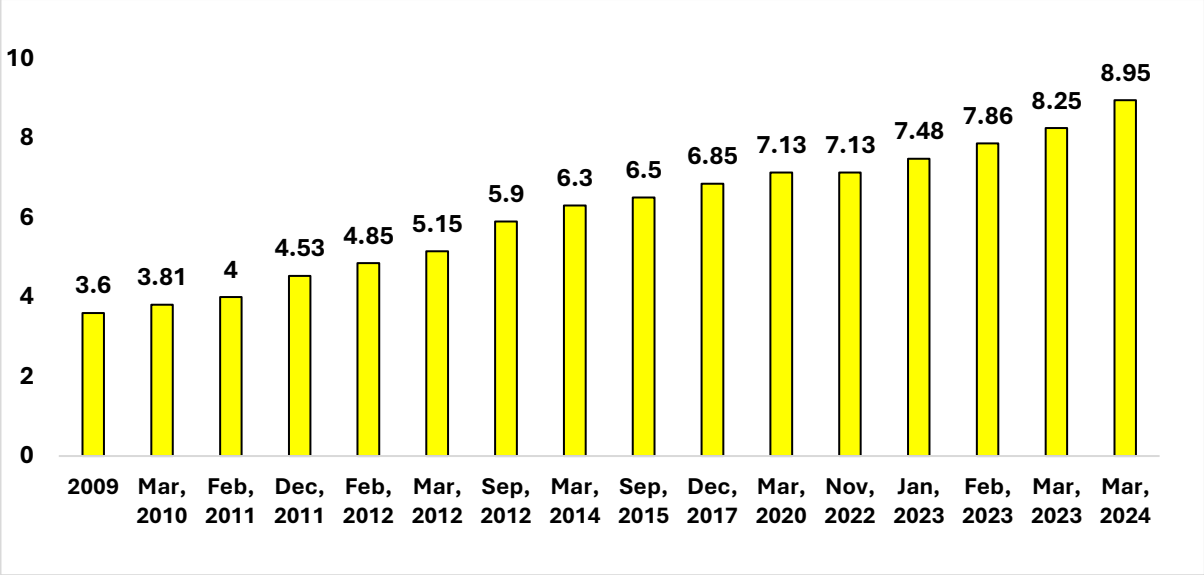


Figure 10.13: Average per Unit Electricity Tariff (In BDT)

Source: Bangladesh Energy Regulatory Commission.

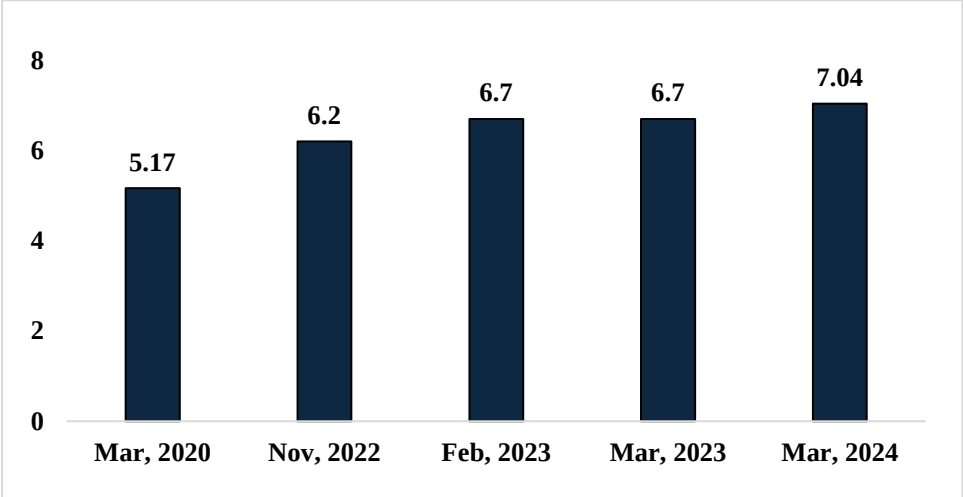


Figure 10.14: Average Bulk Unit Electricity Tariff (In BDT)

Source: Bangladesh Energy Regulatory Commission.

10.3.6 Subsidy Policies

In FY2025, the power and energy sector accounted for 37% of all subsidies and incentives allocated in the national budget. Out of the total subsidy allocation of 40,000 crore TK, approximately 32,000 crore TK—representing 80%—was earmarked for capacity charges. This disproportionately large share directed toward capacity payments raises concerns about the influence of vested interest groups within the energy sector. Powerful business entities and political elites may be benefiting from these contracts, often secured under non-competitive arrangements. Such practices not only burden public finances but also limit resources available for investing in sustainable energy solutions and infrastructure improvements. Addressing this issue requires revisiting

subsidy policies and ensuring transparency and accountability in the allocation process to promote fair and efficient use of public funds.

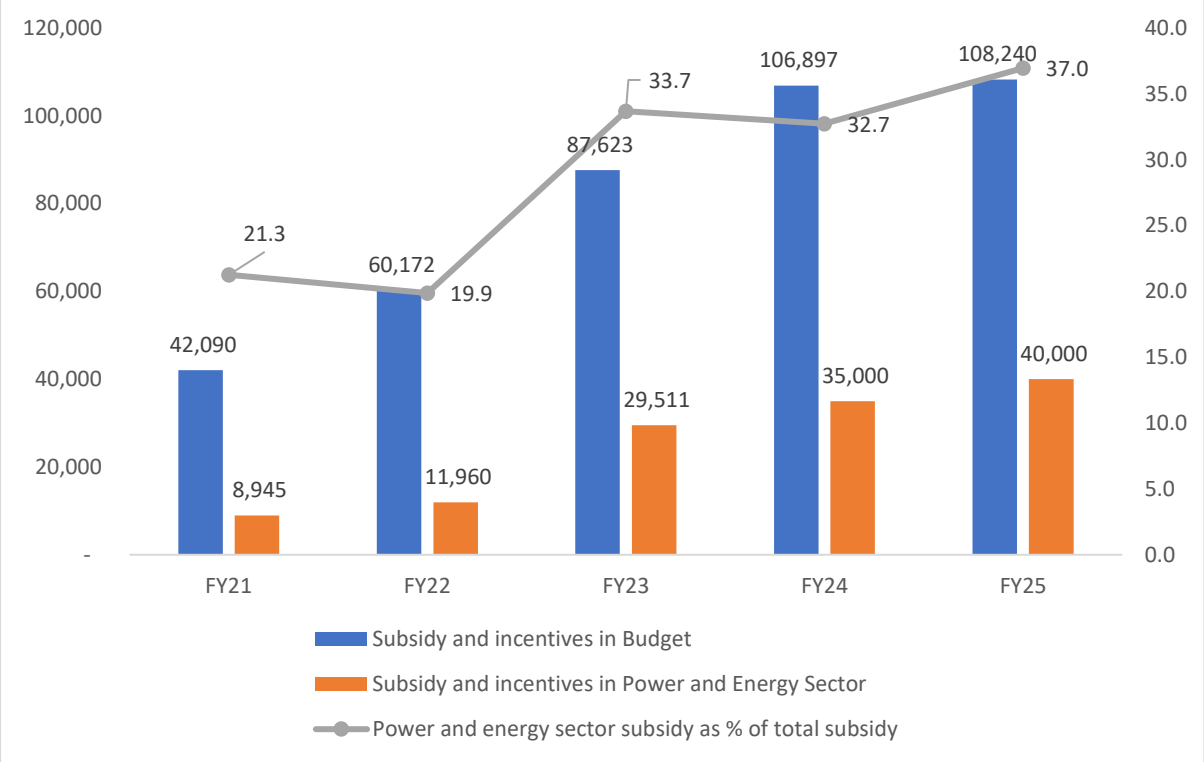


Figure 10.15: Subsidies and Incentives in the Power and Energy Sector

Source: The Daily Star (2024).

10.3.7 Rent-seeking Opportunities

Sultana (2023) explored rent-seeking opportunities across five energy technologies, identifying five main forms: regulatory capture, lobbying, licensing/contracts, learning rent, and resistance capture. Her comparison revealed that rent-seeking activities are more prevalent in coal, gas, LNG, and nuclear technologies compared to solar. These technologies are subject to greater regulatory capture, lobbying efforts, and vested interests, suggesting that powerful stakeholders in these sectors are able to influence policy and benefit from market distortions more effectively than in the solar energy sector.

Table 10.6: Rent-seeking in the Power and Energy Sector

	Regulatory Capture	Lobby	License/Contract	Learning Rent	Resistance Capture
Gas	(QEEES 2010 active after regime formation)	Lobbies behind PSCs (Production sharing contacts)	Contract		Strong resistance against gas export
LNG	(QEEES 2010 active)	Strong Lobby	Contract for LNG import	Infrastructure development	None

Coal	(QEEES 2010 active)	Strong Lobby	License for Coal import	Financing and Infrastructure development	Strong resistances were suppressed
Nuclear	(QEEES 2010 active)	Strategic cooperation	Contract for construction	Infrastructure and human resources development	Suppressing movement and campaign for nuclear
Solar	(QEEES 2010 active at limited scale)	Weak Lobby	N/A	None	Limited

Source: Sultana (2023).

10.3.8 Rent Distribution-Capacity Charge

As of June 30, 2023, 82 independent power plants (IPPs) and 32 rental power plants in the country have received over BDT 1 trillion in capacity charges over the past 14 years (Prothom Alo, September 5, 2023). Figure 10.16 presents the capacity payments received by the top 23 power companies. Among them, Summit Group received the highest amount, totalling BDT 176.1 billion, followed by Aggreko International with BDT 83.1 billion, United Group with BDT 77.6 billion, BCPCL with BDT 74.6 billion, and Rural Power Company Limited with BDT 73.3 billion, among others.

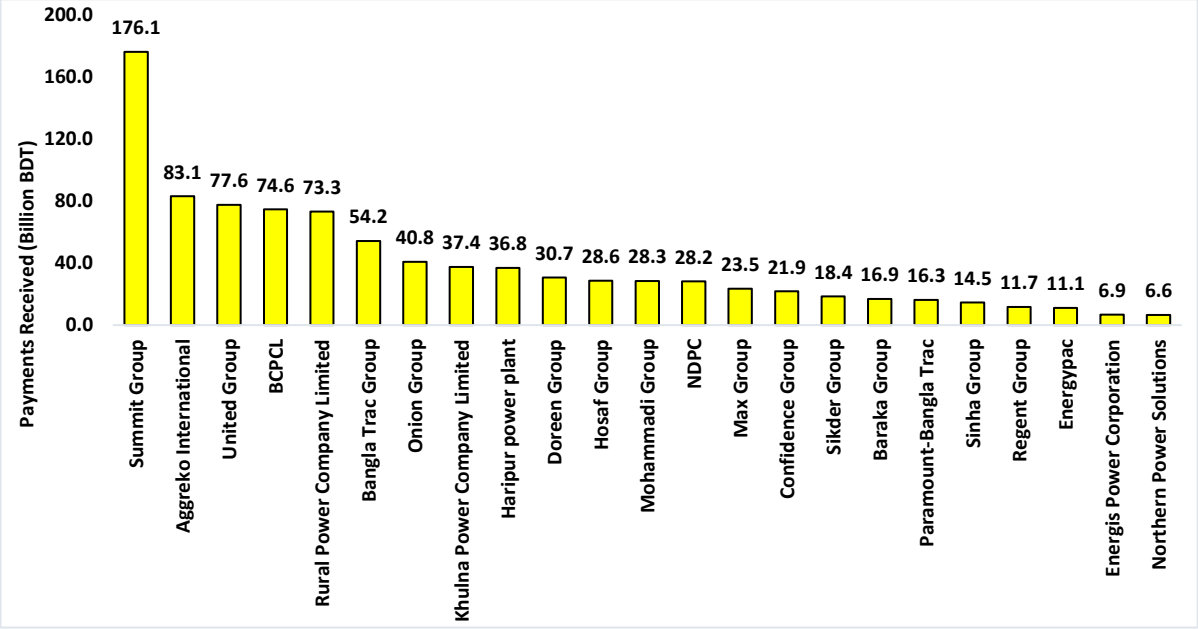


Figure 10.16: Capacity Payment Received (2009-June 2023) by Top 23 Power Companies

Source: Former State Minister of MoPEMR in Parliament in 2023 and Prothom Alo (Sep 05, 2023).

Figure 10.17 displays the capacity charges (in Billion BDT) received by the top ten independent power plants (IPPs) from 2009 to June 30, 2023. Bangladesh China Power

Company Limited received the highest with BDT 74.55 billion, followed by Megna Power Limited (BDT 54.75), Rural Power Company Limited (BDT 40.04 billion), Summit Meghnaghat Power Limited (BDT 36.44 billion) and Semcrop NWPC Limited (BDT 28.24 billion) among others.

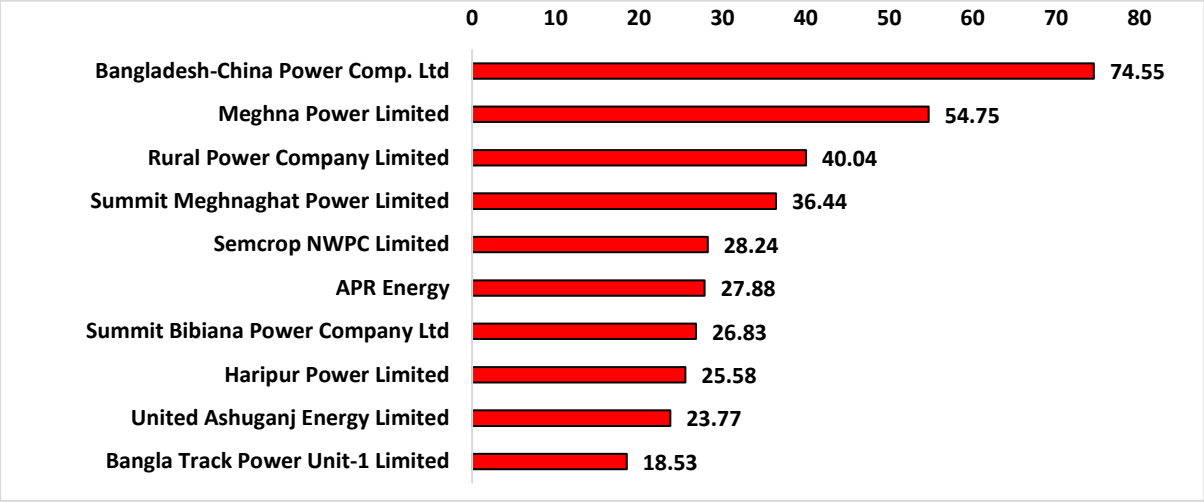


Figure 10.17: Capacity Charge (Billion BDT) Received by Top Ten IPPs (2009-30 June 2023)

Source: Former State Minister of MoPEMR in Parliament in 2023 and Prothom Alo (Sep 05, 2023).

Figure 10.18 illustrates the rental payments (in Billion BDT) received by the top ten power plants from 2009 to June 30, 2023. Aggreko International Projects (5 units) received the highest with BDT 64.11 billion, followed by Aggreko International Project (BDT 23.41 billion), Khulna Power Company Limited (Unit-2) (BDT 19.29 billion), Summit Narayanganj Power Limited (BDT 15.69 billion), and Aggreko International Projects (85MW) (BDT 15.58 billion) among others.

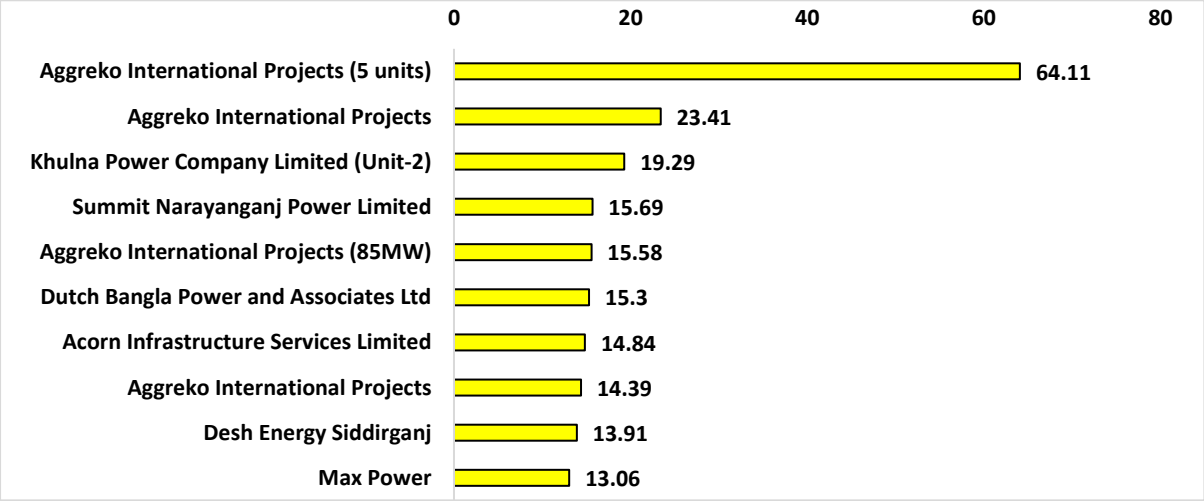


Figure 10.18: Rental Payment (Billion BDT) Received by Top Ten Power Plants (2009-30 June 2023)

Source: Former State Minister of MoPEMR in Parliament in 2023 and Prothom Alo (Sep 05, 2023).

10.3.9 Lack of Transparency and Accountability

Summit Group have received the tenders of LNG terminals through the lobbying of Tawfiq-e-Elahi Chowdhury, energy adviser to the former Prime Minister of Bangladesh Sheikh Hasina. (Bonik Barta, 23 September 2024)[4]. Giving one company the tenders of terminals instead of fair competitive procurement of tenders has risked the country's energy security. The conditions of construction of terminals, charges of regasification of gas etc. in the treaties have all been ordained by the higher levels of the Sheikh Hasina government. Giving tenders to the same few companies over and over again has made the country dependent on them to the extent that the country has to accept their technical failures even during spans of high demand.

10.3.10 Corruption in the Power and Energy Sector

In the last 14 years, around 100 power plants have been licensed to operate under special provisions without releasing tenders (Kalbela, 17 August 2024). The government agencies in the power sector have been involved in corruption by buying low-quality instruments and during land acquisition. "A network of corruption was created here (power sector) too and the anchor of that architecture was the Indemnity Act of 2010 (Quick Enhancement of Electricity and Energy Supply-Special Provisions)", said adviser Fouzul Kabir Khan (The Daily Star, 26 October, 2024). The Implementation Monitoring and Evaluation Division (IMED) stated that unqualified suppliers are obtaining contracts in power sector projects by political lobbying. As a result, not only are project costs surging, but durations of these projects are also prolonging. (The Business Standard, 06 July, 2023). Adviser Fouzul Kabir Khan said that corruption has engulfed each and every arena of the power and energy sector, and warned of stern actions against officials who get involved in corruption (The Financial Express Bangladesh, 29 August 2024). Proximity to the former Prime Minister was used to appoint people in powerful positions in the power sector instead of qualifications (Jugantor, 18 August 2024). "Those who devoured the energy sector are the same ones who devoured the financial sector," says Dr Debapriya, distinguished fellow at the Centre for Policy Dialogue (The Financial Express, 16 November 2024).

10.4 Policy Recommendations

10.4.1 Immediate Strategies

The energy sector in Bangladesh faces urgent challenges related to inefficiencies, high costs, and regulatory weaknesses. Addressing these issues requires targeted immediate strategies to stabilise the sector and set the foundation for long-term reforms. Below is a detailed elaboration on the proposed strategies. Implementing these immediate strategies will help Bangladesh tackle its current energy sector challenges while laying the groundwork for a sustainable and cost-effective energy system. These steps emphasise

[4] https://www.bonikbarta.com/home/news_description/400419

transparency, efficiency, and regulatory empowerment, aligning with the country's long-term development goals.

1. **Abolish the Quick Enhancement of Electricity and Energy Supply (Special Provision) Act, 2010: To f**oster a competitive market environment by eliminating legislative provisions that allow bypassing standard procurement processes. The Act facilitated the rapid establishment of power plants, often at the expense of efficiency and transparency. Its removal will encourage competition, reduce reliance on quick-fix solutions like Quick Rental Plants (QRPs), and promote sustainable investments.
2. **Revise and Empower the Bangladesh Energy Regulatory Commission (BERC):** Amend the BERC Act, including the recent 2023 amendment, to restore its autonomy and strengthen its regulatory authority. Grant BERC the mandate to regulate and oversee fuel oil, electricity, and LPG pricing. Ensure transparent, cost-reflective, and evidence-based pricing mechanisms to prevent arbitrary tariff adjustments. A robust and independent BERC can ensure fair competition, protect consumer interests, and create investor confidence in the energy market.
3. **Suspend Inefficient and Costly Power Plants:** Gradually phase out Quick Rental Plants (QRPs) and Independent Power Producers (IPPs) with poor efficiency and high operational costs. Replace these with more efficient, sustainable, and lower-cost alternatives. Reducing dependence on QRPs and inefficient IPPs will significantly lower the sector's financial burden and help stabilise electricity tariffs.
4. **Renegotiate IPP Contracts:** Redefine the terms of existing IPP agreements to eliminate "capacity payments" (payments made regardless of power generation) and introduce a "no electricity, no pay" clause. Current capacity payment structures incentivise inefficiency and impose unnecessary costs on the government. Revising these terms will align payments with actual energy production, ensuring better value for public spending.
5. **Empower the Sustainable and Renewable Energy Development Authority (SREDA):** Provide SREDA with adequate funding and skilled human resources. Enhance its legal authority to lead renewable energy initiatives and implement energy transition policies effectively. A well-resourced SREDA can accelerate renewable energy adoption, reduce reliance on fossil fuels, and support Bangladesh's commitments to climate goals.
6. **Implement Public Disclosures and Auditing Measures:** Publish energy sector plans, procurement data, and performance audits regularly. Address policy mismatches, cost overruns, and fund wastage through independent auditing mechanisms. Increased transparency and accountability will improve public trust, attract private investment, and prevent misuse of resources.
7. **Establish Oversight Mechanisms:** Set up dedicated oversight bodies to monitor energy project timelines, costs, and efficiency. Penalise contractors or entities

responsible for delays and inefficiencies. Ensuring timely project delivery and operational efficiency will reduce financial and operational disruptions in the energy sector.

10.4.2 Short-Term Strategies

The short-term strategies outlined here aim to address structural inefficiencies, build capacity, and create momentum for long-term sustainable reforms in the energy sector of Bangladesh. These measures strike a balance between immediate needs and the strategic adjustments required to ensure energy security and sustainability. These short-term strategies are essential for establishing a foundation for long-term sustainability in the energy sector. By revising outdated policies, enhancing institutional capacity, and providing targeted incentives, Bangladesh can not only address current inefficiencies but also position itself as a leader in renewable energy transition in South Asia.

1. **Revise the Integrated Energy and Power Master Plan (IEPMP) 2023:** Redefine the Master Plan to phase out fossil fuels and Quick Rental Plants (QRPs). Shift focus away from unproven technologies, such as large-scale carbon capture, and prioritise scalable renewable solutions. Integrate measurable targets for solar, wind, and other renewables. Establish realistic timelines to reduce reliance on imported fossil fuels. A revised and adaptive Master Plan will align national goals with global trends, ensuring a structured and sustainable transition to renewable energy.
2. **Energy Price and Subsidy Adjustment:** Implementing market-based energy pricing involves gradually adjusting prices to reflect true market costs, which helps internalise social costs and encourage efficient energy use. This approach acknowledges the social impacts by integrating costs related to environmental degradation and public health into energy prices. To ease the transition, such changes should be introduced in phases, allowing time for consumers and businesses to adapt. Similarly, subsidies that distort energy markets should be withdrawn gradually, minimising disruptions and providing support to vulnerable groups. This phased approach ensures a balanced shift towards a more sustainable and equitable energy economy.
3. **Leveraging Regional Energy Trade:** Leveraging regional energy trade presents a significant opportunity for Bangladesh to enhance its energy security. By engaging in cross-border energy exchanges with neighbouring countries, Bangladesh can diversify its energy sources, mitigate supply risks, and achieve more stable and affordable energy access. This strategy not only supports national energy needs but also fosters regional cooperation, leading to shared economic benefits and a more resilient energy infrastructure across South Asia. Embracing regional energy trade thus ensures a balanced and secure energy future for Bangladesh.
4. **Ensuring Transparency in International Contracts:** Ensuring transparency and accountability in contracts with international agencies within Bangladesh's

energy sector is critical for fostering trust and sustainable development. It requires clear, well-documented agreements that adhere to international standards, regular audits by independent bodies, and open communication with all stakeholders. By maintaining transparent processes and stringent accountability measures, Bangladesh can attract and retain foreign investment, ensuring that energy projects are implemented ethically and efficiently. This approach not only promotes fairness but also enhances the overall effectiveness and reputation of the energy sector in Bangladesh.

5. **Eradicate Tax Mismatches for Renewable Energy Adoption:** Reduce or eliminate high duties and VAT on renewable energy equipment, such as solar panels, batteries, and inverters, to make these technologies more accessible. Introduce performance-based subsidies for businesses and households adopting renewable energy systems. Lowering the cost barrier will encourage investments in renewable technologies and accelerate their adoption across sectors.
6. **Implement Financial Incentives for Energy Efficiency:** Introduce rebates or tax benefits for purchasing energy-efficient appliances and retrofitting homes or businesses with energy-saving technologies. Resolve billing inconsistencies and provide clear communication regarding prepaid meter fees to enhance user trust. Reducing energy wastage will lower overall demand, leading to cost savings and a more sustainable energy consumption pattern.
7. **Enhance Coordination of Government Policies:** Reduce policy overlaps, contradictions, and inefficiencies by fostering greater collaboration among ministries, agencies, and regulators. Develop a uniform financing and subsidy framework to eliminate inconsistencies across different energy programmes. Create an inter-ministerial task force to oversee and streamline energy-related policies. Improved coordination will reduce project delays, avoid redundant expenditures, and ensure cohesive progress toward energy goals.
8. **Strengthen SREDA's Capacity:** Establish dedicated departments within SREDA for specific renewable technologies such as wind, solar, and advanced solutions like hydrogen. Recruit specialised personnel and provide training in cutting-edge renewable technologies. A stronger and more focused SREDA will drive the transition to renewable energy with greater precision and effectiveness.
9. **Promote Regional and Decentralised Energy Solutions:** Expand the deployment of solar irrigation pumps, off-grid solar systems, and microgrids in rural and underserved areas. Design policies that reflect regional energy needs and climatic conditions, ensuring tailored approaches for different parts of the country. Decentralised solutions will improve energy access, reduce transmission losses, and empower local communities with self-sufficient energy systems.
10. **Ensure Financing for Renewable Energy Projects:** Collaborate with financial institutions to provide long-term, low-interest loans for renewable energy projects. Reform the tax structure to incentivise investments in clean and

affordable energy technologies. Access to affordable financing will unlock significant potential for scaling up renewable energy, particularly for SMEs and low-income households.

11. **Using Underutilized Land to Produce Renewable Energy:** Transforming tea gardens, unused lands of economic zones, and other idle plots into solar energy farms is a promising initiative. This strategic move leverages underutilised land to produce clean, renewable energy, reducing reliance on fossil fuels and contributing to environmental sustainability. By integrating solar panels into these areas, it is possible to harness the abundant sunlight to power communities, create jobs, and support local economies.

10.4.3 Long-Term Strategies

The long-term strategies aim to achieve a comprehensive transformation of Bangladesh's energy sector, transitioning to a renewable energy-driven future that ensures sustainability, energy security, and equitable development. The long-term strategies outlined above offer a roadmap for transforming Bangladesh's energy sector into a sustainable and resilient system. By combining technical innovation, regulatory reform, and social equity, these strategies address the multifaceted challenges of energy transition and position Bangladesh as a leader in renewable energy development in South Asia.

1. **Establish a Centralised Energy Database:** Develop an open-access, centralised database to provide policymakers, researchers, and the public with accurate and up-to-date energy sector data. Include data on energy production, consumption, pricing, and emissions. Enable real-time monitoring of renewable energy projects and fossil fuel usage. Enhanced transparency and accountability will aid evidence-based policymaking and foster public trust in energy sector reforms.
2. **Phase Out Fossil Fuel Subsidies:** Gradually eliminate subsidies for fossil fuels, ensuring that the transition minimises adverse impacts on low-income groups. Redirect these resources to promote renewable energy investments and adoption. This shift will reduce dependency on fossil fuels, encourage sustainable energy alternatives, and align Bangladesh with global climate goals.
3. **Expand Technical Capacity:** Invest in energy storage technologies such as batteries and pumped hydro to mitigate the intermittency of solar and wind energy. Develop smart grids to optimise energy distribution and integrate renewables effectively. Foster collaboration between academia, research institutions, and industry to innovate renewable energy technologies. Conduct training programmes for engineers, technicians, and policymakers on renewable energy management. Building technical capacity will ensure that Bangladesh is equipped to scale renewable energy projects and manage the complexities of a modern energy system.
4. **Promote Energy Justice**: Establish fair land acquisition processes with adequate compensation and rehabilitation packages for affected communities. Design policies to protect vulnerable populations from exploitation and displacement

during renewable energy development projects. Ensuring social equity in energy development will prevent resistance from affected communities and promote inclusive growth.

5. **Arrange International Negotiations:** Leverage international platforms to diversify technology procurement and secure favourable terms for technology transfer. Negotiate with advanced economies and multilateral organisations to access cutting-edge renewable technologies at competitive prices. Pursue partnerships for joint ventures and technology-sharing agreements. Strengthening international cooperation will provide Bangladesh access to the tools and knowledge necessary for a successful energy transition.
6. **Adopt Legally Binding Energy Efficiency Standards**: Establish mandatory energy efficiency standards for public infrastructure, vehicles, and industrial machinery. Regularly update standards to reflect advancements in technology and environmental goals. Legal enforcement of energy efficiency standards will reduce energy waste, lower costs, and decrease emissions across sectors.
7. **Set Long-Term Goals for Renewable Energy Integration:** Establish ambitious yet achievable targets for renewable energy's share in the national energy mix (e.g., 40% by 2040). Develop actionable strategies to achieve these targets, including timelines, financial planning, and policy support. Create a monitoring framework to track progress and make necessary adjustments. Clear goals will guide the energy transition, ensuring consistency and accountability in policy implementation.
8. **Develop Green Financing Institutions:** Establish specialised institutions to provide accessible, long-term financing for renewable energy projects. Introduce financial incentives, such as low-interest loans and tax breaks, to attract private sector investment in renewable energy. Partner with multilateral development banks and international investors to ensure adequate funding. Green financing will mobilise the resources needed for large-scale renewable energy deployment and encourage private-sector participation.

References

ADB. (2020). *Sector Assesment: Energy*. https://www.adb.org/sites/default/files/linked-documents/LD-C-Energy-Operations-Assessment.pdf

Bangladesh Economic Review (2024). Bangladesh Economic Review https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/f2d8fabb_29c1_423a_9d37_cdb500260002/Chapter-10%20%28Bangla%29%202024%20update%2009.05.2024%20%281%29%20%281%29.pdf

BPDB (2023). Annual Report 2022-23. https://bpdb.portal.gov.bd/sites/default/files/files/bpdb.portal.gov.bd/page/771c9

a89_a06c_4c2f_9b8c_699d17ed769a/2024-01-03-06-02-dda85c69e3462d6de89b6486edd08779.pdf

Moazzem, K. G. (2019). *The power and energy sector of Bangladesh: Challenges of moving beyond the transition stage*. https://cpd.org.bd/resources/2019/03/The-Power-and-Energy-Sector-of-Bangladesh.pdf

Raihan, S., Bidisha, S. H., Ahmed, M. T., Hossain, I., Chowdhury, O. R., Asaduzzaman, M., & Surid, T. F. (2024a). An Analysis of the Power and Energy Sector in the FY2023-24 National Budget. SANEM Publications, Dhaka, Bangladesh. https://sanemnet.org/an-analysis-of-the-power-and-energy-sector-in-the-fy2023-24-national-budget/

Raihan, S., Bidisha, S. H., Islam, K. M., Hossain, I., Ahmed, M. T., Chowdhury, O. R., Asaduzzaman, M., and Aahad, A. (2024b). Estimating Costs of LNG-based Power Generation and Devising Alternatives Pathways towards Green and Clean Energy. SANEM Publications, Dhaka, Bangladesh. https://sanemnet.org/estimating-costs-of-lng-based-power-generation-and-devising-alternatives-pathways-towards-green-and-clean-energy/

SREDA (2024). Sustainable and Renewable Energy Development Authority (SREDA). https://sreda.gov.bd/

Sultana, M. (2023). Rent Seeking in Power and Energy Sector in Bangladesh. https://www.banglajol.info/index.php/JASBH/article/view/70

Chapter 11: Robust Governance for a Resilient Banking Sector in Bangladesh[1]

11.1 Introduction

The banking sector is integral to the financial system and economic development. Banks collect money from savers and lend it to people and businesses for productive use. This process facilitates the efficient utilisation of financial resources. People often need loans for both short and long terms, and banks manage this by borrowing and lending in ways that make the best use of available money. Banks serve as the primary channel for indirect financing within the financial system. In Bangladesh, where financial markets remain relatively underdeveloped, the financial sector is predominantly driven by banks.

In Bangladesh, the banking sector has witnessed significant growth over the years, marked by an increasing number of financial institutions, a wider range of financing instruments, and larger asset volumes ((Bangladesh Bank, 2025a; Khatun, 2018). However, the sector continues to grapple with serious challenges stemming from malpractices, scams, and financial heists. These issues have undermined the sector's overall performance, which is reflected in various indicators of efficiency and soundness. Indeed, the banking sector in Bangladesh has significantly diminished its capacity for effective financial intermediation, unrestricted interbank operations, and the seamless processing of deposit withdrawals (CPD, 2024a). These limitations have hindered the growth of lending activities. The persistent decline in banking performance and its potential consequences for the sector's sustainability are matters of concern. Since the country's financial system is predominantly bank-based, the poor health of the banking sector poses a significant risk to economic growth. Therefore, the banking sector must implement reforms to stabilise financial institutions that have faced challenges in the past due to a lack of transparency and accountability. Banks experiencing severe financial distress due to governance failure must be restructured in compliance with international standards. The regulatory and supervisory capacity of the Bangladesh Bank must be enhanced to achieve a stable banking system.

Following the July uprising in 2024, the Bangladesh Bank, under the leadership of a new governor, initiated several measures to streamline the banking sector which had been underperforming for several years. Various international organisations have expressed interest in supporting these reform measures to strengthen the banking sector (ERD, 2024). The initiatives taken by the Bangladesh Bank are expected to demonstrate some immediate results. However, the reforms must continue in the coming years in order to have a sustained effect.

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This chapter assesses the state of Bangladesh's banking sector, identifies its challenges and their causes, reviews the measures taken so far, and presents a set of recommendations to strengthen the health of the sector. The review and analysis of this sector are based primarily on the published data by the Bangladesh Bank. However, publicly available published data by the Bangladesh Bank is often inadequate for in-depth and disaggregated analysis (CPD, 2024a). Moreover, there are concerns about the data integrity of some key variables (CPD, 2024a). Therefore, this banking sector assessment is supplemented by key informant interviews and consultations with stakeholders, including the Central Bank and commercial bank officials, experts, academics, entrepreneurs and journalists.

11.2 The Performance of the Banking Sector

Bangladesh's banking sector has grown considerably over time, from 18 banks after independence to 62 scheduled banks in 2025 (Bangladesh Bank, 2025a). As of January 2025, there were six State-owned Commercial Banks (SCBs), three Specialised Banks (SBs), 43 private Commercial Banks (PCBs), nine Foreign Commercial Banks (FCBs), and one digital commercial bank in Bangladesh (Bangladesh Bank, 2025a). This growth was reflected in the rising trend of indicators of financial depth, such as the broad money (M2) to Gross Domestic Product (GDP) ratio, deposit to GDP ratio, and credit to GDP ratio, from FY2008 to FY2015 (Figure 11.1) However, from FY2016 onwards, financial depth began to decline. This may be because the base year used to calculate the GDP was updated from 2005-06 to 2015-16, which caused the GDP figures to be larger than before that period (BBS, 2022).

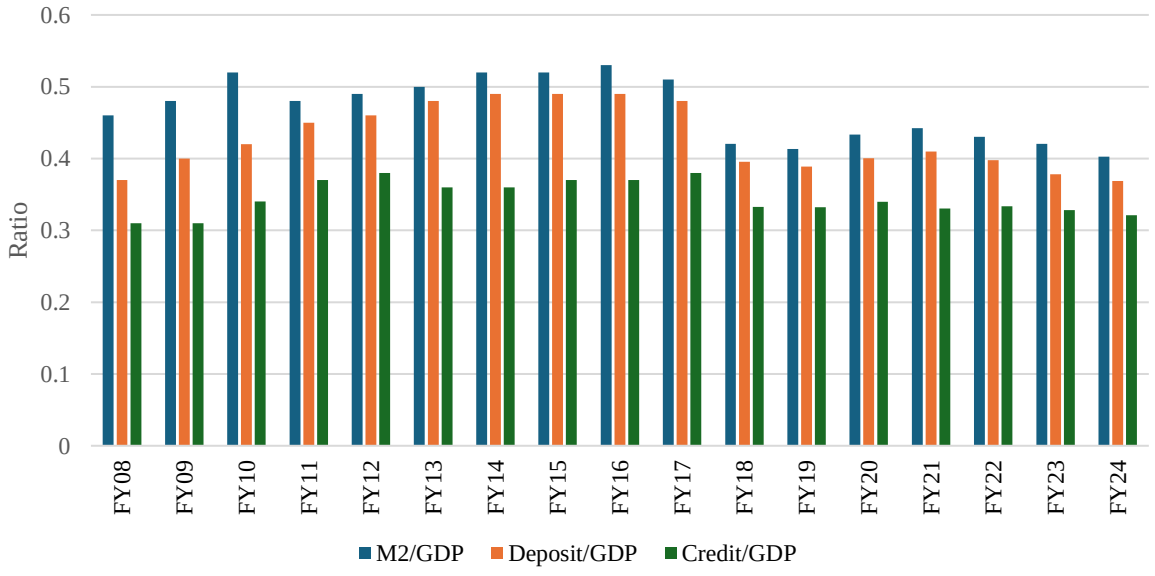


Figure 11.1: Financial Depth in Bangladesh

Source: Authors' illustration based on data from the Bangladesh Bank (Bangladesh Bank, 2024a).

Capital Adequacy of Banks: The Capital-to-Risk Weighted Asset ratio (CRWA) can indicate banks' ability to absorb unexpected shocks. According to the Bangladesh Bank's

guidelines, banks are required to have a lower bound of 10% of total capital to risk-weighted assets (or minimum total capital plus a capital conservation buffer of 12.5%) by 2019, in line with the BASEL III (Bangladesh Bank, 2014). However, SBs have been consistently below the benchmark of 10% for more than 10 years (Bangladesh Bank, 2024b) (Figure 11.2). The CRWA of SCBs fell drastically from 5.44% in June 2024 to -2.44% in September 2024 (Bangladesh Bank, 2024b). This led to a fall in the overall CRWA of all banks from 10.64% in June 2024 to 6.86% in September 2024 (Bangladesh Bank, 2024b). The decline in the CRWA of banks indicates erosion of capital and significant exposure to high-risk assets without adequate capital buffers. The falling capital adequacy of commercial banks is a clear warning for the central bank to take proactive steps to safeguard the interests of depositors and control systemic risks in the banking system.

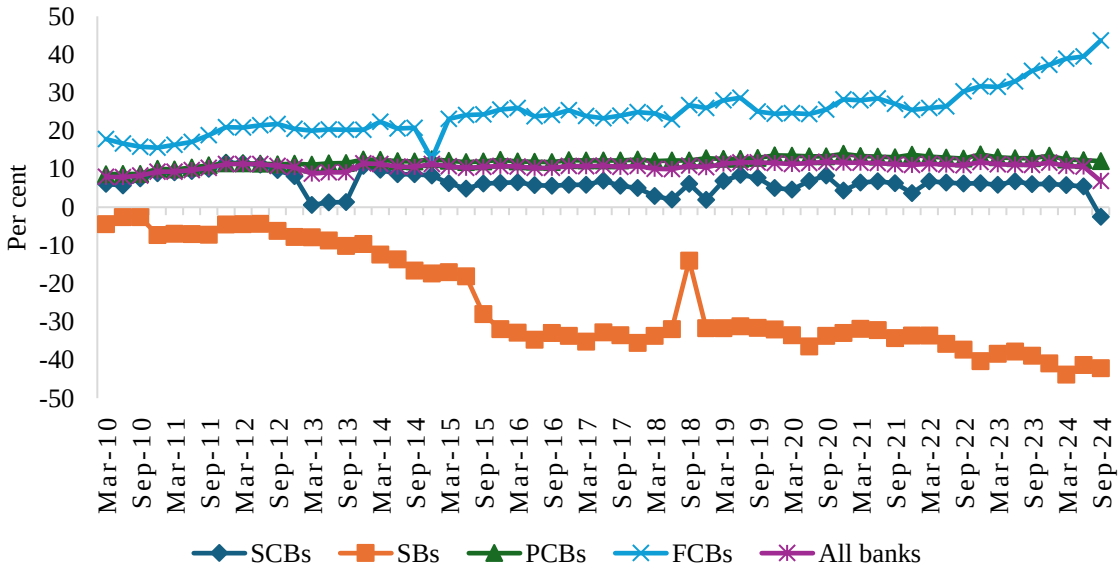


Figure 11.2: CRWA Ratios by Type of Banks (in %)
Source: Bangladesh Bank Quarterly (Bangladesh Bank, 2024b).

Asset Quality: The asset quality rating evaluates current and potential credit risks associated with a bank's loan and investment portfolios, real estate holdings, other assets, and off-balance sheet activities. Non-performing loans (NPLs) are the most widely used indicator of a bank's asset quality. NPLs refer to loans that are either in default or on the verge of default (Bangladesh Bank, 2017a). According to the Bangladesh Bank, loans which are Sub-Standard (SS), Doubtful (DF) and Bad/Loss (B/L) are considered classified loans. Subsequently, these are treated as NPLs (Bangladesh Bank, 2024c). This classification is based on both objective and subjective criteria: the objective criterion considers the loan's overdue period, while the subjective criterion evaluates the borrower's financial performance. Figure 11.3 illustrates the significant increase in total classified loans over the years. Total classified loans have increased by 5.86 times for SCBs, 11.49 times for PCBs, and 3.84 times for FCBs between Q4FY2012 and Q1FY2025 (Bangladesh Bank, 2024b). Consequently, the total amount of classified

loans of all banks stood at BDT 2,849.77 billion in Q1FY2025, compared to BDT 427.25 billion in Q42012, representing an increase of more than six times (Bangladesh Bank, 2024b). The rise in classified loans between June 2024 and September 2024 could be due to the publication of authentic data after the fall of the autocratic government on 5 August 2024 (Prince, 2024).

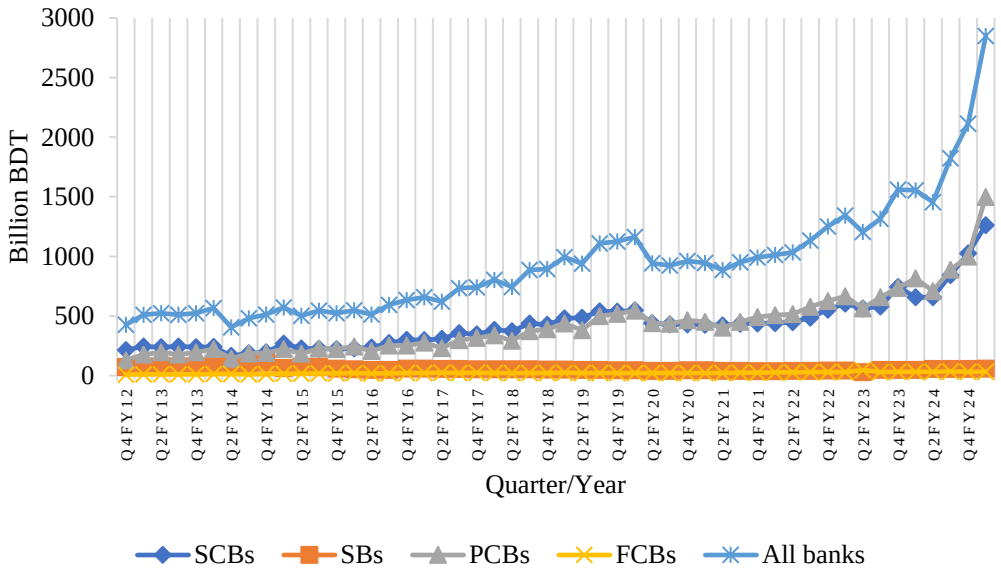


Figure 11.3: Total Classified Loans (in billions of BDT)

Source: Bangladesh Bank Quarterly (Bangladesh Bank, 2024b).

Figure 11.4 illustrates the patterns of gross NPL ratios for banks between March 2009 to September 2024 for various bank categories. The overall trend reveals that NPLs of SCBs have been increasing whereas those of DFIs have declined. Although these data represent recognised NPLs, the total figures rise substantially when factoring in rescheduled and restructured loans, outstanding written-off loans, loans in special mention accounts, and loans under court stay order. For instance, the Bangladesh Bank's Financial Stability Report 2023 indicates that as of December 2023, the outstanding balance of written-off loans was BDT 536.12 billion, and the total rescheduled loans outstanding was BDT 912.21 billion (Bangladesh Bank, 2024d). Moreover, according to the Bangladesh Bank's roadmap to reduce classified loans, BDT 1.78 trillion was tied up in 72,543 cases in Money Loan Court as of February 2024 (Bangladesh Bank, 2024e).

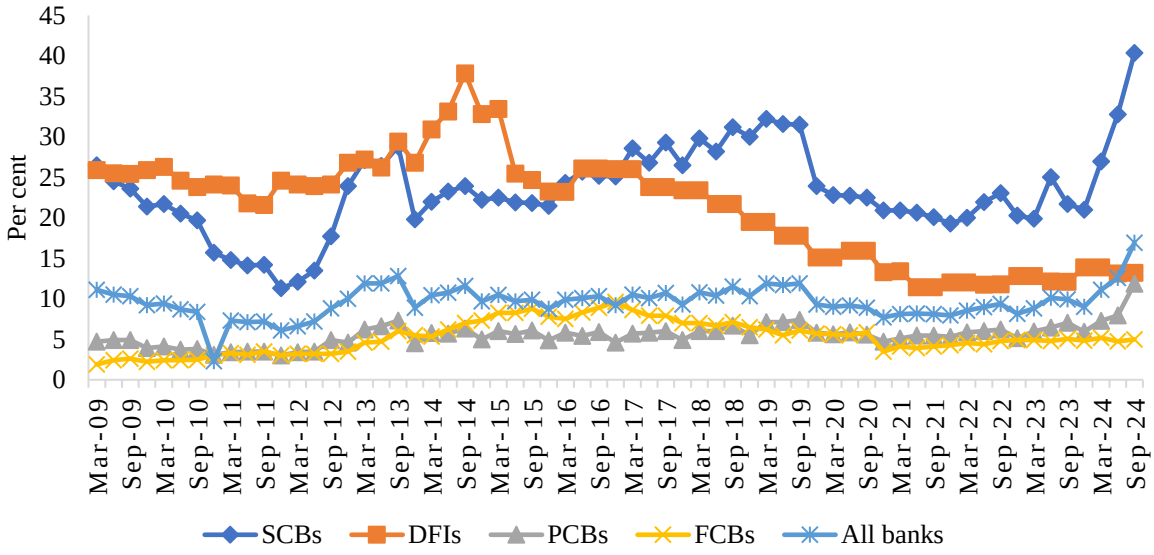


Figure 11.4: Gross NPL Ratios by Bank Type (in %)

Source: Bangladesh Bank Quarterly (Bangladesh Bank 2024b).

The share of PCBs in NPLs has been rising from 31% in Q4FY2012 to 53% in Q1FY2025 (Figure 11.5) (Bangladesh Bank, 2024b).

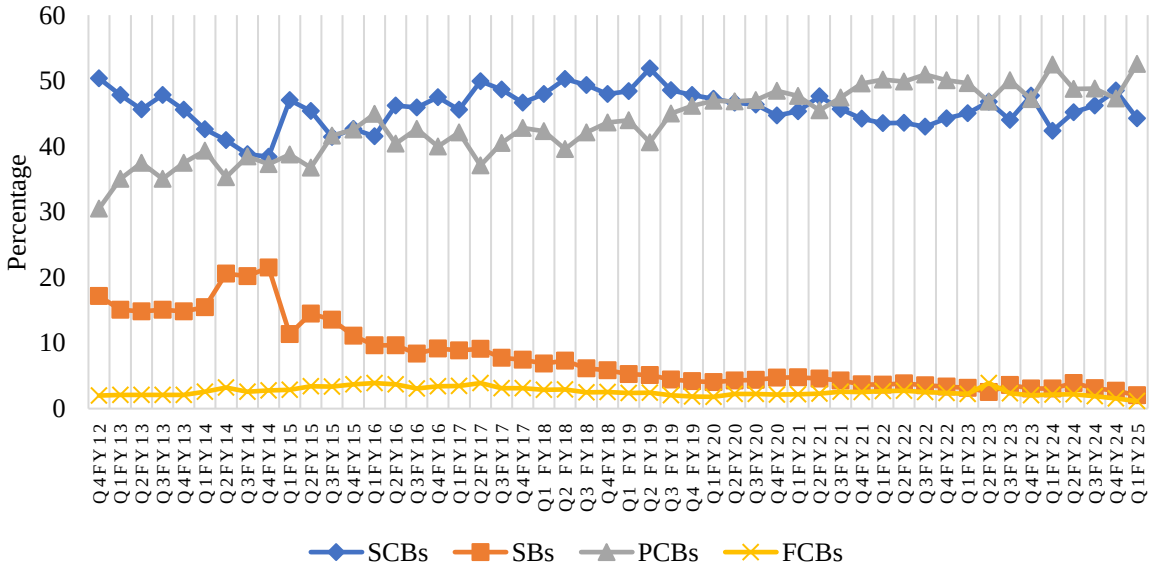


Figure 11.5: Distribution of NPL by Bank Type (as a percentage of total NPL in the Banking Sector)

Source: Bangladesh Bank Quarterly (Bangladesh Bank, 2024b).

Management Capability of Banks: The management indicator evaluates the ability of a bank's board of directors and senior management to effectively perform their roles and identify, measure, monitor, and manage the risks associated with a financial institution's activities. This capability is reflected in the expenditure-to-income ratio of banks, which

indicates how efficiently banks handle their day-to-day operations (Figure 11.6). Yearly data published by the Bangladesh Bank shows how FCBs have generally kept their expenditures to about 50% of their incomes from 1993 to 2023. The case differs significantly for SCBs and PCBs. For SCBs, the average ratio over the period is 0.86 or 86%; for PCBs, the average ratio stands at 0.77 or 77%. However, SCBs have displayed a marginal decline since around 2004, when their ratio was 0.92. The only instance where the SCB expenditure-to-income ratio again reached the 0.9 threshold was in 2016.

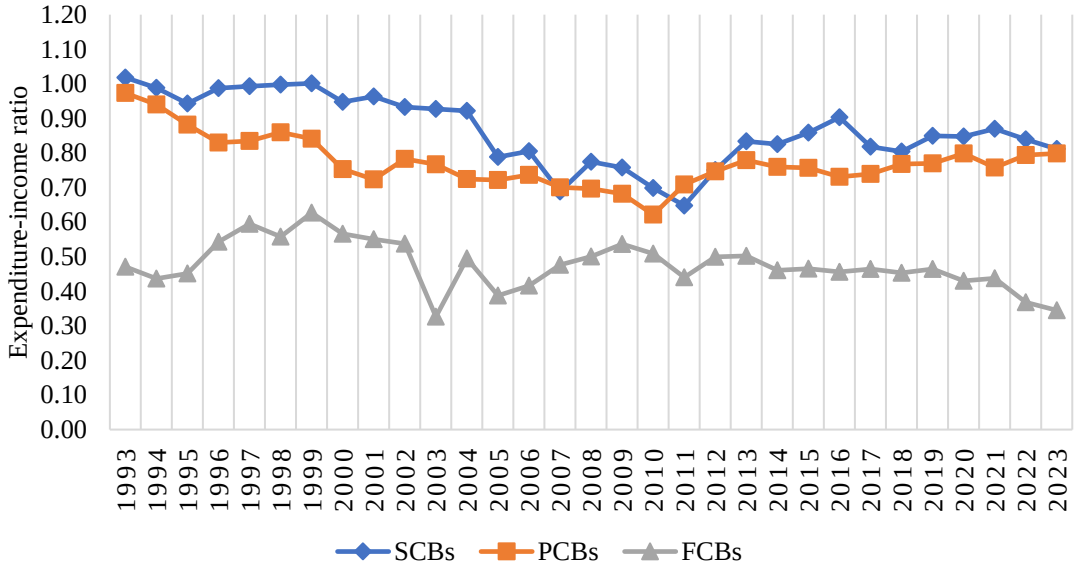


Figure 11.6: Expenditure-Income Ratio
Source: Monthly Economic Trends (Bangladesh Bank, 2024a).

Earnings of Banks: The earnings rating reflects the level and trend of earnings and the factors influencing their sustainability and quality. A decline in earnings indicators signals a diminished capacity of banks to generate sufficient capital through retained earnings and to maintain adequate provisions for loan and lease loss allowances.

Figure 11.7 and Figure 11.8 display the Return on Asset (ROA) and Return on Equity (ROE). The ROA is determined by dividing net income by total assets, while the ROE is calculated by dividing net income by shareholder equity. Both ratios are integral in evaluating banks' performance in greater depth. As of March 2024, the lowest ROA was recorded by Development Financial Institutions (DFIs) in March 2024 at -3.12%, whereas the only other negative value was for the SCB category, which stood at -0.65% (Bangladesh Bank, 2024b). The best-performing banks, in terms of ROA, were the FCBs, which had ROA of 3.92%. While DFIs exhibit the weakest net income compared to total assets, SCBs also demonstrate limited strength in generating income.

A similar pattern is observed for ROE, with DFIs and SCBs recording the lowest average values at -16.5% and -1.15%, respectively (Bangladesh Bank, 2024b). Since DFIs have long-term economic development objectives, they typically finance projects that may be considered too risky for commercial banks. As a result, their negative ROA and ROE

values do not form a focal point of discussion. Conversely, the ROA and ROE ratios for SCBs are a significant concern for the overall performance of the banking sector.

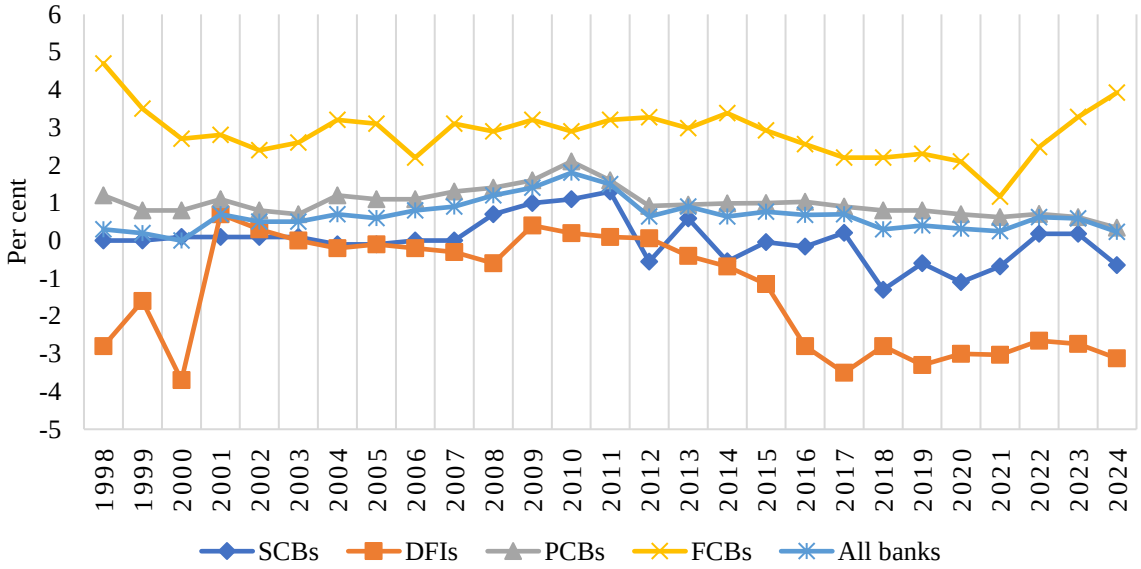


Figure 11.7: Return on Asset (in %)

Source: Bangladesh Bank Quarterly & Annual Report (Bangladesh Bank, 2024b), (Bangladesh Bank, 2024f)

Note: Data for 2023 are annualised data based on December, and data for 2024 are based on March

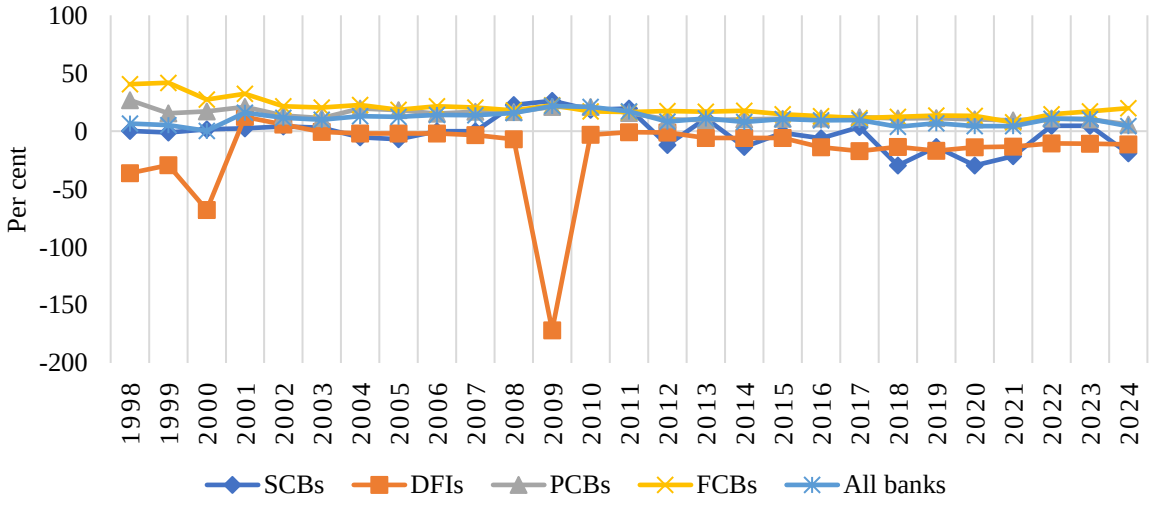


Figure 11.8: Return on Equity (in %)

Source: Bangladesh Bank Quarterly & Annual Report (Bangladesh Bank, 2024b), (Bangladesh Bank, 2024f).

Note: Data for 2023 are annualised data based on December, and data for 2024 are based on March.

Liquidity of Banks: The liquidity position of various banks is crucial in understanding their financial stability and overall performance. Globally, banks must maintain a sufficient amount of liquid assets to remain resilient against unexpected financial shocks; for instance, if depositors suddenly expect banks to go bankrupt and make substantial withdrawals, the liquid assets can be used to keep the bank functioning. In Bangladesh, liquid assets are usually in the form of cash, balances with the Bangladesh Bank and unencumbered approved securities such as Treasury Bills (T-Bills) and Treasury Bonds (T-Bonds) (Bangladesh Bank, 2024g). Figure 11.9 illustrates the patterns of excess liquidity for the various bank categories. FCBs have the highest excess liquidity (as a share of total liquid assets). In the case of Islami Banks (IBs), whose excess liquidity was negative in August, September and October 2024. This implies that these banks have even failed to maintain the minimum required liquid asset levels as mandated by the Bangladesh Bank. Although excess liquidity is generally perceived as a positive indicator, research also indicates that this phenomenon can give banking authorities a false sense of safety and entice them to make riskier investments (Kato & Tsuruga 2016; Acharya & Naqvi 2012; Ahmad, Ahmad and Shaharuddin 2022).

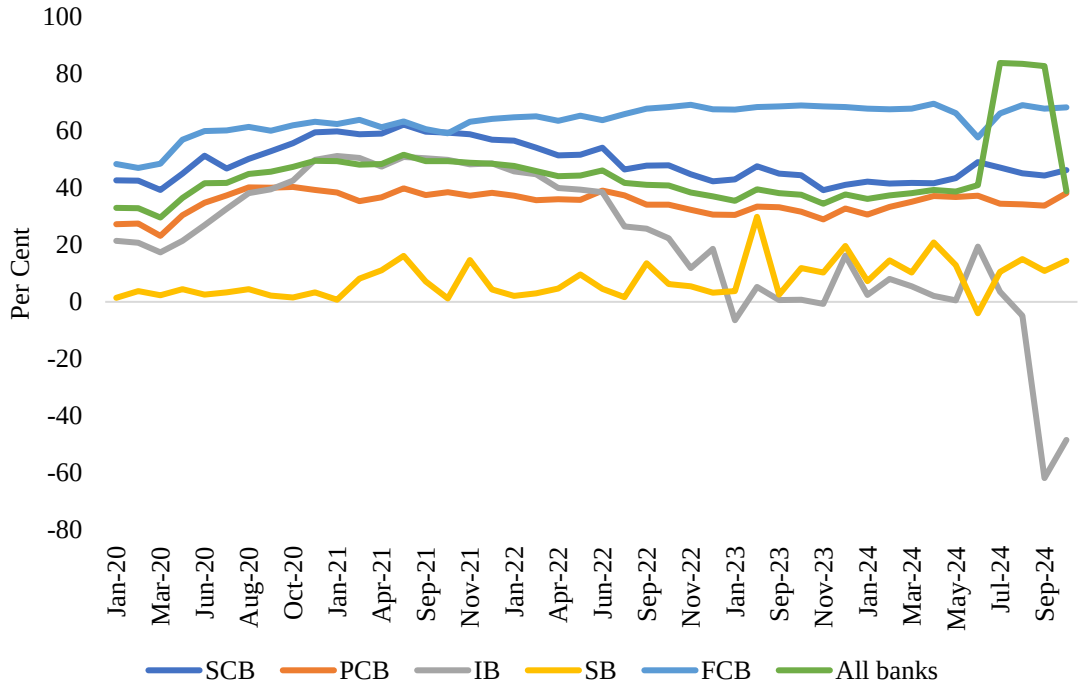


Figure 11.9: Excess Liquidity (as a Share of Total Liquid Assets)

Source: Major Economic Indicators (Bangladesh Bank, 2024g).

Loan Loss Provisioning: Central banks establish provisioning requirements to safeguard banks and, subsequently, the broader financial sector from the risks associated with bad debts. Figure 11.10 illustrates the gap between the required and actual provision maintained by banks from Q4FY2012 to Q1FY2025. The trends in these values remained relatively close until Q2FY2021, after which a significant divergence emerged as the maintained provisions increasingly fell short of the required levels.

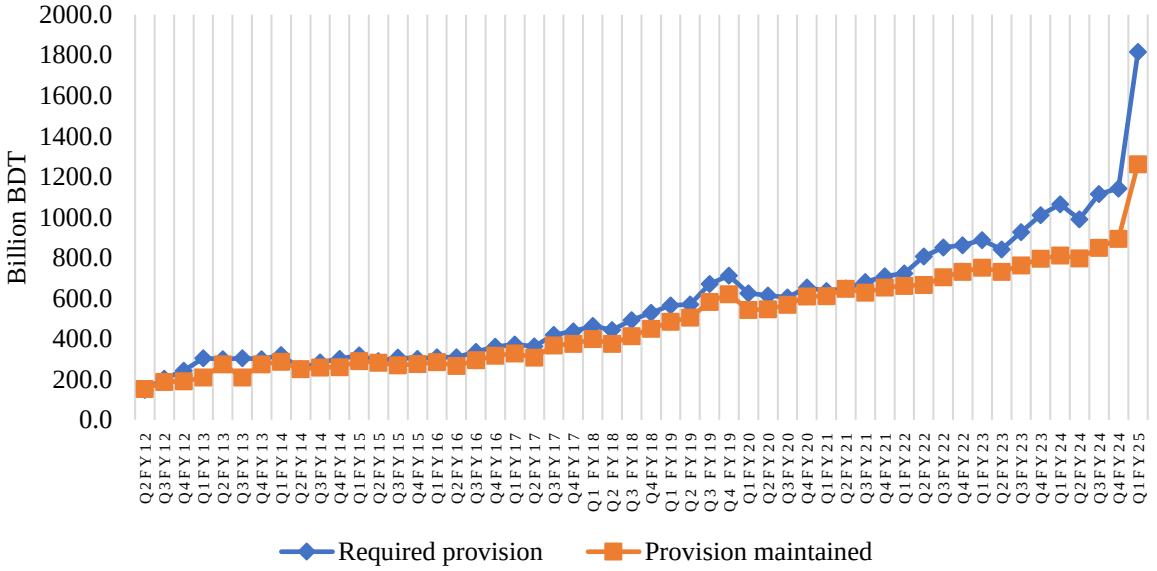


Figure 11.10: Loan Loss Provisioning (in billion BDT)
Source: Bangladesh Bank Quarterly (Bangladesh Bank, 2024b).

The shortfall in loan loss provisioning in Q1FY2025 was BDT 553.78 billion, compared to an excess in loan loss provision of BDT 4.55 billion in Q2FY2012 (Figure 11.11) (Bangladesh Bank 2024b).

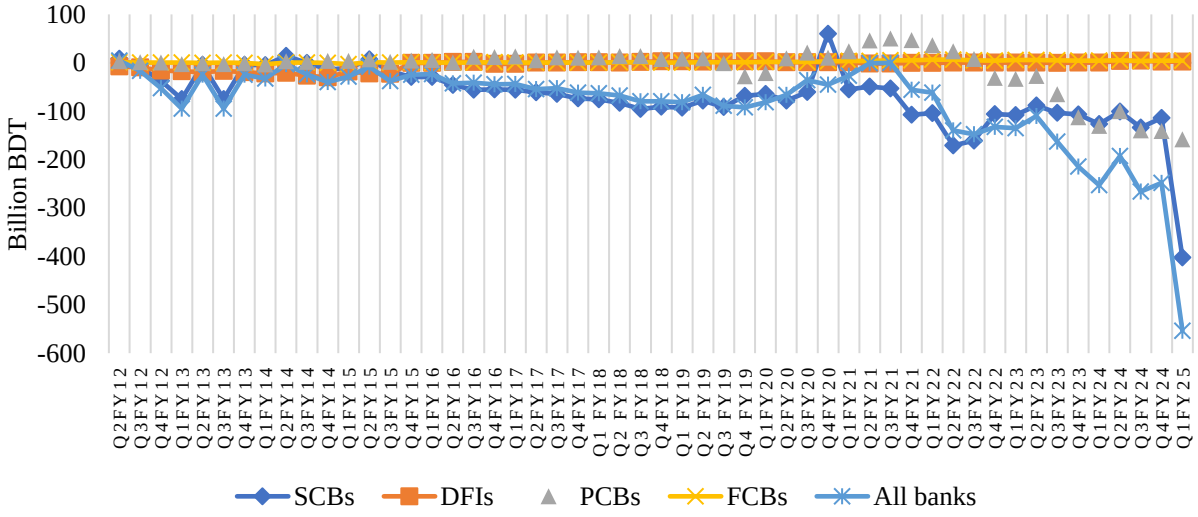


Figure 11.11: Excess or Shortfall in Loan Loss Provisioning (In billion BDT)
Source: Bangladesh Bank Quarterly (Bangladesh Bank 2024b).

Advance Deposit Rate: The Advance-Deposit Ratio (ADR) measures the number of advances or loans made by banks compared to their deposits. A relatively high level of ADR may indicate that banks have lower liquidity levels or are exposing themselves to riskier investments. The regulatory limit of ADR set by the Bangladesh Bank is 0.87

(Bangladesh Bank 2020). However, the recorded ratios for July, August and September 2024 stood at 0.88, 0.89 and 0.89, respectively (Figure 11.12).

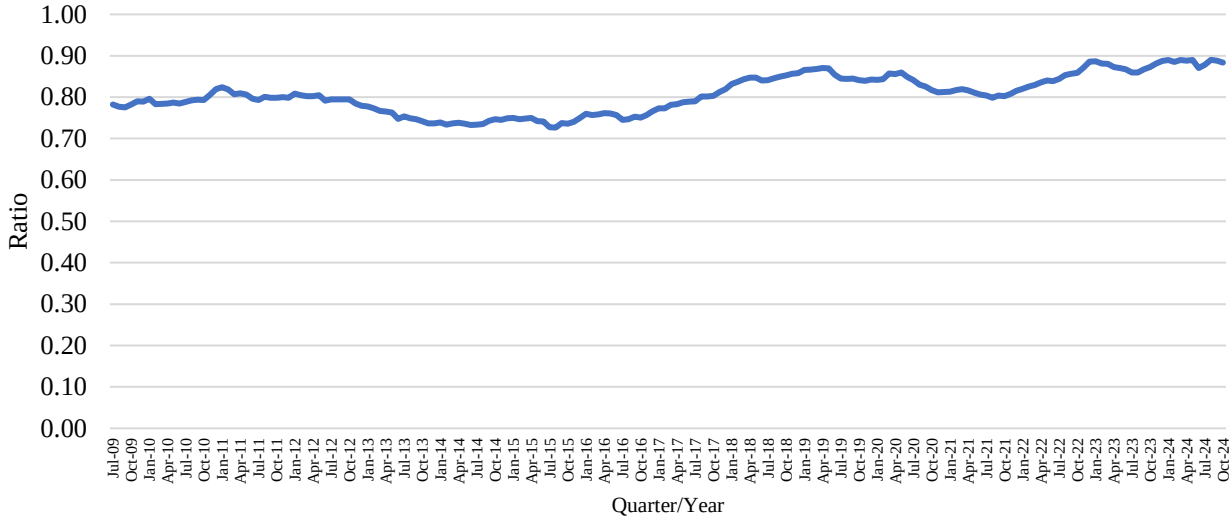


Figure 11.12: Advance-Deposit Ratio
Source: Major Economic Indicators (Bangladesh Bank, 2024g).

11.3 The Menace of NPL

NPLs reached BDT 2,849.77 billion in September 2024, accounting for nearly 17% of the total outstanding loans of the country (Bangladesh Bank, 2024b). As of September 2024, SCBs had an NPL ratio of 40.35% of their total disbursed loans. Moreover, PCBs recorded an NPL ratio of 11.88% (Bangladesh Bank, 2024b). In the case of FCBs, the share of NPL was 4.99% of their total disbursed loans. SBs reported NPLs of 13.21% of their total disbursed loans (Bangladesh Bank, 2024b).

NPLs, also referred to as Non-performing Assets (NPAs), derive their names from the fact that loans are considered assets on a commercial bank's balance sheet. Loans generate cash flows for banks through the repayment of principal and interest. According to the International Monetary Fund (IMF), loans should be classified as NPLs if: (i) payments of principal or interest are overdue by 90 days or more, (ii) interest payments equivalent to 90 days or more have been capitalised, refinanced, or rolled over, and/or iii) there is sufficient evidence to classify a loan as non-performing even without a 90-day overdue payment, such as when the borrower files for bankruptcy. The IMF recommends the 90-day threshold as an upper limit but allows for stricter definitions of NPLs (IMF, 2006). However, there is no globally uniform definition of an NPL, as definitions suitable for one country may not be appropriate for another. This lack of standardisation complicates cross-country comparisons of NPLs, often requiring adjustments to the data. Despite these challenges, the 90-day threshold remains the most widely used criterion by countries to determine whether a loan is non-performing (Cortavarria et al, 2000).

NPLs pose a significant threat to a country's financial stability and economic development. While they may appear relatively harmless at first glance—seemingly arising because borrowers are unable to repay loans associated with high interest rates—research suggests otherwise. Studies indicate that high interest rates are not generally a primary cause of elevated NPL levels in Bangladesh (Mujeri & Younus 2009; Hossain, 2012). However, for Small and Medium Enterprises (SMEs), high interest rates may contribute to the prevalence of NPLs (Jahan, 2016).

In Bangladesh, the mismanagement of SCBs, coupled with widespread malpractices and corruption, has significantly contributed to the high levels of NPLs (CPD, 2018a). Loans were frequently granted based on political affiliations rather than objective credit risk assessments. In many cases, borrowers' creditworthiness was overlooked in favour of their political influence, fostering a perception that strong political connections were sufficient to secure large loans. Furthermore, the government's practice of channelling funds to loss-making state-owned enterprises through SCBs has exacerbated the NPL crisis, further undermining the financial stability of these institutions.

Studies indicate that NPLs primarily stem from uncertainty and corruption, both of which significantly hinder the growth of a country's banking sector (Park, 2012; Moshirian & Wu 2012; Lin 2012; Serwa 2010). In the context of Bangladesh, political instability, corruption, poor governance, and a weak rule of law are identified as the key factors contributing to the high prevalence of NPLs (Banerjee et al, 2017; Alam 2015).

The severity of the NPL crisis is so profound that it impairs resource allocation to critical sectors of the economy. Funds trapped in NPLs could otherwise be directed towards essential social sectors in the country. Figure 11.13 illustrates that the amount of NPLs in Bangladesh has been rising rapidly in recent years and that NPL in 2024, the total NPL amount exceeded the combined annual budget allocation for education and health.

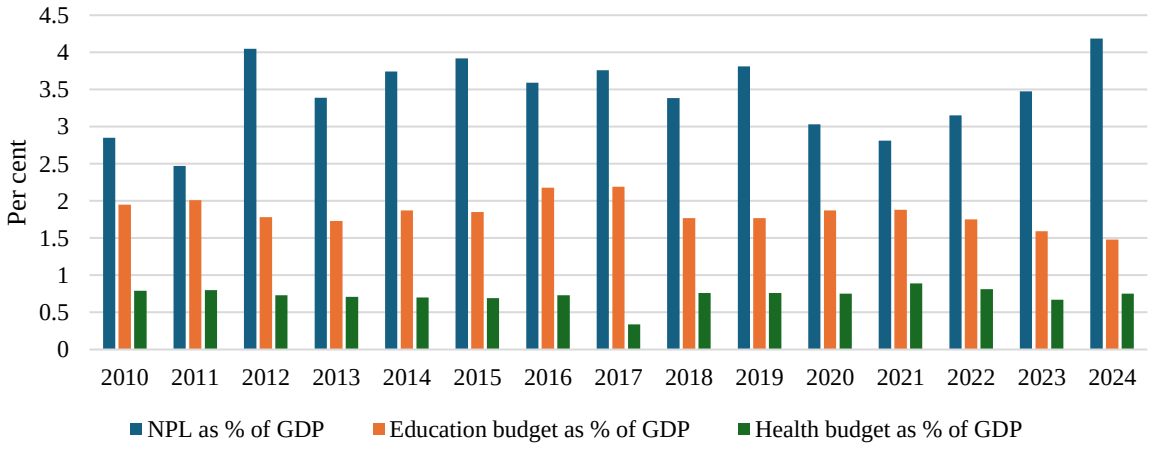


Figure 11.13: NPL Compared to GDP and Budget Allocations for Education and Health

Source: Bangladesh Bureau of Statistics (BBS), Bangladesh Bank Annual Report (various years), Budget documents (various years), Ministry of Finance.

Note: NPL data is for calendar years; all other data are for fiscal years.

11.4 Weak Governance at Various Levels Causes High NPL

Studies on Bangladeshi banks' corporate governance standards indicate that there is a lack of oversight by regulatory bodies, domination of private investors, a lack of openness and disclosure, and ineffective institutional oversight (Chowdhury, 2010). Studies have also cited poor bankruptcy laws, lack of shareholder participation (Ahmed, Zannat & Ahmed 2017) and political interference (Reaz & Arun 2006) as significant obstacles to attaining good governance in the banking sector of Bangladesh. The power of social elites also came to the forefront in some studies (Haque, Jalil & Naz 2007; Reaz & Arun 2006), which mentioned that certain families tend to dominate bank ownership and impede fairness, accountability, and transparency.

For a stronger and safer banking system, governance is the key. Based on a detailed review of literature on banking studies, the connection between governance and NPL can be explored under four categories: i) institutional, ii) regulatory, iii) legal, and iv) data and informational. Under each category, six governance issues were identified. These are presented below and in Table 11.1.

Governance concerns under the institutional category encompassed the following issues:

(i) Government-appointed and controlled bank directors, Chief Executive Officers (CEOs), and senior officials (Islam, 2017; Alo 2018; Khatun, 2012; Khatun & Saadat 2019);
(ii) Loans approved for political reasons (Parven, 2011; Khatun 2012; Habib 2017);
(iii) Loan rescheduling despite inadequate repayment history (Habib, 2017; Khatun 2018; CPD 2019a);
(iv) Loan write-offs to improve balance sheets (Khatun 2018; CPD 2019a);
(v) Inadequate internal controls and compliance risk management in banks (Chowdhury, 2010; Khatun, 2012; Habib 2019); and
(vi) Failure of certain banks to meet BASEL III standards (Habib, 2019; Khatun 2018; CPD 2019a).

Under the regulatory category, governance concerns comprised the following aspects:

(i) Dual regulation by the Financial Institutions Division and the Central Bank (Reaz & Arun, 2006; Khatun 2012; Khatun 2018; CPD, 2019a);
(ii) Absence of autonomy of the Central Bank (Reaz & Arun, 2006; Khatun, 2012; Khatun, 2018; CPD, 2019a);
(iii) Preferential treatment for defaulters by the Central Bank (CPD, 2019a);
(iv) Arbitrary issuance of bank licenses to crony capitalists (Nabi, 2016; Khatun 2018);
(v) Government-led recapitalisation of banks (Khatun, 2018; CPD 2019a); and
(vi) Quasi-monopolistic dominance of a select few banking oligarchs (Haque, Jalil & Naz 2007; Reaz & Arun 2006; Khatun, 2018; Khatun & Saadat 2019).

Governance issues within the legal domain consisted of the following aspects:

(i) Modifications to the Banking Company Act favouring vested interests (Khatun, 2018; CPD 2019a);

(ii) Deficiencies in the Financial Loan Court Act (Adhikary, 2006; CPD 2019a);
(iii) Loopholes in Bankruptcy Act (Ahmed, Zannat & Ahmed, 2017; CPD 2019a);
(iv) A lenient legal approach towards wilful defaulters and dishonest bank officials (Islam, 2018; Habib, 2019);
(v) An inadequate number of judges adjudicating loan cases (Khatun, 2018; CPD 2019a); and
(vi) Protracted delays in the judicial process and an extensive backlog of cases (Adhikary, 2006; Khatun 2018).

Governance issues about data and information involve the following areas:

(i) Restricted access to up-to-date data (Chowdhury, 2010; CPD, 2019a);
(ii) Concerns around the integrity of data (Habib, 2019; CPD, 2019a);
(iii) Lack of disaggregated data (Chowdhury, 2010; CPD, 2019a);
(iv) Minimal integration of data in decision-making and policy formulation;
(v) Not enough openness regarding data utilisation in the decision-making process; and
(vi) Prevalence of misinformation, counterfeit documents, and fraudulent entities employed to secure loans (Khatun 2012; Habib 2019).

Table 11.1: Non-performing Loans and Weak Governance

Institutional	Regulatory	Legal	Data and Informational
Bank directors, CEOs and senior officials placed and controlled by the government	Dual regulation by the Financial Institutions Division and the Central Bank	Amendments to the Banking Companies Act to favour vested interests	Limited access to timely data
Loans sanctioned on political grounds	Lack of independence of the Central Bank	Weaknesses in the Financial Loan Court Act	Apprehensions regarding the quality of data
Rescheduling of loans despite poor record of repayment	Privileges given to defaulters by the Central Bank	Loopholes in the Bankruptcy Act	Absence of disaggregated data
Writing off loans to reduce tax burdens and clean balance sheets	Bank licences given arbitrarily to crony capitalists	Delays in the judicial process and a long backlog of cases	Low reflection on the use of data in decision-making and policy measures
Weak internal control and compliance risk management of banks	Recapitalisation of banks by the government	Insufficient number of judges dealing with loan cases	Lack of transparency about the use of data in the decision-making process
The inability of some banks to comply with BASEL III requirements	Quasi-monopolistic power of a few bank oligarchs	The lenient legal stance against wilful defaulters and corrupt bank officials	False information, forged documents and fake companies are used to obtain loans

Source: Authors' compilation.

11.4.1 Robust Institutional Framework is Absent in Several Commercial Banks

The boards of many banks include members who lack expertise in banking or finance. The appointment process for bank board members has become highly politicised. The qualifications for being a board member in the SCBs are political connection and loyalty

instead of competence and experience. The fact that the Ministry of Finance (MoF), rather than the Bangladesh Bank, controls SCBs' boards of directors, managing directors, and deputy managing directors is a significant cause for concern about the independence of SCBs (Islam, 2017).

The internal control department of SCBs and many PCBs remain weak. During financial scams of the past, it was discovered that the internal control departments, either willingly or unwillingly, had failed to inform the board of directors regarding significant losses (Khatun, 2012). Credit risk assessment and monitoring systems within banks should be strengthened to reduce irregularities. Additionally, bank management should mandate stricter disclosure requirements for financial statements and loan portfolios. Furthermore, the role of independent audits is crucial, and banks should have independent audit committees to oversee regulatory compliance and governance practices.

Many banks have yet to fully recognise the importance of training and development. Indeed, the lack of capacity building remains a persistent issue affecting SCBs in Bangladesh (Khatun, 2012). SCBs cannot handle the sector's emerging challenges without human resource development through enhanced skills. Both SCBs and PCBs must organise regular training programmes for bank employees on risk management, compliance, and technological advancements.

11.4.2 Autonomy of the Bangladesh Bank Undermined Repeatedly

The Bangladesh Bank has implemented several macroprudential initiatives to reduce systemic risk and forestall interruptions to the financial system (Bangladesh Bank, 2024f). These include caps on loan growth, leverage ratios, capital conservation buffers, and counter-cyclical capital buffers. Credit growth, loan-to-value ratios, debt service-to-income ratios, amortisation periods, unsecured loans, and exposure limitations on household credit are all capped by these rules. Another way to keep NPL under control is to keep track of the money owed by the borrowers. A bank's liquidity may be regulated using statutory liquidity ratios, loan-to-deposit ratios, net stable funding ratios, liquidity coverage ratios, and cash reserve ratios. Unfortunately, the Central Bank's efforts to lower the sector-wide amount of NPLs have been in vain (Khatun, 2018). This indicates that good policies are not enough to achieve desired results unless the right people are in place to implement those.

In 2010, a new division called the Financial Institutions Division (FID) was created under the MoF. This initiated dual banking sector regulation—by the Bangladesh Bank and FID. The establishment of FID was contradictory to the Bangladesh Bank (Amendment) Act, 2003, which gave autonomy to the Central Bank for operations, monetary policy formulation and implementation. One example of how the FID of the MoF undermines the sovereignty of the Bangladesh Bank can be seen in the FID's mandate, which states that its primary responsibility is the ‘administration and interpretation of the Bangladesh Bank Order, 1972 (P.O. No. 127 1972) and orders relating to the specialised banks and other matters about state-owned banks, insurance and financial institutions’ (MoF, 2017).

By asserting this function within its mandate, the MoF has effectively established its authority to supervise the governance of the Bangladesh Bank (CPD, 2024b).

Following the establishment of FID, new banks were granted licences based on political considerations, NPLs escalated, and the overall governance of the banking system deteriorated significantly. In 2013, the government sanctioned the establishment of nine new private commercial banks: Meghna Bank Limited, Midland Bank Limited, Modhumoti Bank Limited, NRB Bank Limited, NRB Commercial Bank Limited, NRB Global Bank Limited, South Bangla Agriculture and Commerce Bank Limited, The Farmers Bank Limited, and Union Bank Limited. In addition to having politically influential owners, these banks had questionable economic justifications. As an illustration, a study revealed that 95% of the officials thought that the newly established banks were superfluous (Nabi, 2016). Despite these findings, the government approved these nine additional PCBs.

Additionally, the Bangladesh Bank gave the green light to three private commercial banks—Citizen Bank, People's Bank, and Bengal Commercial Bank—on 17 February 2019 (Dhaka Tribune, 2019; The Daily Star, 2019a; The Daily Star, 2019b). The Bank Company (Amendment) Act 2013 stipulates that the Central Bank should issue licences for new commercial banks based on economic necessity and prevailing financial conditions. Ironically, this approach is not adhered to in Bangladesh in the case of the issuance of bank licenses. Political influence has been more effective than economic rationale in issuing bank licenses. The license for establishing a new commercial bank has increasingly become a mechanism for the embezzlement of public funds over time (Khatun & Saadat, 2019).

The government frequently recapitalised the NPL-burdened SCBs in past years through budgetary allocations. However, such recapitalisation did not bring any improvements to the NPLs of SCBs. The Government of Bangladesh (GoB) used BDT 157.05 billion on bank recapitalisation from FY2009 to FY2017 (CPD, 2018a).

The existence of two regulatory bodies—the Bangladesh Bank and the FID—did not increase regulation but worsened the state of governance in the banking sector. In an unprecedented series of events, the government used its intelligence agencies to abduct senior officials of Islami Bank on 5 January 2017 and force them to sign resignation letters (The Economist, 2017). Additionally, in 2017, businessman S Alam gained control over seven private commercial banks in Bangladesh (The Daily Star 2017). As a result of this upheaval, these banks' senior management underwent significant transitions (New Age, 2017). The takeover of Islamic Shariah-based banks led to their downfall, and they began experiencing severe liquidity shortages (Rajib, 2024).

In a major security breach, international cyber hackers stole BDT 679.6 crore from the Bangladesh Bank's treasury account with New York's US Federal Reserve Bank. Following this incident, the Central Bank governor had to resign. To this day, neither the

governor nor any other Bangladesh Bank official has been held accountable for the heist. On the contrary, efforts were made to sweep the issue under the rug. The Criminal Investigation Department (CID) report on the Bangladesh Bank heist was deferred for the 80th time as of October 2024 (The Daily Star, 2024).

The political encroachment was also evident in the case of the appointment of the governors of the Bangladesh Bank while the previous regime was in power, which became political appointments to serve the interests of the ruling party instead of the people. The appointment of a government official as governor of the Central Bank contradicts the Bangladesh Bank (Amendment) Act, 2003, which states that 'No person shall hold office as Governor or Deputy Governor who is a member of the Legislature or a Local Government or who is employed in any capacity in the public service of Bangladesh'. However, the previous government disregarded this clause and appointed a career bureaucrat as the Central Bank governor (Bangladesh Bank, 2025b).

11.4.3 NPLs Piled up in a Complex and Dysfunctional Legal Environment

The legal framework for dealing with NPLs, which consists of the Money Loan Court Act 2003 and Bankruptcy Act 1997, has become dysfunctional. The problem with the Money Loan Court Act is that it talks about post-litigation mediation instead of pre-litigation mediation. Post-litigation mediation is often unsuccessful since the parties have damaged their relationship by going to court. Defaulters also misuse the mandatory post-litigation mediation provision to waste time. The Money Loan Court Act needs to be amended to include a provision for arbitration in the event of failure of mediation. The law itself has certain deficiencies which wilful defaulters have exploited. For example, according to the law, a bank or non-bank financial institution must sell or attempt to sell collateral or mortgaged assets before proceeding to court to file a case under the Money Loan Court Act. Banks often find it difficult to possess the property they are supposed to sell. Additionally, the selling process is quite complex and has its legal guidelines. Defaulters usually obtain stay orders from the High Court and delay the course of justice (Zaker, 2022). The low judge–population ratio and insufficient courtroom facilities for judges also hinder the process.

The Money Loan Court Act is clogged with cases. To solve this problem, the cases should be classified according to value and dealt with differently. The Money Loan Court had a total of BDT 1,78,277 crore stuck in 72,543 cases as of February 2024, as reported in the Bangladesh Bank's roadmap to reduce NPL (Bangladesh Bank, 2024e). The inadequate number of judges handling these cases hinders timely resolution. Furthermore, systemic flaws lead to protracted unresolved money lending cases initiated by banks in lower courts. The primary limitation of the Bankruptcy Act is its applicability only to individuals, excluding businesses and cross-border bankruptcy cases (Alam & Azim 2006). Consequently, major defaulters are primarily beyond its grasp.

Crony capitalists have pushed for amendments to the Banking Company Act, which allow more individuals from the same family to sit on the board of directors of a

commercial bank and will enable each director to serve a longer tenure. In 2018, the Bank Company (Amendment) Bill expanded the permissible number of family members nominated to the boards of directors in private banks from two to four. In 2023, the number was decreased to three, but the term of directors was extended to 12 years.

An overall lenient legal stance against wilful defaulters and corrupt bank officials has increased NPLs uncontrollably. For example, BRPD Circular No. 07, dated 3 April 2024, revoked the group default clause and allowed companies of business groups to be eligible for new loans until the parent company is classified as a wilful defaulter.

Over the years, as NPL kept rising, legal actions against wilful defaulters, such as freezing bank accounts, liquidating assets, or blocking transactions, were patently missing. While the media played an essential role in exposing many irregularities in the banking sector, many stories remained untold due to censorship and self-censorship during the previous regime. Many irregularities were revealed after the July mass movement in 2024 (Rajib 2024; Rahman & Rajib 2025), confirming long-held speculations that the banking sector crisis was much worse than the Central Bank's official data indicated.

11.4.4 Access to Reliable and Timely Data Hinders Transparency

The lack of timely and accurate data availability has created a smokescreen that protects wilful defaulters. Data about capital adequacy, asset quality, management efficiency, profitability, and liquidity on a bank-by-bank basis has not been released since 2018. From the websites of banks, it is revealed that numerous weak and inadequately managed banks have consistently failed to provide their obligatory disclosures under BASEL III. Loan classification standards were often and arbitrarily changed, disregarding IMF's criteria for NPL (CPD 2024b).

11.5 Overcoming Challenges and Improving Banking Performance

11.5.1 Role of Asset Management Company

The previous government considered forming an Asset Management Company (AMC) to reduce the large volume of NPLs (Uddin, 2019a). An AMC is a public, private, or joint entity that oversees NPAs extracted from the banking system, aiming to optimise the recovery value of these assets (Cerruti & Neyens 2016). There are two types of AMCs: (i) bank-resolution-type AMCs and (ii) asset-purchasing-type AMCs. Bank-resolution-type AMCs take over NPLs and shut down failed banks. On the other hand, asset-purchasing-type AMCs purchase selected NPLs at a discount using funding provided by government-guaranteed bonds. At the same time, the troubled banks continue operating—albeit with improved asset quality but renewed vulnerability to future NPLs. In both types of AMCs, the government injects an initial equity, which acts as working capital for the AMC. Cross-country evidence suggests that the initial capital provided to an AMC by the government is rarely recovered and is generally acknowledged as the sunk cost of the crisis that the government bears (Cerruti & Neyens 2016).

Figure 11.14A and Figure 11.14B illustrate how bank resolution type AMCs and asset purchasing type AMCs work.

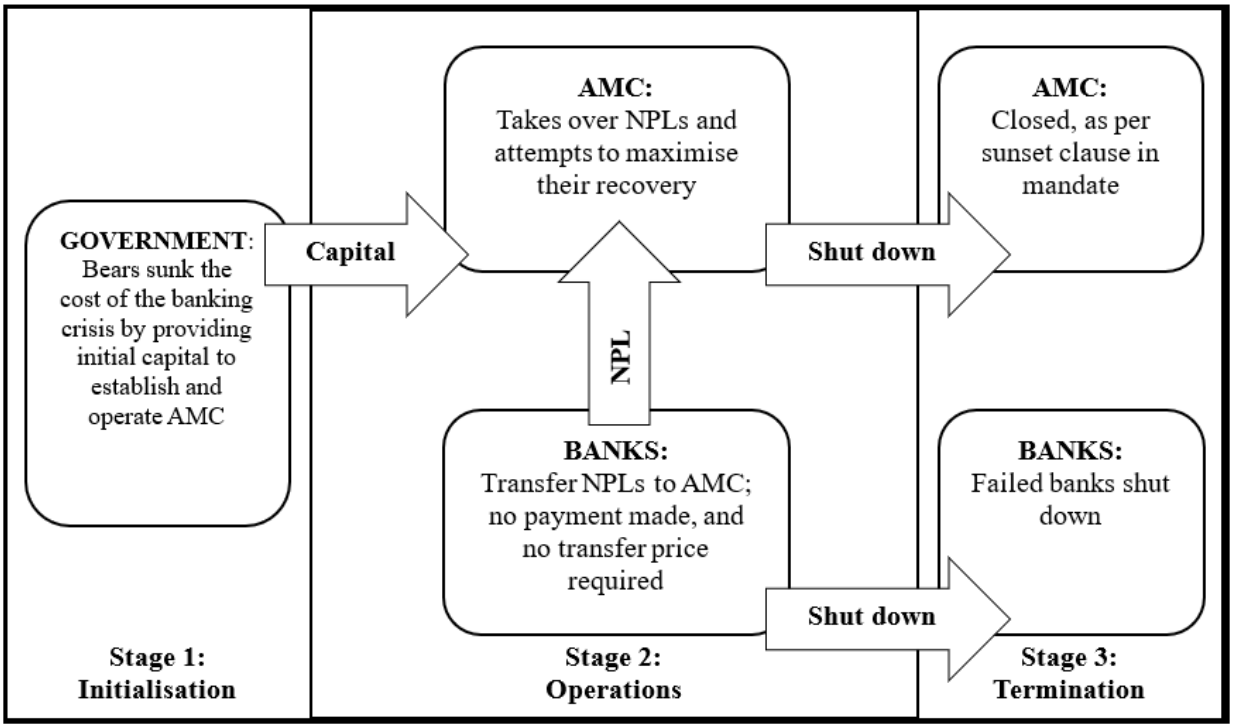


Figure 11.14 A: Schematic diagram of Bank-Resolution-Type AMC

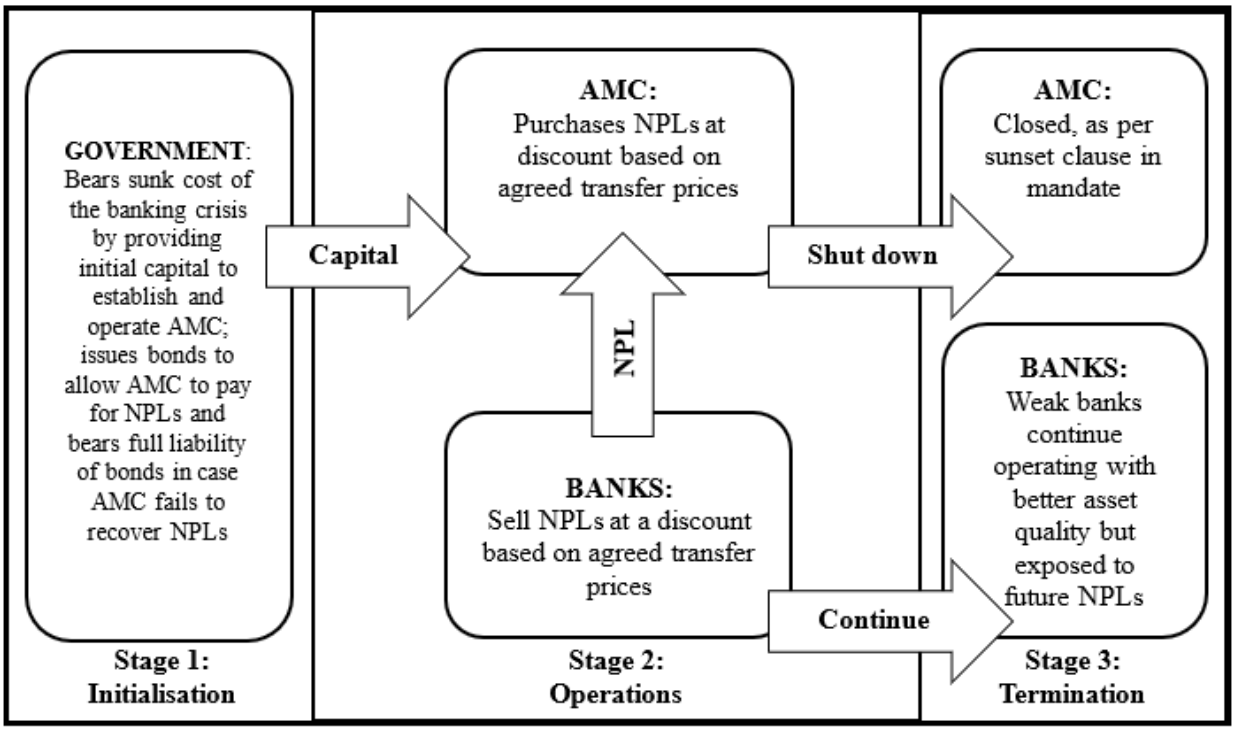


Figure 11.14 B: Schematic Diagram of Asset-Purchasing-Type AMC

Figure 11.14: Schematic Diagram of AMCs

Source: Authors' illustrations based on Cerruti & Neyens (2016).

Features of a Bank-Resolution-Type AMC: During the initialisation phase of a bank-resolution-type AMC, the government absorbs the bank crisis's sunk costs by providing the funds needed to establish and operate the AMC. In the operation stage, non-performing assets of troubled banks are transferred directly to the AMC without any payment being made. Troubled banks are restructured or wholly or partially liquidated by the AMC. In the termination stage, the AMC is shut down as per the sunset clause in its mandate, and the failed banks are also shut down. Thus, in its attempts to reduce the volume of NPL, the bank-resolution-type AMC also reduces the number of weak banks.

Moreover, the bank-resolution-type AMC exerts a relatively lower financial burden on the government than asset-purchasing-type AMCs. This is because the government must only pay the sunk cost of establishing and operating the AMC but does not have to issue any bonds to finance the purchase of NPLs by the AMC and is not liable for such bonds in case the AMC fails to perform.

Features of an Asset-Purchasing Type AMC: The government takes on the bank crisis's sunk cost during its initialisation stage by providing the first funding to build up and run an asset-purchasing type AMC. The government also authorises the AMC to issue bonds to finance the purchase of NPLs by the AMC and assumes entire liability for such bonds in case the AMC fails to perform. In the operation stage, the AMC purchases selected NPLs of troubled banks at a discount based on transfer prices agreed upon between the banks and the AMC. In the termination stage, the AMC is shut down as per the sunset clause in its mandate, but the weak banks continue their operations. Although the asset quality of the troubled banks improves after the sale of NPLs to the AMC, these inherently weak banks remain in the financial system and are susceptible to high NPLs once again in the future.

Furthermore, the asset-purchasing-type AMC exerts a relatively higher financial burden on the government than bank-resolution-type AMCs. This is because the government must not only pay the sunk cost of establishing and operating the AMC but also issue bonds to finance the purchase of NPLs by the AMC, and it is liable for such bonds in case the AMC fails to perform.

Preconditions for Establishing an AMC: Regardless of type, it is essential to understand that AMCs are not a panacea for NPLs. Given the high costs associated with starting and running AMCs, their establishment should be contingent upon fulfilling certain preconditions. The World Bank's Public AMC Toolkit offers five preconditions which should be fulfilled before an AMC is established (Cerrut & Neyens 2016) (**Table 11.2**). The first and most important condition for setting up an AMC is ensuring an unflagging commitment to comprehensive reforms and a strong political will to acknowledge the crisis. AMCs can work more efficiently if troubled banks' NPLs are homogeneous. However, without an asset quality review, it is difficult to ascertain the nature of NPLs in Bangladesh's banking sector. Since an AMC does not function in isolation, it requires the support of a robust legal framework and a general culture of institutional independence and public accountability.

Table 11.2: Preconditions for Establishing an AMC

Precondition	Scenario in the Banking Sector of Bangladesh	Condition met?
Dedication to extensive reforms	Several reform initiatives to solve the problems of the banking have been taken by the interim government; however, given the nature and depth of the problem many more are needed	No
Systemic crisis and public funds at risk	The banking sector of Bangladesh has been systemically weakened, jeopardising public finances	Yes
Robust diagnostics, critical mass, and uniformity of NPAs (during asset acquisition)	Asset quality review (AQR) is necessary to determine the kind of NPAs in the banking industry	No (but recently initiated)
Culture of institutional autonomy and public responsibility	The banking sector in Bangladesh can be characterised by crony capitalism, regulatory capture, and limited public accountability	No
Comprehensive legal framework for bank resolution, debt collection, and creditor rights	The legal structure is outdated and ineffective	No

Source: Authors' analysis based on Cerruti & Neyens (2016).

The governance issue is critical for the success of an AMC. Evidence suggests that in the absence of strong governance and transparency, AMCs may fail to achieve their goals in many countries including the Czech Republic and Indonesia (Cerruti & Neyens 2016). Unless the initial mandate of an AMC includes a clearly defined sunset clause that will describe how the AMC operations will be phased out, there may be risks that an AMC may fail to dispose of assets promptly or continue operations for an unnecessarily lengthy period.

Bank-Resolution-Type AMC is a Better Option for Bangladesh: Earlier, the MoF proposed the draft Bangladesh Asset Management Company (BAMCO) Act 2020 to reduce the burden of NPL (Financial Instituitions Division, 2020). BAMCO was envisioned to be a state-owned company which would work under the FID of the MoF. However, there are concerns about efficiency, governance, operation, transparency, and accountability of a state-owned public asset management company.

When some pre-conditions are met, bank-resolution-type AMCs would be a better option for Bangladesh, since they involve less financial burden for the government and can improve the overall efficiency of the banking sector by shutting down failed banks.

An asset-purchasing-type AMC may create a double burden on the government if it must (i) finance its establishment and (ii) repay the bonds in the event it fails. Since an asset-

purchasing-type AMC depends on funding government-guaranteed bonds to purchase NPLs, it cannot function without a bond market.

Once AMCs are established, there should be a sunset clause about the closure of the AMC. Transparency and accountability of the AMC's whole process of NPL reduction must be ensured. People should be informed of the AMC's performance through regular publication of information.

11.5.2 Merger of Weak Banks with Strong Banks

Historically, mergers in the financial sector became popular due to innovations in technology and an accelerated pace of deregulation (Panetta, Focarelli & Salleo 2003; Huizinga, Nelissen & Vennet 2001; Houston, James & Ryngaert 2001). These mergers are usually carried out with the aim of banks becoming more efficient in their operations by exploiting economies of scale (Panetta, Focarelli & Salleo 2003). This can lead to lower costs, better management capabilities, improved liquidity positions and higher risk-bearing capacities (Focarelli & Panetta 2003) (Houston, James & Ryngaert 2001). Although Mergers and Acquisitions (M&As) are well documented in the global banking sector, the literature on such mergers and banks' performance remains inconclusive (Ullah & Rashid 2024).

In Joshua (2011) and Abdulazeez (2016), it is found that M&As for the case of Nigerian banks have resulted in better financial performance - where Abdulazeez (2016) measured increases in ROA and ROE post-mergers for four Nigerian banks. Houston et al. (2001) also found significant cost cuttings due to bank mergers from analysing the largest bank mergers during the period 1985-1996. Focarelli and Panetta (2003) found that in the long run consumers benefit from mergers through lower deposit rates from M&As in Italy. On the other hand, studies such as Abbas et al. (2014) found contradicting evidence: in Pakistan, M&As did not result in any significant improvement in financial performance. In fact, there was a decrease in profitability, efficiency, liquidity, and leverage ratios for most of the banks taken into consideration. Moreover, Goyal and Joshi (2011) discuss M&As in India and note that, at times, acquisitions can result in employee dissatisfaction and subsequent inefficiencies. Lebedev et. al. (2015) discusses that in emerging economies M&As may positively or negatively impact the shareholder value for the acquirer bank. Evidently, the studies connecting bank mergers and post-merger bank performance indicate that such mergers and their subsequent outcomes are more likely to be case-specific.

In the case of Bangladesh, many banks are not healthy enough to continue their banking operations as their capital has dried up, and they are surviving on liquidity support from the Bangladesh Bank. However, this cannot be sustained as the Bangladesh Bank cannot continue to print money, which will fuel inflation further when prices are already very high. On the other hand, there are social costs of closing down these banks. Depositors will lose their money, and thousands of employees will become unemployed with a low prospect of getting another job in a market where jobs are scarce. Therefore, these banks

will have to merge with better banks to be salvaged from difficult situations. In early December 2023, the Bangladesh Bank published the Prompt Corrective Action (PCA) Framework through BRPD Circular No-17 which mentioned the issue of bank mergers (Bangladesh Bank, 2023). In February 2024, the Bangladesh Bank announced a roadmap for banking where the merger of weak banks with strong banks was mentioned (Hasan, 2024). However, that was abrupt, and there was no consultation with the strong banks about whether they would be interested in merging with the distressed banks. Therefore, the move was unsuccessful as both banks and customers became worried about the possible outcome of such mergers.

One of the primary issues was the approach of forced mergers, where stronger banks were being compelled to take on the liabilities of weaker banks. Such a strategy risked penalising successful institutions by burdening them with the failures of others. Additionally, there was a potential for rewarding failure, as directors of weak banks could regain leadership positions after a mandatory gap of five years. Furthermore, a lack of transparency in the process led to doubts about the accuracy of the weaker banks' financial assessments and the merger strategy's overall credibility.
Mergers in the banking sector present several operational and strategic challenges. In addition to job losses, integrating different organisational cultures could lead to clashes and inefficiencies. From an operational standpoint, the integration of IT systems poses significant risks, including service disruptions and data security vulnerabilities, due to incompatibilities between the systems of merging banks. Customers are also likely to face confusion and concerns during the merger process, as they may experience uncertainty about their accounts, deposits, the quality of services, and the security of their data. Moreover, a short-term focus on addressing immediate merger-related challenges may result in an oversight of the underlying structural issues in the banking sector. If these issues are not addressed, the financial health of some institutions may continue to deteriorate, potentially leading to new risks.

The merger plan was on hold as various concerns were raised after the announcement. Mergers are lengthy and complex processes for which adequate preparation and transparency are needed. Mergers cannot be based on authorities' arbitrary decisions. Successful mergers necessitate a strategic approach that addresses the fundamental challenges of the banking sector rather than merely offering a superficial solution. A strategic approach must encompass specific objectives, emphasise operational efficiency and customer satisfaction, and tackle underlying issues. Although successful mergers can yield favourable results, such as decreased NPLs and enhanced efficiency, the primary concern in the banking sector continues to be the enhancement of corporate governance and the establishment of accountability (Khatun, 2024).

11.6 Banking Sector Reforms in Bangladesh

11.6.1 Key Measures Taken in the Past

Following Bangladesh's independence in 1972, the GoB adopted a socialist economic vision, leading to significant state involvement in various sectors, including banking and

finance. Commercial and specialised banks were brought under government control as part of this approach. However, by the 1980s, the government began liberalising the economy due to inefficiencies and deteriorating performance within the banking sector. This liberalisation included denationalising some NCBs and allowing private sector participation to foster competition (Khatun, 2012). The reform process gained momentum in the late 1980s and early 1990s under the guidance of the World Bank and the IMF. In 1986, the National Commission on Money, Banking, and Credit was established to identify banking sector issues and recommend solutions. Key concerns highlighted included weaknesses in the supervisory role of the Bangladesh Bank, structural deficiencies, and the need to address NPAs.

Subsequent reforms included the Financial Sector Reform Programme (FSRP) and Financial Sector Adjustment Credit (FSAC) in the 1990s, which aimed to liberalise interest rates, enhance loan classification and provisioning capacity, implement capital restructuring and risk analysis, strengthen the Central Bank, and improve the legal framework for loan recovery. Even after the FSRP concluded in 1996, successive governments continued implementing banking sector reforms. Notable initiatives included the formation of the Commission on Banking in 1998 and the Banking Reform Committee in 2002.

A significant milestone was the passage of the Bangladesh Bank Amendment Act in 2003, granting autonomy to the Bangladesh Bank to independently formulate monetary policy. The GoB, in collaboration with the World Bank, launched the Central Bank Strengthening Project (CBSP) to improve the regulatory and supervisory framework. The CBSP focused on three key areas: enhancing the legal framework, modernising Bangladesh Bank's operations, and building institutional capacity.

In 2007, four SCBs underwent corporatisation and restructuring to operate more like commercial entities. Supported by the World Bank and overseen by the Bangladesh Bank, the reform measures included merit-based selection of senior management, performance-linked compensation packages, and monitorable targets for reducing NPLs, enhancing profitability, and modernising operations. These efforts yielded some success; for instance, the SCBs reported profits in 2008 and subsequent years, while NPLs decreased, and management efficiency improved, as evidenced by a lower expenditure-to-income ratio (Bangladesh Bank, 2024b).

Legislative amendments and initiatives, such as the Central Bank Strengthening Project in the early 2000s, enhanced the autonomy and supervisory capabilities of the Bangladesh Bank. Simultaneously, reforms aimed at state-owned banks sought to improve their efficiency through corporatisation and gradual divestment. Implementing anti-money laundering initiatives, including forming the Money Laundering Department and the Bangladesh Financial Intelligence Unit (BFIU), indicated an increasing focus on compliance and financial integrity.

The 2000s and 2010s experienced reforms designed to align the banking sector with international standards, notably through implementing Basel II and Basel III guidelines

regarding risk-based capital adequacy. Supplementary measures encompassed the establishment of regulatory frameworks for microcredit, information and communication technology security, environmental and social risk management, and the implementation of customer protection mechanisms. Recent legislative modifications, including amendments to the Bank Company Act, tackled governance concerns by limiting familial influence on bank boards and enforcing more stringent supervision of loan classification and write-offs (Bangladesh Bank, 2024c).

Initiatives to modernise the sector highlighted technological integration, including implementing regulations for electronic fund transfers and payment systems. Revised legislation and implementing 'Know Your Customer' guidelines for financial institutions strengthened the emphasis on countering terrorism financing and money laundering. Provisions were established for the write-off of longstanding bad debts under certain conditions and the creation of monitoring cells to supervise substantial classified loans.

Nevertheless, although the banking sector has grown and evolved over the years, reform initiatives have not established or maintained a sustained period of good governance. This is because vested interest groups have managed to emerge and overpower the regulators and overturn the regulations. For instance, politically connected business groups changed the Banking Company Act in their favour. Likewise, reforms implemented under the Central Bank Strengthening Project became ineffective following the establishment of the FID in 2010 (CPD, 2024b). This underscores that banking sector reform in Bangladesh remains an unfinished agenda.

11.6.2 Recent Reform Initiatives

In a master circular published on 27 November 2024 (to be effective from 01 April 2025) by the Banking Regulation and Policy Department (BRPD), the Bangladesh Bank asserted its plan to implement the Expected Credit Loss (ECL) methodology-based provisioning system for banks. This was guided by a desire to align provisioning guidelines with the International Financial Reporting Standard (IFRS 9) by 2027 (Bangladesh Bank, 2024c). The ECL method is a forward-looking approach that estimates the likely future loss on loans and enables financial institutions to adjust their records accordingly. This contrasts with the previously used incurred loss approach, which means that losses are only recognised when borrowers default on loans (Bank for International Settlements, 2017). Increased ability to account for future losses and appropriate provisioning could make the banking sector more risk-aware and less susceptible to NPLs.

A series of changes were made regarding fixed-term loans – wherein the 'grace' periods for any unpaid instalments were gradually reduced. On 8 April 2024, the Bangladesh Bank published a circular stating that any unpaid instalments (or part of instalments) will be considered overdue 3 months after the expiry date. While this has been effective since 30 September 2024, previously, borrowers were granted up to 6 months before their unpaid term loans were considered overdue (Bangladesh Bank, 2024n). This

consideration period will be further tightened from 31 March 2025, when the Bangladesh Bank will consider unpaid term loans overdue from the following day of the expiry date (Bangladesh Bank, 2024n).

In recent years, the Bangladesh Bank has also changed applicable lending rates in the economy. Effective April 2020, a lending rate cap of 9% was initiated (Bangladesh Bank, 2024h). However, this was rectified in July 2023 as the Bangladesh Bank adopted a crawling peg interest rate regime known as the Six-Month Moving Average Rate of Treasury Bill (SMART). Finally, in line with international best practices, the Central Bank returned to a full-fledged market-based interest rate system after four years in May 2024 (Bangladesh Bank, 2024h). These policy changes have been undertaken to reduce inflationary pressures in the economy with the expectation that banking interest rates will rise and reduced economic activity will allow prices to cool down (CPD, 2024c). The Bangladesh Bank has also been steadily raising the policy rate (the rate at which the Central Bank lends money to commercial banks)—with the objective of adopting a contractionary monetary policy stance and reducing the persistent inflation in the country (CPD, 2023). After the uprising in July 2024, the newly appointed Bangladesh Bank governor raised the policy rate three times till October 2024 —from 8.5 to 9% in the last week of August (Bangladesh Bank, 2024i) to 9.5% in September 2024 (Bangladesh Bank, 2024j) and finally to 10% in October 2024 (Bangladesh Bank, 2024k). The continuous increases in the policy rate have been primarily aimed towards curbing inflation, but it has made bank borrowing more costly.

A step taken by the Financial Stability Department (FSD) (issued in a circular on 30 December 2024) updated the guidelines on stress testing (Bangladesh Bank, 2024l). Stress testing allows financial institutions to understand how they will perform under various circumstances, such as adverse external shocks. According to their guidelines, all scheduled banks must perform the stress tests every quarter and report them to the Risk Management Committee (RMC) and Board of Directors (BoD). These quarterly dates correspond to 31 March, 30 June, 30 September and 31 December. The guidelines state that banks must submit soft copies of stress test reports within 30 days of each quarter end.

The FSD circular of 30th December 2024 also briefly mentions that the Bangladesh Bank will conduct macro-prudential stress tests aimed towards large and Domestically Important Bank (DSIBs). However, no elaboration is provided for this in the document. The banking stress testing instructions make the BoD and the CEO the predominant authority in undertaking the stress testing programmes within the bank. On the other hand, senior officials are supposedly accountable for the programme's day-to-day operations. Not outlining precise regulations in the makeup of the governing and implementation parties involved in the stress-testing activities may make the system susceptible to corruption, especially considering previous illicit activities within the banking sector (Rajib, 2024; Rahman & Rajib, 2025). It is noteworthy that the first initiation of formal stress testing for banks occurred through a circular published in April

2010 (Bangladesh Bank, 2010). However, since this initiation up to the period leading up to the uprising of July 2024, updates were published only once in February 2011 (Bangladesh Bank, 2011).

The stress testing programme would be instrumental in analysing banks' credit, market, operational, and liquidity risks and act as a primary risk identification and monitoring tool at the individual financial institution level (Bangladesh Bank, 2024l). Another development through the introduction of these guidelines has been the inclusion of climate shock as a factor in assessing the vulnerability of bank loans. The Bangladesh Bank has adopted a Climate Vulnerability Index (CVI) to consider what portion of district-level loans could be impacted by climate shocks. Overall, this newly published guideline on stress testing after a gap of 14 years indicates the commitment of the Bangladesh Bank to address the NPL problem.

Another significant development after the appointment of the new governor of the Bangladesh Bank has been the enactment of 'The Special Regulations for Bangladesh Bank, 2024' (Bangladesh Bank, 2024m). This states that the Bangladesh Bank will appoint International Consulting Firms (ICFs) to ensure the independent and proper audit of banks. Prominent international firms Ernst & Young (EY) and KPMG have been contracted to conduct audits of six Bangladeshi banks such as First Security Islami Bank, Exim Bank, Global Islami Bank, Social Islami Bank Limited (SIBL), ICB Islamic Bank, and Union Bank.

International development partners such as the Asian Development Bank, the United States Agency for International Development (USAID), the Foreign, Commonwealth and Development Office (FCDO), the IMF, and the World Bank have committed to support the Bangladesh Bank to undertake reforms aimed at bolstering governance, improving asset quality, enhancing financial inclusion, and ensuring financial resilience (ADB, 2024; ERD, 2024; World Bank, 2024; IMF, 2024).

11.7 Policy Recommendations

Robust governance is the precondition for overcoming the vulnerabilities of the banking sector in Bangladesh. This must be achieved through reforms in the sector. The banking sector must follow a comprehensive governance framework that includes accountable management, competent board directors, transparent internal control systems, robust audit mechanisms, sound risk management systems, strong supervisory oversight, and technological adoption.

11.7.1 Commercial Banks Need to be Strengthened

Short term measures

- ***Ensure proper loan sanctioning:*** Loans should be sanctioned based on the Central Bank's "Guidelines on Internal Credit Risk Rating System for Banks", and all large loans above a certain threshold should require approval from the

senior management and board of commercial bank as well as approval from the Central Bank.

- ***Enforce single borrower exposure:*** The single borrower exposure limit for commercial banks should be strictly enforced.
- ***Stop rescheduling and write-offs***: Repeated rescheduling and write-offs of NPLs should be stopped permanently, and the Bangladesh Bank should penalise commercial banks if there is any non-compliance with regulations for rescheduling.
- ***Appoint administrators for troubled banks***: The Bangladesh Bank should appoint firm administrators to oversee the operation of troubled banks which cannot comply with BASEL III requirements.
- ***Replace management and boards***: Banks performing poorly should have their management and board of directors replaced with competent people.
- ***Depoliticise bank boards***: The appointment of board members of commercial banks should be depoliticised and based only on qualifications and experiences.
- ***Limit tenure of the board of directors in banks:*** The tenure of board members of commercial banks should be shortened from 12 consecutive years to six consecutive years, and the minimum time between the end of one tenure and the start of the next tenure should be increased from three years to six years.
- ***Mandate approvals for appointment and promotion***: Appointment and/or promotion of senior management positions up to two tiers below the rank of CEO or Managing Director (MD) of commercial banks should require approval from the Bangladesh Bank.
- ***Postpone digital banks***: The establishment of digital banks must be postponed until the existing problems in the banking sector are resolved effectively. Licenses awarded to digital banks should be cancelled, and the license fees should be returned to the applicants.

Medium-term measures

- ***Strengthen internal control and compliance***: Internal Control and Compliance Departments of commercial banks should be revitalised, and effective internal audits should be ensured.
- ***Shutdown banks kept on life-support***: Banks on the verge of collapse should be allowed to shut down.

Long term measures

- ***Prohibit weak bank board directors from joining bank boards after merger***: Board members of weak banks should not be allowed to sit on the board of the strong banks after the merger.
- ***Modernise banking systems***: Core banking systems should be modernised to ensure Application Programming Interface (API) compatibility for seamless integration with digital platforms.
- ***Strengthen IT and e-KYC***: IT infrastructure and e-KYC systems must be strengthened, and security concerns related to payment system interoperability must be addressed.

11.7.2 The Independence of the Bangladesh Bank Should be Upheld

Short term measures

- ***Uphold the autonomy of the central bank***: The autonomy of the Central Bank should be upheld in line with the Bangladesh Bank Amendment Bill 2003.
- ***End bailout of banks through recapitalisation:*** Recapitalisation of poorly governed commercial banks with public money should be stopped.
- ***Stop issuance of new bank licenses***: No more licenses for new banks should be given on political grounds without a pragmatic assessment of the need for the economy.
- ***Prevent majority ownership***: A single individual or group of individuals should not be allowed to obtain majority ownership of more than one commercial bank.
- ***Recruit a strong team for BFIU***: The Bangladesh Financial Intelligence Unit should be strengthened by hiring a completely new team to prevent illicit financial outflows and stop previously laundered money from entering the country to destabilise the new interim government or create anarchy.
- ***Close down FID***: In order to remove dual regulation and stop political influence the MoF's FID should be shut down. The functions of the FID can be performed by the Bangladesh Bank.
- ***Hold former governors accountable for their misdeeds:*** Three former governors of the Bangladesh Bank who weakened the banking sector's stability in the past 15 years should be held accountable for their failures.
- ***Publish investigation report on the Bangladesh Bank heist***: The CID report on the Bangladesh Bank heist should be completed soon and published.

Medium-term measures

- ***Formulate exit policy for troubled banks***: An exit policy for troubled banks should be formulated to protect depositors' money in those banks.

Long term measures

- ***Prevent government officials from becoming governor of the Bangladesh Bank***: In line with the Bangladesh Bank (Amendment) Act, 2003, the governor and any deputy governors should not be any current or former government official.

11.7.3 A Conducive Legal and Judicial Environment Should be Created

Short term measure

- ***Establish specialised courts and tribunals***: Additional specialised courts and tribunals, with provisions for virtual hearings, should be established to expedite case resolution and deal with complex or high-value cases.
- ***Amend the Bankruptcy Act***: The Bankruptcy Act should be amended to include corporate bankruptcy and cross-border bankruptcy following the United Nations Commission on International Trade Law (UNCITRAL) on Cross-Border Insolvency.
- ***Amend the Banking Company Act***: The Banking Company Act should be amended so that there is only one member from one family on the board of

directors, and the tenure of each director should be limited to 3 years, with each director being allowed to serve a maximum of two terms in their entire lifetime.

- ***Re-instate group default regulation***: If one company in a group of industries defaults on loan repayment, companies in the same group of industries should not be allowed to take new loans.
- ***Freeze accounts and liquidate assets of wilful defaulters***: Bank accounts of wilful defaulters and their immediate family members should be immediately frozen. Their own and their immediate family members' assets should be liquidated, and their businesses should be nationalised temporarily.
- ***Block transactions of wilful defaulters***: Information on wilful defaulters should be shared with Visa, Mastercard, American Express, and the Society for Worldwide Interbank Financial Telecommunications (SWIFT) network so that those companies block their transactions in other countries.
- ***Promote media trial***: The list of politically connected large borrowers who are wilful defaulters should be disclosed publicly so that they may be put on a media trial.
- ***Introduce harsher penalties***: To enhance discipline, harsher penalties for disobedience of court orders should be implemented, such as instant asset confiscation, bank account freeze, and fines for baseless appeals.
- ***Remove legal loopholes***: Legal loopholes, such as numerous adjournments, abuse of stay orders, or baseless counterclaims, that let defaulters prolong proceedings must be found and fixed.
- ***Recover stolen assets***: All-out legal efforts with the support of national and international partners and stakeholders must be made to recover and repatriate stolen assets.

Medium-term measures

- ***Increase the number of judges***: The number of judges dealing with the Financial Loan Court Act 2003 and Bankruptcy Act 1997 should be increased to ensure speedy disposal of loan default cases and to reduce the backlog.

Long term measures

- ***Pursue Alternative Dispute Resolution***: Efforts should be made to recover NPLs through out-of-court procedures such as Alternative Dispute Resolution.

11.7.4 Integrity and Availability of Timely Data Should be Ensured

Short term measures

- ***Publish reports and data***: Reports and data on individual banks and financial institutions should be published regularly and made publicly available.
- ***Disclose compliance with BASEL III***: All commercial banks should be obliged to make their mandatory disclosures under BASEL III in a timely fashion.
- ***Improve loan classification***: Loans should be classified according to international standards, such as those outlined by the IMF's Financial Soundness Indicators guide.

- ***Implement risk management***: A comprehensive risk management policy should be implemented in all commercial banks to detect and deter fraud, forgery, fake companies, false identities, and other malpractices.

Medium-term measures

- ***Protect consumer data***: Comprehensive data protection laws must be enacted and enforced to secure customer data and regulate data-sharing practices.

11.8 Conclusion

The banking sector in Bangladesh is a cornerstone of the country's financial system, with the potential to play a pivotal role in economic growth and development. Reform measures taken in the past have been inadequate and discontinued as there was no political commitment. The Bangladesh Bank reversed some good policies under political influence. Therefore, persistent governance challenges and inefficiencies have hindered the potential of the banking sector. Many banks still struggle with efficient resource allocation, prudent risk analysis, and robust governance. Several SCBs, PCBs and SBs have faced governance challenges, highlighting persistent weaknesses in the sector. Moving forward, effective governance and comprehensive reforms are imperative to enhance the resilience, transparency, and efficiency of this sector.

References

Acharya, V., & Naqvi, H. (2012). The seeds of a crisis: A theory of bank liquidity and risk taking over the business cycle. *Journal of Financial Economics, 106*(2), 349–366. https://doi.org/10.1016/j.jfineco.2012.05.014

ADB. (2024). *Proposed Programmatic Approach and Policy Based Loan for Subprogram 1 and Technical Assistance Grant. People's Republic of Bangladesh: Stabilizing and Reforming the Banking Sector Program.* Asian Development Bank. Accessed January 11, 2025. https://www.adb.org/sites/default/files/project-documents/58446/58446-001-cp-en.pdf.

Adhikary, B. K. (2006). Nonperforming loans in the banking sector of Bangladesh: Realities and challenges. *Bangladesh Institute of Bank Management, 4*(26), 75–95. Retrieved October 25, 2021, from https://rundz1073.ritsumei.ac.jp/rcaps/uploads/fckeditor/publications/journal/RJAPS_V21_Adhikary.pdf

Ahmad, S., Wan Ahmad, W. M., & Shaharuddin, S. S. (2022). Is excess of everything bad? Ramifications of excess liquidity on bank stability: Evidence from the dual banking system. *Borsa Istanbul Review, 22*(1), S92–S107. https://doi.org/10.1016/j.bir.2022.09.008

Ahmed, S., Jannat, R., & Ahmed, S. U. (2017). Corporate governance practices in the banking sector of Bangladesh: Do they really matter? *SSRN*. Accessed January 19, 2025. doi.org/10.2139/ssrn.2984104

Alam, M. K., & Azim, F. (2006). Law of bankruptcy in Bangladesh: A legal examination. *Dhaka University Law Journal, 17*(2), 41–60. Retrieved January 15, 2025, from https://journal.library.du.ac.bd/index.php/DULJ/article/view/1557/1466

Alo, J. N. (2018). Scams, failures skipped, dev highlighted. *The Daily Star*. Retrieved December 6, 2018, from https://www.thedailystar.net/frontpage/news/ignores-scams-sings-about-development-1665298.

Banerjee, P. K., Mustafa, M. S., Pandit, A. C., Rahman, T., Faisal, N. A., & Amin, S. N. (2017). Credit operations of banks. In T. A. Choudhury, S. M. A. Habib, & M. N. Ahmed (Eds.), *Banking review series 2017* (pp. 1–80). Dhaka: Bangladesh Institute of Bank Management (BIBM).

Bangladesh Bank. (2025a). Banks & FCs. Retrieved January 14, 2025, from https://www.bb.org.bd/en/index.php/financialactivity/bankfi

Bangladesh Bank. (2025b). *Former Governor*. Retrieved January 15, 2025, from https://www.bb.org.bd/en/index.php/about/former_governor/abdur_rouf

Bangladesh Bank. (2024a). *Monthly economic trends*. Retrieved May 8, 2024, from https://www.bb.org.bd/en/index.php/publication/publictn/3/10

Bangladesh Bank. (2024b). *Bangladesh Bank quarterly*. Retrieved May 8, 2024, from https://www.bb.org.bd/en/index.php/publication/publictn/2/7

Bangladesh Bank. (2024c). *Master circular: Loan classification and provisioning*. Banking Regulation and Policy Department, Bangladesh Bank. Retrieved December 30, 2024, from https://www.bb.org.bd/mediaroom/circulars/brpd/nov272024brpd15e.pdf

Bangladesh Bank. (2024d). *Financial stability report 2023, Issue 14*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/pub/annual/fsr/financial_stability_report_2023_en.pdf

Bangladesh Bank. (2024e). *Roadmap to reduce classified loans in the banking sector and ensure corporate governance*. Dhaka: Bangladesh Bank.

Bangladesh Bank. (2024f). *Annual report*. Retrieved May 8, 2024, from https://www.bb.org.bd/en/index.php/publication/publictn/0/2

Bangladesh Bank. (2024g). *Major economic indicators: Monthly update*. Monetary Policy Department, Bangladesh Bank. Retrieved December 29, 2024, from https://www.bb.org.bd/pub/monthly/selectedecooind/2024_july.pdf

Bangladesh Bank. (2024h). *BRPD Circular No. 10: Interest/profit rate of loan/investment*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/mediaroom/circulars/brpd/may082024brpd10e.pdf

Bangladesh Bank. (2024i). *MPD Circular No. 03: Re-fixation of interest rate corridor (IRC)*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/mediaroom/circulars/mpd/aug252024mpd03.pdf

Bangladesh Bank. (2024j). *MPD Circular No. 04: Re-fixation of interest rate corridor (IRC)*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/mediaroom/circulars/mpd/sep242024mpd04.pdf

Bangladesh Bank. (2024k). *MPD Circular No. 05: Re-fixation of interest rate corridor (IRC)*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/mediaroom/circulars/mpd/oct222024mpd05.pdf

Bangladesh Bank. (2024l). *FSD Circular No. 01: Guidelines on stress testing*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/mediaroom/circulars/fsd/dec302024fsd01e.pdf

Bangladesh Bank. (2024m). *The special regulations of Bangladesh Bank, 2024*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/en/index.php/about/guidelist

Bangladesh Bank. (2024n). *BRPD Circular No. 03: Definition of past due/overdue of fixed term loan*. Bangladesh Bank. Retrieved January 14, 2025, from https://www.bb.org.bd/mediaroom/circulars/brpd/apr082024brpd09e.pdf

Bangladesh Bank. (2023). *BRPD Circular No. 17*. Banking Regulation & Policy Department, Bangladesh Bank. Retrieved January 21, 2025, from https://www.bb.org.bd/mediaroom/circulars/brpd/dec052023brpd17e.pdf

Bangladesh Bank. (2020). *DOS Circular No. 02: Regarding advance-deposit ratio-investment-deposit ratio*. Bangladesh Bank. Retrieved May 22, 2024, from https://www.bb.org.bd/mediaroom/circulars/dos/apr122020dos2.pdf

Bangladesh Bank. (2014). *Guidelines on risk-based capital adequacy (Revised regulatory capital framework for banks in line with Basel III)*. Bangladesh Bank. Retrieved May 22, 2024, from https://www.bb.org.bd/openpdf.php

Bangladesh Bank. (2011). *Revised guidelines on stress testing*. Department of Offsite Supervision, Bangladesh Bank. Retrieved January 12, 2025, from https://www.bb.org.bd/mediaroom/circulars/dos/feb232011dos1e.pdf

Bangladesh Bank. (2010). *Guidelines on stress testing*. Department of Offsite Supervision, Bangladesh Bank. Retrieved January 12, 2025, from https://www.bb.org.bd/aboutus/regulationguideline/apr212010stressdos.pdf

Bank for International Settlements. (2017). *IFRS 9 and expected loss provisioning*. Financial Stability Institute, Bank for International Settlements. Retrieved January 1, 2025, from https://www.bis.org/fsi/fsisummaries/ifrs9.htm

Bangladesh Bureau of Statistics. (BBS). (2022). *Fifty years of national accounts statistics of Bangladesh*. Bangladesh Bureau of Statistics (BBS). Retrieved January 14, 2025, from https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/cdaa3ae6_cb65_4066_8c61_d97e22cb836c/2023-02-13-09-10-f14282f129439180f80f5e445c46ae33.pdf

Cerruti, C., & Neyens, R. (2016). *Public asset management companies: A toolkit*. World Bank Studies. The World Bank. https://doi.org/10.1596/978-1-4648-0874-6

Chowdhury, K. (2010). Board composition and firm performance: Evidence from Bangladesh—A sceptical view. *Australasian Accounting Business & Finance Journal*, *4*(4), 103–109. Accessed January 15, 2025. https://doi.org/10.14453/aabfj.v4i1.5

Cortavarria, L., Dziobek, C., Kanaya, A., & Song, I. (2000). *Loan review, provisioning, and macroeconomic linkages* (IMF Working Paper No. WP/00/195). International Monetary Fund. Retrieved January 14, 2025, from https://www.researchgate.net/publication/5123510_Loan_Review_Provisioning_and_Macroeconomic_Linkages

Centre for Policy Dialogue (CPD). (2024a). *Bringing discipline in the banking sector: What should be done immediately*. CPD. Retrieved January 15, 2025, from https://cpd.org.bd/resources/2024/08/Presentation-on-Bringing-Discipline-in-the-Banking-Sector.pdf

Centre for Policy Dialogue (CPD). (2024b). *What lies ahead for the banking sector in Bangladesh?* CPD. Retrieved January 15, 2025, from https://cpd.org.bd/resources/2024/05/Presentation-on-What-lies-ahead-for-the-banking-sector-of-Bangladesh.pdf

Centre for Policy Dialogue (CPD). (2024c). *State of the Bangladesh economy in FY2023-24 (Third reading)*. CPD. Retrieved January 15, 2025, from https://cpd.org.bd/resources/2024/06/Paper-IRBD-FY24-3rd-Reading.pdf

Centre for Policy Dialogue (CPD). (2023). *State of the Bangladesh economy in FY2022-23 (Third reading)*. CPD. Retrieved January 15, 2025, from https://cpd.org.bd/resources/2023/05/Report-IRBD-FY23-3rd-Reading.pdf

Centre for Policy Dialogue (CPD). (2019a). *State of the Bangladesh economy in FY2019-20: First reading*. CPD. Retrieved October 26, 2021, from https://cpd.org.bd/wp-content/uploads/2019/11/State-of-the-Bangladesh-Economy-in-FY2019-20-First-Reading.pdf

Centre for Policy Dialogue (CPD). (2019b). *The first 100 days of the new government: Tracking electoral pledges and implications for the national budget for FY2019-20*. CPD.

Centre for Policy Dialogue (CPD). (2018a). *State of the Bangladesh economy in FY2017-18 (First reading)*. CPD. Retrieved December 8, 2018, from https://cpd.org.bd/wp-content/uploads/2018/06/Bangladesh-Economy-in-FY2017-18-Interim-Review-of-Macroeconomic-Performance.pdf

Dhaka Tribune. (2019, February 17). *Bangladesh Bank approves three new banks*. Dhaka Tribune. Retrieved from https://www.dhakatribune.com/business/2019/02/17/bangladesh-bank-approves-three-new-banks

Economic Relations Division (ERD). (2024, September 15). *Signing of 202.25 million USD grant assistance under Development Objective Grant Agreement (DOAG) between GoB and USAID on 15 September 2024*. ERD. Retrieved January 14, 2025, from https://erd.gov.bd/site/photogallery/eb08a692-a1e1-4436-a987-ef391f7e8311/Signing-of-20225-million-USD-grant-assistance-under-Development-Objective-Grant-Agreement-DOAG-between-GoB-and-USAID-on-15-September-2024#

Financial Institutions Division. (2020, November 22). *Draft "Bangladesh Asset Management Company Act, 2020"*. Financial Institutions Division. Retrieved May 22, 2024, from https://fid.gov.bd/sites/default/files/files/fid.portal.gov.bd/draft_law/061598cc_24b7_495a_a6af_6ce895bdb895/Draft%20BAMCO%20ACT%202020%20-%2015%20October%202020.pdf

Habib, M. N. (2017). *Handling credit risk of banks in Bangladesh: Demand, supply, and regulatory perspective*. Bangladesh Institute of Bank Management (BIBM).

Habib, S. M. A. (2019). *Financial sector in Bangladesh: Recent trends and benchmarking for the government* (CPD Working Paper 128). Centre for Policy Dialogue (CPD). Retrieved October 25, 2021, from https://cpd.org.bd/wp-content/uploads/2019/10/CPD-Working-Paper-128-Financial-Sector-in-Bangladesh.pdf

Haque, A. K. E., Jalil, M. B., & Naz, F. (2007). *State of corporate governance in Bangladesh: An analysis of public limited companies, financial and non-financial institutions, and state-owned enterprises* (East West University Center for Research and Training Working Paper Series No. 2).

Hasan, M. M. (2024, February 18). *Roadmap for banking reforms: Implementation is key*. The Daily Star. Retrieved January 21, 2025, from https://www.thedailystar.net/business/economy/news/roadmap-banking-reforms-implementation-key-3546206

Hossain, M. (2012). Financial reforms and persistently high bank interest spreads in Bangladesh: Pitfalls in institutional development? *Journal of Asian Economics, 23*(4), 395–408. Retrieved December 1, 2019, from https://mpra.ub.uni-muenchen.de/24755/1/MPRA_paper_24755.pdf

International Monetary Fund (IMF). (2024, December 18). *IMF reaches staff-level agreement on the third review of Bangladesh's Extended Credit Facility, Extended Fund Facility, and Resilience and Sustainability Facility arrangements*. IMF. Retrieved January 14, 2025, from https://www.imf.org/en/News/Articles/2024/12/18/pr24483-imf-reaches-staff-level-agreement-on-third-review-with-bangladesh

International Monetary Fund (IMF). (2006). *Financial soundness indicators*. IMF. Retrieved January 14, 2025, from https://www.imf.org/external/pubs/ft/fsi/guide/2006/pdf/fsiFT.pdf

Islam, S. (2018, May 7). *Ex-BASIC Bank chairman Bachchu gets one week to appear before ACC*. Dhaka Tribune. Retrieved December 7, 2018, from https://www.dhakatribune.com/business/banks/2018/05/07/ex-basic-bank-chairman-bachchu-gets-one-week-appear-acc

Jahan, M. S. (2016). *Non-performing loan in small and medium enterprises of Bangladesh: Status, causes, and remedies*. Bangladesh Institute of Bank Management (BIBM).

Kato, R., & Tsuruga, T. (2016). The safer, the riskier: A model of financial instability and bank leverage. *Economic Modelling, 52*, 71–77. https://doi.org/10.1016/j.econmod.2015.04.016

Khatun, F. (2024, May 21). *All that is wrong with the proposed bank mergers*. The Daily Star. Retrieved January 15, 2025, from https://www.thedailystar.net/opinion/views/macro-mirror/news/all-wrong-the-proposed-bank-mergers-3614541

Khatun, F., & Saadat, S. Y. (2019). Governance and competitiveness: An econometric analysis of the banking sector of Bangladesh. *Journal of Statistical and Econometric*

Methods, 8(4), 51–77. Retrieved October 26, 2021, from http://www.scienpress.com/Upload/JSEM/Vol%208_4_4.pdf

Ministry of Finance (MoF). (2017, July 2). *Mandate of FID*. Financial Institutions Division. Retrieved December 6, 2018, from https://fid.gov.bd/site/page/e0e6e343-e4c8-4c86-a0fa-cad36b1175fc/Mandate-of-FID

Mujeri, M. K., & Younus, S. (2009). An analysis of interest rate spread in the banking sector in Bangladesh. *The Bangladesh Development Studies, 32*(4), 1–33. Retrieved December 11, 2019, from https://bids.org.bd/uploads/publication/BDS/32/32-4/01_M_K_Mujeri%20&%20S%20Younus.pdf

Nabi, I. A. (2016). *Necessity of new commercial banks in Bangladesh: A study from the bankers' and customers' viewpoint*. Bangladesh Institute of Bank Management (BIBM).

New Age. (2017, October 30). *Major changes in SIBL as S Alam tightens grip*. New Age. Retrieved November 30, 2018, from http://www.newagebd.net/article/27293/major-changes-in-sibl-as-s-alam-tightens-grip

Park, J. (2012). Corruption, soundness of the banking sector, and economic growth: A cross-country study. *Journal of International Money and Finance, 31*(5), 907–929. Retrieved January 15, 2025 from,https://doi.org/10.1016/j.jimonfin.2011.07.007

Parven, S. (2011, November 27). *Nonperforming loans of commercial banks in Bangladesh*. Munich Personal RePEc Archive. Retrieved October 25, 2021, from https://mpra.ub.uni-muenchen.de/65248/9/MPRA_paper_65248.pdf

Prince, S. (2024, November 17). *NPLs at historic Tk2.85 lakh crore as Hasina-era hidden defaults exposed*. The Business Standard. Retrieved January 14, 2025, from https://www.tbsnews.net/node/995316?amp

Rahman, S. M., & Rajib, R. (2025, January 8). *'Darbesh' alone looted 57 thousand crore taka*. Amar Desh. Retrieved January 8, 2025, from https://dailyamardesh.com/amar-desh-special/amdretetiahho

Rajib, R. (2024, December 24). *1.6 trillion taka from four banks in S Alam's pocket*. Amar Desh. Retrieved January 8, 2025, from https://dailyamardesh.com/business/amdldp51b3lqf

Reaz, M., & Arun, T. (2006). Corporate governance in developing economies: Perspectives from the banking sector of Bangladesh. *Journal of Banking Regulation, 7*(1-2), 94–105. Retrieved January 15, 2025, from https://doi.org/10.1057/palgrave.jbr.2350047

Serwa, D. (2010). Larger crises cost more: Impact of banking sector instability on output growth. *Journal of International Money and Finance, 29*(8), 1463–1481. Retrieved January 15, 2025, from https://doi.org/10.1016/j.jimonfin.2010.05.011

The Daily Star. (2024, September 4). *BB cyber heist: CID asked to submit probe report by Oct 28*. The Daily Star. Retrieved January 14, 2025, from https://www.thedailystar.net/news/bangladesh/crime-justice/news/bb-cyber-heist-cid-asked-submit-probe-report-oct-28-3694306

The Daily Star. (2019a, February 17). *Bangladesh Bank approves 3 more pvt banks*. The Daily Star Bangladesh. Retrieved January 15, 2025, from https://www.thedailystar.net/country/bangladesh-bank-approve-3-more-private-bank-1703491

The Daily Star. (2019b, February 19). *3 new banks get nod amid outcry*. The Daily Star. Retrieved January 15, 2025, from https://www.thedailystar.net/business/banking/bangladeshi-3-new-banks-name-bengal-people-and-citizen-bank-1703755

The Daily Star. (2017, November 27). *S Alam Group: 'Govt looking into fund sources'*. The Daily Star Bangladesh. Retrieved November 30, 2018, from https://www.thedailystar.net/frontpage/s-alam-group-govt-looking-fund-sources-1496890

The Economist. (2017, April 6). *The government initiates a coup at Bangladesh's biggest bank: Board members receive a visit from military intelligence*. The Economist. Retrieved December 4, 2024, from https://www.economist.com/asia/2017/04/06/the-government-initiates-a-coup-at-bangladeshs-biggest-bank

Uddin, A. K. M. Z. (2019a, September 22). *Govt firm to buy NPLs by next year*. The Daily Star. Retrieved October 22, 2019, from https://www.thedailystar.net/business/news/govt-firm-buy-npls-next-year-1803511

World Bank. (2024, September 19). *World Bank Vice President pledges support to Bangladesh's reforms for inclusive growth*. World Bank. Retrieved January 14, 2025, from https://www.worldbank.org/en/news/press-release/2024/09/19/world-bank-vice-president-pledges-support-to-bangladesh-s-reforms-for-inclusive-growth

Zaker, S. M. A. (2022). Whether relaxation in law is the main reason for increasing non-performing loans of commercial banks of Bangladesh. *Bangladesh Journal of Political Economy, 38*(2), 53–70. https://doi.org/10.56138/bjpe.dec2203

Chapter 12: Redefining Social Justice: Confronting Structural Inequality[1]

12.1 Background

Structural inequality arises when one group is treated unfairly and given fewer opportunities than others, leading to unequal status. The unfair social roles, decisions and opportunities are often built into society, affecting the operations of institutions such as housing, healthcare, employment, and education, leading to discrimination. These deep-rooted and systemic disparities within societal, economic, and political frameworks perpetuate inequities among different groups of people.

These structural inequalities exist in not only income and wealth distribution but also in accessing quality education, healthcare services and information and communication technologies, which limit the potential of people, especially the marginalised and underrepresented communities, women and girls, by limiting their access to basic services, thereby affecting their overall well-being and ability to thrive in society, obstruct the country's ability to achieve Sustainable Development Goals (SDGs) related to poverty reduction, health, education, and gender equality, ultimately undermining economic productivity and social advancement. As Bangladesh seeks reforms to create a more equitable society, it is critical to confront the structural inequalities that are deeply rooted in its socio-economic systems.

Structural inequalities, rooted in historical injustices and perpetuated by discriminatory practices, are upheld by institutional policies, cultural norms, and systemic barriers. Key events such as segregation and discriminatory laws have established unequal power dynamics that persist today, evident in wage gaps, educational disparities, healthcare inequities, and limited political representation. To address these inequalities, a multifaceted, data-driven approach is essential. This includes examining historical and contemporary factors, implementing equitable policies, and fostering cultural shifts towards inclusivity. Strategies may involve adopting inclusive economic policies, enhancing access to quality education and healthcare, and ensuring marginalised groups are represented and engaged in decision-making processes.

While economic growth and poverty alleviation have long been primary development goals, it is critical to stress the importance of social justice as a fundamental pillar of progress (Poutiainen, 2024; Panday, 2023). Social justice encompasses fair resource distribution, safeguarding human rights and addressing systemic inequalities. It aims to promote strong, sustainable, and inclusive development through ensuring freedom of expression, access to justice, upholding the rule of law, combating corruption, tackling gender disparities, promoting inclusivity for marginalised communities, ensuring equal

[1] This chapter is prepared by Rumana Huque and Selim Raihan with research assistance from Fatema Kashfi.

access to education, healthcare and job opportunities, strengthening democratic institutions and the elimination of discrimination. Ensuring governance and inclusive institutions are vital to promote social justice, with transparent, accountable, and participatory systems supporting diverse voices in decision-making (Poutiainen, 2024; Panday, 2023).

This chapter examines income and wealth disparities, examining the disparities between urban and rural areas, gender inequality and regional disparities. It also highlights the systemic challenges faced by women in accessing essential services and labour force participation. It provides recommendations for promoting a more equitable society and sustainable development trajectory.

12.2 Income and Wealth Inequality

12.2.1 Current State: Income Distribution Across Urban and Rural Populations

(a) Brief Overview of Income Inequality

Bangladesh has achieved considerable socio-economic development, maintaining a GDP growth rate of 6-7% until the COVID-19 pandemic (BBS, 2024). Though the country faced the challenges including political instability and a projected growth decline to 5.1% in 2025 (ADB, 2024), it has made notable progress in poverty reduction. However, despite the shining development indicators, the income Gini coefficient of 0.499 in 2022 highlights the enduring structural inequalities with urban areas experiencing an even greater disparity at 0.539 (See Figure 12.1) (BBS, 2023). This widening income gap highlights that the top 5% of earners continue to capture an increasing share of the national income which is continuing to rise since the last decade.

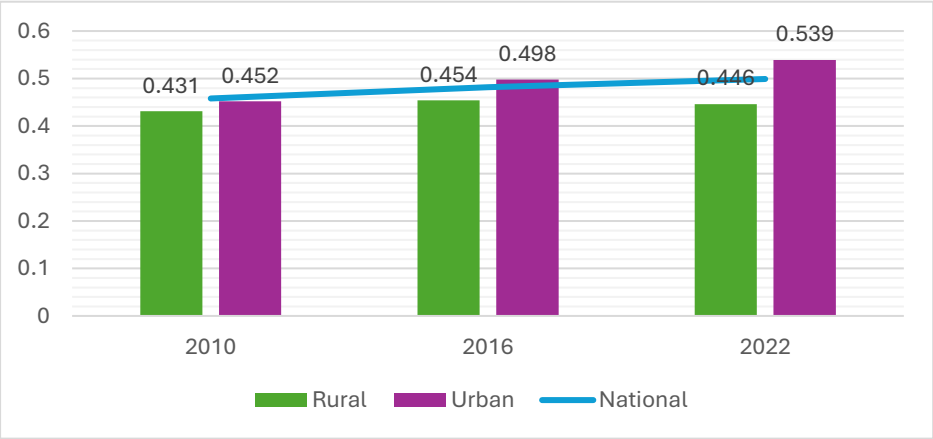


Figure 12.1: Income Gini Coefficient

Source: Household Income and Expenditure Survey (HIES 2022).

Another measure and indicator of income inequality is the Atkinson index, where the higher the value of the index, the greater the inequality. According to the subsequent Human Development Reports by the United Nations Development Programme (UNDP), income inequality in Bangladesh has been gradually rising over the years (See Figure **12.2**). In 2018, it was 0.472 which increased to 0.504 in 2021 with some improvement in

2022 (0.404). These reports used data from household surveys to estimate the inequality through the Atkinson index.

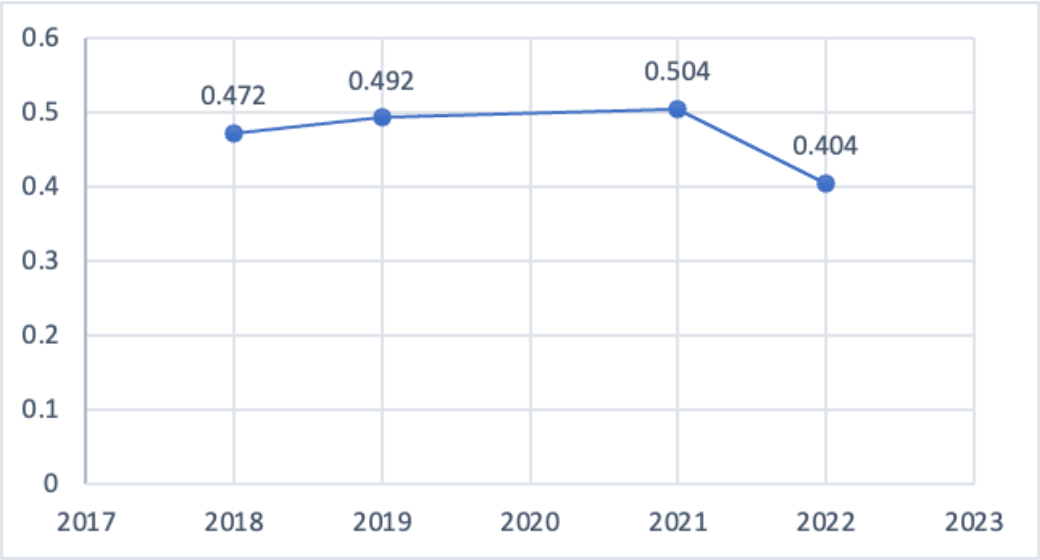


Figure 12.2: Income Inequality Atkinson Index

Source: Human Development Report (2019, 2020, 2021-22 and 2022-23).

The Palma Ratio, a metric highlighting the extremes of income inequality, compares the earnings of the top 10% to those of the bottom 40%, with higher values reflecting greater inequality. In Bangladesh, this ratio has steadily increased over the last two decades, reaching a record high of 3.18 in 2022, up from 1.68 in 1992 and 2.93 in 2016 (Razzaque et al., 2024; GED, 2020). While the income shares of the middle 50% have remained relatively stable, the poorest 40% have consistently lost income share, while the wealthiest 10% have gained. This trend underscores a widening economic divide, with wealth becoming increasingly concentrated among a small elite group, leaving the broader population with limited opportunities for financial advancement.

Economic growth in Bangladesh has not been equally shared, as evidenced by the rising Gini coefficient, which reflects growing income disparity. The wealthiest segments have disproportionately gained from the growth, while lower-income groups struggle to improve their living standards. This increasing inequality threatens social cohesion and undermines inclusive development, revealing the urgency for policies that address the structural drivers of income inequality.

Income inequality in Bangladesh portrays very wide geographical disparities, with very large differences in economic opportunities and income growth between urban and rural areas. That is very much evident in cities like Dhaka and Chattogram, which benefited most from industrialisation, infrastructure development, and foreign direct investment. These urban agglomerations have been the epicentres of economic activities that have attracted capital, skilled labour, and development projects, bringing with them better wages and higher living standards for their inhabitants. On the other hand, rural areas, which accommodate more than 60% of the population, have not experienced an equal

degree of economic transformation. Limited access to quality education, healthcare, infrastructure, and productive employment opportunities has hindered rural development. This has resulted in slower income growth and reduced economic mobility for rural households, further exacerbating the urban-rural divide.

Between 2010 and 2022, the rural Gini coefficient rose from 0.431 to 0.446, signifying a modest increase in income disparity. In contrast, the urban Gini coefficient surged from 0.452 to 0.539, highlighting a sharper rise in urban income inequality. This suggests that the benefits of urban growth have disproportionately favoured the wealthier segments of the population.

In the case of wealth inequality, the data from the World Inequality Database (WID) for 2022 paints a stark picture of economic disparity in Bangladesh. The wealthiest 10% of the population controlled a staggering 58.5% of the country's total wealth. This concentration underscores the disproportionate accumulation of assets among a small segment of society. In stark contrast, the bottom 50% of the population collectively held a mere 4.8% of the wealth, highlighting the limited resources available to half of the nation. This disparity not only reflects entrenched economic inequality but also reveals the systemic barriers that prevent equitable wealth distribution. Such levels of inequality can exacerbate social tensions, limit upward mobility, and undermine long-term economic growth. Addressing this challenge requires targeted policy interventions, such as progressive taxation, wealth redistribution mechanisms, and inclusive economic policies that ensure broader access to opportunities and resources for marginalised communities.

This period has seen the income gap between urban and rural households widen due to differences in income growth and structural inequalities. Urban households, connected to higher-paying jobs and services, have enjoyed significant income increases, while rural households, reliant on agriculture and informal employment, typically face limited financial returns. Therefore, targeted policy interventions are essential to bridge the urban-rural divide and ensure more equitable distribution of economic growth benefits.

(b) Impacts of Inequality

The multidimensional and far-reaching impacts of income inequality in Bangladesh span across social, economic, and political domains, thereby shaping the development trajectory and overall stability of the country. These implications make inequality an issue of critical policy concern.

Poverty and vulnerability: The inequality in income ruins the effort to fight against poverty, as it generates unequal access to resources and opportunities. While the incidence of poverty in Bangladesh has declined over the past few decades, a large proportion of households remain very close to the poverty line and are prone to falling back into poverty because of economic shocks like inflation, job loss, or health crises. This vulnerability is increased further by natural disasters that are quite common in Bangladesh due to its geographical position, mainly for rural households and poor and

marginalised communities. This lack of financial resilience within these groups perpetuates a cycle of poverty difficult to break out of without targeted interventions.

Social inequality: It feeds into the already existing social inequalities, such as gender and regional inequalities. Systematic denial of lower wages to women, especially in rural areas, less ownership of assets, and restricted access to education, health care, and formal employment are observed. These disparities are further exacerbated by regional inequalities where urban areas, like Dhaka and Chattogram, get more investment and resources, while rural regions are deprived of similar growth prospects. This dual burden of gender and regional inequality has been limiting not only individual potential but also the overall socio-economic development of the country.

Economic growth: Chronic inequality in the levels of income can act as a handbrake to sustainable long-term economic growth. Inequality, by concentrating wealth in the hands of the few, inhibits the overall development of human capital because the lower classes usually do not have access to quality education and skill development. This constrains the productive potential of a large segment of the population. Moreover, high inequality reduces aggregate demand, as lower-income groups spend a larger proportion of their earnings on basic needs, while wealthier groups tend to save or invest a higher share of their income. This imbalance can lead to slower economic growth and reduced economic resilience in the long term.

Social cohesion: Deep and abiding inequality undermines social cohesion, fomenting feelings of exclusion and resentment among the deprived. This may further fuel social tensions, raising rates of crime and a general decline in trust toward institutions such as the government, judiciary, and law enforcement. If vast segments of society feel they are not reaping benefits proportionate to their share of economic development, it will undermine the legitimacy of public institutions and governance structures. This can raise the chance of political instability, protests, and conflicts over time, threatening the long-term peace and development of the country.

Addressing income inequality in Bangladesh requires comprehensive and inclusive policies that promote equitable access to resources, enhance social protections, and empower marginalised groups. Failure to act on these issues risks exacerbating the negative implications and derailing the country's development aspirations.

(c) Does Official Data Accurately Reflect Income and Wealth Inequality in Bangladesh?

Accuracy has long been a matter of concern among policymakers, researchers, and development practitioners as regards official data on income and wealth inequality in Bangladesh. The Household Income and Expenditure Survey carried out by the Bangladesh Bureau of Statistics is an important tool for analysing the pattern of income and expenditure, though its ability to portray the reality of inequality in its entirety is seriously questioned. The HIES is unique in having a standardised methodology and periodic implementation that provides insights into income and consumption trends over time. It covers a wide array of rural and urban households across regions, making it

possible to look into regional disparities. Its results form the basis of such key metrics as the Gini coefficient, poverty rates, and inequality indices.

At the same time, there are serious data limitations that restrict its potential for presenting a full picture. Wealthier households are more likely to underreport their incomes, which biases inequality estimates, and the informal sector and non-monetary sources of income are still poorly captured. Moreover, the survey's focus on income and consumption omits important aspects of inequality in wealth, such as asset ownership. Sampling biases, particularly the underrepresentation of mobile, affluent households, exacerbate these challenges. Meanwhile, complementary sources of data, such as tax records, and more advanced methodologies, including satellite imagery, can potentially bridge these gaps but have the problems of accessibility and even their own limitations. Work on addressing these shortcomings is central to generating more reliable data, which is critical to designing policy that effectively targets inequality and fostering inclusive growth.

(d) Major Drivers of Income and Wealth Inequality

One of the important drivers of income inequality in Bangladesh is economic structural transformation. The shift from an agrarian economy to one centred on manufacturing and services has concentrated wealth creation in urban areas, leaving behind a lot of the rural populations. Similarly, while the RMG sector has generated huge employment opportunities, it also brings forth wide disparities in wages between skilled and unskilled labour. This has been at the expense of rural communities, where the opportunities to move up the economic ladder are fewer and have consequently kept the gap wide. Inequality in the development of sectors and regions enhances these disparities since the bulk of the wealth flows into the cities.

Another critical factor feeding income inequality is unequal access to quality education. The level of educational attainment directly corresponds with earning potential, but the quality of education varies sharply between urban and rural areas. Poor families in low-income backgrounds, mostly situated in rural areas, cannot afford private schools or further education, thus remaining poor and consequently not able to get better-paying jobs because of their confinement to low-waged work. Exacerbating this problem is the very large informal labour market in Bangladesh. This gives some 85% of the workforce informal employment and thus confines many to low-wage jobs without social protection and upward mobility. It exacerbates the already existing inequality in income and further constrains efforts at bridging the gap.

Other structural determinants, such as regressive taxation, inefficient systems of social protection, and the concentration of wealth among the few, also hold strong sway. This heavy reliance on indirect tax, notably value-added tax (VAT), hits the poorer sections of society particularly hard, and the inefficiencies in social safety nets limit the scope for effective redistribution. On the other hand, it is also a question of wealth inequality stemming from concentrated land ownership, as amplified by emerging assets created during industrialisation, real estate, and remittances, which further deepens income inequalities. The technological divide also pulls them further apart, as high-income groups are those who can benefit most from digital tools and training, while others are

left behind. The drivers, therefore, would have to be acted upon by comprehensive reforms in education, labour market policies, and fiscal systems in order to create a more equitable and inclusive society.

(e) Recommended Actions to Address Income and Wealth Disparities

A multidimensional approach, including economic, social, and governance reforms, is necessary to address income and wealth inequality. The key recommendations are as follows:

1. Progressive Taxation and Wealth Redistribution: Progressive taxation on wealth and inheritance must be prioritised. The objective of having tax policies on inheritance, wealth and property should be to discourage the concentration of wealth in a few people's hands. Monitor tax compliance by enhancing the capacity to prevent and pursue tax evasion, especially the contributions of the richest.

2. Improve Access to Quality Education and Skills Development: Investing in education should target access for all populations throughout low-income communities in order to eliminate poverty by having every economically active person in a society educated. Introduce skills training for employment purposes by opening up vocational and technical training institutes that are aimed at catering for job needs.

3. Expand Financial Inclusion: Encouraging MFIs and digital finance service providers seek to market affordable loans and savings products to economically disadvantaged constituents. The provision of finance and technical support to SMEs particularly owned by women and other disadvantaged portions of society must be put in place to assist them.

4. Strengthen Social Protection Systems: Introduce or strengthen universal basic income to target the poorest and most disadvantaged individuals in society as a means of reducing poverty while meeting the defined immediate necessities to ensure survival. Improve the targeting and efficiency of the existing welfare programmes.

5. Facilitate Labour Market Reforms: Put into operation and support minimum wage policies that represent the actual cost of living. Strengthen labour unions so that there will be workers' voices in wage negotiation.

6. Promote Regional Development: Provide more resources to lagging areas to decrease regional discrepancies in wealth and opportunities. Build roads, utilities, and digital infrastructure in rural and underserved areas to spur economic activity.

7. Nurture Inclusive Governance: Involve the marginalised at decision-making levels, both locally and nationally. Empower institutions to ensure the transparent use of public funds and equitable implementation of policies.

8. Monitor and Address Inequality between Genders: Ensure equal access of women to education, employment, and entrepreneurship opportunities. Enforce laws against gender-based wage discrimination.

9. Harness Technology and Innovation: Equip under-resourced groups with skills to participate in the digital economy. Support startups and initiatives focused on solving challenges faced by marginalised communities.

10. Raise Public Awareness: Hold public campaigns to build awareness of the impacts of income and wealth inequality and garner support for reform measures. Nurture community-based programmes, which will encourage co-operation and mutual support among all the different social groups.

12.2.2 Urban-Rural Disparities: Access to Services, Jobs, and Economic opportunities

(a) Patterns of Urban-Rural Disparities

Bangladesh has undergone rapid economic transformation over the past few decades, characterised by urbanisation and industrial growth. These have placed urban centres at the forefront of national development but have also exacerbated urban-rural disparities. This paper investigates these inequalities in major sectors such as food consumption, education, health, infrastructure, and economic opportunities.

Differences in food consumption: There are sharp urban-rural differences in food consumption, mirroring the disparities in income and economic opportunities. According to data from the 2022 Household Income and Expenditure Survey, or HIES, per capita food expenditure in urban areas was 54% higher than in rural areas. While urban households spent a larger share of their food budgets on protein-rich items such as meat, fish, and dairy, rural households spent most on staples like rice and lentils. This dietary disparity impacts nutritional outcomes, with a stunting rate of 33% among children under five in rural areas, compared to 25% in urban areas (BDHS, 2022). Seasonal vulnerabilities further compound the food insecurity of rural households, more so during agricultural lean periods, which points out the cyclical nature of these disparities.

Disparities in educational access: The urban-rural inequalities have been quite visible in one major area: education. While the general trend of enrolment rates is on the rise, there is still a large gap in quality education among rural and marginalised populations. Infrastructure in schools in urban settings is normally better, including higher teacher-to-student ratios and facilities catering to the need for digital learning, which was especially important during the COVID-19 pandemic when a much small proportion of students in rural settings were able to access learning online as compared to that of students from urban areas.[2] Other factors affecting school dropout among girls in rural areas include early marriages and household chores. These have led to a persistent gap in literacy, with urban adult literacy at 74% compared to 63% in rural areas.

Inequities in access to healthcare: The access to and quality of healthcare also depict similar inequities, with better services and outcomes enjoyed by the urban areas. For instance, in 2022, 89% of children in urban areas received complete immunisations,

[2] "Access to the internet, access to the world: students' experiences of online learning in Bangladesh during Covid-19": https://a4ai.org/news/access-to-the-internet-access-to-the-world-students-experiences-of-online-learning-in-bangladesh-during-covid-19/?utm_source=chatgpt.com

while in rural areas, the figure is 78%. This means urban mothers are more likely to receive adequate antenatal care, and urban areas have far more health facilities. The out-of-pocket expenses of health care for rural households are increased by the cost of transportation and the need for dependence on informal providers. This unequal distribution of health infrastructure results in a large gap in maternal and infant mortality rates from rural areas, prompting equal investment in health.

Inequities in infrastructure development: Similarly, infrastructure developments have been disproportionately in favour of urban areas, as manifested in the nearly threefold higher electricity consumption in urban than in rural households. The night light imagery from satellites shows very stark differences in the intensity of night lights, showing economic activities are concentrated in cities like Dhaka and Chattogram. The RMG sector has led urban-centric industrial growth, employing millions and generally offering higher wages than agriculture in rural areas. Still, rural economies remain highly dependent on low-productivity agriculture, which employs nearly 40% of the workforce but contributes less than 14% to GDP. Wage disparities and lack of job opportunities spur migration from rural to urban, causing crowded urban slums and cycles of informal employment.

The urban-rural divide in Bangladesh represents a dual reality of progress and inequity. While urban centres are the engines of growth, rural areas suffer from handicaps of inadequate services and a lack of gainful employment opportunities. This can only be bridged with targeted investment in rural education, health, and infrastructure, all coupled with inclusive economic policies. Working toward the redress of these inequalities will ensure balanced development in Bangladesh and nurture social equity with sustained national progress.

(b) Key Factors Driving the Urban-Rural Disparities

The urban-rural disparities in Bangladesh are rooted within the structural, policy, and institutional factors that shape economic opportunities and access to basic services. Historical development strategies have been biased toward city-side policies, concentrating resources and investment there, fostering economic growth at the expense of rural areas. Industrial policies have therefore by and large been biased towards export-led sectors, mostly the ready-made garments industry, which has created jobs mainly in urban areas. They are prone to institutional inefficiencies leading to rural areas often having a lack of access to infrastructure, and social services like education and healthcare. Public resource allocation both in health and education shows these biases; urban areas receive a disproportionate share. This has brought about imbalances in the rural areas, perpetuating cycles of poverty and diminishing their potential to contribute to national development.

Most of this disparity can be attributed to rural-urban migration. In search of a better life, individuals and families migrate to urban areas only to find themselves in squalid conditions in the city's slums. These new inflows lead to overcrowding, inadequate housing, and informal labour markets that are characterised by low wages and poor working conditions. Other challenges children living in such slums face include having

to work and thus being unable to continue their schooling. Programmes of flexible schooling and initiatives aimed at integrating transient populations into the education system are limited in scope and further widen education disparities. Women and girls, especially in urban slums, are particularly vulnerable to insecurity, early marriage, and lack of access to education due to school infrastructure. These socio-cultural and infrastructural challenges compound the vulnerabilities of marginalised urban populations.

Remittance flows, while bringing economic stability to many rural households, also bring out the disparities between the remittance-receiving and non-receiving families. Those families that benefit from remittances usually have better access to health and education, in which private services and facilities can be invested, sometimes out of reach for the rest. For example, remittance-receiving households can be more likely to send their children to private schools or seek health care in urban centres, bypassing the limitations of public services in rural areas. This creates a dual economy where some rural families experience upward mobility while others stay put in poverty. This reliance on remittances, at the same time, does bring risks as the global labour markets' swings can destabilise these families' financial security, exposing them to external shocks.

These socio-cultural and property rights issues further entrench the urban-rural disparities. Early marriage and lack of security for girls, along with the sub-urban educational infrastructures, limit women's choices and thus create cycles of inequality. Besides, the land grabbers, real estate companies, and special economic zones further marginalise the rural poor. These have entailed large-scale land acquisition, mostly for agro-corporations and industrial projects, generally leaving small farmers and landless labourers without alternative livelihoods. Weak property rights and non-existent effective compensation mechanisms deepen rural poverty, meaning further migration to urban centres. Urban development policies usually sideline displaced peoples' concerns and further set in stone the inequalities. Such inequities in resource distribution demand fair allocation, firm property rights, and focused socio-economic interventions that reduce disparities between urban and rural areas.

From this understanding of these interconnected factors emerges a way forward for policymakers to more comprehensively tackle the urban-rural divide in Bangladesh, so growth is inclusive and the country cohesive.

12.3 Gender Inequality

Gender inequality is shaped by social, cultural, and systemic factors, often overlooked by statistical data. While data may reveal disparities in areas such as income, education, and employment, it often fails to capture the complex experiences influenced by societal norms and biases. Moreover, the lack of gender-segregated data further complicates efforts to tackle these issues.

12.3.1 Labour Force Participation

Gender disparities in employment and pay gaps persist as significant challenges in Bangladesh, undermining the country's progress toward economic equity and inclusive

growth. While women's labour force participation has improved over the years, their overall economic contributions remain undervalued due to structural barriers, wage discrimination, and limited access to quality employment opportunities. These disparities are evident in labour force participation, sectoral employment patterns, wage differentials, and barriers to career advancement.

(a) Labour Force Participation and Employment Patterns

The labour force participation rate for women in Bangladesh stands at 42%, starkly lower than the 80% participation rate for men (LFS, 2022). This gap highlights pervasive socio-cultural and economic obstacles, such as limited access to affordable childcare, uneven distribution of domestic responsibilities, and societal norms restricting women's mobility. Additionally, women's employment is concentrated in informal, low-paying sectors.

- **Informal employment**: Approximately 85% of working women are employed in the informal sector, where job security, benefits, and legal protections are minimal. Women often work in roles with low-skill requirements, such as domestic help or agricultural labour, limiting their earning potential.
- **Sectoral segregation**: Women dominate industries like agriculture and the RMG sector. In agriculture, women constitute nearly 58% of the workforce but frequently engage in unpaid or poorly compensated family labour. Similarly, women represent around 60% of the RMG workforce, often relegated to lower-tier positions with limited career progression opportunities.

(b) Gender Pay Gaps

The gender pay gap is another critical area of disparity. On average, men earn 35.8% more per hour than women, with significant variations across sectors and skill levels.[3]

- **Overall wage gap**: Discrimination in hiring, promotion, and pay practices results in women receiving lower wages than men for similar roles and responsibilities.
- **Sector-specific gaps**: In the RMG sector, female workers earn 30% less than their male counterparts, despite performing comparable tasks.[4] This gap stems from occupational segregation, with men more likely to occupy supervisory or technical positions.
- **Agriculture**: In rural agricultural labour, women's earnings are about 30-40% lower than men's, largely due to the traditional undervaluation of their

[3] "What do gender data reveal about the economic struggles of women in Bangladesh?": https://blogs.worldbank.org/en/opendata/what-do-gender-data-reveal-about-economic-struggles-women-bangladesh

[4] "Study reveals 30% gender pay gap in Bangladesh RMG sector": https://www.fibre2fashion.com/news/apparel-sustainability-news/study-reveals-30-gender-pay-gap-in-bangladesh-rmg-sector-294030-newsdetails.htm

contributions and their concentration in subsistence farming rather than commercial agriculture.[5]

(c) Barriers to Gender Equality in Employment

Several barriers perpetuate these disparities, including education, cultural norms, and representation in decision-making roles:

- **Education and skills**: Gender gaps in education persist, particularly in secondary and tertiary levels, where women are underrepresented in technical and vocational fields such as Science, Technology, Engineering and Mathematics (STEM). This limits their access to higher-paying and emerging job markets.
- **Cultural norms**: Societal expectations often restrict women to part-time, flexible, or home-based employment to accommodate domestic responsibilities.
- **Lack of representation**: Women hold a very small fraction of managerial and supervisory roles in Bangladesh, limiting their ability to influence workplace policies and practices. This underrepresentation in leadership also perpetuates gender biases in hiring and pay structures.

(d) Policy Responses and Recommendations

Efforts to address gender disparities in employment and pay may include wage standardisation policies in the RMG sector and skills development programmes targeting women. However, broader and more inclusive policy measures are required:

- **Strengthen legal protections**: Enforce laws on equal pay and anti-discrimination while ensuring accountability through regular audits and penalties for non-compliance.
- **Expand skill development programmes**: Promote technical and vocational training tailored to women, particularly in high-growth sectors such as ICT, renewable energy, and healthcare.
- **Supportive workplace policies**: Encourage flexible work arrangements, establish workplace childcare facilities, and promote parental leave policies to support women's participation in full-time employment.
- **Awareness and advocacy campaigns**: Challenge cultural norms that hinder women's economic empowerment through education campaigns and community engagement initiatives.
- **Incentivise women's entrepreneurship**: Provide financial incentives, mentorship programmes, and market access for women entrepreneurs, enabling them to contribute to diverse sectors of the economy.

[5] "Gender wage gap still persists in agriculture": https://www.thedailystar.net/business/economy/news/gender-wage-gap-still-persists-agriculture-3562881

Addressing gender disparities in employment and pay is crucial for equitable economic growth and social cohesion in Bangladesh. The barriers women face limit their potential and the country's overall economic performance. By implementing policy reforms, encouraging societal change, and investing in women's empowerment, Bangladesh can fully leverage its labour force. Closing these gaps will lead to a more inclusive future, ensuring progress benefits all members of society.

12.3.2 Access to Services

(a) Gender Disparities in Education

Though girls exhibit better performance in primary education than boys; gender disparities in education remain a pressing issue in Bangladesh, particularly in higher studies. According to the latest Annual Primary School Census 2023, the Gross Enrolment Rate (GER) for girls in primary education stands at 109.83%, compared to 100.71% for boys (See Figure **12.3**). Furthermore, boys are less likely to complete primary education, with a survival rate of 85.91%, compared to 87.83% for girls (DPE, 2023). These data highlight a notable gender gap, with boys more prone to dropping out during their primary education journey.

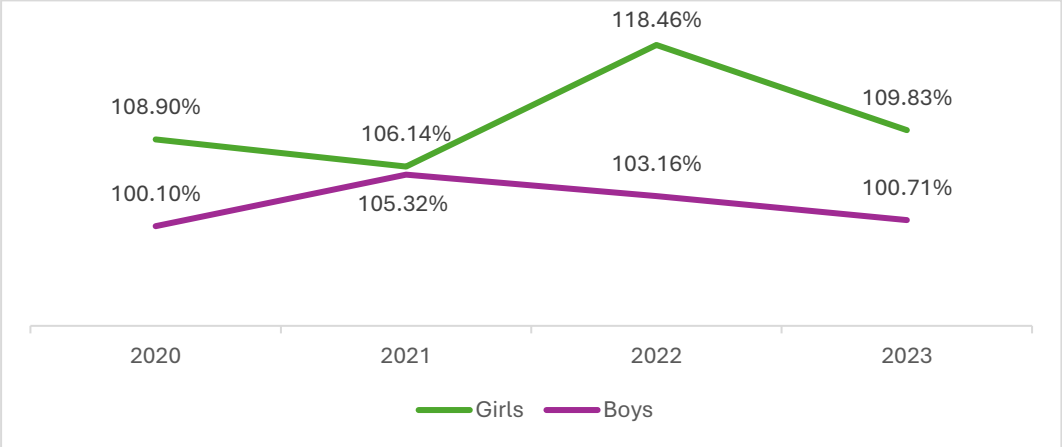


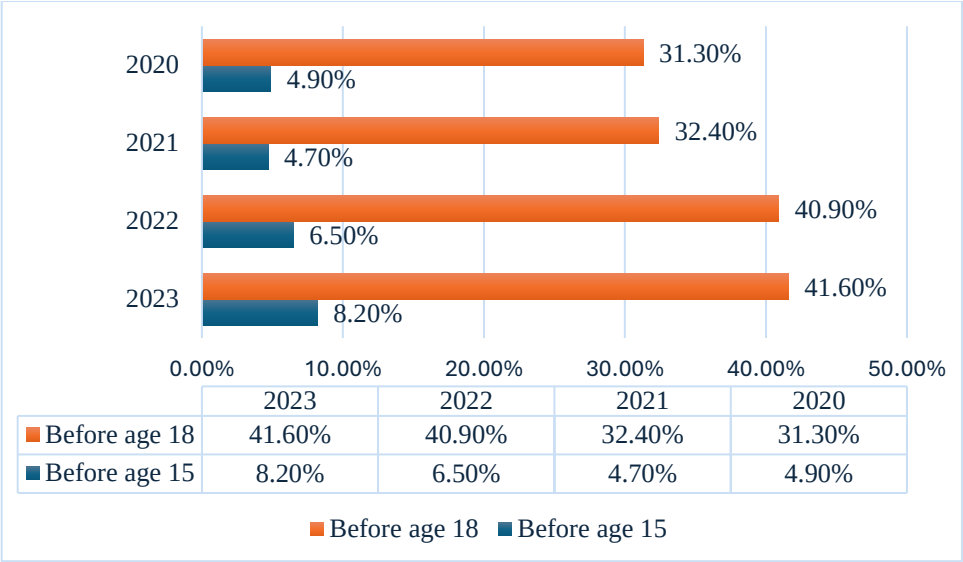
Figure 12.3: Gross Enrolment Rate (GER) in Primary Education

Source: Annual Primary School Census (APSC) 2022 and 2023.

From 2011 to 2022, the secondary dropout rate for girls was consistently higher than for boys except in 2020. However, dropout rates were similar at the higher secondary level, though girls always maintained a slightly higher rate than boys, with little increases for both genders in 2020 (BANBEIS, 2023).

As of 2023, female participation in tertiary education across all institutions in Bangladesh stands at just 37%, with less than 30% of educators being female (BANBEIS, 2023). High dropout rates among girls in secondary and higher secondary education are largely driven by early marriage, affecting approximately 50% of girls before they turn 18, often due to societal pressures and poverty (UNFPA, 2022). According to the Bangladesh Sample Vital Statistics (SVRS) report 2023, 41.6% of girls are married before the age of 18. Alarmingly, child marriages have increased among girls under 18 and even under 15

over the past four years (2020-2023) (See Figure **12.4**) (BBS 2023, 2024). This practice disrupts education and jeopardises health and well-being, while social norms often prioritise boys' education over that of girls, further worsening gender inequalities.



	2023	2022	2021	2020
Before age 18	41.60%	40.90%	32.40%	31.30%
Before age 15	8.20%	6.50%	4.70%	4.90%

Figure 12.4: Trends in Early/Child Marriage among Women from 2020-2023

Source: BBS SVRS- 2023 and SVRS- 2022.

Girls often drop out of school due to safety concerns, lack of transportation, and unsupportive environments, especially in rural areas (Arafat et al., 2021). Inadequate facilities like dormitories and the prevalence of sexual harassment deter girls from pursuing higher education

Moreover, the usage in internet users in Bangladesh has fuelled an increase in cyberbullying and cybercrimes, particularly affecting young girls and women. In 2022, cyberbullying accounted for 52.21% of all online crimes, including pornography, obscene messaging, and abusive posts (Begum, 2024). Notably, 66.6% of female university students have faced cyberbullying, often on platforms like Facebook and Messenger (Mridha et al., 2024). These incidents significantly hinder women's participation in higher education, fostering an environment that discourages female students from continuing their studies and leading to serious mental health issues, including depression, anxiety, and sleep deprivation.

(b) Gender Disparities in Healthcare Access

Access to healthcare in Bangladesh shows considerable inequality across different groups, including women, poorer families, rural communities, and people with disabilities. Many women face barriers such as lack of financial resources, distance to healthcare facilities, the need for approval from male relatives or husbands, and lack of support from family members. While better-educated and wealthier women face fewer problems, widowed, divorced, or separated women struggle more with these issues (Hinata et al., 2024).

Early marriage, often leading to pregnancies, negatively impacts women's and children's health. Bangladesh has historically ranked among the countries with the highest rates of teenage marriage, as mentioned above. Despite this, the percentage of women aged 15–19 who have started childbearing decreased from 30% in 2011 and 28% in 2017–18 to 24% in 2022. This decline suggests progress in delaying early childbearing, which may contribute to improved maternal and child health outcomes (See Figure **12.5**) (NIPORT, 2024).

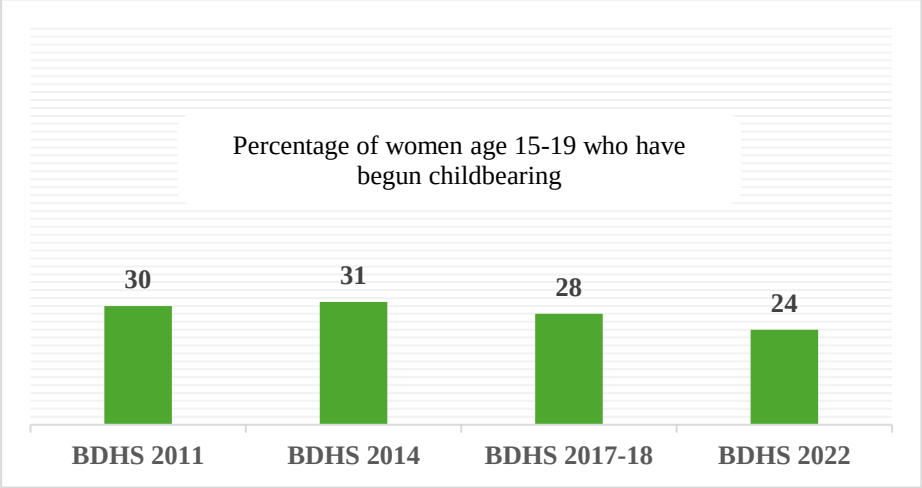


Figure 12.5: Trends in Teenage Childbearing, Bangladesh DHS 2011-2022

Source: BDHS 2011, 2014,2017-18, and 2022.

Although early motherhood has shown some promising trends, women still encounter numerous challenges in accessing maternal healthcare services. Factors influencing this situation include women's autonomy and decision-making power within the household, as well as education and wealth. Women with greater autonomy and negative attitudes towards intimate partner violence (IPV) utilise maternal healthcare more effectively. Women's education and wealth positively influence access to healthcare, with wealthier women being more likely to receive care. However, rural women experience poorer access to basic antenatal care services compared to their urban counterparts (Ahmed et al 2021).

Despite women comprising 50% of medical college admissions and 52% of registered physicians in Bangladesh, the gender imbalance in the healthcare workforce hinders women's access to care, particularly in rural areas where there is a cultural preference for female practitioners. Societal pressures related to family responsibilities lead to high attrition rates among female physicians, who often leave the profession post-graduation or specialise in Obstetrics and Gynaecology, which fails to address the country's broader healthcare needs (Hossain et al.2019).

12.3.3 Key Factors Influencing Gender Inequality

(a) Disparities In Land and Asset Ownership

Land ownership in Bangladesh signifies power, social status, and economic stability, particularly in rural areas, being the most significant means of production and source of

income and livelihood. However, patriarchal norms and discriminatory behaviours prevent them from claiming their inheritance or owning property. The land ownership trend is predominantly male-dominated, with only 12.1% of rural women owning agricultural land and just 6.9% owning non-agricultural land, compared to 69.3% and 86.5% of rural men respectively (Solotaroff et al., 2019). Men exclusively hold far greater land than women, with less than 13% of women having legal title deeds in rural land-owning households, and only 4-5% have effective authority over land (ALRD, 2023).

Bangladeshi women face discriminatory inheritance laws that grant them smaller shares than men due to societal beliefs that women do not need land as they will be supported by male relatives (Solotaroff et al., 2019). Women often forgo their inheritance rights due to familial expectations, particularly unmarried, divorced, or widowed women who face additional disadvantages. Moreover, land ownership is often tied to their relationships with male relatives, making their property rights vulnerable to changes in relationship status (Solotaroff et al., 2019). Data on women's land ownership in urban areas is less frequently reported but faces similar challenges, including limited access and precarious tenure, especially in informal settlements with intense competition for land. Women living in urban slums often own housing without formal documentation, highlighting the instability of their land tenure despite higher ownership rates than non-slum residents (Kotikula & Raza, 2021).

Even when women gain land ownership, gender constraints significantly impact the registration process, especially for those without independent income as high fees force many to register land in their husbands' names. The land titling and registration system is inefficient, expensive, and often corrupt where lengthy registration processes can take up to 244 days (Solotaroff et al., 2019). Although challenges in the registration process affect both men and women, they disproportionately hinder women's access to land ownership.

(b) Access to Financial Resources

Financial inclusion empowers women by enhancing their economic independence, boosting decision-making power, and enabling them to manage household finances, pursue income, and reduce risks through savings and insurance.

Economic Gender Gap: In 2023, Bangladesh's gender gap scores in the World Economic Forum's Global Gender Gap Index improved considerably, moving from 71st to 59th place. However, in 2024, the country experienced a dramatic decline, falling to 99th place- a drop of over 40 positions. This shift is primarily attributed to a significant decrease in 'Economic Participation and Opportunity' over the past five years. Currently, Bangladesh has closed only 68.9% of its gender gap, down from 72.2% in 2023 and its economic gender parity score has reached 31.1%, the lowest since 2014 (Pal et al., 2024).

Bank Account Ownership: Banks and financial institutions are crucial in promoting women's financial inclusion by offering tailored products such as no-frills accounts, microloans, and targeted savings programmes encouraging women's participation in the

economy. Women are more likely to be unbanked than men in Bangladesh. According to the Global Findex Data 2021, 43.5% of women-owned an account in a bank, credit union, microfinance institution, post office, or mobile money service provider, with no growth in overall account ownership between 2017 to 2021 (World Bank, 2021). However, recent data from Bangladesh Bank shows that by the end of the second quarter of 2024, 37.5% of bank deposit accounts were owned by women (See Figure **12.6**) (BB, 2024).

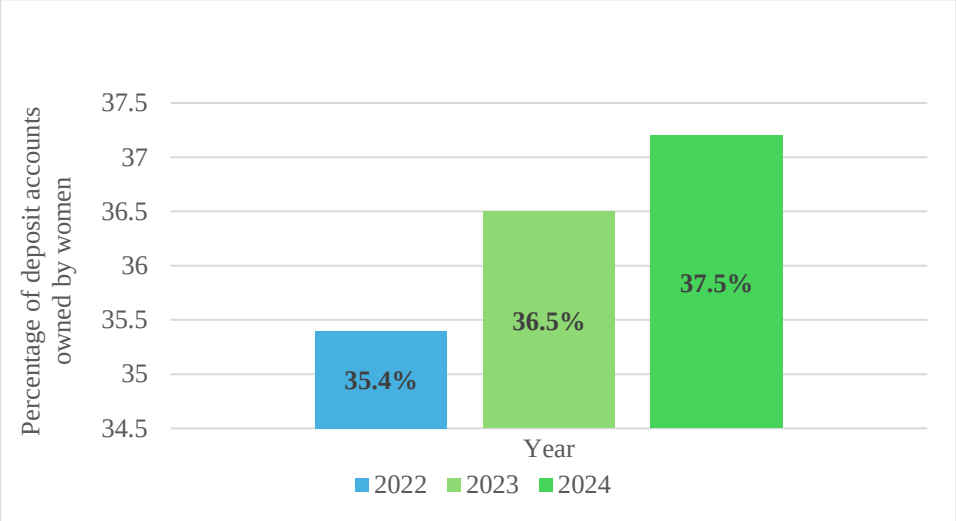


Figure 12.6: Percentage of Deposit Account Owned by Women

Source: Bangladesh Bank.

Prevalence of Mobile Money: In Bangladesh, mobile financial services (MFS) have been instrumental in integrating disadvantaged and vulnerable populations into the financial system, especially benefiting women. However, the gender gap in MFS account ownership has widened sharply over the past five years, with women's account ownership dropping from 48.28% in 2019 to 41.83% in 2023, despite a total MFS account increase of 152% during the same period (Jahid, 2024). As of December 2023, women held 41.46% of MFS accounts, highlighting a gap of more than 16 percentage points between genders (BB, 2024) (See Figure 12.7). Experts link this disparity to lower digital and financial literacy among women, as well as restricted access to financial resources and technology.

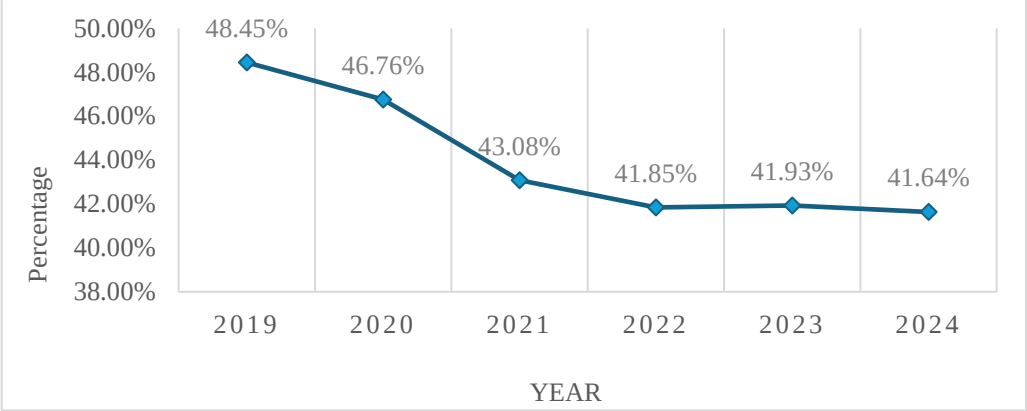


Figure 12.7: Percentage of MFS Accounts Owned by Women

Source: Bangladesh Bank.

Growing Agent Banking: Bangladeshi women's participation in agent banking has grown significantly, reflecting a positive trend toward financial inclusion. With more than 18 million accounts, women held 49.71% of the total agent banking accounts as of March 2024. The number of women accounts holder has risen 25% from 2023 to 2024. However, women's access to loans remains limited as only about 13% of loans were provided to them, highlighting banks' low trust in lending to women. The growth in women's participation is particularly notable in rural areas. It has increased due to local agents' convenience and the need to access funds and remittances sent by migrant workers, resulting in a significant shift (Prothom Alo, 2024).

(c) Barriers to Women's Entrepreneurship

Bangladesh's SMEs, which comprise 24.6% of the sector, show persistent gender disparities (BBS, 2020). The country has consistently ranked poorly in the Mastercard Index of Women Entrepreneurs, 57th out of 58 economies in 2018 and 2019, and 65th out of 65 in 2021 (See Figure 12.8). Women micro-merchants, who make up 7.2% of Bangladesh's microentrepreneurs, run informal businesses with limited access to formal financial services.

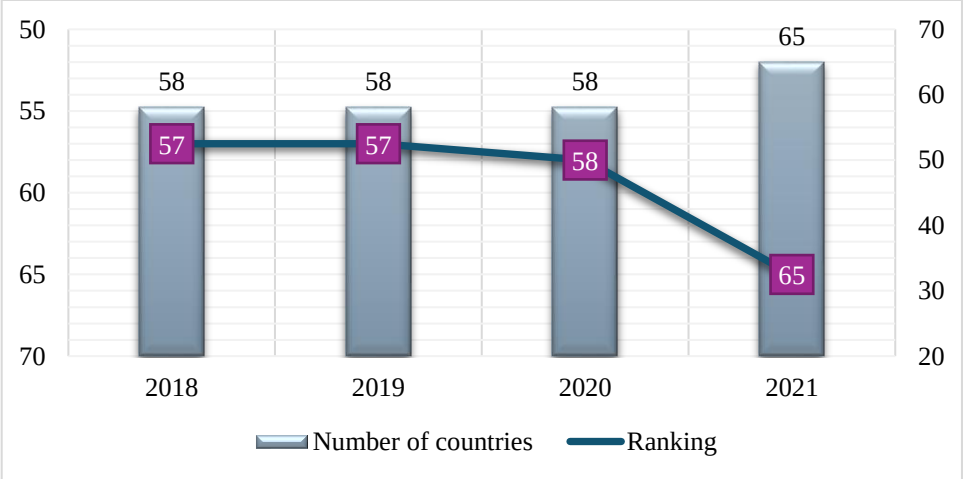


Figure 12.8: Mastercard Index of Women Entrepreneurs (MIWE)

Source: Mastercard Index of Women Entrepreneurs report, 2019 & 2022.

Female MSME entrepreneurs in Bangladesh face significant financial barriers due to sociocultural and institutional issues. These include limited knowledge of financial procedures and financial literacy, lack of business experience, and collateral requirements. Limited access to property and poverty further exacerbates the issue. Additionally, urban-centric bank branches, insufficient ATM networks, and male-dominated banking policies further exacerbate the problem.

Though women entrepreneurship in Bangladesh is wrapped in a myriad of problems, the sector has seen significant improvement due to the internet and social media, particularly F-commerce (Facebook commerce). This has enabled women to start and manage businesses from home, breaking traditional barriers and enhancing economic independence. The rise of e-commerce has provided significant opportunities, especially during the COVID-19 pandemic, as many women turned to online platforms to sustain their businesses. Despite these advancements, challenges persist. As of 2024, mobile internet adoption rates stand at 40% for men but only 24% for women in Bangladesh (Mobin, 2024). This digital gender gap restricts women's access to essential digital financial services and e-commerce opportunities.

(d) Skills Mismatch and Challenges for Women Returning to Rural Areas

Women in Bangladesh encounter substantial challenges in the labour market, earning 32% less than men in urban areas (BBS, 2023). A significant factor is the skills mismatch; many women have qualifications that do not align with evolving industry demands. Furthermore, despite the increasing need for digital and technical skills, access to relevant education and training programmes remains limited. This lack of well-paying formal jobs particularly impacts women with graduate degrees, underscoring systemic gender biases beyond education.

Additionally, women returning to rural areas after urban employment face challenges due to the lack of transferable skills and market demands. Urban workers often engage in sectors such as ready-made garments or services, however, get informal, low-paying jobs and limited vocational training after returning to rural areas. This disconnect undermines their previous work experience, perpetuates economic dependency, and restricts their ability to contribute meaningfully to their households and communities. Societal norms and expectations further exacerbate the situation, as women are pressured to conform to traditional domestic roles, devaluing their professional experiences.

(e) Women's Workplace Safety

Bangladesh is grappling with a significant issue with women's workplace safety, characterised by high levels of violence and harassment. Urban areas often present unsafe working conditions, affecting women's labour market participation. A 2016 study revealed that 84% of women feel unsafe in public spaces, which remained unchanged in 2021 as reported by the study of the Bangladesh Women's Lawyers' Association indicating that 84% of women suffer sexual harassment in workplaces, schools, streets, public transport and homes. In addition, with the rise of internet usage, many more

women suffer sexual harassment online. This culture discourages women from seeking employment outside their neighbourhoods and limits their economic opportunities.

The garment industry, a significant employer of women workers in Bangladesh, faces challenges due to inadequate safety measures and unsafe factory working conditions. A 2022 study revealed that over 83% of women workers in the Dhaka Export Processing Zone (DEPZ) avoid reporting workplace challenges including sexual harassment, payment delays, or maternity leave concerns. Additionally, 90% of women workers are unaware of safety committees, anti-harassment committees, or workers' welfare associations in the DPEZ, believing they are more inclined to serve factory owners' interests (Karmojibi Nari, 2021). Challenges persist for women as gender discrimination and societal norms continue to impede their access to safe employment.

(f) Limited Decision-Making Power

In Bangladesh, patriarchal norms and societal expectations severely limit women's decision-making power. Although education and labour participation have advanced, women often lack autonomy in managing household finances, healthcare, and child-rearing. Many must obtain permission from male family members for basic activities, illustrating the prevalence of male dominance in family structures. This dynamic erodes women's confidence and their ability to express preferences in family and community issues. Despite constitutional guarantees of equal rights, marginalisation persists in both public and private spheres. Women's participation in decision-making, especially in local government, remains low due to centralised power and tokenistic practices. In the workplace, women's voices are frequently overlooked, with declining representation in senior leadership roles. According to the Global Gender Gap Report 2024, only one-fifth of professional and technical workers are women, reflecting a continued decrease in leadership opportunities compared to previous years (World Economic Forum 2024).

12.4 Regional Disparities

12.4.1 Economic Concentration and Regional Neglect

Bangladesh's economic landscape is characterised by significant geographic imbalances, mainly concentrated in Dhaka and Chittagong. These imbalances lead to neglect of other regions, amplifying regional disparities and affecting national development.

(a) Concentration of Economic Activities

Dhaka, Bangladesh's political and economic hub, has experienced explosive growth since independence, with an annual urban population increase of 5.4% from 1974 to 2017. With over 21 million people, Dhaka accounts for a significant portion of the country's economic activity. Over 90% of industrial and service sector jobs are located in this region, despite it comprising only 15% of the national workforce and 11% of its population. This overconcentration results in a GDP loss of over 10%, or approximately USD 32 billion annually (Ahsan, 2021).

Dhaka receives nearly double the public expenditure compared to other regions, such as Barishal and Khulna, which are often left with marginal shares of the national budget.

This imbalance fosters a cycle where investment continues to flow into already developed areas, enhancing their economic status while neglecting less developed regions. This lack of balanced economic development has led to urban challenges such as traffic congestion, pollution, and high poverty rates in many areas. The lack of investment in essential services has resulted in high poverty rates, with the Barishal division recording the highest incidence of poverty according to the latest HIES survey in 2022, significantly surpassing Dhaka's poverty rates (See Figure 12.9) (BBS, 2023).

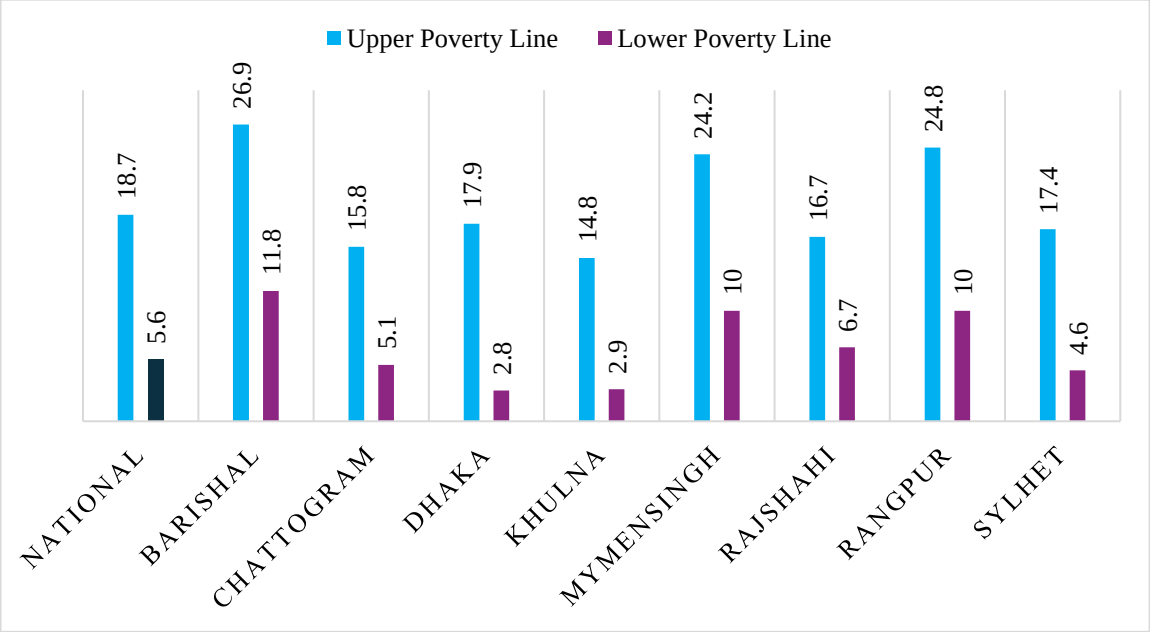


Figure 12.9: Incidence of Poverty (Head Count Ratio) by Division in 2022

Source: HIES 2024.

(b) Factors behind Regional Inequalities

The economic focus on Dhaka and Chittagong in Bangladesh has led to notable underdevelopment in other regions due to policy gaps, infrastructure development plans, inequitable public resource distribution, and political economy dynamics, all collectively contributing to persistent disparities.

Policy and Implementation Gaps: Regional inequalities are primarily due to the gap between policy formulation and implementation, often resulting from bureaucratic inefficiencies, lack of accountability, and insufficient stakeholder engagement. Corruption and lack of transparency in Bangladesh's public administration cause further challenges. Policymakers often overlook underdeveloped regions' needs while developing policies, leading to inadequate resource allocation that fails to address local challenges effectively (Mithun, 2021). Centralised economic policies favour urban development, neglecting rural economies due to the government's focus on industrialisation in major cities.

Infrastructure Development Plans: Infrastructure development is crucial for economic growth, but investments are disproportionately concentrated in urban areas including

Dhaka and Chittagong, causing poor connectivity and stifling economic activity in rural areas, as highlighted by the Annual Development Program (ADP) data (CPD, 2008). However, even Chittagong has not seen growth comparable to Dhaka. Though the Dhaka-Chittagong Expressway has improved connectivity between these two cities, it has not addressed the disparities other regions face. The expressway primarily benefits connected regions, leaving peripheral areas underdeveloped. Northern regions such as Rangpur and Rajshahi receive lower infrastructure development allocations, hindering economic activity and perpetuating poverty. Inadequate infrastructure limits access to markets, education, and healthcare services, resulting in higher barriers to economic participation for rural populations. The World Bank has noted that without substantial improvements in infrastructure in less developed areas, regional disparities will continue to widen.

Inequitable Resource Distribution and Political Economy: Bangladesh's public resources distribution and political economy dynamics contribute to regional inequalities. High-political areas receive more funding for development projects, while less influential regions are often neglected. This inequitable distribution exacerbates existing disparities and undermines efforts for balanced regional development. The concentration of political power in urban centres leads to resource allocation favouring these areas, resulting in local governments lacking authority and resources to address unique challenges. The focus on urban-centric growth strategies has resulted in neglect of rural sectors, such as agriculture. This has led to income disparities and vested interests, as seen during crises such as the COVID-19 pandemic. Reforming budget allocation processes and involving local communities in decision-making is crucial to ensure equitable resource distribution and effective allocation of funds across regions.

(c) Impact of Structural Transformation on Regional Disparities

Bangladesh's economic transformation, focusing on manufacturing and service sectors, has led to a decline in agriculture's share of GDP and uneven benefits across regions.

Economic Shifts: Bangladesh has experienced significant economic shifts since the 1980s from an agrarian economy to one increasingly dependent on manufacturing, primarily due to the rise of the ready-made garments (RMG) sector. This industry has significantly contributed to GDP growth and employment but has not provided equitable benefits across the country. The share of employment in the manufacturing sector has risen from 7.5% in 1995-96 to 14.4% in 2017 but has dropped to 11.6% in 2022 (BBS, 2023). This has resulted in high unemployment and underemployment rates in rural areas, with the Gini coefficient for income inequality rising from 0.458 in 2010 to 0.499 in 2022 (BBS, 2023). This indicates that the benefits of economic growth have disproportionately favoured the wealthier segments of society.

Challenges of Economic Diversification: Bangladesh's economic growth is largely driven by the RMG sector, which accounts for 85% of its total exports (EPB, 2024). This reliance on a single industry exposes the economy to vulnerabilities and calls for diversification. As Bangladesh prepares to graduate from least developed country status in 2026, it will lose preferential trade access to key markets, including the EU, raising

concerns about the sustainability of RMG exports amid global competition from countries like Vietnam and Cambodia.

While sectors such as leather goods, pharmaceuticals, and information and communication technology (ICT) hold promise for diversification, they do not receive the same level of support as the RMG industry. High import tariffs and protectionist measures discourage investment, while the specialised skilled workforce required to diversify in ICT and light engineering is lacking.

Infrastructure deficiencies and a lack of innovation hinder economic diversification in the country. Inefficient logistics systems limit market access and increase costs for businesses. Non-RMG sectors struggle with insufficient R&D investment, hindering product development and competitiveness. Lack of collaboration between private enterprises and academic institutions further stifles innovation. Prioritising infrastructure improvements and R&D investment is crucial for growth.

Urbanisation and Migration Dynamics: Urbanisation, driven by structural transformation, has led to regional disparities as people migrate from rural areas to cities for better employment opportunities. This migration often results from environmental degradation, economic hardship, and perceived better income prospects in urban settings. However, urbanisation does not always result in improved living conditions or equitable growth. Many migrants find informal jobs with low wages and poor working conditions, and service quality remains inadequate. This has led to increased inequality within and between regions.

12.4.2 Geographic Locations Impacting Regional Disparities

Bangladesh faces diverse environmental and socio-economic challenges across its regions, including drought-prone hilly areas in northwestern Bangladesh, flash floods in northeastern freshwater wetlands, riverbank erosion in central floodplains, landslides in hilly areas, and intense population density and rainwater drainage issues in urban areas. These unique physical attributes and climatic conditions impact food security, infrastructure, and quality of life.

(a) Northwest Region

The northwest region of Bangladesh, including districts like Rajshahi and Bogura, grapples with severe droughts and erratic rainfall patterns, affecting agricultural productivity. The Monga phenomenon, from mid-September to mid-November, aggravates food insecurity, with 25% of households facing food shortages during the dry season (BBS, 2021). River erosion, another pressing issue, caused by the frequently changing routes of the Ganges and Jamuna rivers, reduces arable land and disrupts local economies. The lack of robust infrastructure, particularly road connectivity, limits farmers' access to markets and essential supplies during critical planting and harvesting seasons.

(b) Northeast Region

The haor region in north-eastern Bangladesh, including Sunamganj and Netrokona, experiences seasonal flooding during the monsoon months. While these floods can enrich the soil for certain crops, the unpredictability of the floods affects farmers, who rely on agriculture for livelihood. Floods can cause temporary food shortages and damage crops, highlighting the vulnerability of families. Infrastructure challenges include a lack of all-weather roads, limited mobile network coverage, and limited access to essential services like mobile money. These factors make it difficult for farmers to transport goods to markets or receive necessary inputs like seeds and fertilisers and receive timely information during crises.

(c) Northern and Central Regions

Similar to the northeast, the northern and central regions, including Kurigram and Jamalpur, are prone to seasonal flooding, affecting over 5.8 million people in August 2024 alone. This damage disrupts agricultural activities and displaces populations annually. The World Bank estimates that flooding affects 10 million people in these areas annually (ACAPS, 2024). Infrastructure often lacks resilience, making access to essential services difficult. This hampers humanitarian aid delivery increases food prices and intensifies poverty among vulnerable populations.

(d) Southern Coastal Zones

Bangladesh's southern coastal zones face significant environmental challenges due to soil salinity and frequent cyclones. Rising sea levels have led to increased salinity in agricultural lands, affecting crop yields. Around 62% of the country's coastal land is affected by varying degrees of salinity, with saltwater intrusion from rising sea levels and storm surges affecting agricultural productivity. By 2030, salinisation is projected to extend 8 kilometres further inland, diminishing arable land for agriculture (World Bank, 2019). Frequent cyclones cause widespread destruction like Cyclone Amphan in 2020. With limited access to mobile networks and road connectivity hindering relief efforts and recovery processes, people become more vulnerable during times of crisis.

(e) Overcrowded Urban Slums

Urban slums in Bangladesh are home to some of the most vulnerable populations, with inadequate infrastructure, poor sanitation, and limited access to essential services. Over 33% of Dhaka's population lives in slums, but the government only meets 7% of the city's housing demand (UNDP, 2020). Environmental hazards like flooding disproportionately affect slum dwellers, and poor road connectivity makes access to employment and basic services difficult. Informal economic activities are common due to limited formal employment opportunities. Poor transportation infrastructure also limits their access to job opportunities outside their immediate neighbourhoods.

12.4.3 Infrastructure and Investment Gaps: Towards Equitable Development

Bangladesh faces significant infrastructure and investment gaps, which hinder equitable development, particularly in health, education, and social safety nets, and disproportionately affect marginalised communities.

(a) Regional Disparities in Access to Health

Bangladesh's healthcare access is notably uneven, with 66% of the population living in rural areas and facing inadequate and interrupted services. The Chittagong Hill Tracts (CHT) and tea garden communities face unique challenges, including geographical isolation, limited healthcare facilities, and financial constraints. Indigenous populations face high medical costs, inadequate transportation, and linguistic barriers that prevent effective communication with healthcare providers, particularly the elderly indigenous population (Hossen et al., 2023). These issues are exacerbated by socioeconomic instability and neglect of health policy frameworks.

The infant mortality rate (IMR) is a critical indicator of health disparities, with rural areas like Bandarban and Rangamati showing some of the highest IMR figures. Female workers in tea gardens face reproductive and maternal health problems, with many unaware of their reproductive rights leading to high rates of maternal and neonatal complications. A study revealed tea gardens contribute to 40% of maternal deaths in surrounding areas due to limited access to antenatal care and harmful traditional practices like delivering at home with untrained attendants (Nawmi, 2022). Apart from maternal health issues, tea gardens also lack proper toilet facilities, with 80% of female workers having no access to sanitary latrines during work hours, increasing risks of urinary tract infections and hygiene-related illnesses (Deshwara & Meer, 2021). The absence of clean water for personal hygiene further exacerbates these health issues. However, people in tea gardens in Bangladesh face challenges beyond reproductive health and sanitation issues, including a high prevalence of musculoskeletal symptoms (MSS) among workers. A study in Moulvibazar found that 80.9% of tea garden workers experienced MSS within the past year, primarily affecting the shoulders and upper back due to long working hours, repetitive movements, and awkward postures associated with tea plucking (Rahman et al., 2022).

In conclusion, healthcare access in Bangladesh is severely limited, particularly for rural populations and marginalised communities like those in the CHT, tea gardens, the char lands and other remote areas. The combination of inadequate facilities, high costs, and socio-economic challenges contributes to significant health disparities.

(b) Regional Disparities in Education

Disparities in access to education are particularly pronounced in rural areas, where many schools face inadequate infrastructure and a shortage of trained teachers, severely affecting education quality. Although 76% of educational institutions are in rural regions, they often contend with resource shortages and high teacher turnover rates due to challenging working conditions (Tareque & Ahmed, 2023).

Areas with geographical isolation like the haor and CHT regions experience significant barriers to educational attainment. Sylhet has the lowest primary education enrolment rates due to inadequate infrastructure, lack of nearby educational facilities and poverty. Additionally, the net enrolment rate for children aged 6-15 in haor areas is 75.2%, compared to 82.4% at the national level. Seasonal unemployment and flash floods exacerbate these inequities, leading to dropout rates as high as 44% at the primary level (Alam & Hasan, 2018). In contrast, CHT children face linguistic barriers, as instruction often doesn't align with their native languages, resulting in lower enrolment and higher dropout rates.

Disaster-prone areas face unique challenges in education, including frequent natural disasters disrupting schooling and displacing families, making it difficult for children to maintain consistent attendance. Climate change impacts have led to increased flooding and natural disasters, forcing families to relocate to urban slums with limited educational opportunities. Many children are forced into labour due to river erosion, and economic hardships often prioritise immediate survival over education, leading to increased dropout rates among children forced into labour to support their households. Child labour remains a significant barrier to educational participation, with 1.78 million children engaged in labour activities, according to the National Child Labour Survey 2022. The survey states that 3.54 million children aged 5-17 work in hazardous occupations that pose risks to their health, such as agriculture, manufacturing, and services. They are required to work long hours and financially contribute in the household, making it difficult for them to pursue education concurrently. This lack of access to quality education and the necessity for children to work contribute to a cycle of poverty that is difficult to break and perpetuates child labour across generations.

12.4.4 Recommended Actions for Promoting Regional Balance in Development

Reducing regional disparities in Bangladesh requires a holistic approach that addresses the structural, infrastructural, and institutional barriers faced by underdeveloped areas. By decentralising economic activities, investing in infrastructure, improving access to health and education, modernising agriculture, and empowering local governance, the country can achieve more equitable and inclusive development. Balanced regional growth will not only enhance social equity but also strengthen national cohesion and economic resilience, enabling Bangladesh to reach its development goals.

1. Decentralisation of Economic Activities: A significant driver of regional imbalance is the over-concentration of industries and services in urban hubs. Decentralising economic activities is essential for creating opportunities in underdeveloped regions.

- **Special Economic Zones (SEZs):** Establish SEZs in lagging regions to attract investment and generate employment. For example, prioritising SEZs in the northern and southwestern districts can help stimulate local economies.
- **Incentives for Rural Investment:** Provide tax breaks, subsidies, and access to low-interest financing for businesses willing to establish operations in underdeveloped areas.

- **Promotion of Rural SMEs:** Strengthen rural small and medium enterprises (SMEs) through financial assistance, capacity building, and improved market access.

2. Infrastructure Development: Improving infrastructure in rural and peripheral areas is crucial for regional development. Investments in transportation, energy, and digital connectivity can bridge gaps between regions.

- **Transport Networks:** Expand road, rail, and waterway connectivity to integrate rural areas with major economic centres. Projects like the Padma Bridge should be complemented by regional road expansions to maximise economic impact.
- **Electricity Access:** Ensure reliable electricity supply in underdeveloped regions to enable industrialisation and improve living standards. Focus on renewable energy solutions like solar mini-grids for remote areas.
- **Digital Inclusion:** Develop digital infrastructure to reduce the urban-rural digital divide, enabling rural populations to access online education, e-commerce, and telemedicine services.

3. Equitable Resource Allocation in Health and Education: Addressing disparities in access to quality health and education services is critical for fostering human capital development in lagging regions.

- **Health Services Expansion:** Establish healthcare facilities in underserved areas, focusing on maternal and child health services. Deploy mobile health clinics and train local healthcare workers to address shortages.
- **Educational Investment:** Build more schools and vocational training centres in rural areas. Ensure gender-sensitive facilities, such as separate latrines for girls, to reduce dropout rates.
- **Teacher Deployment:** Incentivise qualified teachers to work in remote areas through higher salaries, housing allowances, and professional development opportunities.

4. Agricultural Modernisation and Diversification: Agriculture remains the backbone of rural economies but faces challenges such as low productivity and vulnerability to climate change.

- **Agro-Industrial Development:** Encourage the establishment of agro-processing industries in rural areas to add value to agricultural products and create jobs.
- **Technology Adoption:** Provide farmers with access to modern farming techniques, irrigation systems, and climate-resilient crops.
- **Access to Finance:** Strengthen rural credit facilities to support agricultural innovation and diversification into high-value crops.

5. Promoting Local Governance and Community Participation: Empowering local governments and communities to participate in development planning and resource allocation is key to addressing regional imbalances.

- **Decentralised Governance:** Strengthen Upazila and Union Parishads with greater fiscal autonomy and decision-making powers.
- **Participatory Planning:** Involve local communities in identifying development priorities, ensuring that projects reflect their needs and aspirations.
- **Accountability Mechanisms:** Establish transparent monitoring systems to ensure that development funds are effectively utilised.

Implementing these recommendations will require a coordinated effort between government agencies, local communities, and non-governmental organisations. By addressing the unique challenges faced by all the disadvantaged groups and each region through targeted short-term actions and sustainable long-term strategies, Bangladesh can make significant progress toward reducing structural inequalities and promoting equitable development across the country.

References:

ACAPS. (2024). *Bangladesh: Flooding - Crisis Impact Overview*. Retrieved December 11, 2024, from https://www.acaps.org/fileadmin/Data_Product/Main_media/20240904_ACAPS_Bangladesh_Flooding.pdf

Ahmed, F., Oni, F. A., & Hossen, S. S. (2021). Does gender inequality matter for access to and utilisation of maternal healthcare services in Bangladesh? *PLOS ONE, 16*(9), e0257388. https://doi.org/10.1371/journal.pone.0257388

Ahsan, A. (2019, November 21). *Dhaka-centric growth: At what cost?* Policy Insights. Retrieved from https://policyinsightsonline.com/2019/11/dhaka-centric-growth-at-what-cost/

Alam, M., & Hasan, M. (2018, November 21). Inequalities in access to primary education: An investigation on "haor" (wetland) areas in Bangladesh. *World Conference on Educational Sciences,* Istanbul, Turkey. Retrieved from https://www.worldcces.org/article-1-by-alam/inequalities-in-access-to-primary-education-an-investigation-on-haor-wetland-areas-in-bangladesh

Arafat, A., Ahmad, N., & Shaik Ismail, S. (2021). Socio-Cultural Gender Norms and Economic Barriers in The Context of Rural High School Girls' Dropout in Bangladesh: A Qualitative Study. Malaysian Journal of Social Sciences and Humanities (MJSSH), 6(8), 436 - 447. https://doi.org/10.47405/mjssh.v6i8.962

Asian Development Bank (ADB). (2024). *Bangladesh economy*. Asian Development Bank. Retrieved December 18, 2024, from https://www.adb.org/where-we-work/bangladesh/economy

Bangladesh Bank (BB). (2024, May 26). *Bangladesh women's financial inclusion data (WFID) dashboard*. Dhaka: Bangladesh Bank. Retrieved December 5, 2024, from https://ssrn.com/abstract=4842290

Bangladesh Bureau of Educational Information and Statistics (BANBEIS). (2023). *Bangladesh education statistics 2023*. Ministry of Education, Government of Bangladesh. https://banbeis.portal.gov.bd/sites/default/files/files/banbeis.portal.gov.bd/npfblock/Bangladesh%20Education%20Statistics%202023%20%281%29.pdf

Bangladesh Bureau of Statistics (BBS). (2024). *National Accounts Statistics: Provisional Estimates of GDP, 2023-24 and Final Estimates of GDP, 2022-23*. Statistics and Informatics Division, Ministry of Planning. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/cdaa3ae6_cb65_4066_8c61_d97e22cb836c/2024-08-28-08-45-2c85b27293fe10bd15f49c9e37095e26.pdf

Bangladesh Bureau of Statistics (BBS). (2024). *Bangladesh Sample Vital Statistics (SVRS) 2023: Final Report*. Statistics and Informatics Division, Ministry of Planning, Government of Bangladesh. http://nsds.bbs.gov.bd/storage/files/1/Publications/SVRS/SVRS%202023%20Final%20Report_web.pdf

Bangladesh Bureau of Statistics (BBS). (2023). *Household Income and Expenditure Survey (HIES) 2022: Final Report*. Statistics and Informatics Division, Ministry of Planning. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4_956b_45ca_872f_4cf9b2f1a6e0/2023-12-28-14-40-ac2b3d298f569f155a80871a49b7dd9e.pdf

Bangladesh Bureau of Statistics (BBS). (2024). *Quarterly Labour Force Survey: January to March 2024*. Statistics and Informatics Division, Ministry of Planning. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/57def76a_aa3c_46e3_9f80_53732eb94a83/2024-05-06-06-58-10aa7c13d49318982373a0f47252ae5f.pdf

Bangladesh Bureau of Statistics (BBS). (2021). *Statistical Yearbook of Bangladesh 2021* [Internet]. Dhaka: Bangladesh Bureau of Statistics. Retrieved December 11, 2024, from https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b2db8758_8497_412c_a9ec_6bb299f8b3ab/2022-06-15-10-49-3cf641425dd693f9e954de5ae9470775.pdf

Begum, A. M. (2024, August 20). *Youth in peril: Cyberbullying in Bangladesh*. *The Business Standard*. https://www.tbsnews.net/thoughts/youth-peril-cyberbullying-bangladesh-921596

Centre for Policy Dialogue (CPD). (2008). *Addressing regional inequality issues in Bangladesh public expenditure* [PDF]. Retrieved from https://www.cpd.org.bd/pub_attach/op71.pdf

Credit and Development Forum. (2023). *Microfinance in Bangladesh: A review*. Retrieved December 5, 2024, from https://www.bb.org.bd/saarcfinance/seminar/cpbdesh.php

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank. https://www.worldbank.org/en/publication/globalfindex/Report

Deshwara, M., & Meer, H. (2021, September 28). Female tea garden workers: Workplace sanitation still a far cry for them. *The Daily Star*. Retrieved December 9, 2024, from https://www.thedailystar.net/news/bangladesh/news/workplace-sanitation-still-far-cry-them-2181406

Directorate of Primary Education (DPE). *(2023).* Annual primary school census (APSC) 2023: Final report. *Ministry of Primary and Mass Education, Government of Bangladesh.* https://dpe.portal.gov.bd/sites/default/files/files/dpe.portal.gov.bd/publications/bfe86b94_5ace_4216_8d21_05b99550b57f/APSC%202023_Final%20Report%20(2).pdf

Export Promotion Bureau (EPB). (2024). *Export data*. Retrieved December 11, 2024, from https://epb.gov.bd/site/view/epb_export_data/-

General Economic Division (GED), Ministry of Planning, Government of Bangladesh. (2020). *Sustainable Development Goals: Bangladesh Progress Report 2020*. https://file-dhaka.portal.gov.bd/uploads/274c5243-6c0c-4083-a26a-3aa9117d4a6d/61d/bd9/e15/61dbd9e151ec2797896304.pdf

Hinata, H., Lwin, K. S., Eguchi, A., Ghaznavi, C., Hashizume, M., & Nomura, S. (2024). Factors associated with barriers to healthcare access among ever-married women of reproductive age in Bangladesh: Analysis from the 2017–2018 Bangladesh Demographic and Health Survey. *PLOS ONE*, *19*(1), e0289324. https://doi.org/10.1371/journal.pone.0289324

Hossain, P., Das Gupta, R., YarZar, P., Salieu Jalloh, M., Tasnim, N., Afrin, A., & others. (2019). 'Feminisation' of physician workforce in Bangladesh, underlying factors and implications for health system: Insights from a mixed-methods study. *PLOS ONE, 14*(1), e0210820. https://doi.org/10.1371/journal.pone.0210820

Hossen, M. S., Sohel, M. S., Horaira, G. A., Laskor, M. A. H., Sumi, A. B. A., Chowdhury, S., Aktar, S., Sifullah, M. K., & Sarker, M. F. H. (2023). Exploring barriers to accessing healthcare services for older indigenous people in the Chittagong Hill Tract, Bangladesh. *AIMS Public Health*, *10*(3), 678–697. https://doi.org/10.3934/publichealth.2023047

Jahid, A. M. (2024, January 2). *Gender gap in MFS widens from 3% to 16% in five years*. *The Daily Star*. Retrieved December 5, 2024, from https://www.thedailystar.net/business/economy/news/gender-gap-mfs-widens-3-16-five-years-3573356

Karmojibi Nari. (2021). *Work and working condition of women employed in ready-made garment sector: A revised report*. Karmojibi Nari. Retrieved from https://www.karmojibinari.org/wp-content/uploads/2021/08/Work-and-Working-Condition-of-Women-Employed-in-Ready_-Revised.pdf

Kotikula, A., & Raza, W. A. (2021). Housing ownership gender differences in Dhaka, Bangladesh. *Land Use Policy, 110*, 104983. https://doi.org/10.1016/j.landusepol.2020.104983

Mithun, M. M. Z. (2021). Regional development planning and disparity in Bangladesh. *E3 Journal of Business Management and Economics, 11*(1), 10–20. Retrieved from https://www.e3journals.org/cms/articles/1613801039_2Mithun.pdf

Mobin, T. H. (2024). *Women lag behind in mobile internet use in Bangladesh: Report*. New Age. Retrieved December 5, 2024, from https://www.newagebd.net/post/telecom/235505/women-lag-behind-in-mobile-internet-use-in-bangladesh-report

Mridha, M. R., Ashrafuzzaman, S. M., & Sara, S. S. (2024). Uncovering the Prevalence and Consequences of Cyberbullying Among Female Students as Virtual Violence in Bangladesh. *International Journal of Social Science Research and Review*, *7*(7), 46-57. https://doi.org/10.47814/ijssrr.v7i7.2167

National Institute of Population Research and Training (NIPORT), Medical Education and Family Welfare Division, Ministry of Health and Family Welfare, Bangladesh, & The DHS Program, ICF. (2024). *Bangladesh Demographic and Health Survey 2022: Final report* (Report No. FR386). https://dhsprogram.com/pubs/pdf/FR386/FR386.pdf

Nawmi, A. (2022). Health risks of women in tea gardens of Bangladesh. *Share-Net Bangladesh*. Retrieved December 9, 2024, from https://www.share-netbangladesh.org/health-risk-of-women-in-tea-garden-of-bangladesh/

Pal, K. K., Piaget, K., & Zahidi, S. (2024). *Global gender gap report 2024*. World Economic Forum. https://www.weforum.org/publications/global-gender-gap-report-2024/

Pandey, P.K. (2023). *Prioritizing social justice in development.* https://www.dhakatribune.com/opinion/longform/323274/prioritizing-social-justice-in-development

Poutiainen, T. (2024) *World Day of Social Justice reminds us of the importance of decent work.* ILO.

https://bangladesh.un.org/en/262004-world-day-social-justice-reminds-us-importance-decent-work

Prothom Alo. (2024, June 27). *Men, women equal in agent banking*. Retrieved December 5, 2024, from https://en.prothomalo.com/bangladesh/fyjbnif060

Rahman, M. M., Hossain, S. S., & Rahman, A. M. (2022). Prevalence of work-related musculoskeletal symptoms among tea garden workers in Bangladesh. *PLoS ONE, 17*(5), e0268508. https://doi.org/10.1371/journal.pone.0268508

Razzaque, M. A., Islam, M. D., Rahman, J., & Ali, S. R. (2024). *Assessing the impact of indirect taxation on poverty and inequality: A pseudo-panel and cross-country analysis*. International Growth Centre. https://www.theigc.org/publications/assessing-impact-indirect-taxation-poverty-and-inequality-pseudo-panel-and-cross

Solotaroff, J. L., Kotikula, A., Lonnberg, A. T., Ali, S., Pande, R. P., & Jahan, F. (2019). *Voices to choices: Bangladesh's journey in women's economic empowerment*. World Bank Group. http://documents.worldbank.org/curated/en/780201556610505620/Voices-to-Choices-Bangladeshs-Journey-in-Womens-Economic-Empowerment

Tareque, M., & Ahmed, T. T. (2023, September 7). Growing rural-urban education divide hurting Bangladesh's future. *The Daily Star*. Retrieved December 9, 2024, from https://www.thedailystar.net/opinion/views/news/growing-rural-urban-education-divide-hurting-bangladeshs-future-3580771

United Nations Development Programme. (2024). *Human Development Report 2023/2024: Reimagining cooperation in a polarized world*. https://hdr.undp.org/system/files/documents/global-report-document/hdr2023-24reporten.pdf

UNDP Bangladesh. (2020). *National Urban Poverty Reduction Programme: DFID biannual report (October 2019 - March 2020)*. Dhaka: United Nations Development Programme. Retrieved from https://info.undp.org/docs/pdc/Documents/BGD/NUPRP%20DFID%20Biannual%20Report%20Oct%2019-Mar%2020.pdf

United Nations Development Programme. (2022). *Human Development Report 2021/2022: Uncertain times, unsettled lives – Shaping our future in a transforming world*. https://hdr.undp.org/system/files/documents/global-report-document/hdr2021-22reportenglish_0.pdf

United Nations Development Programme. (2020). *Human Development Report 2020: The next frontier – Human development and the Anthropocene*. https://hdr.undp.org/system/files/documents/hdr2020.pdf

United Nations Development Programme. (2019). *Human Development Report 2019: Beyond income, beyond averages, beyond today – Inequalities in human development in the 21st century*. https://hdr.undp.org/system/files/documents/hdr2019.pdf

World Bank. (2019). *Climate-smart agriculture in Bangladesh*. Washington, DC: World Bank Group. Retrieved from https://climateknowledgeportal.worldbank.org/sites/default/files/2019-06/CSA-in-Bangladesh.pdf

World Economic Forum. (2024). *Global gender gap report 2024*. Geneva: World Economic Forum. Retrieved December 5, 2024, from https://www.weforum.org/publications/global-gender-gap-report-2024/

Chapter 13: Re-strategising Bangladesh's Social Protection: Addressing Poverty, Vulnerability, and Inequality[1]

13.1 Introduction

Bangladesh's notable progress in poverty reduction and advancements across various socio-economic indicators—particularly achieved since the early 1990s through interventions championed by successive governments across all political regimes and non-government organisations (NGOs)—while ideally should have been complemented by the establishment of a robust social protection system aimed at facilitating development transitions as the country moved from a low-income economy to the ranks of middle-income countries and is set to alleviate itself from the group of least developed countries (LDCs), is now confronted by severe challenges that undermine its overall impact. Social protection aims to safeguard individuals and households against vulnerabilities and risks that threaten their well-being, including poverty, illness, unemployment, and old age-related vulnerabilities. It holds a central role in mitigating both covariate shocks, such as natural disasters or economic downturns, and idiosyncratic shocks, including illness or job loss, which disproportionately affect low-income and marginalised populations while serving as both a safety net to alleviate immediate distress and a mechanism to promote resilience and long-term development, ensuring that citizens can recover from shocks and contribute meaningfully to the economy and society.

Emerging in the aftermath of independence, Bangladesh's social protection system was initially reactive, focusing primarily on addressing immediate needs such as disaster relief, lean-season support to mitigate rural hardship, and post-disaster livelihood restoration. Over time, the proliferation of programmes, each designed to address specific challenges, resulted in a fragmented system marked by inefficiencies, resource constraints, and a lack of strategic coherence. To address these shortcomings, the National Social Security Strategy (NSSS) was adopted in 2015, signalling a shift towards a structured framework grounded in the lifecycle approach, which aims to provide support at every stage of life for those in need. Beyond functioning as a tool for poverty alleviation, the system was envisioned to play a pivotal role in reducing inequality and fostering social cohesion, particularly in a context characterised by high vulnerability to external shocks.

The NSSS stipulated a detailed reform plan encompassing both programmatic and institutional measures to be implemented over a 10-year period, resulting in two action plans divided into two phases: Phase I (FY 2015-16–FY 2020-21) and Phase II (FY 2020-

[1] This chapter has been prepared by Mohammad Abdur Razzaque, Economist and Chairman of Research and Policy Integration for Development (RAPID).

21–FY 2025-26). However, despite these seemingly well-defined reform objectives and time-bound action plans, progress towards realising the NSSS vision has fallen significantly short of expectations: programme fragmentation persists with extremely limited progress in programme consolidation and harmonisation; targeting errors in beneficiary selection continues to be pervasive[2]; resource constraints exclude a substantial number of potential beneficiaries in all programmes; the small benefits provided without adjustments for inflation render the impact on beneficiaries' well-being negligible; a comprehensive and integrated database on social protection beneficiaries remains elusive; there has been virtually no progress in introducing interventions based on social insurance principles (such as unemployment insurance); capacities of different ministries and departments remain grossly inadequate with persistent dependence on development partners; amongst others. More strikingly, despite its emphasis, the system has evolved without a clear focus on addressing poverty effectively, and—given its current state of limited resources and meagre benefit—its role in dealing with inequality is highly questionable.

Against this backdrop, re-strategising the social protection system has become imperative, not only to address its current inefficiencies but also to refocus on the fundamental purpose of social protection. Such an effort necessitates renewed emphasis on making concrete progress in long-identified reform measures, ensuring adequate resource allocation to enhance the system's impact, explicitly targeting poverty and vulnerability through sharpened as well as refocused interventions, and developing institutional capacity to ensure sustainability. This chapter, therefore, aims to critically assess the state of Bangladesh's social protection system, identify its key challenges, and provide actionable policy recommendations, particularly those feasible within a short- to medium-term framework.

13.2 Trends in Poverty, Vulnerability and Inequality in Bangladesh

13.2.1 Poverty Trends and Dynamics

According to the official data published by the Bangladesh Bureau of Statistics (BBS) under its flagship periodical exercises, the Household Income and Expenditure Survey (HIES), poverty incidence in the country fell from 56.7% in 1990 to 18.7% in 2022 (Figure 13.1), with the long-term average annual rate of reduction being 1.19 percentage points.

Between 2010 and 2022, the poverty rate declined from 31.5% in 2010 to 18.7% in 2022, with an average annual decline of 1.07 percentage points.[3] Extreme poverty also followed a similar trajectory, dropping from 17.6% to 5.6% over the same period, with an average

[2] While coverage has improved in a few programmes, with most of the cash transfers across schemes being delivered through the mobile financial system, beneficiary selection errors reduce the impact of these positive developments.

[3] Poverty reduction was most pronounced between 2000 and 2010. It has been argued that despite higher GDP growth rates in the subsequent decade, the resultant benefits became less equitable, leading to a declining elasticity of poverty reduction relative to economic growth (White Paper Committee, 2024).

annual decline of 1 percentage point (Figure 13.1).[4] The absolute number of people in poverty declined from 45.4 million in 2010 to 30.9 million in 2022, while the corresponding fall in extreme poor is estimated from 25.3 million to 9.3 million.

When measured using the international poverty line, as shown in Figure 13.2, the proportion of the population living below the PPP-adjusted $3.65 per day, which represents the international moderate poverty line, declined from 59.3% in 2010 to 52.9% in 2016, and further to 29.3% in 2022. Similarly, the share of the population living under the PPP-adjusted $2.15 per day, corresponding to the international extreme poverty line, decreased from 18.6% in 2010 to 14.3% in 2016, and finally to 4.9% in 2022. That is, the absolute number of people living in poverty using the international poverty line dropped from 88.09 million in 2010 to 48.81 million in 2022. Similarly, the absolute number of people in extreme poverty declined from 27.56 million in 2010 to 8.16 million in 2022.

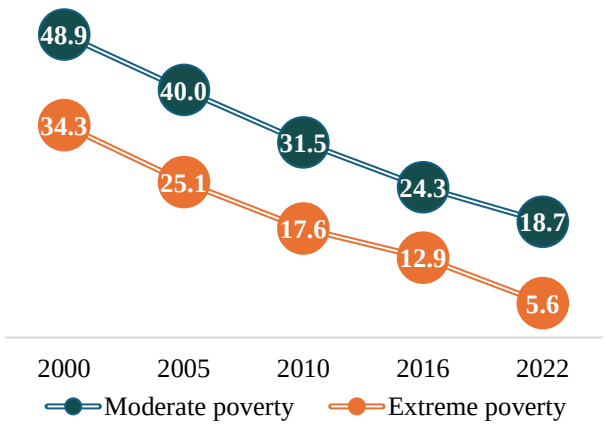


Figure 13.1: Moderate and Extreme Poverty at Upper and Lower Poverty Lines (%)

Source: Author's presentation using HIES data, various years.

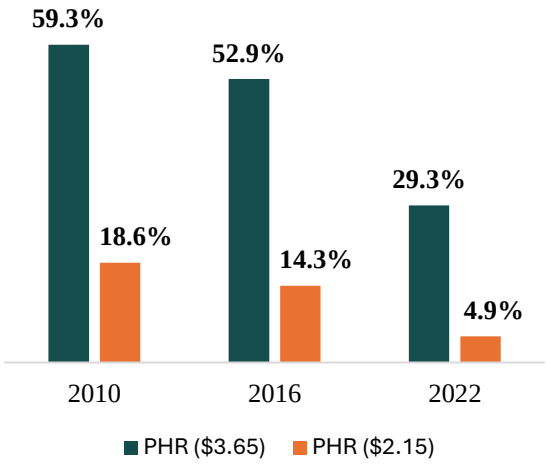


Figure 13.2: Moderate and Extreme Poverty at International Poverty Lines of $2.15 and $3.65 Per Person Per Day, 2017 PPP, (%)

Source: Author's estimation using HIES data, various years.

Note: Poverty lines were converted from per day to per month for calculation.

[4] The HIES report estimates moderate and extreme poverty across the country using the upper and lower poverty lines, respectively. In 2022, the average national Lower Poverty Line (LPL) was set at BDT 2,755 per individual per month, with households having per capita monthly expenditure below this threshold classified as extremely poor. The Upper Poverty Line (UPL), set at BDT 3,832 per person per month, was used to identify households considered moderately poor.

13.2.2 Poverty Trends and Dynamics in Urban and Rural Areas, and by Divisions

In 2010, rural areas had a significantly higher poverty rate (35.2%) compared to urban areas (21.3%). Rural poverty declined more sharply, falling to 20.5% in 2022—an annual average reduction of 1.2 percentage points. Urban poverty, decreased more gradually to 14.7% in 2022, with an annual average reduction of just 0.6 percentage points. A similar trend is evident using the international poverty line (PPP $3.65), where rural and urban poverty rates declined annually by 2.7 and 1.5 percentage points, respectively (Table 13.1).

Interestingly, while urban poverty rates have decreased, the absolute number of poor in urban areas has risen by half a million, increasing from 7.4 million in 2010 to 7.9 million in 2022. In contrast, rural areas witnessed a significant reduction in the absolute number of poor, from 34.2 million in 2010 to 23.7 million in 2022. This disparity has partly been contributed by rapid urban population growth as its share increased during the same period grew from 23.3% to 31.5%, as reported in the Population and Housing Census 2022.

Table 13.1: Poverty Incidences in National, Rural and Urban Areas by National and International Poverty Lines (2010–2022) (%)

Year	2010			2016			2022		
	National	Urban	Rural	National	Urban	Rural	National	Urban	Rural
Moderate poverty (using the national Upper Poverty Line)	31.5	21.3	35.2	24.3	18.9	26.4	18.7	14.7	20.5
Extreme poverty (using the national Lower Poverty Line)	17.6	7.7	21.1	12.9	7.6	14.9	5.6	3.8	6.5
Moderate poverty using the PPP $3.65 poverty line	59.3	34.4	68.2	52.9	33.5	60.1	29.3	15.5	35.7
Extreme poverty using the PPP $2.15 poverty line	18.6	6.6	22.8	14.3	6.2	17.3	4.9	1.8	6.3

Source: Poverty rates based on national poverty lines are presented from BBS, HIES data (2010, 2016, and 2022) and estimates for international poverty lines are calculated using the same data sources.

When measured using the upper poverty line, the poverty gap ratio, which reflects the depth of poverty by indicating how far below the poverty line the average poor individual falls, declined from 6.5% in 2010 to 3.8% in 2022. Similarly, the squared poverty gap, which measures the severity of poverty by assigning greater weight to those furthest below the poverty line, decreased from 2.0% in 2010 to 1.2% in 2022 (Figure 13.3).

Despite these overall improvements, urban-rural disparities remain pronounced. Rural areas consistently exhibit higher poverty gaps and squared poverty gaps, highlighting the greater depth and severity of poverty in these regions. For example, in 2022, the rural poverty gap stood at 4.2%, compared to 2.9% in urban areas, while the rural squared poverty gap was 1.3%, compared to 0.9% in urban areas (Figure 13.3).

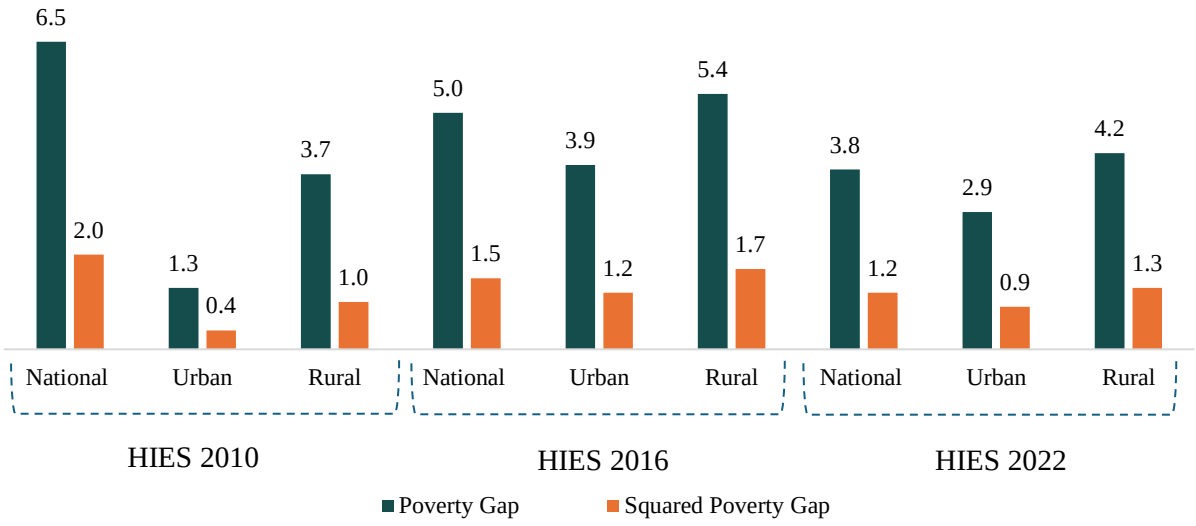


Figure 13.3: Poverty Gap and Squared Poverty Gap by National, Urban And Rural, Based on Upper Poverty Line (%)

Source: BBS, HIES (2010, 2016, 2022).

Regional poverty at the divisional level shows that while the northern divisions demonstrated significant progress in poverty reduction between 2016 and 2022, these areas still face persistent challenges. In 2016, Rangpur had the highest poverty rate at 47.2%, which, by 2022, dropped significantly to 24.8%, marking a 22.4 percentage-point reduction—the largest improvement among all regions. Mymensingh, another northern division, also recorded notable progress, with poverty declining from 32.8% to 24.2%. Western divisions, including Khulna and Rajshahi, similarly achieved substantial reductions of 12.7 and 12.2 percentage points, respectively. In contrast, trends in the eastern and southern regions were less favourable. Sylhet and Dhaka experienced modest increases in poverty, rising by 1.2 and 1.9 percentage points, respectively. Barishal showed stagnation, with its poverty rate remaining nearly unchanged at 26.9% (Figure 13.4 & Figure 13.5).

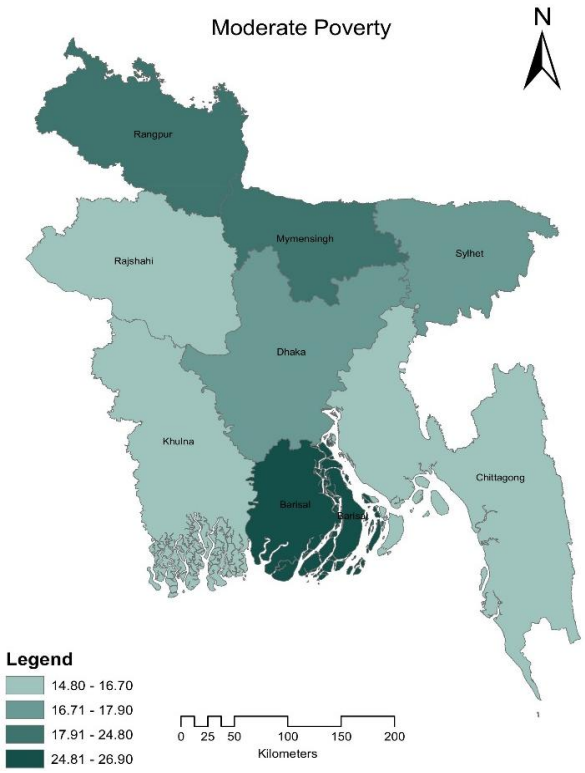


Figure 13.4: Poverty Headcount Ratio by Division in 2022

Source: Author's presentation using HIES 2022 data.

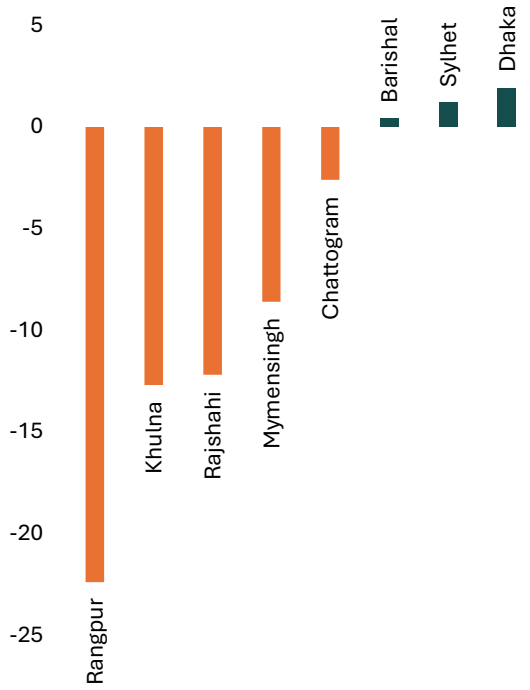


Figure 13.5: Change in Poverty Ratio between 2016 and 2022 by Division (Percentage Points)

Source: Author's estimation using HIES 2016 and 2022 data.

13.2.3 Vulnerability

While poverty analysis often takes precedence, vulnerability warrants equal attention. Vulnerability refers to those currently above the poverty line but at significant risk of falling into poverty due to any sudden shocks, such as major illness, natural disasters, or economic downturns. Although there is no universally accepted definition of vulnerability, the NSSS operationalises it as individuals with incomes above the upper national poverty line but below 1.25 times that threshold.

The impact of vulnerability was starkly evident during the COVID-19 pandemic in 2020, when the resulting economic shocks pushed many individuals and families into poverty, giving rise to a group widely termed the "new poor" (Raihan et al., 2021; PPRC and

BIGD, 2021).[5] The findings from the HIES 2022 survey, however, seem to suggest much of those who might have slipped into poverty during the pandemic may have recovered by 2022.

The share of the vulnerable population at the national level declined from 19.1% in 2010 to 15.2% in 2022 (Table 13.2), representing approximately 25.1 million individuals in 2022. This reduction occurred across both rural and urban areas, though rural vulnerability remains higher at 15.9% (17.9 million people) compared to 13.8% in urban areas (7.2 million people). Despite a significant decline, the combined share of poor and vulnerable populations remains notably high at 33.9% in 2022.

Table 13.2: Vulnerability Incidences and Combined Share of Poverty and Vulnerability across National, Urban, and Rural Areas (2010–2022) (%)

Year	Share of vulnerable population			Share of poor and vulnerable population		
	National	Urban	Rural	National	Urban	Rural
2010	19.1	16.8	19.8	50.6	38.1	55.0
2016	18.5	15.9	19.4	42.8	34.8	45.8
2022	15.2	13.8	15.9	33.9	28.5	36.4

Source: Author's estimation from HIES 2010, 2016 and 2022.

13.2.4 Inequality

The long-term vision of the NSSS is to establish an inclusive social security system that effectively addresses poverty and inequality in the face of rapidly rising inequality.

- The Gini index, a widely used measure of income inequality, indicates a steady increased over time, reflecting a widening gap in income distribution. According to HIES data, the index increased from 0.45 in 2010 to 0.50 in 2022 at the national level, while it appears more pronounced in urban areas (0.54) compared to rural regions (0.45) (Figure 13.6).
- The consumption Gini—which measures inequality based on consumption expenditure—has remained largely unchanged, with urban areas recording 0.36 and rural areas 0.29 in the latest HIES survey (Figure 13.7).
- It can be estimated that the richest 5% of the households in 2022 held a staggering 30% of the national income, while the poorest 5% were left with a mere less than 0.4% (Figure 13.8).

[5] Raihan et al. (2021) estimated that 34.8 % of vulnerable poor households in 2018 fell into extreme poverty by 2020, with an additional 14 % slipped into moderate poverty. According to PPRC and BIGD (2021), though there was some recovery between June 2020 and March 2021, the national estimate of the "new poor" remained at 14.75 % as of March 2021.

- The Palma Ratio, which compares the income share of the richest 10% to the poorest 40%, provides further insights into inequality. Nationally, the ratio increased marginally from 2.97 in 2010 to 3.23 in 2022. However, from 2010 to 2022, the income share of the bottom (poorest) 40% declined slightly from 12.74% to 12.43%, while the share of the top 10% (richest) increased significantly from 37.97% to 40.22%, reflecting a widening income disparity (Table 13.3).
- The asset Gini coefficient increased from 0.82 in 2016 to 0.84 in 2022, indicating a growing concentration of wealth. Urban areas exhibit particularly high inequality, with an asset Gini of 0.84 compared to 0.81 in rural areas. In 2022, an estimated 20% of the urban population were slum dwellers (BBS, 2022a).
- Land, the largest component of wealth, is heavily concentrated among the rich, though the average quantity of land owned by richer and poorer households differs only slightly, with the richest quintile owning just 0.03 acres on average. However, land value shows a stark disparity driven by ownership of prime-location properties among the rich with better access to infrastructure and utilities. Rich households also invest in income-generating assets, while poorer households mainly own depreciating items like household durables (White Paper Committee, 2024).

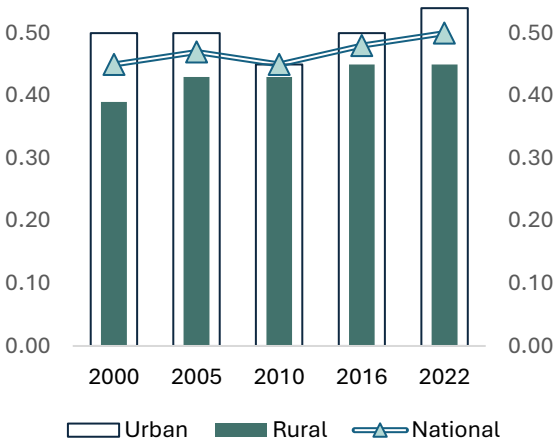


Figure 13.6: Income Gini Index in Bangladesh

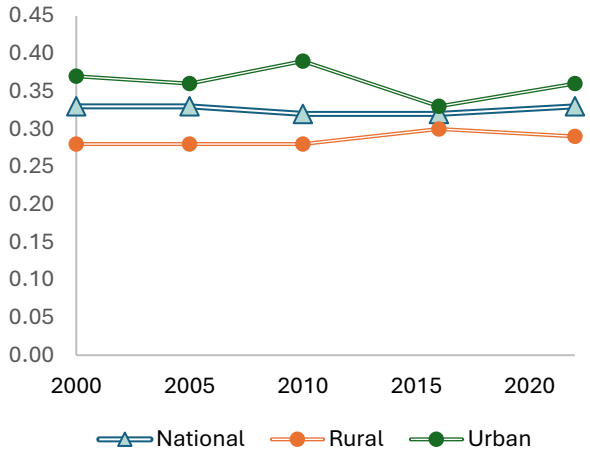


Figure 13.7: Consumption Gini Index in Bangladesh

Source: Author's presentation using HIES data, various years.

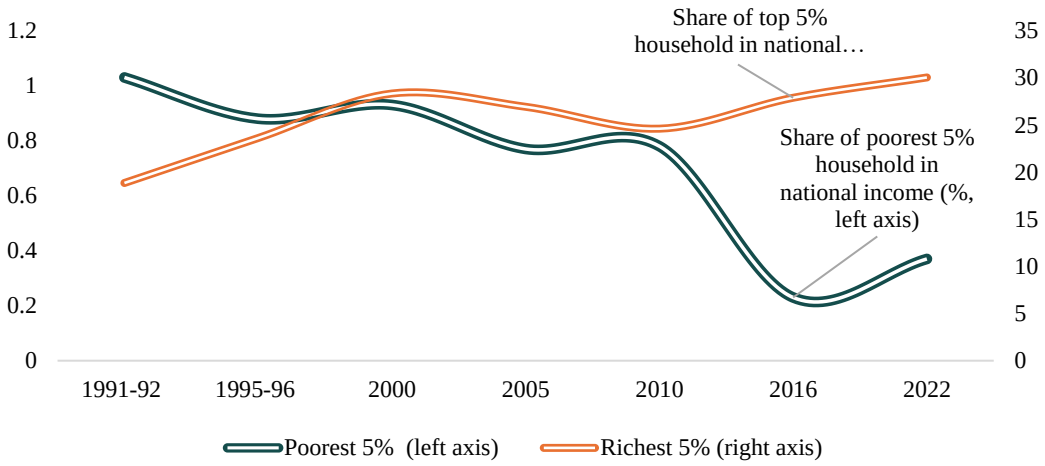


Figure 13.8: Income Share Held by Poorest 5% and Richest 5% Households
Source: Author's estimation using HIES data, various years.

Table 13.3: Trends in Income Share and Palma Ratio (%)

Income Share	1991-92	1995-96	2005	2010	2016	2022
Income Share of Bottom 40%	29.23	15.54	14.36	12.74	12.04	12.43
Income Share of Middle 50%	53.36	49.78	48.00	49.29	48.04	47.35
Income Share of Top 10%	17.41	34.68	37.64	37.97	39.92	40.22
Total	100.00	100.00	100.00	100.00	100.00	100.00
Palma Ratio*	**1.68**	**2.23**	**2.62**	**2.97**	**3.31**	**3.23**

Source: Author's estimation using HIES data, various years.

13.3 The Current State of the Social Protection System and Key Challenges

Despite nearing the end of the decade-long reform period envisioned in the NSSS, the state of the social protection system remains fraught with challenges that the reform programme aimed to address. Persistent issues, including structural inefficiencies, inadequate resource allocation, weak institutional capacities, and limited inclusivity, have hindered progress and undermined the system's effectiveness. These shortcomings prevent vulnerable groups from escaping the cycle of poverty, thereby diminishing the overall impact of social protection programmes. With the NSSS set to expire in June 2026 and many key reforms still unimplemented, its transformative potential remains unrealised, underscoring the need for a more proactive and strategic approach. While the specific details of programme-specific and institutional issues—areas for which the NSSS continues to serve as a relevant reference document—are beyond the scope of this

chapter, several critical challenges that demand immediate attention are highlighted below. Addressing deeper structural issues, however, will require a thorough evaluation of the NSSS implementation process in addition to the issues raised here.

Inflated Social Protection Allocations: The inclusion of numerous unrelated and irrelevant schemes in social protection allocations not only inflates the budget but also obscures the limited political commitment to addressing poverty and vulnerability, redirecting attention to the broader resource constraints faced by the country. Social protection spending in Bangladesh, often portrayed as evidence of significant public investment, is grossly overstated due to the inclusion of schemes such as pensions for government employees, subsidies, interest payments on national savings certificates, and infrastructure development programmes, among others, which do not align with the objectives of social protection as defined in the NSSS (Table 13.4).[6] Of the six largest schemes by budget allocation, only one—the old-age allowance—can be considered a genuine social protection measure. While it is true that the definition and scope of social protection programmes can arguably be quite broad, however, in that case nearly any public spending could be classified as social protection, undermining the focus and intent of social protection.

Table 13.4: List of Social Protection Schemes not Aligned with the NSSS Emphasis on Addressing Poverty and Vulnerability

Name of programme	Budget (FY2024-25) (Crore BDT)
Pension for retired government employees and their families	36,580
Agriculture Subsidy Management	17,000
Savings certificate interest assistance	8,828.3
Honorarium for freedom fighters	4,728
Free textbook distribution among students	1,195
Housing construction project for the insolvent freedom fighters	1,004
Rural connectivity improvement project	613
Honorarium & medical allowances for injured freedom fighters	480
Printing and distribution of free textbooks	447.1
Ministry of public administration (welfare grants)	349.3
Procurement of equipment for search, rescue operation and emergency communication for earthquake and other disaster	342.3
Water supply project in coastal area through rainwater harvesting system	216.5
Bangladesh Employees Welfare Board	192.9
Cash Transfer Modernisation (CTM)	165.5
Lump Sum Provision for Development of Special Areas (Except Hill Tracts)	100
Ration for shaheed family and injured freedom fighters	90

[6] These programmes are not aligned with the ILO definition and fail to effectively target poverty and vulnerability.

Capacity building of Joyeeta Foundation & construction of Joyeeta Tower	89.1
Interest free micro credit programme	70
Hilsha Resource Development and Union Level Fisheries…Agriculture Technology Programme	70
Victory day allowance for heroic freedom fighters	70
Social Development Foundation	64

Source: Author's compilation from Ministry of Finance.

According to government sources, social protection spending in 2024–25 accounts for 2.5% of GDP and 17% of the national budget. However, when the programmes listed in Table 4 are excluded, the allocation drops significantly to only 1.2% of GDP and 7% of the budget (Figure ***13.9***). The World Social Protection Report 2024–26, published by the ILO, estimates that Bangladesh spends just 0.9% of its GDP on social protection (Figure **13.10**).[7] This figure is markedly below the South Asian regional average of 3.8%, as well as the averages of 4.2% and 8.5% for lower-middle-income and upper-middle-income countries, respectively.

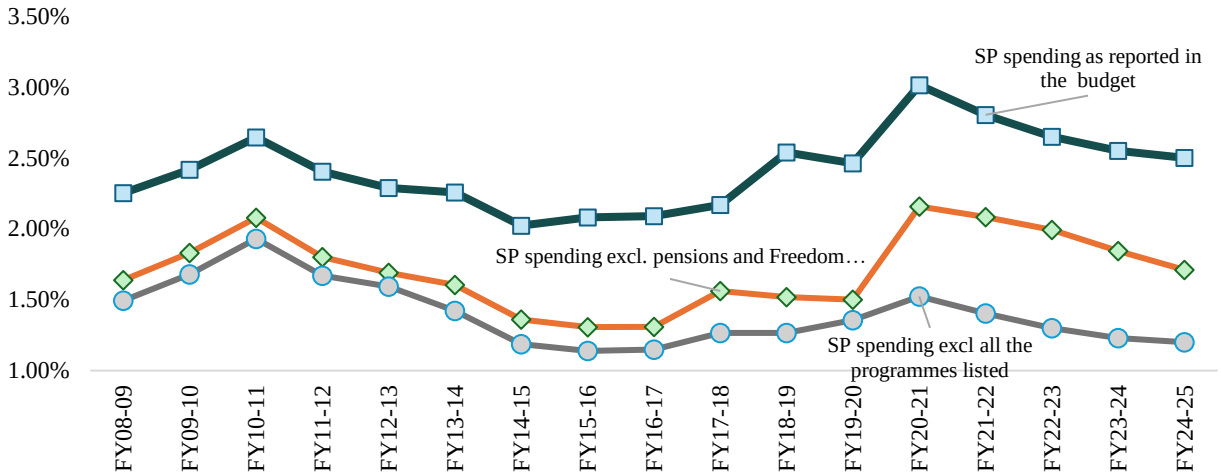


Figure 13.9: Social Protection Spending (% of GDP)

Source: Author's estimation based on data from ILO and Ministry of Finance.

Note: Data are based on the revised budget. Proposed budget data are used for FY2024-25. Revised GDP estimates for the base year FY2015-16 are used to calculate the share of SSPs in GDP.

[7] The ILO defines social protection programmes as encompassing nine areas, including family and child benefits, unemployment benefits, old-age pensions, employment injury benefits, maternity benefits, disability benefits, and survivor benefits.

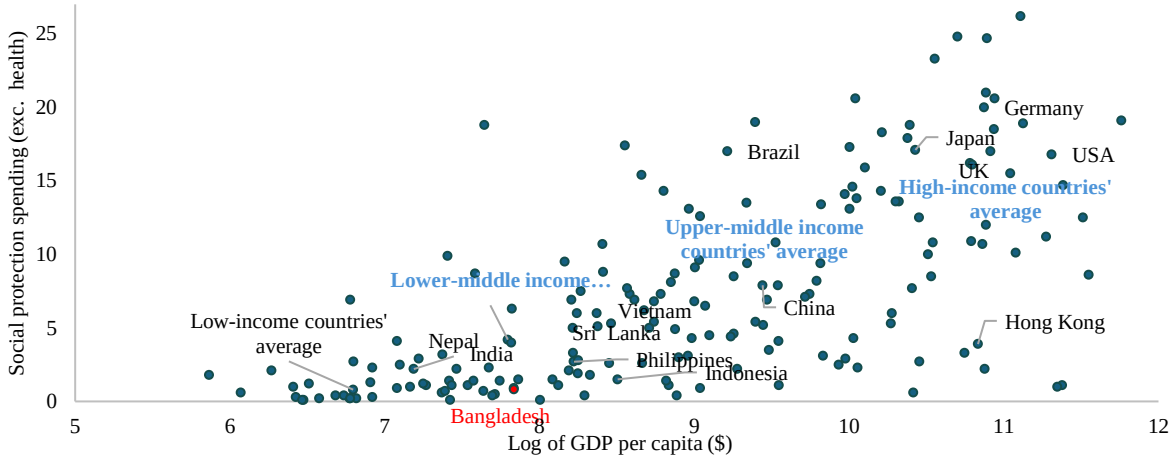


Figure 13.10: Cross-country Comparison of Social Protection Spending

Source: Author's illustration based on ILO and World Bank data.

***Low and Eroding Benefits**:* Social protection benefits in Bangladesh are low and are rarely adjusted for inflation, resulting in a steady erosion of their real value over time.[8] Regular monthly transfers under major schemes constitute only 2%–5% of the country's per capita income (Table 13.5) and have been declining as a proportion of the same (Figure 13.11). Safety net programmes, such as Test Relief and the Employment Generation Programme for the Poorest (EGPP), provide relatively higher allowances (as a proportion of per capita GNI), but they are run only for short durations. Estimates suggest that monthly benefits from key programmes, such as the Old-age Allowance (OAA) and Widow Allowance (WA), amount to just 14% of the national poverty line income per person, while the Allowance for Persons with Disabilities is slightly higher at 22% (RAPID, 2025). This issue is further compounded by the lack of annual inflation adjustments for most regular benefit payments (Figure 13.12), which exacerbates the decline in their purchasing power, leaving them increasingly inadequate to address poverty and vulnerability effectively.[9]

[8] The limited social protection budget leaves minimum space for genuine programmes. Major initiatives, such as the Old Age Allowance (OAA), Widow Allowance (WA), Allowance for the Physically Challenged, and the Maternal and Child Benefit Programme (MCBP), receive only marginal shares of the budget—3.2%, 1.4%, 2.4%, and 1.2%, respectively. However, these programmes together aim to support 10.4 million beneficiaries in FY2024-25.

A study estimated that when women in a household receive social assistance (in rural areas of Bangladesh and Peru), those households are 1–3 percentage points more likely to remain in chronic poverty, emphasising that the assistance provided is either too narrowly targeted or the financial support is too small to effectively help households escape poverty (Diwakar, 2023).

[9] Between FY 2009-10 and FY 2023-24, the real values of the OAA and WA declined to BDT 77.6 and BDT 71.2, respectively (normalised at BDT 100), as irregular inflation adjustments failed to offset rising costs, rendering these benefits too low to have a meaningful impact.

Table 13.5: Benefits of Major SSP Programmes in Bangladesh[10]

Programme	Programme benefit	Nature of the transfer	Allowance as % of corresponding per capita GNI
Old-age allowance	Tk. 600 per month	Regular, monthly	2.35%
Allowance for widow, husband deserted and destitute women	Tk. 550 per month	Regular, monthly	2.16%
Allowances for persons with disability	Tk. 850 per month	Regular, monthly	3.33%
Stipends for PwDs	Tk. 900-1300 per month	Regular, monthly	3.5%-5.1%
Primary school stipends	Tk. 100-200 per student per month	Regular, monthly	0.4%-0.8%
Mother and child benefit program (MCBP)	Tk. 800 per month	Regular, monthly	3.14%
Employment Generation Program for the Poor (EGPP)	TK 200 for 7 hours work per day (for 80 days in a year)	Short period (lean period)	5.23%
Vulnerable Group Feeding (VGF)	10-30 Kg of food grain per month (for 2-5 months)	Short period (lean period)	0.3%-2%
Vulnerable women benefit (VWB)	30 Kg of food grain per month (for 2 years)	Regular, monthly for 2 years	4.70%

Source: RAPID (2025).

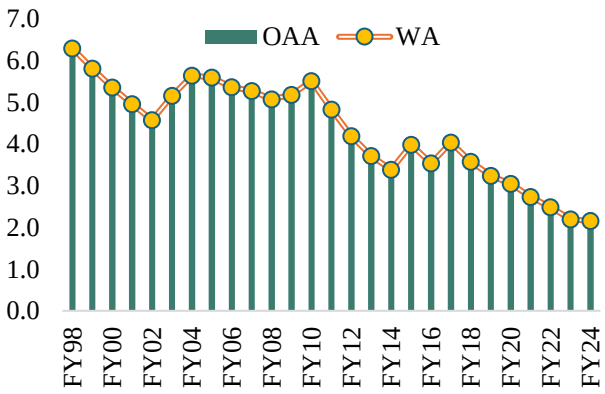


Figure 13.11: Benefits from SP Programmes (% of Per Capita GNI)
Source: Author's estimation based on data from BBS and the Ministry of Social Welfare (MoSW).

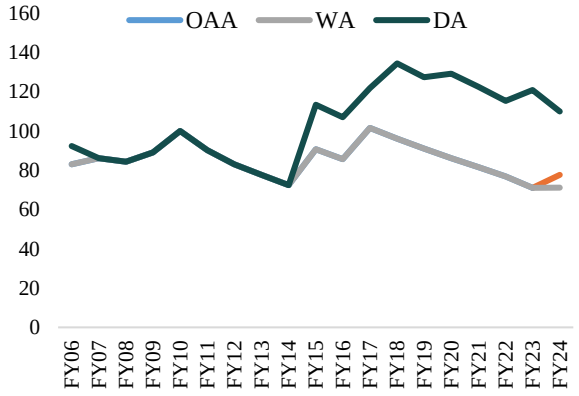


Figure 13.12: Benefits from SP Programmes (Adjusted for Inflation; Normalised at FY 2009-10=100)
Source: RAPID (2025).

[10] Note: 1) Employment Generation Program for the Poor (EGPP), Vulnerable Group Feeding (VGF) are programmes that are run for a short period (mostly during the lean season or after a natural disaster has taken place). 2) The price of per Kg rice/wheat is considered TK 40. The cost for training on alternative income generating activities are not considered VWB scheme.

Lacklustre Efforts in Programme Consolidation: The limited resources available for social protection are spread too thinly across a multitude of schemes, as efforts toward programme consolidation and harmonisation remain lacklustre. Despite the NSSS directive to streamline smaller programmes, the social protection system remains highly fragmented.[11] The number of programmes decreased from 138 in FY 2014-15 to 115 in FY 2023-24 but rose again to 140 in FY 2024-25, managed by nearly 30 government agencies.[12] The only notable example of programme consolidation is the Mother and Child Benefit Programme, which merged two previously separate schemes for rural and urban beneficiaries.

Along with too many programmes, budgetary allocations are heavily skewed, with the largest one and five schemes accounting for 27% and 55.2% of total social protection spending, respectively, the largest 10 comprising 68.2%, and the largest 20 taking up 82%. In stark contrast, the combined share of the smallest 50 programmes is only 1.3% (Figure 13.13), and there are 110 programmes, each representing no more than 0.5% of the total budget (equivalent to BDT 680 crore). Consequently, the paltry resource allocation for most schemes makes it impossible to cover a meaningful proportion of eligible beneficiaries. This systemic imbalance benefits a few while excluding many, perpetuating inequities within the social protection system.

[11] For example, the budget allocated to freedom fighters is divided across eight separate programmes, despite the NSSS's recommendation to merge these into a single scheme. Similarly, initiatives aimed at improving the livelihoods of transgender individuals, Bede, disadvantaged communities, and tea garden workers have been fragmented into separate schemes with only minor variations in benefits. This fragmented structure results in administrative inefficiencies and reduces the overall effectiveness of support delivery. Consolidating similar programmes into a unified scheme with standardised benefits would significantly enhance efficiency and streamline the system.

[12] This recent increase in the number of programmes has been attributed more to easing financial budget management than to an actual increase in programme count, undermining the objective of meaningful consolidation and harmonisation. Nevertheless, it does not reflect well on the priority set in the NSSS of programme consolidation/harmonisation.

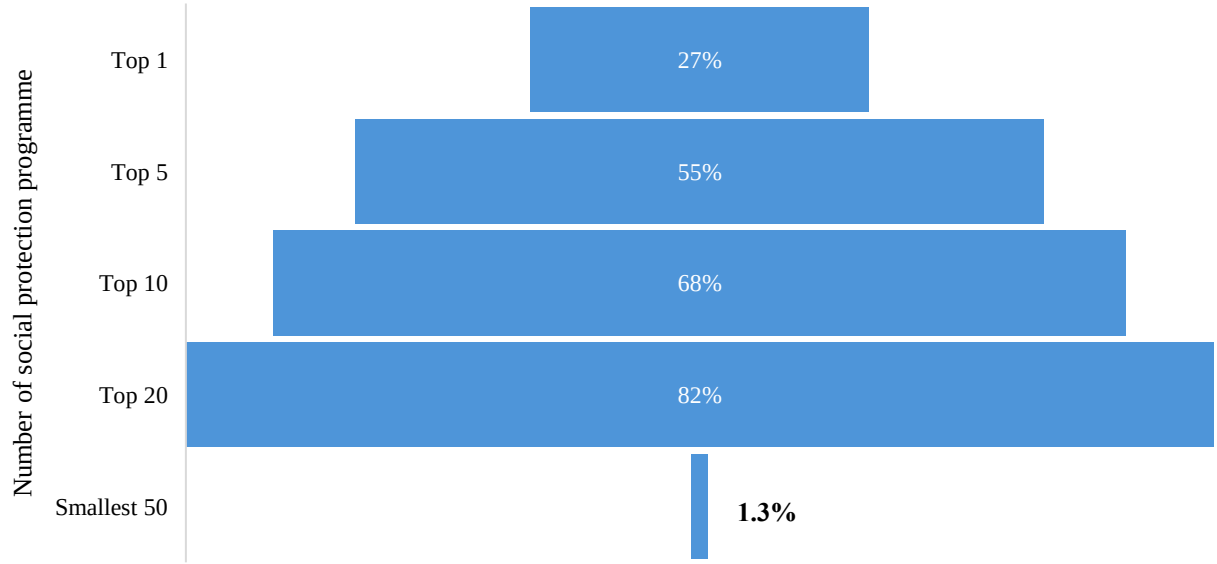


Figure 13.13: Budget Allocation Share Across Social Protection Programmes (in %)

Source: Author's estimation and illustration from the Ministry of Finance data.

***Targeting Errors and Challenges in Beneficiary Selection**:* High targeting errors have become a defining feature of Bangladesh's social protection system, hindering the effective delivery of transfers to eligible beneficiaries. Limited funding means that not all eligible individuals can be included in the programmes, resulting in significant exclusion errors. Additionally, issues such as political affiliations and other corrupt practices in beneficiary selection often lead to inclusion errors, where ineligible individuals receive benefits (Razzaque et al., 2024). At the local level, the complexity of eligibility criteria—such as assessing income, land ownership, and age—further complicates the process, inadvertently excluding or including individuals. These inefficiencies, identified through analytical work, highlight the system's weaknesses in targeting.

A key issue in addressing targeting errors is the choice between using poverty and vulnerability criteria to determine eligibility versus relying on programme-specific criteria. While public opinion and the NSSS prioritise targeting poor and vulnerable groups, many programme-specific selection criteria do not restrict eligibility to these populations. For instance, data from HIES 2022 reveal that 53.9% of poor and vulnerable families are excluded from social protection programmes (exclusion errors), while 62% of non-poor and non-vulnerable households receive some form of benefits (inclusion errors).

On the other hand, if programme-specific criteria are considered, exclusion errors for the Old Age Allowance and Widow Allowance programmes are estimated at 25% and 84.8%, respectively, while inclusion errors for these schemes are comparatively lower,

at 16.3% and 26.5% (Table 13.6). As noted earlier, the substantial exclusion errors are often linked to the very limited resources available; however, the high inclusion errors can be attributed to targeting inefficiencies, including potential malpractices.

Table 13.6: Programme-specific Exclusion and Inclusion Error (in %) in some Selected Schemes

Programme and eligibility criteria	Exclusion error	Inclusion error
Old age allowance: Minimum age (male 65 years, female 62 years) and annual personal income below Tk. 10,000	25.03	16.28
Widow allowance: Widow/deserted by husband/destitute, annual individual income less than Tk. 15,000	84.80	26.47
Disability allowance: Severe disability and annual income of beneficiary (less than 36000)	75.49	56.07
VGF: Poor and Landless	97.69	80.65
Mother and child benefit program (MCBP): Age (20-35) and income criteria (up to Tk 8,000 for rural areas; and up to Tk 12,000 for urban areas)	98.88	64.18

Source: Calculated using HIES 2022 data (RAPID, 2025).

Although the HIES 2022 database is nationally representative, it poses significant challenges in evaluating targeting errors for social protection programmes due to the small sample sizes for specific schemes. For example, only 511 households receive the Widow Allowance, 255 benefit from the Vulnerable Group Feeding (VGF) programme, 209 participate in the Open Market Sales (OMS) programme, and just 51 households receive the Maternal and Child Benefit Programme (MCBP) allowance.

To address these targeting inefficiencies, an initiative was undertaken by the BBS to develop a National Household Database (NHD) and implement a Proxy Means Test (PMT) to improve beneficiary selection. However, it failed to produce meaningful outputs, and the data became outdated over time, underscoring the challenges and limitations of building a robust, large-scale database for effective programme targeting.

Gaps in information also affect in making the social protection system more inclusive, particularly with regard to the persons with disabilities. Data on persons with disabilities (PWDs) in Bangladesh varies significantly across sources due to differences in classification criteria, measurement tools, and data collection processes. The National Survey on Persons with Disabilities (NSPD) 2021 estimates that 2.8% of the population (4.6 million individuals) have disabilities, while the Disability Information System (DIS) records 3.4 million PWDs as of October 2024. In contrast, the Household Income and Expenditure Survey (HIES) 2022 reports a higher prevalence of 5.71%, equivalent to approximately 9.4 million individuals. These figures are considerably lower than global estimates by the World Health Organization (WHO), which suggest that 16% of the

world's population (1.3 billion people) live with significant disabilities. This disparity indicates potential underreporting or misrepresentation of disability data in Bangladesh.

Underreporting may result from stigma and cultural perceptions that discourage families from acknowledging disabilities, as well as systemic barriers. Data collection tools often fail to account for the full spectrum of disabilities, and inadequately trained survey teams and inaccessible data collection sites further limit participation. Additionally, a lack of resources and reliance on outdated methodologies exacerbate the issue, contributing to the persistent underestimation of disability prevalence in official statistics. This underreporting undermines the ability to design effective policies and programmes for PWDs (Razzaque and Hasan, 2024).

Absence of Poverty-Focused Interventions in Social Protection*:* The lack of comprehensive, large-scale interventions explicitly targeting poverty and vulnerability significantly undermines the effectiveness of Bangladesh's social protection system. Most schemes fail to align with the core objective of addressing poverty, and the absence of robust income support measures, such as cash transfers or employment guarantees tailored for households below the poverty line, leaves a critical gap in tackling both moderate and extreme poverty. Therefore, there is considerable potential for interventions like Universal Basic Income (UBI) and social protection graduation programmes to effectively address poverty and vulnerability, in a more direct and sustainable approach than the current initiatives (UNDP, 2024).

The limited impact of social protection programmes stems from three key issues: the lack of a clear poverty focus, low benefit levels, and persistent targeting errors. Using HIES 2022 data, it can be estimated that social protection programmes contributed to reducing extreme poverty by only 0.6 percentage points, moderate poverty by 0.8 percentage points and vulnerability by 0.94 percentage points. Eliminating inclusion errors and reallocating the saved resources to poor households could significantly improve these outcomes, increasing the reduction in extreme poverty to 1.3 percentage points and moderate poverty to 2.5 percentage points. This reallocation could lift an additional 1.1 million people out of extreme poverty and 2.5 million out of moderate poverty, underscoring the potential gains from better targeting and more focused interventions.

Lack of Social Insurance-Based Schemes: The absence of social insurance schemes, such as unemployment insurance, represents a significant gap in social protection for the working-age population in Bangladesh. Unemployment is not recognised as a defining criterion for social protection targeting in the country. Although several workfare programmes, including the Employment Generation Programme for the Poorest (EGPP), EGPP+, and Food for Work (FFW), aim to address seasonal unemployment in rural areas, they fall short of providing comprehensive coverage. The NSSS recommended the establishment of a National Social Insurance Scheme (NSIS), encompassing unemployment insurance, employment injury insurance, sickness benefits, and maternity benefits. However, apart from the pilot implementation of an Employment Injury Scheme (EIS) for RMG workers, progress in other areas has been minimal (ILO, n.d.). The lack

of prioritisation for unemployment insurance is particularly evident, even in the aftermath of the Covid-19 pandemic, which caused widespread unemployment. Although the Phase II Action Plan of the NSSS outlines ambitious timelines for introducing unemployment insurance, tangible progress remains negligible. The implementation of the NSIS faces substantial challenges, including conceptual, legal, institutional, and operational gaps (CPD & GIZ, 2024). Additionally, limited awareness of social insurance mechanisms (Razzaque and Hasan, 2023) and the absence of readiness to fund such schemes through personal contributions further impede progress.

Fiscal Constraints in Expanding Social Protection*:* The government's narrow fiscal space is a significant barrier to expanding social protection in Bangladesh. Most social protection programmes are solely financed through state taxation, yet the country consistently records one of the world's lowest tax-to-GDP ratios, averaging just 7.5% over the past decade. This is 11.9 percentage points below the Asia-Pacific regional average of 19.3% (Figure **13.14**), underscoring Bangladesh's limited capacity to mobilise domestic revenue. Consequently, the constrained fiscal space hampers the allocation of sufficient funding for social protection programmes.

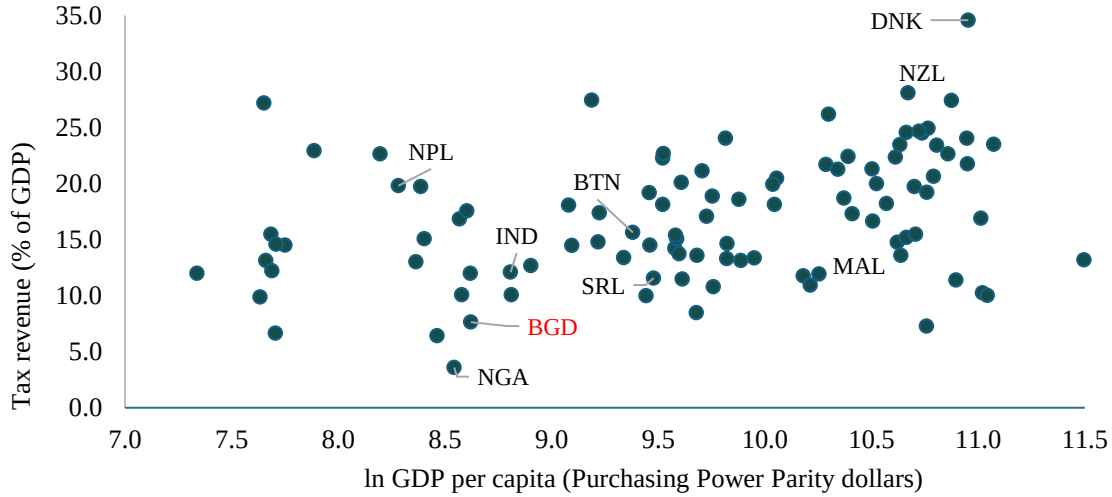


Figure 13.14: Tax Revenue and Per Capita GDP of Global Economies

Source: Illustration based on World Development Indicators and National Board of Revenue (NBR) data.

Gaps in Urban Social Protection Coverage: The limited social protection coverage in urban areas has not kept pace with the rapid demographic shift from rural to urban regions, leaving significant gaps in addressing the rising vulnerabilities of urban populations. By the mid-to late-2030s, the majority of Bangladesh's population will reside in urban areas, marking a critical juncture in the country's demographic transformation. Despite this shift, only about 20% of social protection beneficiaries are from urban areas, highlighting a disproportionate focus on rural interventions (Figure 13.15). Beyond pension schemes for government employees and freedom fighters' allowances, urban-specific social protection programmes are notably sparse. This lack of coverage fails to account for the distinct and growing challenges faced by urban dwellers,

such as job insecurity in the informal sector, inadequate housing, limited access to basic services, and heightened exposure to economic and environmental shocks. Expanding and adapting social protection measures to effectively address urban vulnerabilities is crucial to ensure equity and resilience in the face of this demographic transition.

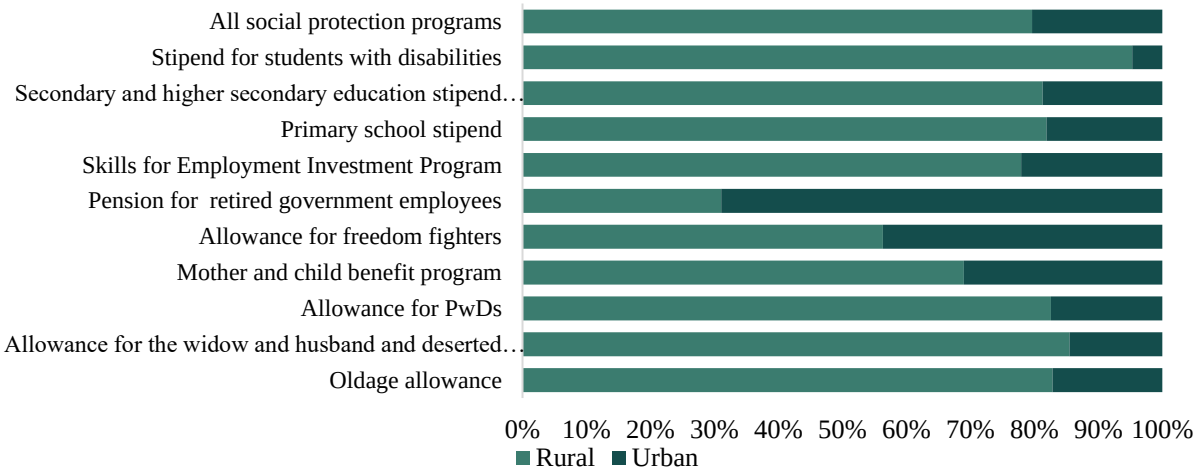


Figure 13.15: Limited Coverage of Urban Poor and Vulnerable Population Groups

Source: Author's illustration based on HIES 2022 data.

Inadequate Climate Adaptation in Social Protection: The social protection system in Bangladesh lacks sufficient climate-adaptive responses, as most disaster response schemes are not designed to address the impacts of climate change. Despite being one of the most climate-vulnerable countries, frequently experiencing floods, cyclones, and riverbank erosion, social protection remains largely reactive, focusing on short-term relief like cash or food aid rather than long-term resilience and adaptation strategies. Areas facing multiple crises show the highest levels of chronic and transient poverty, with households relying on coping mechanisms such as credit, distressed asset sales, and external support (Diwakar and Brzezinska, 2024).

While covariate response programmes account for 41.8% of total social protection spending, only 26 programmes directly target climate-affected populations, comprising just 13.23% of social protection expenditure (Table **13.7**). Moreover, of the 12 programmes proposed in the FY 2024-25 budget under the Ministry of Disaster Management and Relief (MoDMR), only a small fraction can be classified as adaptive to climate change, highlighting significant gaps in integrating climate resilience into the social protection system.

Table 13.7: Social Protection Programmes Benefiting Climate Vulnerable Population

Programme Name	Implementing Agency	Allocation in FY 2024-25 (BDT Crore)
Enhancing Adaptive Capacities of Coastal Communities, especially Women, to Cope with Climate Change-Induced Salinity	MoSW	61.20
Vulnerable Group Feeding Program	MoDMR	1,184.02
Relief Operation-General	MoDMR	2,390.62
Food for Work (FFW)	MoDMR	1,024.01
Char Development and Settlement Project (Social Security Part)	MoWR	33.01
Employment Generation Program for the Poorest (EGPP)	MoDMR	1,504.50
Employment Generation Program for the Poorest Plus (EGPP+)	MoDMR	264.47
Relief Activities	MoDMR	80.12
Relief Operation – Rehabilitation	MoDMR	70.1
Relief Operation - Rehabilitation (House Grant)	MoDMR	28
Construction of Flood Shelter in the Flood Affected and River Prone Area	MoDMR	400
The Disaster Risk Management Enhancement Project	MoDMR	111.53
Bangladesh Environmental Sustainability and Transformation (BEST) Project	MoEFCC	793.11
Special Grant for the Development of Char, Haor and Backward Areas	Finance Division	50
Fund for Disaster Affected Marginal Farmers and Poultry Farm Owners	Ministry of Food	50
Fund for Mitigating Impacts of Economic and Natural Disaster	Ministry of Food	8,000.00
Expansion of Irrigation in Greater Rangpur District	Ministry of Food	60.51
Establishment of Multipurpose Disaster Shelter Centre	LGD	475.15
Water Supply Project in Coastal Area Through Rainwater Harvesting System	LGD	216.53
Climate Resilient Sustainable Water Supply, Sanitation and Hygiene Project in Bangladesh	LGD	38.33
Flood Reconstruction Emergency Assistance Project for Water Supply and Sanitation	LGD	70.91
Disaster Risk Management Enhancement Project (Social Security Part)	LGD	46.26
Resilient Infrastructure for Adaptation and Vulnerability Reduction Project (RIVER)	LGD	393.78
Coastal Towns Climate Resilience Project	LGD	450
Risk Management Fund on Climate Change	MoEFCC	100
Sustainable Forest and Livelihoods (SUFAL) Project	MoEFCC	95.95
Total		17992.11
Social Protection Budget		136026
Percentage of Social Protection Budget		13.23%
National Budget		797000
Percentage of National Budget		2.26%
GDP		5597414
Percentage of GDP		0.32%

Source: Author’s compilation based on Ministry of Finance data.

Weak Institutional Capacity and Overreliance on External Support*:* Excessive dependence on development partners (DPs) for both budgetary support and technical assistance in social protection programmes poses significant challenges to capacity development and sustainability (Barrientos, 2007; Valverde et al., 2020; Adamenko, 2022). While development partners working on social protection have made efforts to coordinate effectively and share information to avoid duplication, the lack of leadership at the ministry level remains a critical issue.[13] Ministries often fail to identify needs, develop coherent strategies and roadmaps, coordinate DP initiatives, and conduct thorough evaluations (GED, 2020). This extensive involvement of DPs at every stage weakens government ownership and limits capacity development (Adamenko, 2022). The situation is exacerbated by frequent transfers of officials, which undermine institutional memory and continuity within ministries (Cabinet Division, 2023).

Heavy reliance on external support not only threatens the long-term sustainability of social protection programmes but also reduces the country's commitment to ensuring their effective implementation and monitoring. Without a stable domestic financing base, these programmes are vulnerable to disruptions caused by shifts in donor priorities or reductions in aid. Moreover, coordination gaps at the ministry level in understanding funding conditionalities and aligning them with sustainable progress further hinder effective utilisation of external resources. As per the NSSS, the MoSW will be responsible for all lifecycle-related social protection schemes from 2026. To facilitate this transition, it highlights the critical need to strengthen the ministry's capacity.

Limited Integration of NGOs in Social Protection Implementation*:* Non-governmental organisations (NGOs) have historically played a pivotal role in Bangladesh's development, complementing government efforts in areas such as poverty reduction, healthcare, education, rural development, gender equality, skill development, and disaster management. However, their formal participation in the implementation of social protection programmes remains notably limited. Despite their extensive local knowledge and proven ability to reach underserved and hard-to-reach communities, NGOs are not formally recognised in the National Social Security Strategy (NSSS) or its associated action plans (Phases I and II). This lack of inclusion undermines the potential for leveraging their capacity to address key challenges in the social protection system, such as reducing inclusion and exclusion errors, and limits the overall effectiveness of programme implementation.

[13] Many social protection programmes rely on development partner funding, such as the "Social Security Policy Support (SSPS) Programme," supported by the Australian Government, UK Government (DFID), and UNDP (World Bank, 2021). The Asian Development Bank (ADB) also backs the government's Action Plan Phase II of the National Social Security Strategy, 2021–2026 to improve Bangladesh's social security system's protective and preventative capacity, and also supports two cash-based programmes for people with disabilities to enhance efficiency, while the World Food Programme (WFP) provides technical and financial assistance to large social safety net programmes, focusing on women and children in extreme poverty (ADB, 2024; WFP, 2023).

13.4 Policy Recommendations

The need for a robust, inclusive, and well-coordinated social protection system in Bangladesh has grown increasingly critical in light of evolving socio-economic challenges and the persistent vulnerabilities affecting large segments of the population. Despite earlier policy directives and reform initiatives outlined in the NSSS, the current social protection framework remains fragmented, inadequately funded, and plagued by targeting inefficiencies. It lacks a coherent approach to addressing poverty and vulnerability, gives insufficient attention to the rising challenges of urbanisation, and is constrained by weak institutional capacities that undermine effective programme delivery. These systemic shortcomings demand a strategic shift—one that prioritises reform-oriented results while strengthening ownership and accountability within national institutions to build a resilient and responsive social protection system.

The recommendations presented in this section aim to re-strategies Bangladesh's social protection system, anchoring it as a central pillar of the country's broader development agenda. By emphasising actionable, evidence-based policy measures that can be implemented in the short to medium term, this approach seeks to overcome entrenched reform inertia, injecting momentum into the system and paving the way for transformative and sustainable improvements.

Streamline social protection budget reporting and align it with core objectives for transparency and impact.

To address the issue of inflated social protection allocations and align spending with the core objectives of poverty alleviation and vulnerability reduction, the government should immediately implement—through the upcoming budget for the next fiscal year—a review and rationalisation of social protection programmes. Key actions include:

- ***Refining the scope of schemes to be included under social protection:*** It is of utmost importance to narrow the scope of what constitutes social protection by, for instance, drawing on the principles of dealing with poverty and vulnerability as outlined in the NSSS and guidelines provided by the International Labour Organization. This would involve limiting the inclusion of schemes that do not directly address poverty, vulnerability, or lifecycle risks associated with poor and vulnerable populations groups. Such schemes as pensions for government employees, freedom fighters' subsidies, and infrastructure-related expenditures should be separated from social protection budget reporting.
- ***Rationalising and streamlining allocations:*** Conducting a detailed assessment of the current social protection portfolio can contribute to identifying and reclassifying schemes that do not align with social protection objectives. Developing a transparent, disaggregated budget that differentiates core social protection initiatives from ancillary expenditures can enhance clarity and accountability. Such efforts can also facilitate progress in consolidating and harmonising fragmented schemes, addressing inefficiencies, and reducing redundancies in the system.

- ***Prioritising poverty-focused programmes:*** Strengthening the focus on programmes explicitly targeting poverty and vulnerability, such as old-age allowances, disability benefits, mother and child benefit schemes, and food security interventions targeting poor and vulnerable groups can significantly enhance the impact of social protection spending.

Consolidate and harmonise programmes across the lifecycle risks

To address the persistent fragmentation and inefficiencies in Bangladesh's social protection system, greater focus on programme consolidation and harmonisation is essential. Consolidation seeks to merge overlapping programmes into unified schemes, improving efficiency and resource allocation, while harmonisation ensures better alignment across existing programmes without merging them. Both processes must be carried out with caution to avoid excluding eligible beneficiaries or diminishing the quality of their benefits. Key considerations include:

- ***Streamlining and rationalising overlapping programmes:*** There are numerous opportunities for consolidation and harmonisation of programmes to achieve a streamlined and focussed social protection system fit for its purpose. Efforts could begin with merging food-based initiatives, such as OMS and TCB truck sales, to reduce administrative costs and improve access for beneficiaries who rely on both services. Similarly, integrating workfare schemes like EGPP, EGPP+, FFW, WFM, and Test Relief could enhance the coordination of seasonal employment and disaster management efforts. Combining smaller relief initiatives into a unified humanitarian assistance programme would improve budget efficiency and delivery mechanisms, while unifying overlapping schemes for vulnerable women, such as VWB and ICVGD, could strengthen socio-economic outcomes and food security. These examples provide initial directions, though further opportunities for consolidation and harmonisation should be explored through a comprehensive review.
- ***Consolidating around the lifecycle-based framework:*** Reducing the number of programmes to a manageable 15–20 over the medium term, after removing the unrelated or irrelevant programmes as mentioned earlier, strategically aligned with lifecycle risks, could enhance the coherence of the social protection system. Programmes like the Mother and Child Benefit Programme, harmonised school stipends, social insurance based schemes for the working-age population, and old-age allowance could form the foundation for a streamlined framework while allowances for persons with disabilities and support for covariate risks (arising from natural disasters, external shocks, etc.) serving the needs at every lifecycle stage (Figure 13.16).
- ***Strengthening institutional guidance:*** Given the limited progress thus far, stronger leadership and guidance from the Cabinet Division and Ministry of Finance are vital to ensure momentum in programme consolidation and harmonisation. Clear timelines, coordinated oversight, and alignment with NSSS objectives would help sustain these efforts.

By focusing on these actions, it is possible to effectively transition toward a more streamlined, efficient, and inclusive social protection framework, better equipped to meet the needs of its most vulnerable populations.

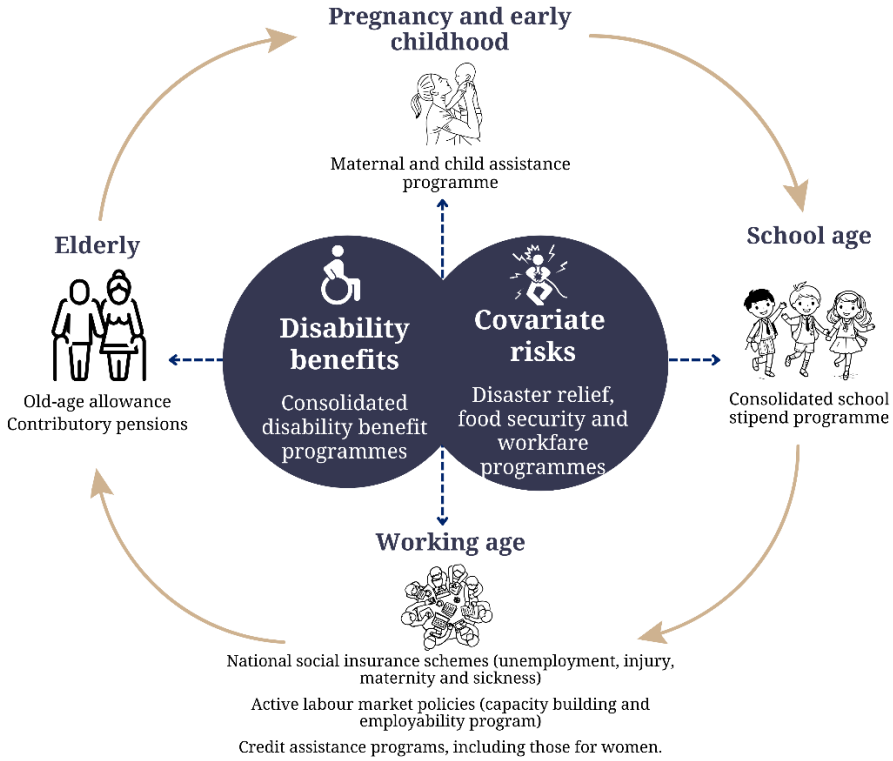


Figure 13.16: Programme Consolidation around the Lifecycle Framework

Source: Author's illustration.

Minimising targeting errors through a multifaceted approach should be considered as most practical.

This requires a comprehensive strategy that balances improved targeting tools, community engagement, governance reforms, and strengthened data systems to enhance efficiency and equity in delivering benefits. Key considerations include:

Refining targeting criteria and tools:

- Expanding the scope for universalising certain programmes, particularly those addressing lifecycle risks such as old-age allowances, could reduce exclusion errors and simplify administrative processes.
- Developing inclusive and poverty-sensitive targeting criteria that balance poverty-based and programme-specific approaches could help reduce the errors.
- Advanced tools such as Proxy Means Testing (PMT) may improve beneficiary identification while minimising subjectivity in the targeting process.

Strengthening community-based targeting mechanisms:

- Leveraging local-level knowledge through community participation in the targeting process could improve accuracy and foster greater transparency.
- NGOs, with their grassroots presence and local-level expertise, could play a significant role in improving beneficiary identification and providing accountability in the selection process (OPM, 2024).
- Simplifying eligibility criteria and guidelines could assist local authorities in reducing errors linked to overly complex criteria.
- Mechanisms aimed at reducing political interference and corruption, such as involvement of local communities and NGOs, could help ensure fairness in beneficiary selection.

Improving Data Systems for Targeting:

- Existing platforms like the single registry MIS and National Household Database offer opportunities for strengthening beneficiary identification and cross-verification of eligibility.
- Addressing challenges in large-scale database development, including sustainability issues such as regular updates, technical capacity, and funding constraints, could ensure that these systems remain functional and reliable.

Introducing poverty-targeted programmes can effectively address poverty and vulnerability by focusing resources on the most marginalised.

The challenges outlined in the previous section underscore the absence of comprehensive poverty-focused interventions, significantly limiting the impact of Bangladesh's social protection system in addressing poverty and vulnerability. To overcome these gaps, it is imperative to consider and evaluate models that provide direct and sustainable support to poor and vulnerable populations.[14]

- One notable model is the BRAC Ultra-Poor Graduation (UPG) approach, which integrates multiple components, including stipends, asset transfers, life skills training, financial literacy, and mentoring, to provide a holistic pathway out of poverty. Evidence, suggests that this approach offers a cost-effective "big push," enabling hard-to-reach groups to escape the poverty trap sustainably (Balboni et al., 2015).

[14] A study under the SSPS project found that covering 70 % of the population with BDT 2,500 per household per month would cost 2.8 % of GDP annually. Leveraging Bangladesh's existing digital financial infrastructure, this universal transfer could initially be introduced as a temporary social protection measure (Cabinet Division & GED, 2022).

- Additionally, the potential of Universal Basic Income (UBI) warrants exploration, particularly in contexts where targeting is challenging due to high poverty and vulnerability rates. UBI offers a simplified mechanism of cash transfers to individuals or households, reducing exclusion errors inherent in traditional targeting methods (UNDP, 2024). However, universal implementation of UBI is resource-intensive and may not be feasible given Bangladesh's fiscal constraints. Alternative modalities, such as a partial UBI targeted at the poor and vulnerable or focused on highly poverty-prone or climate-vulnerable regions, could be explored. As per recent estimates, a UBI scheme covering the bottom 40% of households in Bangladesh could cost approximately 3.5% of GDP annually, which, while significant, may be manageable under certain fiscal reforms and will be compatible with long-term social protection agenda. Limiting the target households below the poverty line income threshold reduces the cost to 1.35% of GDP (CPD, 2024).

A thorough review of these options, assessing their feasibility and scalability, can provide a much-needed shift toward addressing poverty and vulnerability more effectively within Bangladesh’s social protection framework.

Implement inflation-adjusted transfer value for all social protection programmes on a regular interval.

Regularly adjusting transfer values for social protection programmes to account for inflation is crucial to ensuring their effectiveness in alleviating poverty. Many programmes in Bangladesh have failed to provide adequate benefits as allowances are not consistently reviewed in line with economic development and inflation. Consequently, the real value of benefits has significantly declined over time, eroding their purchasing power. The NSSS has recommended inflation adjustments for all cash transfers under lifecycle-based core schemes to address this issue.

However, even with inflation adjustments, the real value of benefits for most programmes will remain insufficient, as initial benefit levels were too low to begin with. To address this, it is critical that revised benefit levels are aligned with the minimum expenditure basket, enabling transfers to meaningfully alleviate poverty (OPM, 2024). A systematic review of transfer values should be conducted for all cash-based programmes, taking into account inflation, the expenditure basket, and the country’s socio-economic progress. Based on these reviews, adjustments should be implemented at regular intervals of two to three years to maintain the relevance and impact of social protection interventions.

Introduce a social protection graduation approach for enhanced programme efficiency and impact.

Most existing social protection programmes in Bangladesh implicitly operate on the assumption of providing lifetime support to beneficiaries, often without considering improvements in their socioeconomic status over time. While this approach ensures continued support for vulnerable groups, it risks fostering dependency and inefficiencies,

particularly when beneficiaries no longer require assistance. Introducing a structured graduation mechanism is crucial for promoting self-reliance, optimising resource utilisation, and enhancing the overall impact of social protection programmes.

A well-designed graduation policy would define clear criteria for exiting programmes, considering both financial and non-financial indicators. To operationalise this mechanism, regular and systematic assessments of beneficiaries' socioeconomic progress must be conducted, enabling programmes to identify those who have achieved self-reliance or no longer meet eligibility criteria. This process creates opportunities to enrol new, deserving beneficiaries, ensuring that limited resources are targeted effectively and equitably.

Additionally, robust monitoring and evaluation systems will be essential to track the outcomes of the graduation approach, ensuring that former beneficiaries continue to thrive independently while avoiding unintended consequences, such as a relapse into poverty. Coupled with complementary interventions like skill-building, job placement services, and access to financial tools, a graduation mechanism can foster sustainable empowerment while maintaining the core ethos of social protection.

By establishing a robust and dynamic graduation mechanism, Bangladesh's social protection programmes can significantly improve their efficiency, equity, and long-term impact, creating a more adaptive and responsive framework that better aligns with the country's evolving development needs.

Strengthening data systems is critical for making informed policies in social protection.

A robust, data-driven approach is essential for enhancing targeting accuracy, improving programme delivery, and ensuring transparency within Bangladesh's social protection system. The NSSS recommended the creation of a single registry management information system (MIS) to compile information across all interventions from different ministries. Despite some progress this the existing database is yet to function effectively as an analytical tool and remains inaccessible to the public. Expanding and strengthening data systems, both for existing and emerging programmes, is critical for building a more informed and inclusive social protection framework. Key considerations include:

- ***Developing a comprehensive MIS:*** A fully functional single registry MIS should integrate data from all social protection programmes, offering gender-disaggregated and region-specific beneficiary information. Such a system would allow checking system inefficiencies, assess resource distribution, address disparities effectively, improving the inclusiveness of social protection. Making this database publicly accessible, with appropriate privacy safeguards, can enhance transparency, foster accountability, and support evidence-based decision-making by stakeholders. Public availability can also help identify coverage gaps and guide resource allocation.
- ***Creating data systems for emerging programmes and addressing data gaps:*** The rollout of new schemes, such as unemployment insurance, will require additional

data systems to capture critical information, including workers' employment duration, salaries, and work histories. Additionally, addressing data gaps related to persons with disabilities should be considered an immediate priority to bring all such individuals under social protection coverage. This includes collecting more comprehensive and disaggregated information on the prevalence and types of disabilities to design targeted interventions, improve accessibility, and ensure that social protection adequately addresses the unique challenges faced by this group.

- ***Strengthening capacities for data development and maintenance:*** The challenges encountered during the development of the single registry MIS and the National Household Database underscore the need for institutional capacity building. Strengthening technical expertise, improving coordination among agencies, and fostering accountability are essential for ensuring the success of data-driven initiatives. Sustaining these efforts requires domestic ownership, including securing adequate funding, training personnel, and embedding systems within national frameworks to ensure their longevity and effectiveness.

While strengthened social protection is critical, addressing inequality requires deep-rooted structural reforms.

The NSSS underscores the importance of social protection in addressing poverty and vulnerability, but its ability to meaningfully reduce inequality remains constrained without tackling the deeper structural factors that perpetuate inequity. Social protection programmes, while necessary, are inherently residual in their approach, addressing immediate needs without confronting the systemic barriers that sustain disparities in wealth, opportunities, and access to resources.

Structural reforms must complement social protection by targeting the root causes of inequality, including entrenched wealth and asset disparities that perpetuate unequal access to resources and economic opportunities. Fiscal policies, such as progressive taxation and enhanced resource mobilisation, can reduce income and wealth gaps while financing equity-focused public investments . Reorienting public spending to prioritise universal access to quality education, healthcare, and infrastructure is equally vital, ensuring that marginalised populations can participate in and benefit from economic growth. Policies that improve access to productive assets and financial tools for underserved communities are also essential for levelling the playing field.

Strengthened social protection measures, including enhanced targeting and inflation-adjusted benefit levels, can mitigate the immediate impacts of inequality, but they must align with broader structural reforms. Without addressing these fundamental disparities, the ability of social protection to drive equitable and inclusive development will remain limited. A coordinated approach that integrates robust social protection with deep-rooted structural changes is indispensable for reducing inequality and fostering sustainable progress.

Making progress on the National Social Insurance Scheme should constitute a policy priority.

The absence of contributory-based social protection schemes in Bangladesh leaves a significant gap in addressing lifecycle risks for the working-age population. While the NSSS emphasised the importance of introducing a National Social Insurance Scheme (NSIS), progress has been limited, and critical vulnerabilities such as unemployment, employment injuries, and sickness risks remain unaddressed.

Building on existing efforts, such as the Employment Injury Scheme (EIS) pilot in the RMG sector, a phased approach should be adopted to develop a time-bound roadmap for scaling up EIS nationwide. Similarly, prioritising the introduction of unemployment insurance is critical to supporting workers during job loss, particularly in the formal sector to begin with, with a gradual expansion to cover the informal workforce.

However, institutional capacity building will be key to the success of social insurance schemes. Institutions must be equipped with the technical and operational expertise to manage contributory schemes effectively, while efforts to build awareness among employers, workers, and the public about the benefits and responsibilities of social insurance will be crucial to fostering broad participation.

Expanding life-cycle-based social protection schemes for urban areas is essential to address the unique vulnerabilities of urban populations, adapt to rapid demographic shifts, and ensure equitable social protection coverage across the country.

The rapid pace of urbanisation in Bangladesh and the rising cost of living, exacerbated by sustained inflation over the past two years, have heightened the vulnerabilities of urban populations. Despite these trends, social protection coverage in urban areas remains significantly limited, with only one-fifth of beneficiaries residing in urban regions.

- Expanding life-cycle-based social protection schemes to urban areas is critical for addressing these challenges. Programmes such as old-age and widow allowances, disability benefits, school stipends, and Mother and Child Benefit support should be scaled up for urban populations.
- Inflationary pressures in recent years have further underscored the need for targeted urban interventions. Programmes like Open Market Sale (OMS), which provide subsidised essential goods, are vital for protecting vulnerable urban households from food insecurity and economic shocks. Scaling up such initiatives alongside ensuring inflation-adjusted transfers for life-cycle-based schemes, can help mitigate the immediate impacts of rising costs while fostering longer-term resilience.

Although the NSSS does not offer detailed guidance on urban challenges, the Urban Social Protection Strategy and Action Plan (USPSAP), formulated in 2020, provides strategic recommendations for integrating urban social protection into the national

framework. The USPSAP emphasises adapting rural programmes for urban contexts, introducing social insurance schemes, and designing targeted interventions for urban poor living in slum-like conditions. Effective implementation of the USPSAP by relevant ministries and agencies is essential to achieving equitable social protection coverage across urban and rural areas (SSPS et al., 2020a; SSPS et al., 2020b).

Strengthen adaptive social protection measures to enhance the resilience of vulnerable populations.

Bangladesh's social protection system must evolve from its predominantly reactive focus to a proactive and adaptive framework capable of addressing the country's significant climate vulnerabilities. While the NSSS prioritises covariate shocks within lifecycle-based schemes, the system remains largely geared toward short-term relief rather than fostering long-term resilience and adaptation. The Guidelines on Adaptive Social Protection in Bangladesh provide a strategic roadmap for enhancing resilience, but significant gaps remain in implementing adaptive measures on a broader scale (Cabinet Division & SSPS, 2023).

A more proactive approach to climate adaptation in social protection requires integrating measures that reduce vulnerability and build resilience among at-risk populations. Studies indicate that disaster risk reduction (DRR) training and early warning systems can significantly mitigate the impacts of climate-related shocks, reducing income loss by up to 19 percentage points (Diwakar et al., 2022). Expanding access to such tools, combined with increased awareness and anticipatory capacities, should form a cornerstone of an adaptive social protection strategy.

Innovative technologies, such as mobile applications and GIS mapping, can improve the reach and efficiency of social protection programmes. Partnerships with international organisations to deploy these technologies would enable better monitoring, early warnings, and disaster preparedness, enhancing the overall resilience of beneficiaries. Flexible financial mechanisms, including adaptive social protection funds and weather-indexed insurance, are also critical for providing rapid assistance in the aftermath of climate-related disasters.

Additionally, local governance and community-based organisations should play a central role in adaptive social protection. Their inclusion ensures that responses are context-specific, timely, and inclusive, reflecting the unique needs of diverse communities. To operationalise these measures, the government should prioritise:

- Expanding the coverage of programmes specifically targeting climate-affected populations.
- Embedding disaster risk reduction training and early warning systems within existing social protection frameworks.
- Establishing dedicated adaptive social protection funds and piloting innovative insurance mechanisms to address climate risks.

- Strengthening coordination with local governance and community-based organisations for effective implementation.

Preparing for the next decade of social protection strategy requires immediate action to evaluate past lessons, strengthen institutional capacities, and design an inclusive framework that addresses emerging socio-economic challenges.

With the current National Social Security Strategy (NSSS) concluding in 2026, it is imperative to initiate preparations for the next decade of social protection reforms. This transition presents a critical opportunity to reflect on the achievements and shortcomings of the past decade and chart a strategic course to address the evolving socio-economic challenges facing Bangladesh.

The preparation for the new strategy should begin immediately with a candid evaluation of the current NSSS. This evaluation must identify lessons learned, including successes, challenges, and gaps, to inform the design of a more effective, inclusive, and sustainable framework. The insights from this process will provide the foundation for a future-oriented social protection system capable of addressing persistent poverty, vulnerability, inequality, and emerging issues such as urbanisation and climate change.

Strengthening the capacity of the Ministry of Social Welfare (MoSW) is essential to realise the lifecycle approach envisaged in the NSSS. The MoSW should be entrusted with all core lifecycle-based programmes, requiring immediate investment in institutional capacity building. A comprehensive needs assessment of the MoSW should be conducted to identify gaps in staffing, technical expertise, and infrastructure. Based on this assessment, a dedicated budget for capacity enhancement must be allocated in the upcoming Fiscal Year to ensure the ministry can effectively manage and implement these programmes.

Effective coordination between ministries and departments will be critical for this transition. Clear mechanisms for inter-ministerial collaboration must be established, supported by robust monitoring systems to track progress and address challenges. In parallel, a comprehensive needs assessment should extend to other relevant ministries to identify and address capacity gaps that could hinder the smooth implementation of the next strategy.

13.5 Conclusion

Social protection systems hold paramount importance for countries like Bangladesh, serving as a foundation for poverty alleviation, vulnerability reduction, and fostering inclusive and equitable development. Against the backdrop of a growing awareness of rising inequality and its far-reaching socio-economic ramifications, re-strategising social protection has become indispensable for steering Bangladesh’s economy toward a more just and sustainable trajectory. The urgency for transformative social protection measures is further underscored by recent shifts in the political landscape, which have brought the need for addressing disparities and ensuring equity to the forefront of national discourse. This chapter has critically examined the state of Bangladesh's social protection system, identified its persistent challenges, and articulated actionable recommendations designed

to align the framework with the evolving demands of a rapidly changing socio-economic environment.

Amongst the persistent challenges facing Bangladesh's social protection framework, the limited resource base remains a significant constraint, hindering the expansion and impact of programmes. The system also struggles with issues such as inflated budgets due to the inclusion of non-social protection expenditures, inadequate urban and climate-adaptive measures, and a fragmented portfolio of programmes. Furthermore, inefficiencies in targeting, driven by weak data systems and exclusion/inclusion errors, continue to undermine the delivery of benefits to the most vulnerable. These systemic challenges necessitate a reorientation of priorities to ensure that social protection effectively addresses poverty, vulnerability, and inequality.

The recommendations outlined in this paper emphasise the need for immediate and strategic actions. Programme consolidation and harmonisation are essential to reduce inefficiencies and enhance the impact of limited resources. Expanding life-cycle-based schemes in urban areas, integrating climate resilience into social protection, and exploring new mechanisms such as social insurance frameworks are critical to addressing emerging vulnerabilities. Additionally, recalibrating the social protection budget to focus on core poverty and vulnerability interventions can enhance transparency and effectiveness.

The conclusion of the decade-long National Social Security Strategy (NSSS) provides a timely opportunity to reflect on the lessons learned and address the systemic challenges that have limited the impact of social protection programmes in Bangladesh. The implementation of the NSSS has offered valuable insights into what has worked, what has not, and where reforms are urgently needed. This juncture allows for fine-tuning existing frameworks and innovating to enhance programme efficiency and inclusivity. Moreover, the next phase of reforms requires a renewed political commitment, both to mobilise the resources necessary for an expanded and more effective social protection system and to ensure accountability in its implementation. Developing the next strategy should, therefore, be viewed as an opportunity not only to maintain continuity but also to bring renewed momentum to the process of strengthening the social protection system and aligning it with the country's evolving needs.

Future efforts must also prioritise building institutional capacity, particularly within the Ministry of Social Welfare, to enable better coordination and leadership in implementing lifecycle-based programmes. Capacity-building should be complemented by stronger inter-ministerial collaboration and systematic reviews of programme performance. Leveraging innovative technologies, engaging NGOs and local governments, and aligning development partner support with national priorities are equally crucial to ensuring sustainability and long-term resilience.

In the face of growing inequality and shifting socio-economic dynamics, Bangladesh's social protection system must evolve into a more robust, inclusive, and adaptive framework. By addressing these challenges through coordinated and sustained efforts,

the country can lay the groundwork for a more equitable and resilient development pathway, ensuring that no one is left behind.

References:

Asian Development Bank (ADB). (2024). *ADB Expands Support for Social Resilience Program in Bangladesh*. ADB News Releases. https://www.adb.org/news/adb-expands-support-social-resilience-program-bangladesh

Adamenko, I. (2022). *The government policy of social protection*. *University Economic Bulletin*, (52), 84-89.

Balboni, C., Bandiera, O., Burgess, R., & Kaul, U. (2015). *Transforming the economic lives of the ultra-poor*. International Growth Centre. https://www.theigc.org/sites/default/files/2015/12/IGCJ2287_Growth_Brief_4_WEB.pdf

Bangladesh Bureau of Statistics (BBS). (2022a). *Household income and expenditure survey 2022*. Bangladesh Bureau of Statistics. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4_956b_45ca_872f_4cf9b2f1a6e0/2023-12-28-14-40-ac2b3d298f569f155a80871a49b7dd9e.pdf

Bangladesh Bureau of Statistics (BBS). (2022b). *Population & housing census 2022: Preliminary report.* Bangladesh Bureau of Statistics. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4_956b_45ca_872f_4cf9b2f1a6e0/2024-01-31-15-51-b53c55dd692233ae401ba013060b9cbb.pdf

Barrientos, A. (2007). *Financing Social Protection* (BWPI Working Paper 4, Issue October). https://typeset.io/pdf/financing-social-protection-1530apxso6.pdf

BRAC. (2025). *Ultra-poor graduation: Enabling people to break the cycle of poverty*. Retrieved January 3, 2025, from https://bracusa.org/ultra-poor-graduation/

Cabinet Division. (2023). National Social Security Strategy (NSSS) Action Plan (2021-2026) Phase II. *Government of the People's Republic of Bangladesh*. https://socialprotection.gov.bd/wp-content/uploads/2024/04/NSSS-Action-Plan-Progress-Report-2023-draft-22-October-2023.pdf

Cabinet Division (CD), & Social Security Policy Support (SSPS) Programmes. (2023). *Strategic guidelines and action plans for adaptive social protection in Bangladesh*. https://socialprotection.gov.bd/wp-content/uploads/2024/04/Guidelines-on-Adaptive-Social-Protection.pdf

Cabinet Division, & General Economics Division (GED). (2022). *Rethinking Social Protection Responses to the Covid-19 Crisis: Issues and Policy Priorities for Bangladesh*. https://socialprotection.gov.bd/wp-content/uploads/2022/04/Position-

Paper-Rethinking-Social-Protection-Responses-to-the-Covid-19-Crisis-Issues-and-Policy-Priorities.pdf

Centre for Policy Dialogue (CPD). (2024). *Assessing the viability of universal basic income in Bangladesh: Target population, fiscal requirements, and institutional challenges*. https://cpd.org.bd/resources/2024/11/Assessing-the-Viability-of-Universal-Basic-Income-in-Bangladesh.pdf

Centre for Policy Dialogue (CPD), & German Agency for International Cooperation (GIZ). (2024). *National Social Insurance Scheme (NSIS) and Action Plan Reform Agenda for the Interim Government* (Issue November). https://cpd.org.bd/resources/2024/11/PPT-on-Second-Social-Insurance-Forum.pdf

Diwakar, V. (2023). *Women's agency amidst shocks: A gendered analysis of poverty dynamics and implications for social protection in Bangladesh, Peru, and Tanzania*. Chronic Poverty Advisory Network.

Diwakar, V., & Brzezinska, I. (2024). *Poverty dynamics amidst intersecting crises in rural Bangladesh*. Data and Evidence to End Extreme Poverty Research Programme (DEEP). https://povertyevidence.org/resources/poverty-dynamics-amidst-intersecting-crises-in-rural-bangladesh/

Diwakar, V., Kamninga, T., Mehzabin, T., Tumusiime, E., Kamal, R., & Pabony, N. A. (2022). *Sustaining escapes from ultra-poverty: A mixed methods assessment of layered interventions in coastal Bangladesh*. Chronic Poverty Advisory Network & BRAC Institute of Governance and Development. https://dl.orangedox.com/lDI5Pc1IiQBWQOEoge

General Economics Division (GED). (2015*). National social security strategy (NSSS) of Bangladesh*. Planning Commission, Government of the People's Republic of Bangladesh. https://bcsadminacademy.portal.gov.bd/sites/default/files/files/bcsadminacademy.portal.gov.bd/page/6a28f1e5_7ded_44a1_a531_bd13881c8e0c/NSSS-3rd-Version-Web-version.pdf

General Economics Division. (2020). *Midterm implementation review of the National Social Security Strategy*. https://socialprotection.gov.bd/wp-content/uploads/2022/05/Midterm-Progress-Review-on-Implementation-of-the-NSSS.pdf

International Labour Organization (ILO). (n.d.). *Implementation of a pilot Employment Injury Scheme (EIS) in Bangladesh*. Retrieved January 4, 2024, from https://www.ilo.org/projects-and-partnerships/projects/implementation-pilot-employment-injury-scheme-eis-bangladesh

International Labour Organization (ILO). (2024). *World social protection report 2020-2022*. https://bosniaherzegovina.un.org/sites/default/files/2024-09/WSPR_2024_EN_WEB_0.pdf

Ministry of Social Welfare (MoSW). (2025). *Old-age allowance (OAA)*. Retrieved January 4, 2025, from https://dss.gov.bd/site/page/7314930b-3f4b-4f90-9605-886c36ff423a/Old-Age-Allowance

Oxford Policy Management (OPM). (2024). *Inputs for the Social Protection section of the Re-strategising the Economy Task Force's report*. https://www.opml.co.uk/bangladesh

Power and Participation Research Centre (PPRC), & BRAC Institute of Governance and Development (BIGD). (2021). *Livelihoods coping and recovery during COVID-19 crisis*. https://bigd.bracu.ac.bd/wp-content/uploads/2020/04/Livelihoods-Coping-and-Recovery-During-COVID-19-Crisis-including-Phase-III.pdf

Raihan, S., Uddin, M., Ahmed, M. T., Nahar, M. A., & Sharmin, E. (2021). *COVID-19 fallout on poverty and livelihoods in Bangladesh: Results from SANEM's nationwide household survey* (November-December 2020). https://sanemnet.org/wp-content/uploads/2021/11/SANEM-HH-Survey-Report-2021.pdf

Research and Policy Integration for Development (RAPID). (2025). *Strengthening Social Protection in Bangladesh: What Needs to be Done?* Dhaka; Research and Policy Integration for Development (RAPID) & International Growth Centre (IGC).

Razzaque, M. A., Eusuf, A., Islam, K., Islam, D., Hasan, E., Hassan, M., & Ena, S. A. (2024). *Knowledge, attitude, and practices (KAP) survey on behavioural aspects of the beneficiaries of the Mother and Child Benefit Programme (MCBP).* UNICEF. https://www.unicef.org/bangladesh/en/media/10491/file/KAPs%20MCBP%20Aug%202024.pdf.pdf

Razzaque, M. A., Islam, D., Rahman, J., & Ali, S. R. (2024). *Assessing the impact of indirect taxation on poverty and inequality : A pseudo- panel and cross-country analysis* (Issue February). https://www.rapidbd.org/wp-content/uploads/2024/10/Razzaque-et-al-Final-report-February-2024.pdf

Razzaque, M. A., & Hasan, E. (2024). *Persons with disabilities in Bangladesh: Addressing gaps in data, social protection, and employment accessibility.* Dhaka; International Labour Organization (ILO).

Razzaque, M. A., Rahman, J., Rabi, R. I., Islam, D., & Eusuf, A. (2023). *Using direct taxation to boost revenue and tackle inequality : A political economy analysis* (Issue January).

Razzaque, M. A., Ehsan, S. M., & Bhuyian, I. H. (2019). *Barriers of accessing social protection programmes for the poor and marginalized*. *UNDP*, *July*.

Social Security Policy Support (SSPS) Programmes, Cabinet Division (CD), & General Economics Division (GED), Planning Commission. (2020a). *A compendium of social protection researches*. https://socialprotection.gov.bd/wp-content/uploads/2020/03/A-Compendium-of-Social-Protection-Researches.pdf

Social Security Policy Support (SSPS) Programmes, Cabinet Division (CD), & General Economics Division (GED), Planning Commission. (2020b). *Urban social protection*

strategy and action plan in Bangladesh. https://socialprotection.gov.bd/wp-content/uploads/2024/01/Urban-Social-Protection-Strategy-and-Action-Plan.pdf

United Nations Development Programme (UNDP). (2024). *Universal Basic Income in Asia and the Pacific: A Pragmatic Policy Choice or Unattainable Utopia?* https://www.undp.org/sites/g/files/zskgke326/files/2024-10/undp-rbap-policy-brief-2024.pdf

United Nations Department of Economic and Social Affairs (UN-DESA). (2020). *World social report*. United Nations. https://www.un.org/development/desa/dspd/world-social-report.html

Valverde, F., Pacheco-Jiménez, J. F., Muzaffar, T., & Elizondo-Barboza, H. (2020). *Financing gaps in social protection: Global estimates and strategies for developing countries in light of the COVID-19 crisis and beyond* (No. 14). ILO Working Paper.

World Food Programme (WFP). (2023). *What WFP is doing in Bangladesh*. WFP Publication. https://www.wfp.org/publications/what-wfp-doing-bangladesh

White Paper Committee. (2024). *White paper on state of the Bangladesh economy: Dissection of a development narrative*. Government of Bangladesh.

World Bank. (2021). *Bangladesh Social Protection Public Expenditure Review (PER)* (Issue August). https://documents1.worldbank.org/curated/en/829251631088806963/pdf/Bangladesh-Social-Protection-Public-Expenditure-Review.pdf

Chapter 14: Building Resilient Economic and Institutional Governance[1]

14.1 Introduction:

This report is about a strategy for economic development, different aspects of which have been discussed in the other chapters. This chapter addresses a core cross-cutting theme, i.e., economic and institutional governance. It first discusses three important pillars of economic governance. It then analyses some key aspects of institutional governance that are important on their own while also providing the underpinnings for economic governance.

The government's economic governance role is played out in several domains, such as the regulation of business activities, provision of incentives to businesses,[2] and enhancing competition in the marketplace. A sound regulatory environment helps ensure that profit-seeking business activities are carried out in a manner that is compatible with social welfare. It also spells out the rules of the game for businesses, thus providing them with the clarity they need to carry out their activities. A sound incentives regime creates a breathing space for businesses during which they improve productivity and achieve technological learning, without being complacent and losing the urge to become competitive. A sound competition policy, effectively implemented, enhances the discipline of market competition on businesses. This trio of economic governance agendas lie at the heart of a dynamic economy.

How well the government pursues these agendas is, in turn, shaped by the quality of institutional governance. The following features of institutional governance are discussed in this chapter: a) corruption in public service delivery; b) weak project/programme implementation; c) inadequate monitoring and evaluation; d) lack of coordination among government agencies; and e) poor reform-orientation of government officials.

Where relevant, cross-country examples of good practices are provided. Each section presents a set of recommendations with a mix of short-term and long-term actions. These consider the ground realities of Bangladesh while being inspired and informed by global experience.

[1] This chapter was prepared By K.A.S. Murshid and Syed Akhtar Mahmood.

[2] Incentives may include subsidies, tax concessions, subsidised credit or import protection.

A. Economic Governance

14.2 Regulatory Governance

14.2.1 The Need for a Good Regulatory Environment

The success of Bangladesh's development strategy, as it strives for high middle-income status, will hinge on increased private investment and innovation. Investments will be needed in new ways of doing things - new products, new technologies and new business models. This requires an enabling environment, including a sound regulatory environment. Good regulations, effectively implemented, help protect the environment, ensure workplace safety, and guarantee product quality without discouraging entrepreneurial activities.

Entrepreneurs in Bangladesh continue to raise concerns about the difficulties and delays when dealing with the regulations, particularly the discretionary application of rules and regulations. Perceptions of unpredictable and opaque administrative processes, as well as the uneven enforcement of regulations, can deter firm creation and investment, and impede productivity. Entrepreneurs seeking to introduce new ways of doing things often face additional regulatory barriers since regulators usually lag innovations in the economy.

Regulatory uncertainty makes property rights insecure, which is a deterrent to investment. Insecurity of property rights takes many forms, ranging from threat of outright asset expropriation to policy and regulatory actions that make costs and revenue streams more uncertain on top of normal commercial risks. Examples include changes in rules of the game after investment has been committed, non-payment by government for goods and services procured, and discriminatory or confiscatory taxation. A recent World Bank global survey of more than 700 CEOs of multinational companies identified policy and regulatory uncertainty as the second most important deterrent to foreign investment after political instability.[3]

14.2.2 The Overall Quality of Bangladesh's Regulatory Environment

It is useful to distinguish between three important dimensions of the regulatory environment: a) the clarity and fairness of the rules and regulations that firms are required to follow (Regulatory Framework); b) the services provided by the government to help businesses comply with the regulations, such as digitalisation, interoperability of government services, and transparency (Public Services); and c) the ease of compliance with the regulatory framework, as reflected in the outcomes such as the time taken to complete a regulatory procedure (Operational Efficiency).

A summary measure of the quality of the regulatory environment is provided by the World Bank's recently published Business-Ready indicators.[4] These provide data on the

[3] World Bank Group (2017). *Investment Competitiveness Report 2017,* Washington, D.C., 2017

[4] World Bank (2024), *Business Ready*, Washington, D.C., 2024.

above-mentioned dimensions for various stages of the life cycle of a firm, including the start of a business, its operations and expansion, and its closure. The life cycle stages are covered by ten topics[5], for each of which detailed indicators, and a summary measure is provided for the three dimensions, i.e., regulatory framework, public services, and operational efficiency.[6]

Bangladesh's performance on the three dimensions (for all ten topics combined) is depicted in Figure 14.1, which also features two comparator countries, Indonesia, and Vietnam. Bangladesh scores better on the Operational Efficiency indicators, where it is above Indonesia and just below Vietnam. Its worse performance is with the Public Services indicators, where it scores 41.5 compared to Indonesia's 63.4 and Vietnam's 53.4. On Regulatory Framework, it is behind these two comparators but by a lesser margin. However, it may be noted that among all the fifty countries covered in the B-Ready indicators, Bangladesh is in the fifth quantile on the Regulatory Framework dimension, the fourth quantile on the Public Services quantile and the second quantile on the Operational Efficiency dimension.

This suggests that there is considerable scope to improve the quality of regulations (as written) and government services to facilitate regulatory compliance, such as digitalisation. It is possible that Bangladesh's score is better in the Operations Efficiency Indicator, which measures variables such as time taken to comply with a regulatory procedure, because firms may be able to expediate regulatory processing by payment of bribes.

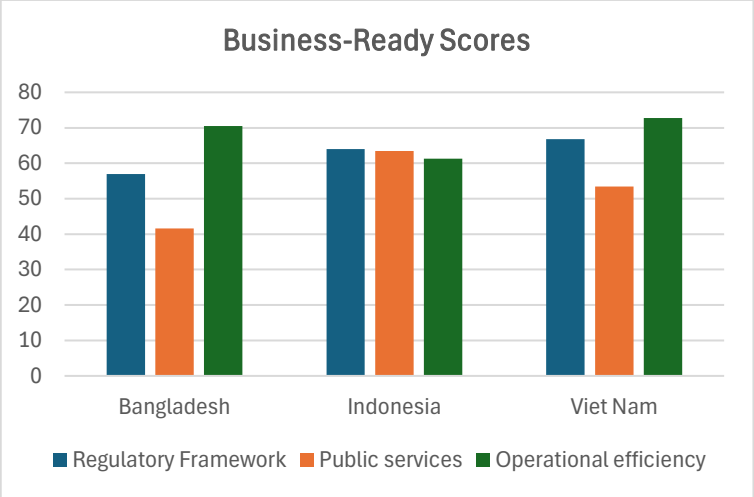


Figure 14.1:The Quality of Bangladesh's Regulatory Regime
Source: World Bank, Business Ready 2024.

[5] The 10 topics are Business Entry, Business Location, Utility Services, Labour, Financial Services, International Trade, Taxation, Dispute Resolution, Market Competition, and Business Insolvency. According to the World Bank's Business Ready Report, "Each topic has undergone extensive economic research that demonstrates its impact on and close relationship with private sector development."

[6] For example, for the Business Entry topic, the first pillar assesses the quality of de jure regulations for business entry, the second pillar measures the availability of digital public services and transparency of information for business entry, and the third pillar measures the time and cost required to register new firms (domestic and foreign).

Going beyond the overall picture presented above, the B-Ready indicators reveal considerable variation in Bangladesh's performance across the ten topics covered by the indicators (Figure 14.2). The Composite score, which is an average of the scores for the three dimensions,[7] varies from seventy-four for Business entry to 40 for Business Insolvency (the higher the score the better). There are four areas - Business Location, Utility Services, Labour Services and Financial Services - where performance is moderate (scores ranging from 61 to 64). In addition to Business Insolvency, Bangladesh has a modest performance in Taxation (score=56) and International Trade (score=54). Bangladesh scores particularly poorly on Dispute Resolution and Market Competition (scores of 42 and 43 respectively).

14.2.3 Regulatory Unpredictability

Bangladeshi businesses face regulatory unpredictability on many fronts (Figure 14.3). Businesses are most concerned about inconsistencies in laws and regulations and undue use of discretion by officials. In a survey carried out by the International Finance Corporation (IFC) in 2018, more than 60% of respondents identified these factors as problematic (Figure 14.3). Businesses are less concerned about announcement of regulations without prior consultation. However, they find it difficult to access information about existing regulations. Almost half of the respondents believe that adverse policy or regulatory changes often make costs and revenue streams uncertain.

Two-thirds of businesses felt that regulatory officials use a lot of undue discretion in dealing with them, and that there is a wide variation in interpretation of rules and compliance requirements among officials. About half of the respondents believed that, in many areas, there are either no clear criteria for decision-making or that these are not followed in decision-making. Indeed, businesses consider non-adherence to decision-making criteria as a bigger issue than absence of criteria. Discretionary behaviour has many roots, of which inadequate accountability and low capacity are considered the most important ones by businesses. About half of the respondents cited rent-seeking as a cause of discretionary behaviour.

[7] These dimensions are Regulatory Framework, Public Services and Operational Efficiency.

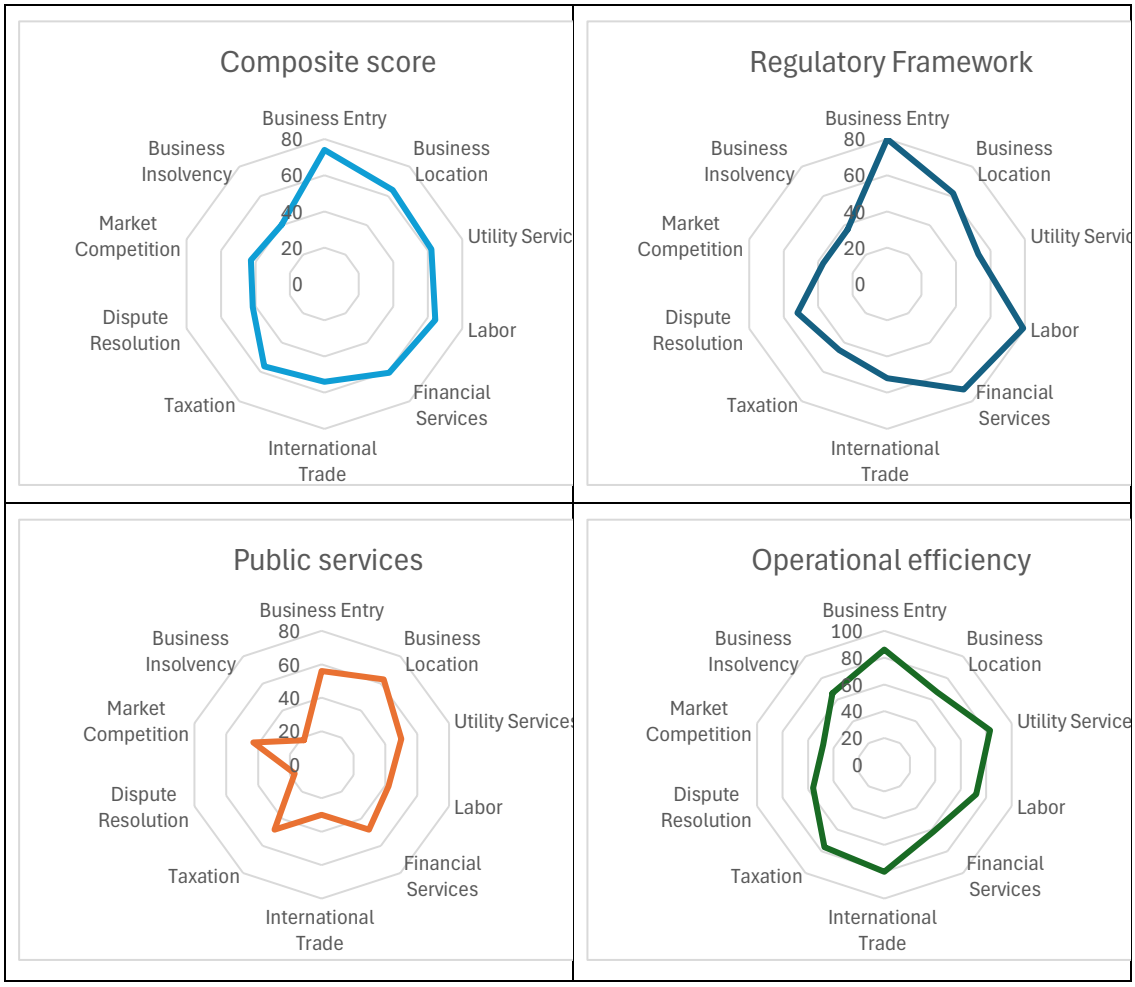


Figure 14.2: Bangladesh's Performance across Different Regulatory Interfaces

Source: World Bank, Business Ready 2024.

The scope for discretionary behaviour could be created by inconsistency in laws and regulations, including weaknesses in the way rules and regulations are written. Businesses operating in Bangladesh believe that inconsistency is present along the entire legal continuum, i.e., between laws, between laws and their related regulations, and between regulations and the associated administrative procedures and compliance requirements. Inconsistency at many levels is a major source of unpredictability and may also hinder the realisation of important government objectives. An important reason for inconsistent application of rules and regulations is poor coordination among government agencies.

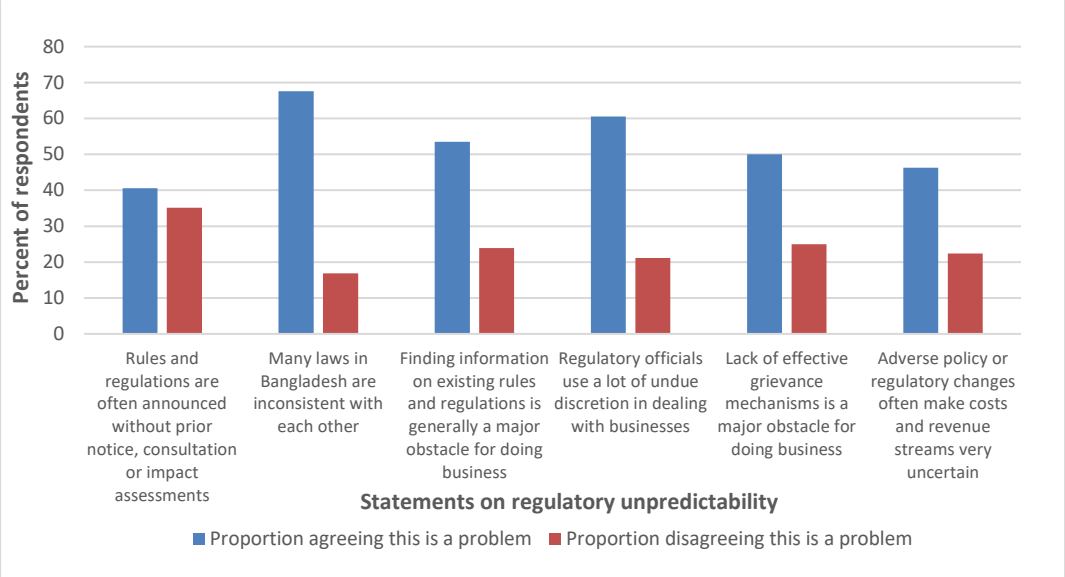


Figure 14.3: Business Views on Various Aspects of Regulatory Unpredictability in Bangladesh

Note: these proportions do not add up to 100% because some respondents neither agreed nor disagreed with the statement.

Source: World Bank (2019). Bangladesh Development Update: Towards Regulatory Predictability, April 2019.

14.2.4 Streamlining Regulatory Interfaces

The government has established One-Stop-Service (OSS) facilities for regulatory approvals. These facilities involve the streamlining of individual processes administrated by separate agencies (underpinned by Standard Operating Procedures) and provision of information on regulatory compliance requirements. The OSS is expected to improve coordination between agencies and processes through an automated inter-operability mechanism. The OSS has a dashboard by which the state of regulatory approvals can be monitored by agencies for each applicant.

The legal foundation for the OSS was provided by the OSS Act and OSS Rules, which established the mandate and framework of operation of the OSS. An innovative managed service model was introduced for the OSS platform based on a Build, Own, Operate, Transfer (BOOT) model. Under this PPP model, a private company operates and maintains the system for a fixed fee, while ownership of the data remains with the Bangladesh Investment Development Authority (BIDA).

The establishment of the OSS was supported by an IFC technical assistance project. By the closure of the IFC project in early 2022, the OSS was providing fifty-eight integrated and e-payment enabled online services of eighteen agencies. Although IFC had recommended a single OSS, the government decided to establish four central OSS in different agencies. The three other OSSs are located in the Bangladesh Economic Zones Authority (BEZA), the Bangladesh Export Processing Zones Authority (BEPZA), and the Bangladesh Hi-Tech Park Authority (BHTPA). This has limited the uptake of BIDA-OSS services by other agencies.

Moreover, the OSS is merely a window to receive applications from businesses. The authority to approve the applications lies with individual regulatory agencies, which receive the applications via the OSS. Although some regulatory process reforms have been carried out in such agencies, the extent and effectiveness vary considerably. Businesses typically need approval from several agencies. Thus, non-uniform reforms across agencies create weak links in the chain and slow the overall regulatory approval process, defeating the OSS's purpose.

14.2.5 Regulatory Gaps

As the Bangladesh economy becomes more dynamic and connected to the global world, entrepreneurs are seeking to pursue innovative activities, be it new products or new ways of doing things, often by leveraging new technology. To exploit these opportunities, businesses in Bangladesh need legal underpinnings and clear rules of the game for such activities.

Where the legal and regulatory framework has provided this, new activities and new markets have been created. For example, the 2011 decision to allow provision of mobile financial services subject to certain regulations, and follow-on legal and regulatory reforms, clarified the rules of the game for carrying out financial transactions using mobile technology. By contrast, when Uber, the ride sharing platform, first entered Bangladesh, there was confusion within the government on how to regulate this new activity - whether it should be treated as a taxi company, as an IT platform or as something else. The existing rule books did not have a provision for dealing with a ride-share platform, thus creating confusion. Here, a regulatory gap existed because the rule books had lagged developments in the economy.

14.2.6 Modernising the Regulatory Regime

Bangladesh currently lacks a clear policy and strategy outlining how the regulatory system will be managed, including principles, objectives, and reform modalities. The Government's approach to regulatory reforms is piecemeal, focusing on reforming individual regulatory processes and procedures. Bangladesh now needs to focus on more ambitious reforms to improve regulatory governance and enhance regulatory predictability.

The deficiencies in the regulatory regime point to the need for a multi-pronged approach which would involve improving the design (writing) of laws and regulations, rationalising the stock of regulations, streamlining the administration of regulatory interfaces, enhancing regulatory transparency, instituting effective grievance mechanisms to address the problem of discretionary behaviour, and filling regulatory gaps.

The quality of the rule-making process is deficient. The processes for ensuring the quality of proposed rules need to be strengthened. The Rules of Business (1996), which establish the processes and rules for the preparation of policy proposals and legislation in Bangladesh, do require extensive consultation within government but do not mandate the preparation of Regulatory Impact Assessments (RIA) or use of

evidence in rule development. Thus, regulations are often developed without systematic analysis of the impact on businesses, and the ability and costs of enforcement. Some initiatives have been taken, such as a pilot RIA in 2014 on customs regulatory reform (prepared with ADB support), an agreement in 2017 between the Ministry of Law and Parliamentary Affairs and the WBG to raise awareness of RIA, undertake further pilots and build RIA capacity, and a July 2018 RIA training event delivered by the WBG. The Government may build upon this to establish a systematic approach to evidence-based regulatory design.

While stakeholders are periodically consulted on regulatory issues, the consultation processes are ad-hoc and not applied in a systematic or predictable manner. The establishment of the public-private dialogue mechanism, Business Initiative Leading Development (BUILD), in 2011 brought some structure to the dialogue. However, this can be improved since many stakeholders, especially small businesses, may still be left out of the process, and the importance of regular consultation for reducing regulatory uncertainty may not be uniformly appreciated across the government.

Box 14.1: Specific Recommendations:

Overall regulatory governance

a) Develop and publish a whole of government vision, policy and strategy for Bangladesh's regulatory system including regulatory governance priorities, principles, targets, criteria, responsibilities, and use of tools. The policy and strategy should include short and medium-term priorities and be prepared in a consultative and transparent manner with relevant stakeholders, along with the preparation of a detailed implementation plan.

b) Establish a technical regulatory oversight body at the centre of government (such as in the Prime Minister's Office) to oversee and lead the regulatory reforms and modernisation efforts. This may be in the form of a Regulatory Reform Commission, which will: a) periodically assess the existing stock of regulations and recommend actions to streamline the stock through deletion and modification; b) identify areas where there are regulatory gaps and suggest actions to address the gaps; c) oversee a system of impact assessments of proposed regulations; and d) carry out independent assessments of the performance of individual regulatory interfaces.

c) Develop and implement a mechanism for structured consultation with stakeholders on proposed regulations. This would help improve the quality of new regulations and avoid regulatory surprises.

Rationalise existing stock of regulations

d) Establish a systematic approach for the review and overhaul of existing laws, acts, rules, and SROs, and identify areas of redundancy, conflict, jurisdictional overlaps, and regulatory gaps. The first step can be to identify, in consultation with businesses and relevant professionals, a few clusters of related laws and regulations that are important for businesses and subject these to such a review. The scope of the review may then be expanded to cover other important laws and regulations impacting businesses.

Improve the quality of new regulations

e) Require the use of Regulatory Impact Assessment (RIA) for all major regulatory interventions. Such exercises will assess the rationale, expected benefits, expected costs of compliance and enforcement, and unintended consequences of proposed regulations. Such assessments may initially be piloted to cover a few regulations. Based on the experience with the pilots, this practice may be mainstreamed to cover at least some important regulations. The RIA programme may be

overseen by the proposed Regulatory Reform Commission which could provide quality control as well as training to individual ministries and agencies.

f) Establish a "Notice and Comments" system which will include publication of a regulatory calendar at the beginning of a fiscal year indicating all upcoming laws for the year, and a structured mechanism to solicit comments on draft laws and regulations. Such a system may be technology-based.

Fill regulatory gaps

g) Formulate necessary laws/acts/rules/SROs to introduce regulations in areas where the absence of regulations, and therefore lack of clarity about the rules of the game, is constraining private investment.

Make the One-Stop-Services (OSS) effective

h) Make it mandatory for all regulatory agencies that issue certificates, licenses, and permits to provide their services only through the OSS system. Ensure that all such agencies have systems that are well-connected to the central OSS system.

i) These agencies should follow standard API framework (inter-agency integration) as early as possible. BIDA can suggest modalities of framework adaptation.

j) A national dashboard on business service delivery index can be published on public portal through the electronic data (business application statistics with service disposal days and decision type) generated by the system.

k) Secretaries or agency heads must monitor the performance dashboard and promptly follow up in case of performance shortfalls. Recognise regulatory agencies that achieve service delivery targets in at least 90% of the cases.

Enhance regulatory transparency

l) Introduce a system to automatically publish all new laws, regulatory amendments, and SROs on a dedicated website within a week of their enforcement. Since access to information is most problematic for regulatory orders, which are also often a major source of regulatory discretion, the government may initially focus this exercise on SROs.

m) Introduce business-to-government (B2G) feedback loops to identify gaps in service delivery and reform implementation. This may initially be piloted with selected government-to-business services through structured questionnaires and then gradually rolled out. Technology may be leveraged to ensure cost-effectiveness and sustainability of such efforts, for example, an electronic feedback mechanism system for selected government-to-business service delivery.

n) Introduce a systemic online grievance mechanism for all government-to-government, business, and citizen services. This system may initially be piloted for select services, which may be identified through a survey of stakeholders. The grievance mechanism is intended to address specific cases and will complement the B2G feedback mechanisms that are aimed at identifying patterns and trends across respondents, ministries, and thematic areas of regulation.

14.3 Governance of Incentive Mechanisms for the Private Sector

14.3.1 The Use of Incentives to Stimulate Private Investment

The use of incentives, such as protection and subsidies, to stimulate and steer private investment has a long tradition. In the 16th century, Britain nurtured its export-oriented woollen textiles industry by imposing import duties on clothing and taxes on exports of raw wool. In the US, the first Treasury Secretary Alexander Hamilton imposed high tariffs on imports of manufactured goods to protect a nascent domestic manufacturing sector. Germany's protectionist policies in the 18th century were copied by Japan in the 19th and 20th centuries.

Such incentives are expected to provide a space for manufacturing firms to become efficient through learning and technological upgrading. The belief has been that once such firms become efficient, they are able to compete without protection, subsidies, or other forms of support. However, empirical evidence from different countries indicates a mixed record.

In certain countries, such as Japan and South Korea, incentives have had a positive impact. Over the years, the South Korean government has provided a variety of incentives to the private sector such as cash subsidies, tax exemptions, preferential allocation of credit, and interest rate subsidies. Incentives were used to encourage investment in activities that served the country's development objectives, such as export generation, export diversification, technological learning and upgradation, and innovation. The incentives helped restructure the economy, strengthen export orientation, upgrade technological capabilities, and enhance the competitiveness of industrial firms. However, there are other country examples where firms have spent more energy on rent-seeking activities, i.e., pursuing protection and subsidies, than on productivity improvement, technological upgrading, and competitiveness.[8]

14.3.2 The Importance of Performance Disciplines

In South Korea, incentives produced results because the government imposed tough performance discipline on the firms that received the incentives. The most important was export discipline, i.e., firms were required to export a significant part of their production. This meant that firms had to be globally competitive. It also meant that the firms, and through them, the government would also learn about the dynamics and developments in the global marketplace and modify their policies and approaches accordingly.[9] Export targets were set and performance monitored regularly. Similar discipline was present in Japan and Taiwan, and later in China. Over time, with the evolution of development strategies, other performance dimensions were included, such as technological upgrading, knowledge transfer from foreign to local investors, innovation, and R&D.

Subsidies were often ruthlessly withdrawn if firms failed to achieve the targets. More than picking winners, South Korea weeded out losers, i.e., identified firms which could not make the mark and forced them to go bankrupt or be merged with more successful firms. The automobile industry is a good example. About half a dozen car

[8] A leading observer of Asian economies notes about such countries: "Where export discipline has not been present, development policy has become a game of charades, with local firms able to pretend that they have been achieving world-class standards without having to prove it in the global marketplace. In south-east Asia, the energies of entrepreneurs were directed towards fooling politicians rather than exporting." See Joe Studwell, *How Asia Works, Success and Failure in the World's Most Dynamic Region,* Grove Press, New York, 2013, page 76.

[9] Studwell notes about the countries with successful incentive policies: "International sales have been the feedback mechanism by which successful governments have known whether the manufacturing businesses they have nurtured are approaching global standards, and whether firms have invested the billions of dollars it takes to create, for instance, a viable steel maker or car firm efficiently." Studwell, 2013, page 76.

manufacturers were set up in South Korea after the government adopted a long-run programme to develop the industry in 1974, Only one purely Korean firm was able to meet the performance targets; the others were allowed to die. That firm, Hyundai (with its subsidiary Kia), is now a leading auto maker in the world.

Bangladesh also provides a range of incentives to the private sector. However, unlike countries such as South Korea, Bangladesh does not impose strict performance discipline on those who receive the incentives and does not link these well to strategic goals. Cash subsidies given to the garment industry are linked to exports, i.e., firms receive the subsidies only when they export. However, performance discipline is absent or weak for support provided by the government to other sectors. Moreover, for garments, the performance requirement is limited to exports and does not cover technological upgrading or productivity improvements.

14.3.3 Reforms to the Incentive Regime in Bangladesh

Bangladesh needs to adopt a sound incentive policy, which will be the foundation on which an effective incentive regime can be built. The government announced a new Tariff Policy in August 2023, recognising that the existing tariff structure is deficient and adversely affecting the international competitiveness of Bangladeshi firms. The effective implementation of the new Tariff Policy is a priority, but it must be recognised that tariffs or customs duties cover only part of the incentive regime. Thus, the government needs to enact a comprehensive investment incentive policy. Without a sound policy framework, incentives may not contribute to development objectives and instead become a tool for favouring certain businesses.

A sound incentive policy has several features: a) it clearly lays out the development objectives that the incentives are supposed to contribute to, along with the relevant performance indicators, and the criteria and modalities for providing the incentives; b) it provides for transparency, such as periodic publication of information on who has received the incentives; and c) it provides for periodic reviews of the performance of the incentives regime in terms of its costs and achievement of the stated development objectives.

Particularly important is making the support contingent on achieving pre-determined performance targets. The government may identify the performance dimensions based on its development objectives and, in consultation with the private sector, set targets for each performance dimensions. Businesses receiving support should commit to providing data needed to assess performance. The government may hire third-party assessors to assess whether the firms receiving support have met the agreed performance targets.

Box 14.2: Specific Recommendations

Incentive policy

a) Adopt an investment incentives policy with the aforementioned features.

Administration of incentives

b) Establish a single authority in charge of the administration and award of incentives. If it is difficult to assign this responsibility to a single agency, then an oversight mechanism should be established, with cabinet-level leadership, to oversee the award of incentives in line with the good practices articulated in the investment incentives policy.
c) Identify clear performance targets that recipients of the incentives would be required to meet in exchange for the incentives. Make it obligatory for businesses to provide data that would allow the government to assess if the targets have been met. Identify penalties for non-fulfilment of performance targets.
d) Periodically review the effectiveness of the incentives provided in relation to their underlying development objectives.
e) Provide redress for adverse decisions. This would include explanations for negative decisions, and scope for adversely affected investors to appeal to higher authorities.

Transparency and access to information about incentives

f) Publish all laws, regulations, and decrees related to incentives, so that stakeholders can assess the nature and governance of the incentive regime and raise concerns.
g) Maintain an incentives database, i.e., a central database or inventory of investment incentives with a comprehensive list of incentives being offered, and actual award of incentives to businesses. The database should be accessible to the public.
h) Publish the findings of the reviews of the effectiveness of the incentive regime.

14.4 Enhancing market competition

14.4.1 The State of Competition in Bangladesh

The real strength of a market economy lies in competition. Profit-driven businesses are forced to enhance efficiency to survive the competition. This is what makes an economy dynamic. Businesses naturally dislike competition and, thus occasionally, some of them try to subvert competition. Such behaviour drains the economy of vitality and deprives it of the full benefit of a market economy. Bangladesh scores poorly compared to its peers on the degree of competition in the economy, as measured by the Global Competitiveness Indicators (Figure 14.4).

14.4.2 Institutional Arrangements to Enhance Competition

One of the important economic functions of governments is to check monopolistic behaviour and ensure a level playing field. All over the globe, governments have enacted competition laws and established competition agencies. Bangladesh was the last among the major South Asian countries to do so. It enacted a Competition Act in 2012 and a Competition Commission in December of the same year. The objective of the Act (as stated in the website of the Bangladesh Competition Commission) is to "promote, ensure and sustain congenial atmosphere for the competition in trade, and to prevent, control and eradicate collusion, monopoly and oligopoly, combination or abuse of dominant position or activities adverse to the competition."

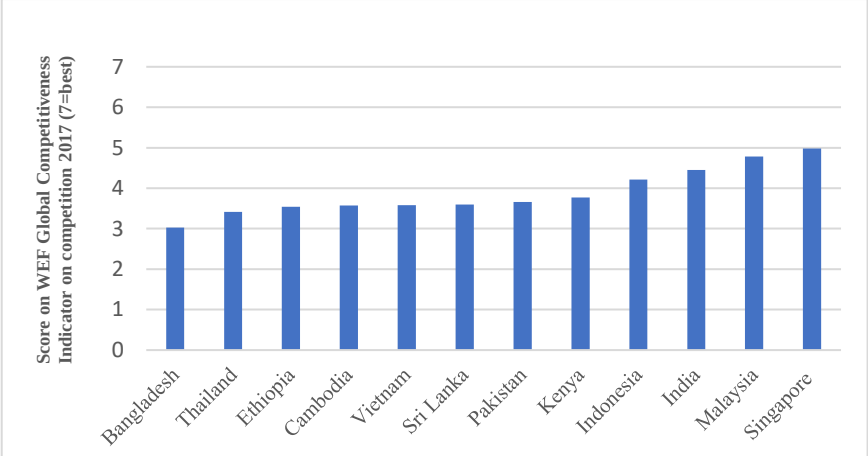


Figure 14.4: Extent of Market Dominance: Bangladesh vs. Peers

Source: World Economic Forum (2017). Global Competitiveness Indicators 2017

The Competition Commission was established to help implement the Competition Act. Its core mandate is to investigate complaints about anti-competition behaviour, either proactively or in response to complaints from the public or other agencies. It is also expected to do competition-related advocacy, within the government and amongst the public, and build a knowledge base on the state of competition in various markets.

So far, the Commission's activities and effectiveness have been limited. It took eight years for the Commission to get its full set of members. According to its Annual Reports, the Commission has received a small number of complaints since it became operational in 2016 and resolved some. The Annual Reports also mention a couple of sectoral competition studies and several awareness-building activities, but concrete actions against anti-competition behaviour have been limited. This is reflected in Bangladesh's poor score amongst its peers in the World Economic Forum's score on the effectiveness of anti-monopoly policy (Figure 14.5).

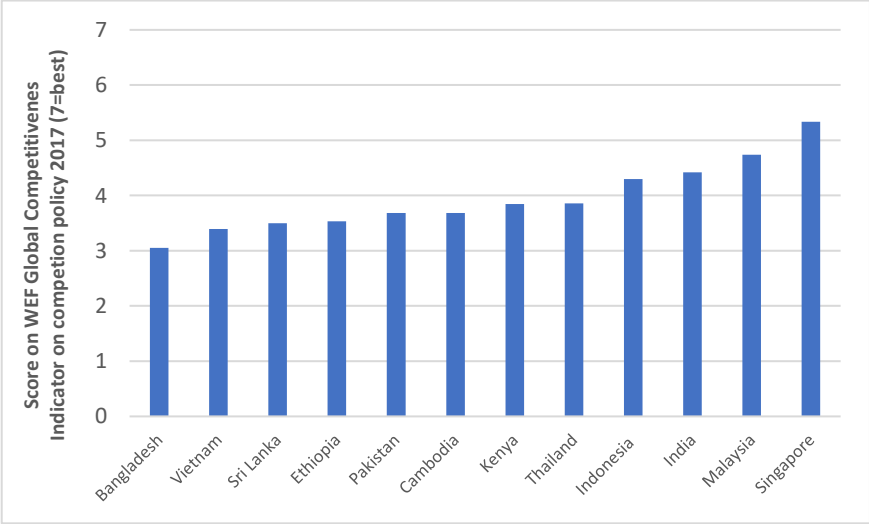


Figure 14.5: Effectiveness of Anti-Monopoly Policy: Bangladesh

Source: World Economic Forum (2017). Global Competitiveness Indicators 2017

Bangladesh's relatively poor performance in ensuring market competition, including in government procurement, is also reflected in the recently published Business-Ready indicators of the World Bank. One of the indicators in that set deals with the state of market competition.[10] Bangladesh scores modestly in the indicator, i.e., 42.6 out of a maximum 100, behind Indonesia (52.3), Vietnam (57.7) and Singapore (62.3).

14.4.3 Understanding Markets

Bangladesh's economy is a complex, multi-layered market economy. It is integrated with global markets, making it vulnerable to the increasing complexity of global markets. To deal with this market economy, the government needs to understand the complexities of various markets, their structure, the players operating in each, and their inter-relationships and behavioural tendencies. Since decisions by market players are partly based on expected future prices, the government must also understand how expectations are formed in the market.

Government agencies and functionaries in Bangladesh often react to market developments in a reflexive and high-handed manner, particularly during episodes of rapid price rises. They resort to price controls and/or deploying magistrates and the police. Such behaviour persists even though they have repeatedly been proven ineffective. Governments often feel pressure to show that they are in charge and capable of taking tough actions.

An effective approach will be to build capacity in government, especially in the Competition Commission and the Ministry of Commerce, to understand the complexities and dynamics of markets. Markets are a valuable source of information on the economy, and economic management will be strengthened if such information can be tapped. The government can then effectively steer the market, instead of futile attempts to control it.

Box 14.3: Specific Recommendations

Competition policy

a) Enhance the capacity of the Competition Commission to understand the dynamics of different markets. This would require building in-house capacity to carry out competition assessments as well as commissioning such assessments from outside experts.
b) Identify anti-competition features, if any, of existing laws and regulations, both de jure and de facto. Recommend changes to such laws and regulations to make these more competition friendly.
c) Carry out advocacy within the government in support of competition policy.
d) Build stakeholder awareness of competition issues outside government.
e) Build mechanisms to tap information being generated by various markets.

[10] The indicator assesses three pillars, i.e., the quality of regulations that help enhance competition, the adequacy of public services that promote market competition, and the operational efficiency in the implementation of key services promoting market competition. Bangladesh ranks 33rd among the 50 countries covered by the indicator.

14.4 The Foundations of Economic Governance

To address the priorities discussed above, the government will need to attend to some foundational aspects of economic governance. These include rationalisation of mandates of various agencies involved in economic governance, effective mechanisms for stakeholder dialogue and engendering reform orientation in the bureaucracy.

14.4.4 Duplication of Mandates

Duplication of mandates, whether *de jure* or *de facto*, is common in government. As an example, when BIDA was established, it was given the mandate for promoting domestic investment in addition to the FDI promotion mandate of its predecessor, the Board of Investment. Also, while BIDA's primary role is investment promotion and facilitation, it also performs some regulatory functions. Such expanded roles along with the typical turf consciousness of the bureaucracy may lead to duplication of mandates with an adverse effect on inter-agency coordination. Table 14.1 provides four examples of such duplication in the economic governance functions of the government of Bangladesh.

Table 14.1: Examples of Duplication of Mandates

Policy/regulatory area	Responsible ministries/agencies
SME development	a) Small and Medium Enterprise (SME) Foundation b) Bangladesh Small and Cottage Industries Corporation (BSCIC)
Investment promotion	a) Bangladesh Investment Development Authority (BIDA) b) Bangladesh Economic Zones Authority (BEZA) c) Bangladesh Export Processing Zones Authority (BEPZA) d) Bangladesh Hi-Tech Park Authority (BHTPA) e) Public-Private Partnerships Authority (PPA)
Provision of serviced industrial land	a) Bangladesh Economic Zones Authority (BEZA) b) Bangladesh Export Processing Zones Authority (BEPZA) c) Bangladesh Hi-Tech Park Authority (BHTPA) d) Bangladesh Small and Cottage Industries Corporation (BSCIC)
Regulation of garment industry	a) Bangladesh Investment Development Authority (BIDA) b) Bangladesh Economic Zones Authority (BEZA) c) Bangladesh Export Processing Zones Authority (BEPZA) d) Ministry of Textiles

Box 14.4: Recommendations

a) Conduct a review of all investment promotion functions in government with a view to identifying overlapping mandates, duplication of effort, gaps, and inefficiencies.

b) Consolidate all investment promotion activities in one agency, preferably BIDA.

c) Establish a Ministry for Investment with the following main functions: a) articulate, and periodically review, a long-term investment strategy and investment policy; b) coordinate and oversee investment promotion and facilitation activities of various ministries and agencies; c) advocate investment-friendly policies and regulations across government,

d) Carry out legal preparations for establishing a Ministry for Investment.

14.4.5 Effective Mechanisms for Stakeholder Dialogue

Effective dialogue with stakeholders, such as businesses, is essential to ensure that policy making is evidence-based. While government interacts with various industry associations and business chambers, these are often ad-hoc, unstructured and not results-oriented. To address such deficiencies, the government had set up a high-powered platform in 2007 to push, and coordinate, business reforms. The Bangladesh Better Business Forum (BBBF) was chaired by the head of the government (then Chief Adviser) with high level representatives from government, business, academia, and civil society. It operated through technical working groups and was arguably the first attempt in the country to institutionalise government-business consultations. Despite its satisfactory results, the BBBF did not survive the change in administration in 2009. It was 'reborn' in a diluted form in 2011 when the private sector set up a platform called the Business Initiative Leading to Development (BUILD). BUILD exists to date but needs strengthening.

14.4.6 Engendering Reform Orientation in the Bureaucracy

Mistrust of the private sector and inadequate knowledge of business issues is widespread in the bureaucracy and is a major factor slowing reform momentum in government. Recognising this, the government took an initiative during 2006-2009 to generate reform mindedness at the mid-tiers of government. This initiative, which produced promising results, was supported by the IFC as part of a comprehensive programme of investment climate improvements (see Box 14.5). An evaluation carried out at the end of the programme found that officers who went through the programme had a markedly different and more positive attitude on the following dimensions, compared to their peers who had not gone through the programme: a) perceptions about private-sector behaviour; b) belief in the capacity of mid-level officials to pro-actively bring change; and c) the approach to designing and implementing private-sector-related reforms. The only area where the views of both groups converged was on the importance of the private sector.

It appears that greater awareness of business issues, developed through participation in the programme, had shaped their views on how to conduct public policy toward business. Lessons from this programme can be used to create a cohort of mid-level officers across agencies with a good understanding of investment and business issues, and a commitment to reforms. The challenge is to bring out the latent desire that many civil servants may have to learn and do something good and be reform champions. Initiatives to trigger

behavioural changes need to be combined with programmes to enhance the knowledge of private sector issues among government officers.

Box 14.5: Mid-level Reform Champions*

From 2006 to 2009, the International Finance Corporation carried out the Private Sector Development (PSD) Core Group programme designed to build awareness in Bangladeshi government officials about business-related issues. More than one hundred mid-level officials, from about twenty different ministries, departments, and other government agencies, went through this programme. They were joined by a few representatives from business associations.

Over a period of 8 to 10 months, they attended seminars and lectures, went on field visits, and did short assignments on resolving business-related issues as part of a learning-by-doing exercise. They interacted with businesses and with experts who work on business-related issues. They went abroad to see how business-oriented governments work. The presence of private-sector representatives within the group exposed the government officials to private-sector perspectives throughout the process.

Through this programme, a reform-minded community of officials started forming. This network soon produced dividends. In one example, a top-down reform to facilitate the reimbursement of duty-drawback claims – a major headache for exporters – stalled in early 2009 after a change in government. Mid-level officials stepped in. They studied the reform, assessed what work was still needed and persuaded colleagues in the middle tiers of government to revive it. Then, together, they advocated to their superiors for completing the reform. In September 2009, the government issued an order that 70% of each claim would be met immediately after submission. The remaining 30% would be paid after an audit. This solution, forged by mid-level officials, successfully balanced the twin objectives of expediting payments and minimising fraud, and thus it met with the approval of government decision-makers.

By helping key stakeholders in government to become well-informed about private-sector issues, and to become better-networked as reform champions, the programme created influential "nudgers" within the system who can convince both colleagues and superiors to deliver viable local solutions for sustaining reforms.

**This box is based on excerpts from Syed Akhtar Mahmood and Syed Estem Dadul Islam, "The Silent 'Change Agents' in Government," World Bank Private Sector Development Blog, October 19, 2016.*

The government may build upon the lessons from initiatives such as these to design and implement programs aimed at stimulating and creating agents of change. Such agents of change, i.e., cohorts of reformers, will identify, advocate, initiate and influence implementation of specific reform recommendations. The programs will involve both intensive learning, problem-solving, reform design, and community building activities lasting a year (see Box 14.6). Participants will remain in their jobs and will be expected to devote about 2-3 days time per month to the programme.

Box 14.6: Specific Recommendations

Courses on private sector development (PSD) issues

a) Enhance the PSD knowledge base of civil servants through customized course offerings at the Public Administration Training Centre (PATC). These courses may be two to four weeks in duration and offered to officers at different levels of seniority, such as new entrants to the civil service, mid-level officers, and senior officers. The courses may include lectures, case studies, group discussion, and problem-solving exercise related to private sector issues.

Formation of 'PSD Reformer Groups' at the mid-levels of government

b) 3-4 such groups may be formed focusing on PSD issues in general or specific PSD issues, such as regulatory reforms, FDI promotion, export diversification or SME development. Each group may have 20-30 members drawn from a range of government ministries and agencies relevant to these topics. These will include both central ministries (such as the Finance and Law ministries), central agencies (such as the Bangladesh Bank), specialised ministries (such as Industry and Commerce) and specialised agencies (such as BIDA, BEZA, SME Foundation and the Competition Commission).

PSD Reformer Group Alumni Programme

c) This programme will help sustain the reform momentum created during the one-year PSD Reformer Group programme by creating a platform for the PSD Reformer Group members to work together on private sector development issues. The programme will create opportunities for them to support ongoing reform initiatives of the government, as well as initiate small reform programmes on their own, often in collaboration with their cohort members.

d) The programme will include specialised training on important PSD issues, reform tools and techniques but the emphasis will be on experiential learning through actual reform design and implementation. Emphasis will also be given on building and maintaining networks across ministries and agencies.

Small Grants Programme

e) This programme will aim at stimulating innovation in identifying and implementing reforms by the PSD Reform Group alumni. The alumni will form small groups ranging from three to five members and will submit proposals detailing the objective and working methodologies. A selection panel will review and select proposals to be awarded the grant.

An M&E system will be developed to assess the results of the programmes recommended above. The M&E indicators will differ by programme but may include the following: a) degree of PSD related knowledge acquired; b) number of reforms and/or process improvements in which the members of the PSD Reformers Group were involved; c) ability to identify area of reform and or process improvement; d) number of reform initiatives advocated; and e) time taken to deliver services to the private sector.

B. Institutional Governance

14.5 Background

Bangladesh has systematically performed poorly in terms of governance indicators despite scoring well in overall development indicators – giving rise to the notion of a 'development paradox'. This apparent contradiction has puzzled observers, and various

explanations have been suggested – none completely satisfactory.[11] However, there is unanimous consensus about one thing: going forward, economic performance cannot be sustained without carrying out substantial governance or institutional reforms. The sentiment has been elegantly captured by Wahiduddin Mahmud (2022), with his frequently quoted observation that "what brought us here, won't take us there".[12] In other words, the problem of institutional governance cannot be ignored any longer.

At its heart, the problem of governance is a political problem and requires strong political will. The lack of progress in this area is embedded in a political culture that is deeply lacking in accountability and transparency, that provides legal impunity to cronies and affiliates and is overwhelmingly dependent on patronage-based political loyalty. Given such a context, governance/institutional reforms were never taken seriously by subsequent political regimes.

Some of the most pressing reforms relate to the poor quality of public administration, law and order, independence of the judiciary, corruption-ridden public services, weak development project implementation, and a host of problems arising from poor coordination, a weak regulatory environment, and over-governance amid critical governance gaps allowed to persist.[13] Weak public service institutions cause immense suffering to users in terms of cost and time outlays. While better off people can circumvent or fast-track access when needed the vast majority of people have to bear with long wait times, extortion, and poor service quality.

The dramatic political changes experienced after August 5, 2024 appear to have generated a new optimism as well as the requisite political-economic space to now put governance squarely on the policy agenda. At the institutional level, this concern requires a major thrust to bring about well-performing, professionally managed organisations that can deliver quality services efficiently, effectively and at low cost to the public. This should be a cornerstone of a new strategy to make the economy more equitable and more pro-poor. More importantly, we must embark upon the long process of institutional reforms immediately without waiting for an elaborate and complex design or a long preparatory phase to be completed.

This section focuses on aspects of institutional governance that could be considered high priority and thus, good candidates for immediate initiation of reforms with high social

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[11] For example, that micro, grassroots institutions were strong and ensured well-functioning micro governance or, poor governance was 'managed' by the private sector through a combination of bribes, political influence, and mutual accommodation. K.A.S. Murshid, *The Odds Revisited: Political Economy of the Development of Bangladesh*, Cambridge University Press, South Asia in the Social Sciences, Series Number 18, 2022.

[12] Wahiduddin Mahmud (2022). "Bangladesh Economy: What got you here won't get you there", *The Daily Star, May 17, 2022*

[13] Over-governance refers to the imposition of numerous, complex rules and regulations required to obtain various government authorisations, permissions, licenses and registration, including complex taxation rules that stakeholder groups have repeatedly pointed out as serious constraints to starting and operating businesses. These are described separately in the previous section.

returns, namely, public service delivery, project implementation, and related coordination issues. The issue of streamlining economic governance regulations has been treated separately, above.[14]

The section also argues strongly about the need to select a number of institutions as 'case pilots' to experiment with alternative reform models or arrangements, to identify what works best and lessons learnt for scaling up. Some illustrative examples are provided.

14.6 Public Service Delivery

14.6.1 Variable Quality of Public Service Delivery

Public services play a crucial role in health, education, social protection and in the delivery of a host of services that include utilities, certifications, registrations, licensing, passports, building permissions, and so on. Some of the most vital public service institutions are those in health (government hospitals, clinics, the Directorate General of Health Services), in education (schools, colleges, universities, polytechnics), land administration, and in institutions of public financial management. The quality of these services remains highly variable, often complicated by massive corruption, weak governance, indiscipline, lack of accountability and huge financial losses. Indeed, there are few public institutions in the country that would survive a serious performance audit.

The interim government has put reforms squarely at the centre of its policy agenda. It is in this context that the work of this taskforce is critical to identifying immediate, urgent actions that can herald in the reform process. This report recommends an initial selection of several public institutions to pilot a well-designed but actionable set of reforms designed to improve access, reduce costs and waste, and improve quality. While most institutions suffer from generic problems of misgovernance, some present far greater challenges than others. Such examples would include land administration services, the office of the Comptroller of Accounts, the National Board of Revenue, and the lower-level judiciary – although some limited, half-hearted reforms have already been initiated in some of these.

A prudent approach would be to start with smaller, less complex entities like hospitals and rural clinics, government educational institutions, or agencies such as the Bangladesh Road Transport Authority (in charge of issuing driving licenses, vehicle registration, and fitness certificates) and the Passport Office. Above all, it is important to generate political will and the determination to bring about and sustain the reforms. It is important to succeed with the pilot cases, accumulate the lessons learnt, and use the experience to prove that further reforms are possible. Some ideas on how to initiate these reforms are presented below.

[14] It may be noted that separate commissions have been formed to advise on judicial independence, constitutional reforms, and public administration, and have thus been left out from this report.

14.6.2 Focus on Systemic Reform over Individual Removal of Officials

As a first step, it is certainly important to make changes at the top management level and at the Board. This, by itself, will serve to signal change. The new leadership and Board members need to be carefully chosen with a track record of successfully managing complex institutions. Board members need to be drawn from key sectors of society including senior serving or ex-bureaucrats, civil society leaders, professionals.

However, a broader institution-wide reform initiative will need to be developed by the new leadership after extensive consultations with key stakeholders taking a firm position that business as usual will no longer be acceptable. Merit-based recruitment and promotion will have to be instituted based on clear KPIs. The KPIs will need to be applied even to top management, to be overseen by the Board.

14.6.3 Importance of Evidence-based Decisions in Addressing Corruption/Inefficiency

User feedback needs to be obtained at regular intervals to monitor the quality of different services and staff attitudes and behaviour. Both pen-paper surveys and online platform usage should become part of normal institutional practice. This information should not only be used by senior management to improve efficiency it should be available to citizen advocacy groups including youth groups to create awareness and generate pressure in an important area of public interest. These steps would be invaluable for generating transparency and accountability. An additional step would be to institute a 'whistle-blower' policy and creating a positive environment for speaking out against corruption or other forms of malpractices.

14.6.4 Reducing Political Interference

Political interference must be managed by the Board but will also require a regulatory regime that allows autonomy in key areas of decision-making including recruitment, promotion, and procurement of goods and services. A strong Board will have the morale to resist political pressure. A major initiative will have to be taken to discourage or even ban staff associations from being aligned to political parties or campaigning in association elections based on such alignments.

14.6.5 Removal of Extortionists and Dalals

Many public service institutions have attracted organised gangs that have placed themselves as brokers between service seekers and service givers with the help of influential insiders, often Association leaders - who also profit from this arrangement. Serious attempts to dismantle this onerous system have been scarce – in part because of the close nexus of these middlemen with local political forces and law enforcement. The practice extends to all aspects of institutional tasks – from recruitment and promotion to active involvement in purchases, and provision of various types of vendor services.

The altered political circumstances today provide a rare opportunity to come down heavily against this criminal nexus. There are several steps that can be initiated.

(a) Exploring digitalisation of services, purchases using online platforms to circumvent the middle-men groups.

(b) Identifying the nexus of internal and external persons behind rent-seeking/extortion.

(c) Physical enforcement essential: A specialized Anti-Goon Squad should be available from within the security services who can be called upon to physically dismantle unwanted elements from institutional premises.

Specific Recommendations

The government may take up some pilot cases for immediate reforms. These will demonstrate political will and send a positive signal that we are ready to turn the page. While each institution will be responsible to formulate its own reform agenda and action plan, a wider institutional home is needed to provide technical, regulatory and policy support to oversee and drive the reform process.

A primary focus of such pilots could be on the delivery of some key public services. Case pilots could include a public hospital (see Box 14.7), a rural government school or clinic, an institution like the Bangladesh Road Transport Authority (BRTA) or a public body like a city corporation, or even a single Ministry of the government. Once taken up, these need to be aggressively supported by the government.

14.7 Project Implementation

Perhaps the biggest constraint faced by Bangladesh concerns implementation arrangements. In other words, it is at the level of detail that implementation runs aground in the face of well-known fault lines across the entire implementation process spectrum.

Projects tend to be driven by lobbies or by political interests at the behest of powerful business groups often aligned with powerful international interests. The process of developing a project, from identification of need to concept generation, design, and preparation of a full-fledged project proposal for approval by the National Economic Council, and subsequent steps to implement are fraught with weaknesses, gaps, inadequacies, poor planning and execution that result in poor outcomes in terms of quality, cost and time overruns. Project implementation is an area that requires immediate and urgent policy attention.

14.7.1 Project Identification

The current practice needs to be better understood. Political projects have dominated project selection for many years – moving away from this requires a major shift in political culture and a vigorous move towards democratic governance. The Planning Commission may need to be sufficiently empowered to ensure that projects are selected based on sound economic planning, for example based on a Master Plan or a regular planning process such as the Five-Year Plan. Projects initially identified must go through a rigorous selection process based on economic criteria – such as the Benefit-Cost Ratio (BCR) and the Economic Internal Rate of Return (EIRR). Other criteria related to environmental impact assessment, social impact assessment and poverty impact assessment may also be advocated.

Box 14.7: Reforming a Public Hospital

As an illustrative example, we review a possible approach to reforms in a public hospital in Dhaka or a divisional town.
A professional CEO with a background in hospital management and requisite qualifications should be appointed. There should be a powerful management board consisting of government officials and representatives from civil society or citizen groups. The first task would be to field pen-paper surveys of users to obtain detailed feedback on the quality of services. In addition, proper performance audits related to HR, accounts and equipment should be performed by third-party evaluators.

The CEO, along with the Board, will then set up a plan of action to be executed in a phased manner to address issues underlying poor service delivery. A management consultancy team or an independent government agency created for this purpose, should be deployed to assist the Board/CEO in aiding the transition.

At the outset, a clear understanding of the threats posed by vested groups both within the organisation and outside, is needed. A premature move will cause severe backlash and thwart any reform process. These groups will need to be dismantled by a combination of motivational work and Behaviour Change Communication campaigns, and it will be important to generate a positive environment for change from within.

An 'Anti Goon Squad' may be required to manage external threats from a large group of dalals that have infiltrated the system and engaged in extortion with impunity.

The task is huge, and lessons will have to be learnt along the way to refine interventions and approaches. The most important ingredient for success will be the availability of political-economic space to carry out the reforms. The cooperation of doctors, nurses, and other staff (and their respective associations), as well as vendors and suppliers, will be critical. This will require whole-hearted support of the interim government, political parties, and youth.

The entire process will need to be carefully monitored in real time. An independent public dashboard will need to be created to allow detailed user feedback along with regular user surveys. Citizen-Youth led groups can be encouraged to actively monitor the public data while social-media and traditional media will need to highlight progress.

A slow, gradual, iterative process is advisable. Initially, the effort should be focused on fact-checking internal dynamics amongst staff, administration, and various other stakeholders. A public media campaign should be launched to soften up the stakeholders and make them more receptive to change while a BCC campaign should be launched internally amongst different stakeholders, including the leaders of their associations. This will be key to success. It is only after this step, and insights gained thereby that subsequent steps should be planned out and carried forward. A real time monitoring mechanism should simultaneously provide feedback on what is working and what is not. The strategy will have to be refined and fine-tuned continuously as we move forward.

The practices outlined above are often followed perfunctorily to satisfy the paperwork requirements and the formal rules in the Planning Commission and other departments under the Planning Ministry. The entire exercise is done casually, in a half-hearted manner. These are carried out to appease various vested interests, with scant regard to minimal professional standards.

In other words, feasibility studies are conducted in a cursory manner, to merely check some boxes to obtain bureaucratic approval. Thorough, professionally conducted feasibility studies are needed. Indeed, the capacity to conduct high quality feasibility studies within the Planning Ministry may also be a constraint.

A feasibility study should be based on a logical framework that clearly states the objectives of the project (i.e., the expected outcomes and impact), the project deliverables that will contribute to the outcomes (i.e., the project outputs) and the funding and other inputs that will be provided to the project to achieve the outputs (i.e., the project inputs). The feasibility study should also clearly state the assumptions under which the inputs will translate into outputs, and outputs into outcomes, and identify actions required to ensure that these assumptions or preconditions are met (Box 14.8). The feasibility study should also unbundle the general objectives into specific monitorable actions. It is important to identify the logical framework upfront, during project or reform design. This helps clarify thinking on how the projects may be designed.

Box 14.8: An Example of a Logical Framework

Consider a government project on education where the objective is to improve the access of the poor to education, and better quality of education. The project will fund the building of schools, and the provision of good quality teachers and supplies to the schools. In terms of the logical framework, the funds are the inputs, the school buildings, teachers, and supplies are the outputs, the outcomes are increased school enrolments and retention for children of poor families, and the impact is better educational outcomes for such children.

It is important to note that project inputs may not lead to project outputs, and outputs to outcomes, unless certain conditions are met. For example, the mere allocation of funds in the project budget may not lead to more schools, more books and better teachers and doctors. Money may be spent inefficiently, e.g., siphoned off by corrupt contractors and government officials. When the inputs do not lead to the desired outputs, there is a deficiency in project implementation, which is different from poor project design.

However, even when the money is well spent and the outputs are delivered, the desired outcomes may not materialise. More schools, and better teachers and good supplies, may not increase school enrolment or retention for children from poor families. This suggests that it is not the unavailability of good teachers or school supplies, but other factors, which are the real hurdles to the poor's access to education. In such a situation, the solution lies in addressing these constraints in addition to, or instead of, building more schools. This is an issue of project design. A project may be efficiently implemented and the project outputs realised, but if the design is deficient, the desired outcomes will not materialise.

14.7.2 Delays in Project Implementation

Two factors that most often delay project implementation are the lack of good project directors (PDs) and problems with land acquisition. Projects often suffer from an inability to field good quality, adequately experienced, and well-motivated project directors (PD). This is compounded by late recruitment and procedural delays, and pressure to change project design and revise costs. Feedback from stakeholder consultations have repeatedly pointed the finger at ‘PD selection’ as a major factor behind poor project performance.

Land acquisition is faced with immense hurdles due to complex procedural matters involved. The resulting delay in land acquisition is one of the major reasons for delays in public investment projects. For example, the Hi-Tech Park Authority cites the much longer than expected time taken for land acquisition as one of the main reasons for the abysmally slow progress in implementing the ambitious hi-tech park agenda of the government.

14.8 Monitoring and Evaluation (M&E)

A deficient performance culture in government means that some important questions about project performance are often not asked by the government agency responsible for the project or service delivery, or its oversight bodies. Much of the attention is focused on project expenditures, rather than on the results achieved – in other words, the focus is usually on inputs, less on outputs, and even less on outcomes.[15]

Implementation of government projects and reforms is likely to be better when there is a sound monitoring and evaluation (M&E) system to assess performance. Monitoring systems need to be in place to assess how well the project is being implemented and, in case of poor implementation, identify corrective actions in a timely manner. Evaluation systems provide information on the extent to which projects meet their objectives, and the expected beneficiaries are satisfied with the services delivered.

Sound M&E systems have a number of features: a) these identify the objectives of the project or reform undertaken, i.e., clearly state the outcomes and impact expected from the interventions; b) state the assumptions that must be satisfied if the results are to be achieved; c) specify the indicators to be used to assess performance; d) set target values for the indicators with a timeline for achieving the targets; and e) identify the modalities of collecting data. In other words, accountability requires a system for converting vague, general promises to precise indicators that can be monitored.

Specific recommendations

Digital Transformation

Digital technologies can help reduce corruption by eliminating the need for face-to-face transactions at different stages of a project life cycle, such as procurement during project preparation and service delivery during project implementation. It will be important to combat resistance to digitisation from vested interests, tackle issues arising from legacy bureaucracy hindering progress and enhance digital literacy by instituting adequate/ongoing training of staff.

Digitalisation can also help improve project design and implementation by generating the information required for monitoring and evaluation. For example, digital technologies may be used to establish active dashboards with real time data, and citizen-led monitoring boards and independent evaluators.

An M&E system requires a considerable amount of information that can come from various sources. The government itself is a huge source of information. In addition to the

[15] Consider, for example, the investment promotion efforts of BIDA. BIDA expends time, money, and effort in organising road shows and investment ‘summits’ to attract foreign investors. However, it has not sufficiently invested in a good tracking system by which it can assess the progress made by foreign investors in pursuing their investment interest in Bangladesh. Investors go through various stages from initial interest in a country to the commissioning of their projects. An investor tracking system monitors how far potential investors have travelled in their ‘investment journey’ and whether they are stuck somewhere (and, if so, why).

specialised data collected by the Bangladesh Bureau of Statistics (BBS), various government agencies collect a wide variety of data as part of their routine administrative tasks. The bulk of such data remain underutilized. An effort may be made to process and aggregate useful information collected through the administrative processes. The private sector also collects a variety of information as part of their business activities. There has been a quantum jump in the collection of such data due to increased digitisation. Private sector data may be harnessed as part of the government's M&E efforts.[16]

The dashboards developed for the OSS at BIDA and BEZA are good examples of dashboards that utilise data collected from the government's own administrative procedures. These dashboards provide real-time information on the progress of each individual application for service delivery, such as regulatory approvals, as it moves along the approval chain. This allows the oversight officers at various levels to monitor progress at a very granular level (each individual application), identify bottlenecks and take corrective actions. The dashboards also produce summary information on variables such as the average time taken to complete the delivery of various services over a given period. The usefulness of such dashboards depends on the extent to which these are used, and it is not clear if these are being optimally used at present.

Some parts of the M&E exercises will require collection of primary data from surveys. This may include feedback from the project or reform beneficiaries, such as citizens and businesses. Innovative methods may be used to collect such feedback, such as engaging the youth to survey beneficiaries (see Box 14.9). The data for such feedback mechanisms can be collected digitally or through pen-paper based simple user surveys.

In terms of providing oversight to different projects embedded into different ministries, the designated agency is the Independent Monitoring and Evaluation Division (IMED) under the Planning Ministry. The operational efficiency of this agency has suffered an acute setback over the course of many years so that the word 'Independent' in its name can hardly be justified. The government will have to decide whether this agency should continue to exist, perhaps in a revived form or whether an entirely new entity should be created to replace it, armed with suitable autonomy, professional capacity and a readiness to operate as an efficient and accountable body. The new entity, if formed, could duplicate the management style of the Bangladesh Institute of Development Studies (BIDS) in terms of having a mixed board drawn from the private and public/civil society sector, ensuring that there is a co-chair from the private sector, and enjoying the kind of autonomy that BIDS enjoyed pre-Awami League rule.

[16] Google produces a weekly search volume index (SVI) which has been used by governments and development agencies to track economic activity. Research has shown that SVI is strongly correlated with economic indicators such as inflation, capital flows, and real GDP in low-income countries. Logistics companies, such as Fedex and DHL, collect data during their normal business which provide government with useful information on business-government regulatory interfaces such as customs clearance time.

Research and Policy Analysis in Government

The government has in place research or policy analysis cells in different ministries and agencies. There is considerable scope to enhance their capacities and effectiveness. The Planning Ministry may undertake a review of such cells, assess their effectiveness, and make recommendations to enhance their capacities so that these can provide useful inputs for evidence-based decision-making by the respective ministries/agencies. In addition to carrying out research in-house, these cells may monitor emerging knowledge in industries and academia. The cells should maintain rosters of relevant experts inside the country and abroad, and collaborate with them as needed. There should also be knowledge exchange between the various research cells/policy analysis cells in government. The cells should be adequately resourced.

Box 14.9: Youth-led Feedback Loops*

Youth may play a significant role in holding government accountable by creating feedback loops through which information will be generated on the citizen's views and perceptions of the quality of government service delivery and reform implementation. Here is a concrete example of how such a youth-led initiative may work.

A government service that is important for the public is selected. A list of questions is developed that will be asked in the feedback survey. Ideally, the list should be short, not more than ten questions. It is important that the questions are framed in a way that they capture the essential elements of service quality as expected by the public. The youth may consult with relevant experts to identify the right questions.

The next stage is to conduct surveys. The initiative may start in Dhaka city. Ten localities may be selected in Dhaka where the survey will be conducted. The localities should be selected such that they represent the diversity of locales in Dhaka city. A team of ten young men and women will be assigned to each locality. In other words, there will be a youth survey contingent of one hundred people. Each survey enumerator may conduct four surveys a day. That amounts to two hundred survey responses per five-day week or two thousand for the ten localities in Dhaka. That is a large sample size.

Once the survey results are tabulated, the young people may prepare powerful presentations and present the findings to the agencies and ministries, preferably with the relevant advisor present. Where the survey results show deficiencies in the quality of project implementation or service delivery, remedial actions should be promptly identified and implemented. After an appropriate interval, let us say within 3 to 6 months, the young men and women should carry out a second survey to assess if the remedial actions have borne fruit. Such surveys may be repeated till the desired improvement is achieved.

Once such a pilot is carried out, hopefully with good results, the programme may be expanded to cover the same service delivery in other cities, or other service deliveries in Dhaka city. As the above example indicated, each survey may not take more than a week if one hundred youth can be mobilised to carry out the survey. Thus, within a year, it would be possible to cover several important service areas all over Bangladesh.

**This is taken from Syed Akhtar Mahmood, "Holding government accountable: What can the youth do?"* The Business Standard, August 10, 2024.

14.9 Inter-agency Coordination

Both design and implementation of policies and reforms usually require collaboration across ministries and agencies. Consultations carried out for this report pointed to many instances of poor coordination within the government, leading to sub-optimal policy design and actions (Box 14.10). Uncoordinated actions in the government often

mean that reforms lack traction and get stuck in the bureaucracy. The speed and effectiveness of policy, reform and project implementation suffer as a result, accentuated by frequent changes in the bureaucracy.

14.9.1 Poor Coordination in both Policy Formulation and Implementation

Lack of coordination can adversely affect both policy formulation and policy implementation. The government does have some mechanisms for consultation on proposed policies, laws, and regulations. Some of these are provided by the government's Rules of Business while others have evolved over time through practice. Laws drafted by individual ministries are normally subjected to inter-ministerial consultation before review by the Law Ministry, endorsement by the Cabinet and approval by the Parliament. Important policies and regulations also benefit from such consultations.

Box 14.10: Coordination Problems in Government*

a) Overlapping responsibilities among multiple authorities (e.g., BIDA, BEZA, PPP Authority) complicate processes despite the "one-stop service" concept. Streamlining ministries and agencies, such as Japan's reduction from 23 to 13 ministries, may improve coordination. (Representative of the Japan-Bangladesh Chamber of Commerce and Industry during consultation on investment)
b) A lack of coordination between the Bangladesh Bank (BB) and the National Board of Revenue (NBR) further complicates matters, with non-compliance from the NBR hindering effective policy implementation. *(Economist during consultation on economic diversification)*.
c) Collaboration between the Ministry of Local Government and the Ministry of Health is essential; however, there is a synchronisation issue that needs to be addressed. (Programme Manager, Upazila Health Care during consultation on the health sector)

This box is based on the consultations carried out for this report.

Notwithstanding such consultations, inconsistencies often creep into the policies, laws, and regulations. The problem is compounded by the fact that some regulations, such as the Special Regulatory Orders (SROs), are often issued at the discretion of individual ministries and agencies, without any requirement for consultation. SROs issued by the National Board of Revenue (NBR) are often cited by businesses as a major source of uncertainty.

Poor coordination is also a problem with the downstream activity of policy and regulatory implementation, i.e., specific policy actions and individual regulatory decisions. Such actions within government are often uncoordinated because officers can take decisions without considering the unintended consequences of their actions. For example, an officer of the Bangladesh Bank may delay approval for repatriation of profits by foreign investors on the grounds of foreign exchange shortages without considering how this might discourage future FDI flows. In this case, the action of one part of the government, i.e., the central bank, is diluting the efforts of another part of the government, i.e., BIDA, to attract foreign investment. These behavioural tendencies are accentuated by mistrust of the private sector.

One factor that leads to poor coordination is duplication of mandates between ministries and agencies. Duplication may happen due to turf consciousness, a widespread problem in bureaucracies, and a reluctance to do away with agencies whose time may have passed (examples of such duplication are given above in Section 4).

14.9.2 Inadequate Sharing of Information

Inadequate sharing of information between ministries and agencies is another factor causing poor coordination. For example, both local and foreign investors carrying out new projects are required to register their intended projects with BIDA, without which they can't obtain essential permits and licenses. When registration is granted, several ministries and agencies in government are copied in the approval notice so that they may plan ahead of investors approaching them for permits, licenses or utility connections.

However, these ministries and agencies rarely share information with BIDA on how many investors have obtained such services from them and are moving ahead with their investment plans. Thus, BIDA only has information on intended investment through the registration database but not any information on the progress with the investment plans, although a lot of useful information on the implementation progress of new investments is generated in various parts of government. Lack of a coordinated mechanism to aggregate such information compromises BIDA's ability to keep track of actual investments in relation to planned investment and take corrective actions if necessary.

14.9.3 Cross-country Examples of Coordination Mechanisms

Several countries have experimented with special coordination mechanisms to carry out economic reforms, such as in the areas of competitiveness or regulatory reforms (Box 14.11 provides a few examples). Bangladesh may learn from such cases to set up mechanisms that may improve inter-agency coordination.

Good practice cases of such coordination mechanisms typically include high-powered oversight committees, which prioritise the reform agenda and maintain reform momentum, technical working groups which identify constraints faced by businesses and design solutions, and platforms for consultation with external stakeholders. Such mechanisms typically cover the entire spectrum, including design, implementation, and monitoring. These mechanisms may be new institutions or may leverage existing institutions. Examples of the former come from South Korea and Malaysia, while Singapore and India illustrate the latter model.

Box 14.11: Good Practice Coordination Mechanisms

a) South Korea: In 2008, the government formed a Presidential Council on National Competitiveness to push ambitious regulatory reforms and enhance the country's rank on the World Economic Forum's Competitiveness Index. The Council was a public-private body whose membership included ministers, business representatives, labour representatives and academics. The Council identified reform priorities, prepared an implementation roadmap, and coordinated reform implementation across the government. A Public-Private Regulatory Reform Task Force was established and tasked with identifying regulatory constraints, which it did in consultation with the private sector, and produce concrete reform proposals after discussion with relevant government entities. The Task Force reported jointly to the Council and the Korean Chamber of Commerce and Industry.

b) Malaysia: In 2010, Malaysia launched the Economic Transformation Programme, one of whose goals was to improve Malaysia's performance on the World Bank's Doing Business Indicators. A special task force called PEMUDAH was created to facilitate business reforms. It worked through a dedicated delivery unit called PEMANDU, whose task was to accelerate reforms. Reforms were identified through public-private consultations. As a result of these efforts, Malaysia's ranking on the Doing Business Indicators rose from 23rd in 2010 to 15th in 2018.

c) Singapore: In Singapore, the Doing Business agenda was coordinated by an existing institution, i.e., the Ministry of Trade and Industry (MTI), which worked in close collaboration with other ministries or agencies, such as Building and Construction Authority for reforms in construction permits. MTI also had built-in mechanisms for consulting with the private sector.

d) India: In India, an existing institution, the Department of Industrial Policy and Promotion (DIPP) is the lead agency in charge of the regulatory reform agenda. It is under the Ministry of Commerce and Industry but also provides periodic reports to the Prime Minister's office. DIPP coordinates business reform initiatives with other ministries and agencies in the central government, as well as with different offices in the state governments. When pursuing Doing Business reforms, DIPP set up an institutionalised process whereby institutions in the private sector were engaged to observe the impact of reforms by collecting feedback from businesses. These were the Indian Institute for Foreign Trade, the Institute of Company Secretaries of India, the National Institute of Construction Management and Research (NICMAR), and the Institute of Chartered Accountants.

Box 14.12: Specific Recommendations

a) Carry out an institutional review to identify overlapping mandates and recommend actions to eliminate or reduce such duplications.

b) Carry out a review of the existing collection and processing of administrative data by various government agencies. This exercise may initially focus on private sector related data.

c) Establish structured mechanisms for public-private dialogues.

14.10 Enhancing Reform-ownership of Government Officials

Bureaucracies the world over have three common features: a) risk-averseness; b) a control mentality; and c) turf consciousness. Bangladesh is no exception.

Bureaucrats are often highly penalised for mistakes but poorly rewarded for good deeds. Such asymmetry triggers conservative behaviour and lowers the incentive to carry out reforms that change entrenched ways of doing things, or whose results are difficult to predict *ex ante*. Turf consciousness and a control mentality militate against reforms that take away the ability to control or carry out certain functions.

Implementing a one-stop shop is often challenging because regulatory agencies are unwilling to cede authority to a single agency.

Fundamental challenges such as these cannot be addressed solely by some reform champions in the top echelons of government. Top-down reform initiatives often fail to take on board the front-line officials, who are responsible for implementation. Reform initiatives thus dissipate when the bold reformer at the top moves on (or loses interest or energy).

The World Bank's 2015 World Development Report, *Mind, Society and Behaviour*, suggests that reforms are more likely to be implemented well when an effort is made to understand the motivations and behavioural characteristics of different players within government.[17] When mid-level officers, responsible for reform implementation, are also involved in reform design, probability of effective implementation increases because they usually have a good idea of reform feasibility and pitfalls. These officers may also be encouraged to conceive small reforms on their own. Even if modest such reforms may trigger a substantial demonstration effect. Section 4 above provided an example of a programme that had incentivised mid-level bureaucrats and enhanced their understanding of business issues.

Specific Recommendations

Experience with civil servant training programmes suggests that one-time training programmes usually have limited impact in terms of transferring knowledge and skills or changing mindset. A longer-term, phased programme of engagement is recommended to bridge the knowledge and skill gaps and make civil servants more sensitive and proactive towards private sector led growth in Bangladesh. Specific recommendations have been provided in Section 14.4.

14.11 Key Recommendations

This section highlights some of the key recommendations made in this chapter.

1. A modern regulatory regime through improved regulatory governance

   a) Publish a whole of government vision, policy and strategy for Bangladesh's regulatory system including regulatory governance priorities, principles, targets, criteria, responsibilities, and use of tools.

   b) Establish a Regulatory Reform Commission to oversee, advocate and drive a regulatory reform and modernisation programme. The Commission will: i) suggest streamlining of the stock of regulations through deletion and modification; ii) assess the performance of individual regulatory interfaces; iii) identify regulatory gaps and suggest actions to address the gaps; and iv) oversee a system of impact assessments of proposed regulations.

[17] World Bank (2015). *Mind, Society and Behaviour,* World Development Report 2015, Washington D.C., 2015.

c) Develop and implement a mechanism for structured consultation with stakeholders on proposed regulations, to help improve the quality of new regulations.

d) Introduce a system to automatically publish all new laws, regulatory amendments, and SROs on a dedicated website within a week of their enforcement.

e) Introduce a systemic online grievance mechanism for all government-to-government, business, and citizen services.

2. Effective One-Stop-Services (OSS)

a) Make it mandatory for all regulatory agencies that issue certificates, licenses, and permits to provide their services only through the OSS system. Ensure that all such agencies have systems that are well-connected to the central OSS system.

b) Publish information on the quality of OSS services, such as national dashboard on business service delivery index public portal using data generated by the system.

c) Secretaries or agency heads must monitor the performance dashboard and promptly follow up in case of performance shortfalls. Well-performing agencies may be rewarded.

3. Performance disciplines on incentives provided to businesses

a) Adopt an investment incentives policy which articulates commitment to performance-based incentives and spells out the principles and modalities for such accountability.

b) Establish a single authority in charge of the administration and award of incentives, or at least an oversight mechanism to oversee the award of incentives in line with the good practices articulated in the investment incentives policy.

c) Identify clear performance targets to be met by recipients of incentives and penalties for non-fulfilment of the targets. Businesses must provide data to help assess performance.

d) Maintain and publish a database with a list of incentives and businesses receiving these.

e) Periodically review the effectiveness of the incentives provided in relation to their underlying development objectives. Publish the results of the review.

4. Enhanced market competition

a) Enhance the capacity of the Competition Commission to understand the dynamics of different markets, through in-house capacity and outside expert assessments and studies.

b) Build mechanisms to tap information being generated by various markets.

c) Identify anti-competition features of existing laws/regulations and recommend changes.

d) Carry out advocacy within government in support of competition policy, and stakeholder awareness of competition issues outside government.

5. More strategic investment promotion

a) Establish a Ministry for Investment to i) articulate a long-term investment strategy and investment policy; ii) coordinate and oversee investment promotion and facilitation activities of various ministries and agencies; and iii) advocate investment-friendly policies and regulations across government.

b) Conduct a review of all investment promotion functions in government with a view to identifying overlapping mandates, duplication of effort, gaps, and inefficiencies. Consolidate all investment promotion activities in one agency, preferably BIDA.

6. Strengthened reform orientation in the bureaucracy

a) Establish cohorts of reform-minded bureaucrats, at both policy (senior officers) and implementation (mid-level officers) levels through the activities listed below.

b) Enhance civil servants' knowledge of economic/business issues through customized course offerings at the Public Administration Training Centre (PATC). These courses may be two to four weeks in duration and offered to officers at different levels of seniority.

c) Form 3-4 'Reformer Groups' at the mid-levels of government, focusing on issues such as regulatory reforms, FDI promotion, export diversification or SME development. Each group may have 20-30 members drawn from a range of government ministries and agencies relevant to these topics. Each cohort will go through intensive learning, problem-solving, reform design, and community building activities lasting a year. They will be given small grants to design reform initiatives.

d) Develop and implement an M&E system to assess the results of these programmes.

7. Improved public service delivery

a) Explore digitalisation of services, including procurement using online platforms to circumvent the middle-men groups.

b) Identify the nexus of internal and external persons behind rent-seeking/extortion.

c) Establish a specialised Anti-Goon Squad from within the security services who can be called upon to physically dismantle unwanted elements from institutional premises.

d) Carry out some pilot cases for reforming the delivery of key public services. The pilots will demonstrate political will and have a strong signalling effect. An institutional home will provide technical, regulatory and policy support and drive the process.

e) Case pilots could include a public hospital, a rural government school or clinic, an institution like the Bangladesh Road Transport Authority (BRTA) or a public body like a city corporation, or even a single Ministry of the government.

8. More effective project implementation through better project design and evaluation

a) Projects must go through a rigorous selection process based on economic criteria (e.g., Benefit-Cost Ratio (BCR) and Economic Internal Rate of Return (EIRR)), and environmental, social and poverty impact assessments. The project feasibility studies should be based on a logical framework that clearly states the expected outcomes and impact of the project, and the project deliverables needed to achieve these.

b) A system of regular collection of beneficiary feedback should be introduced, using digital technologies where appropriate. The youth may be engaged in conducting such exercises.

14.12 Conclusions

This chapter has argued for a holistic approach to economic governance, which will reduce risks for economic actors by clarifying the rules of the game, combine government support with performance discipline and strengthen the forces of market competition. Several recommendations have been made to enhance economic governance. Many of these are quick-win actions that can be undertaken in the short run. Others are longer term, but action needs to be initiated in the short run.

Piecemeal reforms will not suffice. Thus, the specific recommendations are encapsulated within a strategic and holistic approach. While other chapters recommend reforms to individual regulatory interfaces and suggest specific actions to incentivize businesses, this chapter emphasizes regulatory governance reforms, and reforms to the overall framework for granting incentives. The chapter recognizes the deleterious effects of a nonlevel playing field, manifested in crony capitalist behaviour and granting of privileges to a few favoured economic actors, and recommends building the government's capacity to strengthen competition in the economy.

The chapter also addressed more fundamental issues in institutional governance such as weak public service delivery and poor project/programme implementation, inadequate monitoring and evaluation, and lack of coordination among government agencies.

Addressing such institutional governance issues is a challenging task. Thus, the chapter takes a pragmatic approach by suggesting a few pilot projects which are doable. Experience from both Bangladesh and other countries suggest that it is often prudent to start with a few doable pilots, show success and then try to catalyse a demonstration effect.

The chapter recognises the critical importance of the cultural aspects of a bureaucracy. Two areas are emphasised: a) instilling a strong performance culture through monitoring and evaluation; and b) enhancing reform mindedness of officers through increased awareness of economic issues and building trust between them and various societal stakeholders.

References

Mahmood, Syed Akhtar and Syed Estem Dadul Islam (2016). "The Silent 'Change Agents' in Government," *World Bank Private Sector Development Blog*, October 19, 2016.

Mahmood, Syed Akhtar (2024). "Holding government accountable: What can the youth do?" *The Business Standard*, August 10, 2024.

Mahmud, W. (2022). "Bangladesh Economy: What got you here won't get you there", *The Daily Star*, May 17, 2022.

Murshid, K.A.S. (2022). *The Odds Revisited: Political Economy of the Development of Bangladesh*, Cambridge University Press, South Asia in the Social Sciences, Series Number 18, 2022.

Studwell, Joe (2013). *How Asia Works, Success and Failure in the World's Most Dynamic Region*, Grove Press, New York, 2013.

World Bank (2015). *Mind, Society and Behavior, World Development Report 2015*, Washington D.C., 2015.

World Bank (2017). *Investment Competitiveness Report 2017*. Washington D.C., 2017.

World Bank (2024), *Business-Ready*, Washington D.C., 2024

Chapter 15: Youth and Citizenship: Shaping a Policy Framework[1]

15.1 Introduction

The July uprising leadership have made a fervent plea for inclusive, and equalising growth and development in the country from a very direct experience of alienation and disenfranchisement that is far removed from the intellectual discourse around 'rising inequality' and social justice, to a demand for accountability, transparency, and reforms to be carried out NOW. This stems from a long history of neglect to even the most basic of reforms (as have been discussed in all the preceding chapters in their specific contexts) forcing them to take up a rather unusual, even if fully justified stance, that it is time to free up political space for the youth, so that they can assume positions of political power to end, once for all, the historical neglect and rampant corruption, cronyism and nepotism across government and related institutions.

In the context of the Task Force mandated to re-examine economic policy and development strategy, the subject of 'Youth and Citizenship' might appear as an outlier, and not of direct relevance.

Our view is that space must be created to accommodate, sensitise, and even socialise what appears to be an entirely new, alienated generation of impatient young men and women with huge aspirations but imbued with tremendous energy and a desire 'to do something' that needs to be tapped and redirected towards economic growth and socio-economic development. While this new generation is often referred to (mistakenly, in our opinion) as 'Gen-Z' – a misnomer since the term relates to the Western context where the Gen-Z generation has become inward-looking, not very aspirational, and even apathetic to their national struggles and challenges – a sort of a 'Chill Generation' that prefers not to engage. Our youth is nothing like that, indeed probably its polar opposite![2]

Our youth want a place at the table. They have revolted against the baby-boomers for whom they have lost respect. It is in this light that this chapter has been written, to provide a possible framework to involve and include youth in citizenship roles so that they are not reduced to merely flooding the streets from time to time, to demand changes from society but find avenues and platforms to engage in social and socio-economic activism.

Our objective must be to empower Bangladeshi youth to embrace active citizenship by enhancing their understanding of roles and responsibilities, fostering self-reliance, and encouraging participation in societal development. To this end, we have tried to develop

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[1] This chapter is prepared by K A S Murshid, Chairman of the Task Force.

[2] See Jaago Foundation (n.d.) Youth for Education (retrieved from jaago.com.bd/youth-for-civic-education) for a small-scale project example; also see Hossain, N. and Hoque, R., (2024): Bangladesh's New Generation of Youth-Led Education Civil Society: Prospects for Reinvigorating Civil Society, Accountability Research Center – retrieved from https://accountabilityresearch.ord/publication/new-gen-civil-society-education-bangladesh/

a plan of action in broad, skeletal terms to convey the basic drift of our approach and arguments. The framework below is a rapidly developed exercise which will require further brainstorming to translate it into one or several concrete proposals that can be made ready for intervention.

The potential institutions that could implement these interventions are identified, belonging mainly, but not entirely, to public sector ministries. The problem there is lack of capacity and motivation rather than resources or funding. The emphasis must therefore be, to chalk out a careful execution plan along with suitably deployed, professionally appropriate staff, backed up by a good M&E system. The chapter on governance provides some guidance in the matter.[3]

The local NGO and civil society capacity has suffered from neglect and even hostility. However, there is a key space here that they could usefully fill. It is suggested that NGO capacity development be encouraged, and government departments outsource these youth programmes, whenever reasonable, to well-managed local NGOs or youth-led platforms.

There are two aspects that require an urgent involvement and collaboration of youth. First, youth need to be alerted and made aware of their roles and responsibilities as citizens of a free, democratic country, the need to uphold basic human values, and respect the rule of law, and promote tolerance and empathy for each other, and for all social groups including elders, minorities and marginalised people. The vacuum that has arisen due to neglect rather than active opposition has prevented youth from participation in shaping their destinies, and now needs redressal. This chapter provides a plan of action as a potential model that could be pursued to this end.

The second aspect that requires concerted action is to establish a platform for social campaigns that seeks to bring about social and behavioural change focusing on eliminating undesirable traits, norms, or practices and promoting desirable ones in their place. These could relate to non-controversial issues like obeying traffic rules, stopping at red lights or not using horns indiscriminately. Many examples of needed behavioural change are scattered throughout this report (e.g. to not overuse urea fertilisers in agriculture, stop over-prescribing antibiotics or selling antibiotics without a prescription, or stop eating junk food). Indeed, the need is limitless. Thus, a strong institutional space needs to be established that can conduct research on such issues, develop appropriate messages and undertake a concerted campaign directed at behavioural change. Both traditional and modern communication technology make this task much easier compared to earlier decades when social communication was much more difficult to conduct.

These campaigns are best done by trained, tech-savvy youth and provide a new, valuable space for youthful engagement and activism. The following schematic presentation

[3] For a global/UN perspective, see UNDESA (2020) United Nations – World Youth Report (WYR) (retrieved fromsocial.desa.un.org).

chalks out a tentative plan of action with which to start the journey, and will need to be fine-tuned and revisited periodically to ensure outcomes and impacts are well aligned with the strategies pursued. The extant literature on Bangladesh is scanty. However, various development partners have been working in this area for sometime through funding local youth bodies but have had limited success – mainly because of the top-down approach and inadequate ownership within society.[4]

15.2 Toward an Action Plan

15.2.1 Objective

It is important to build awareness about citizenship roles, responsibilities, and rights. However, this is a big step, and a suitable campaign will need to be orchestrated to reinforce the idea that youth have responsibilities, roles, and duties and not there just to ask for things to be given to them, like jobs or credit, or special treatment, but also to contribute to society. Some activities and actions have been indicated above.

The primary goal is to empower Bangladeshi youth to embrace active citizenship by fostering a deeper understanding of their roles and responsibilities, promoting self-reliance, and encouraging their participation in societal development.

15.2.2 Action Plan

1. Awareness Campaign: "My Role, My Nation": This initiative aims to build awareness about the importance of citizenship roles, responsibilities, and rights. Multimedia campaigns will highlight inspirational stories of youth-led initiatives, showing how individuals can create impactful change. Interactive workshops in schools, colleges, and communities will provide hands-on learning experiences about citizenship, governance, and community building. Social media influencers will share relatable content to engage young audiences, while comic strips, podcasts, and short films in Bangla will broaden accessibility and cultural resonance. This campaign will primarily target youth aged 15–30 in rural and semi-urban areas, with a timeline of 6 months to 1 year for implementation.

2. Skill-Building Programmes: The goal of this initiative is to equip youth with practical skills that align with their aspirations and foster civic engagement. Vocational training programmes tailored to local market demands will enhance employability. Civic education modules embedded in these training programmes will highlight the importance of active citizenship. Collaborations with private sector organisations will create internship and apprenticeship opportunities, while a "Youth Innovation Fund" will support community projects led by young people. The timeline for these programmes is 1 to 3 years.

In the context of vocational training, a campaign needs to be launched to gentrify vocational or technical training courses. This is a serious problem in spreading skills

[4] Some examples are The Asia Foundation (2016), UNDP (2021), SERAC Bangladesh (2022), US Department of State (n.d.) and IGI Global (n.d.)

throughout a wider population set and leading to ‘useless’ degrees in non-technical subjects.

3. Youth Councils and Forums: This platform will provide opportunities for young people to voice their opinions, discuss societal challenges, and contribute to policymaking. Local youth councils will be established and aligned with municipal governance structures to ensure grassroots representation. An annual “National Youth Citizenship Summit” will bring youth together to share ideas and solutions. Partnerships with NGOs and civic groups will train council members in leadership and policy advocacy. This will be an ongoing initiative to ensure sustainability.

4. Community Service Mandates: To instil responsibility and teamwork, mandatory community service will be introduced in academic institutions. Students will earn recognition through certificates for their contributions. Partnerships with local governments will identify meaningful community projects, such as environmental cleanups or literacy campaigns. The rollout timeline is 2 years, with the initiative continuing thereafter

5. Youth Mentorship Programme: This programme seeks to inspire self-reliance by connecting youth with successful mentors, such as entrepreneurs, activists, and professionals. Biannual mentorship expos will facilitate networking and knowledge-sharing. Mentors’ success stories will be showcased through social and traditional media, providing motivation and guidance. The timeline for full implementation is 1 to 2 years.

6. Policy Framework

a. Incorporate Civic Education: Citizenship education will be integrated into the national curriculum, spanning secondary to tertiary levels. This will include topics such as democracy, rights, responsibilities, and ethical leadership to build foundational knowledge and values.

b. Encourage Private Sector Participation: Tax incentives will encourage companies to offer youth internships and sponsor skill-building programmes. Partnerships will also be created to involve businesses in community service initiatives.

c. Promote Youth-Led Governance: Seats will be reserved for youth representatives in local government committees, ensuring their voices are heard in decision-making. Funding will support youth-led policy research on critical national issues.

d. Strengthen Accountability Mechanisms: Grievance redressal systems will be established, enabling youth to report corruption or service delivery issues. Youth councils will also act as watchdogs for local development projects, fostering transparency and accountability.

7. Focus on Inclusivity: Programmes will prioritise marginalised groups, including women, rural youth, and ethnic minorities, ensuring equitable access. Scholarships and grants will be offered to underprivileged participants to enhance inclusivity.

8. Incorporating Citizenship Roles into Education:

a. Primary and Secondary Education: Citizenship should be introduced as a core subject into the school curriculum to include topics on democracy, law and order, human rights, social responsibilities, and positive social norms and values. Once upon a time, 'Civics' used to be a compulsory subject in schools but was dropped at some point in time for reasons not very clear.

Younger students need to be approached using age-appropriate content, such as stories, role-playing, and games. This will require a significant reorientation in pedagogy styles currently practised in all but a few high-end urban schools in the country.

It is crucial to establish good norms from an early age, norms like ethics, teamwork, and community participation in secondary levels. Real-world, relatable examples can be used as case studies to highlight positive contributions made by ordinary students in diverse fields, including sports, culture, entrepreneurship, academic performance, etc to reinforce positive norms.

b. Higher Education: At the higher education level, certain courses should be made mandatory, like governance, policymaking, and leadership, irrespective of disciplines. Others could be made electives, such as "Sustainable Development," "Community Development," and "Volunteerism".

Students should also be encouraged to conduct research on local governance issues or community challenges. Small grants offered to youth-driven research projects on social improvement would be a great way to encourage interest and participation. In this high-tech age, brilliant innovations can just easily come from undergraduates as from seasoned academics and professionals, and this would send a valuable message to the youth community.

9. Co-Curricular Activities: Co-curricular activities require students to participate in community service as part of their academic assessment. Some examples include cleaning public spaces like derelict water bodies, rivers, teaching in rural schools, or organising health awareness campaigns.

Conducting Model United Nations (MUN) or "Model Parliament" sessions focusing on international, local and national issues allow school/university students to explore problems that directly affect us on a day-to-day basis, creating awareness and encouraging citizen activism in later professional life. Similarly, debating competitions hosted by schools, colleges, and other youth bodies would be useful in furthering the communication agenda.

10. Pedagogical Approaches:

a. Experiential Learning: Field trips to physically visit and learn from direct exposure is invaluable in shaping perceptions and raising awareness of real-life issues. Trips to local government offices, courts, and NGOs, or even to factories, old-age homes, and rural schools and clinics could play an invaluable role in their formative years.

In addition, older students could be given real-life civic activities like voter registration drives or public health initiatives.

b. Gamification of Citizenship: Given the popularity of apps-based games, interactive learning tools such as mobile apps and board games could be developed focusing on civic knowledge. These games could allow the youth participants to create challenges where each can "earn points" for solving hypothetical governance or societal problems.

The opportunity is endless, including learning and dissemination through storytelling, street plays (known as 'pothonatok' in Bangla and is popular amongst youth and students), or listening to inspirational talks from youth role models, social influencers, and music band leaders.

11. Teacher Training: Teacher training is essential. Educators should be trained to teach citizenship in an engaging, and participatory manner. This, however, requires that teachers be armed with guidance or toolkits and teaching aids, as appropriate. Teacher and youth-led workshops can be useful in discussions on sensitive issues like minority rights and ethics, and communal/religious tolerance.

12. Partnerships with Educational Institutions: It is recommended that partnerships are formed with NGOs and civic organisations to co-develop and deliver citizenship education programmes. It would be good to recognise schools and colleges that excel in promoting active citizenship through awards.

13. Monitoring and Evaluation: An M&E process is essential to make periodic and even ongoing assessments of students' understanding of citizenship roles through project evaluations and civic participation. The seriousness that the government places on citizenship issues should also be reflected in questions set for national board exams, and even civil service and other public examinations to ensure that everyone understands the importance given to accountability.

14. Outcome Expectations:

1. Students will develop a strong sense of ownership and responsibility toward their communities.
2. Increased youth participation in civic and community activities.
3. Gradual cultural shift toward self-reliance and reduced dependency on the government.

Key Metrics to Monitor:

1. A 50% increase in youth participation in community service within 3 years.
2. Enhanced awareness of citizenship roles, measured through periodic surveys.
3. Greater self-reliance, evidenced by reduced dependency on government support for basic initiatives.
4. Increased employment rates among youth who complete training programmes.
5. Successful implementation of youth-led projects at the community level.
6. Implementation Partners.

15.3 Conclusion

The purpose of this short chapter is to direct policy attention to an extremely important policy gap surrounding what we may refer to as the youth crisis that is upon us. This crisis has been many years in the making but has gone unnoticed by political parties, civil society, and even parents and guardians. The soul search to understand the reasons behind this situation should rightly be a topic for academic research. First, however, we need to recognise that there is a crisis in order to properly explore its nature and roots. These are likely a result of rapid demographic changes compounded by socio-economic aspirations engendered over the last several decades. These changes have led to the emergence of a new underclass that have been exposed to some education, admittedly of variable quality. However, armed with a smattering of low-quality education but nevertheless having received certification as BA or MA, they now demand jobs preferably in government. This was perhaps the reason why the 'quota movement' in July resonated so well with the new emerging demographics, especially since private sector jobs too were getting scarcer. One should note that places of higher, tertiary education has expanded at mind-boggling speed. From just a handful of tertiary institutions of higher learning in the 70s, the numbers now exceed 150 with public universities alone numbering over 50, and total enrolment exceeding a million students. The economy of Bangladesh is simply unable to absorb so many ill-equipped, inadequately skilled generalists. This is compounded by the social aversion for technical-vocational education where there is a large demand both at home and abroad giving rise to a glaring skills gap in the labour market.

The youth need direction in terms of honing their skills, personal development, socialisation in terms of values, and platforms from which to voice their concerns or play a role as activists for change. These spaces need to be systematically cultivated and expanded.

The key stakeholders who must take on these responsibilities are as follows:

- The Ministry of Youth and Sports, overseeing the programmes' alignment with national youth policies.
- The Ministry of Education, integrating civic education into curricula and supporting institutional reforms.
- NGOs and civil society organisations, offering grassroots support and advocacy.
- Private sector companies, providing funding, mentorship, and skill-building opportunities.
- Academic institutions, facilitating educational reforms and community service mandates.

References:

Hossain, N., & Hoque, R. (2024, December). *Bangladesh's new generation of youth-led education civil society: Prospects for reinvigorating education reform.* Accountability Research Center. Retrieved from https://accountabilityresearch.org/publication/new-gen-civil-society-education-bangladesh/

IGI Global. (n.d.). *Civic engagement of students: Perspectives of Bangladesh.* Retrieved from https://www.igi-global.com/chapter/civic-engagement-of-students/295022

JAAGO Foundation. (n.d.). Youth for civic education. Retrieved from https://jaago.com.bd/youth-for-civic-education

SERAC-Bangladesh. (2022, October 10). The empowering youth series on civic engagement in political process. Retrieved from https://serac-bd.org/the-empowering-youth-series-on-civic-engagement-in-political-process/

The Asia Foundation. (2016, August). *Engaging Bangladeshi youth for social change.* Retrieved from https://asiafoundation.org/wp-content/uploads/2016/08/Engaging-Bangladeshi-Youth-for-Social-Change.pdf

U.N. Department of Economic and Social Affairs (UNDESA). (2020). *United Nations – World Youth Report (WYR).* Retrieved from https://social.desa.un.org/

United Nations Development Programme. (2021, August 12). *Youth leading the way to good governance in Bangladesh.* Retrieved from https://www.undp.org/blog/youth-leading-way-good-governance-bangladesh

U.S. Department of State. (n.d.). *A road to civic education in Bangladesh.* Retrieved from https://exchanges.state.gov/non-us/alumni-story/road-civic-education-bangladesh

Chapter 16: Embracing the Digital Economy: A Rapid Transition[1]

16.1 Introduction

16.1.1 Missed Opportunity: Empty Rhetorics & Wrong Policies

Although various countries and their economies have undergone remarkable digital transformation over the past three decades, Bangladesh has not fully harnessed technological opportunities to achieve the following benefits of digital transformation:

- Enhance efficiency and accountability in delivering citizen services
- Promote good governance and institutional transparency across different type of organisations (including govt and private)
- Harness technology to address the scarcity of skilled manpower in critical social sectors such as education and healthcare
- Achieve and sustain global competitiveness in different export sectors through improvements in productivity and efficiency.
- Generate quality employment opportunities, including self-employment, for millions of youths and unemployed graduates

16.1.2 Reflecting on What Went Wrong in our Digitisation Journey

The use of digitisation has largely served as a vehicle for political slogans—such as "Digital Bangladesh" and "Smart Bangladesh". This approach has resulted in a reliance on grand promises rather than an actionable strategy and effective implementation plan. Misleading data has been propagated, portraying inflated statistics regarding internet users, freelancers, and IT exports. This erosion of credibility undermines public trust, making it increasingly difficult to foster a genuine digital transformation that benefits all citizens.

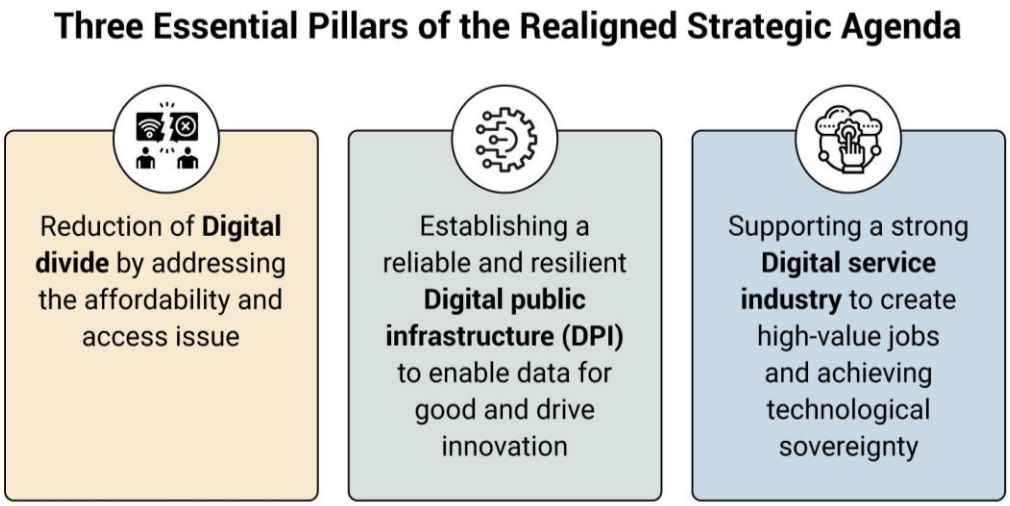
Compounding these issues is the pervasive corruption that has permeated various levels of government. This corruption not only allows well-known oligarchs to exploit resources but also enables lower-level political actors to profit from infrastructure and training initiatives. As funds intended for development are misappropriated, the critical gaps in digital literacy and technological access remain unaddressed, further entrenching inequalities. The lack of accountability in these sectors has stifled progress, leaving many of the country's digital aspirations unrealised.

[1] The chapter has been prepared by Fahim Mashroor, CEO & Co-founder of Bdjobs.com.

Moreover, the absence of a cohesive vision across different government entities has stymied potential advancements. Ministries, the National Board of Revenue, and the Bangladesh Bank often operate in silos, resulting in disjointed efforts rather than a unified approach to digitisation. Without a collaborative framework that aligns these organisations toward shared goals, the potential benefits of digitisation remain out of reach. To turn this scenario around, it is essential to establish a comprehensive and coordinated strategy that includes transparency, effective governance, and an unwavering commitment to genuine digital empowerment for all citizens.

16.1.3 Realigning our Digital Strategy for Future Success: Mapping a New Direction

A new strategic agenda of significant and often disruptive reforms is crucial in three key areas to effectively navigate the journey of digital transformation.



First and foremost, it is essential to address the digital divide by reducing data prices and increasing smartphone penetration. By making modern technology more accessible, citizens can reap the benefits of advancements in education, healthcare, agriculture and other important economic and social sectors. Ensuring that all members of society have access to the necessary tools will empower them to fully participate in the digital economy.

Secondly, establishing robust digital public infrastructure (DPI) is crucial for enhancing the efficiency of government service delivery and business operations through the use of data and new digital technologies. This includes implementing a national identification system, ensuring data access, facilitating consent-based data sharing, and promoting data interoperability across various platforms. By streamlining these processes, we can create a more cohesive digital landscape that improves service delivery, allows citizens to engage seamlessly with government services and promote innovation.

Lastly, developing a strong local digital service industry is vital for sustaining long-term growth through high-value job creation, ensuring technological sovereignty, and

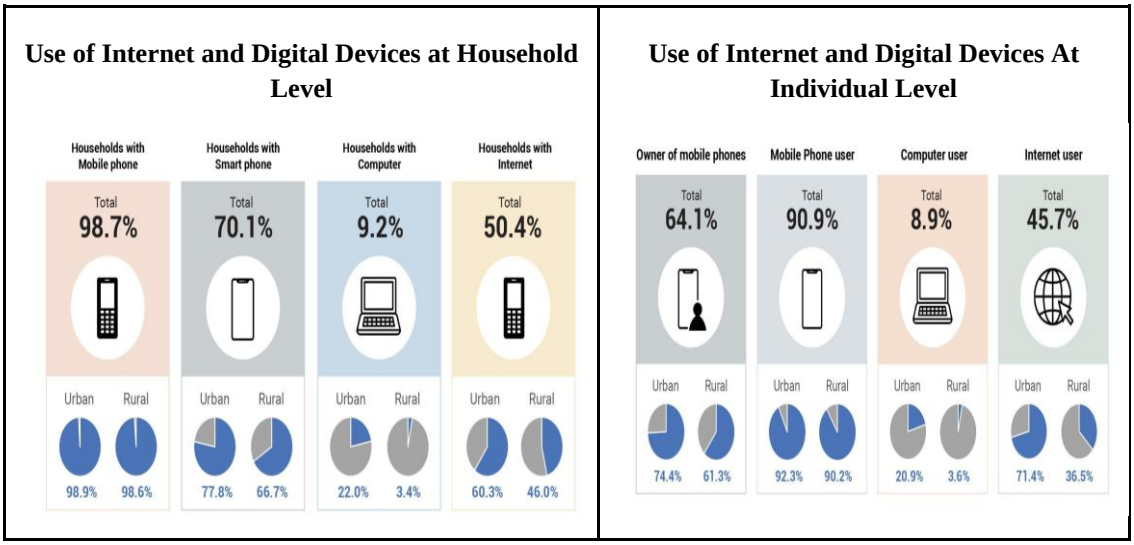
fostering innovation across all economic sectors. This entails investing in human resource development, securing financial support, and creating favourable policy and regulatory frameworks to nurture local businesses in the digital sector. By focusing on these elements, we can create an ecosystem that promotes homegrown talent and innovation.

The subsequent sections of this chapter will provide a detailed overview of the current state of each dimension of the digital economy, outlining the challenges faced in each area as well as specific recommendations for addressing those challenges.

16.2 Enhancing Digital Connectivity and Access to Digital Services: Overcoming Key Barriers to Bridging the Digital Divide

The digital divide has significantly worsened in recent years. The COVID-19 pandemic highlighted the stark reality that many students in rural areas had to forgo their education for nearly a year, while students attending urban English medium schools were able to continue their studies as usual through online classes. Almost all public universities and colleges nationwide were unable to conduct any academic activities, whereas city-based private universities could operate normally.

The BBS data (based on 2024 survey) highlights a significant disparity between urban and rural areas across all parameters related to access and usage (2024 data).



Source: BBS (1st quarterly Report, ICT Application and Use Survey 2024-25).

The BBS survey indicates that almost twice as many individuals in urban areas engage with the internet compared to those in rural regions, a trend that is also reflected in findings from a recent GSMA (Global System for Mobile Communications, a non-profit organisation representing mobile network operators globally) survey. Similar urban-rural disparities in internet adoption are observed in other comparable countries such as India, Pakistan, and Indonesia; however, the gap is not as pronounced as it is in Bangladesh.

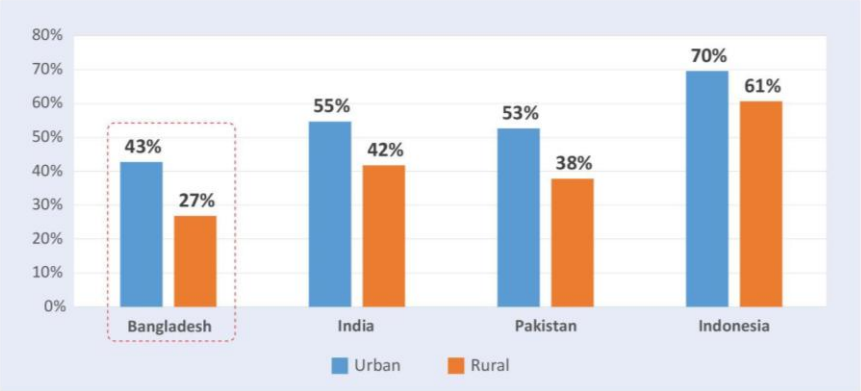


Figure 16.1: Mobile Internet Adoption

Source: The State of Mobile Internet Connectivity Report 2024**, GSMA**

16.2.1 Addressing the Main Barriers of Access and Connectivity

Most rural households in Bangladesh lack computers (such as PCs or laptops), and broadband access is still limited in rural areas (both village and union level). Consequently, people in these regions depend greatly on smartphones and mobile data for accessing internet and digital services. Therefore, it is essential to examine the status and challenges of both aspects to develop effective recommendations.

16.2.1.1 Access Challenges: Low Smartphone Ownership as a Major Barrier

Bangladesh has one of the lowest smartphone penetration rates in the region, with less than 30% of adults owning a smartphone (41% in urban areas compared to 26% in rural areas), according to a recent GSMA survey (2023). This low ownership rate correlates with a significantly lower adoption of mobile internet compared to neighbouring countries, even those with similar or lower per capita income levels.

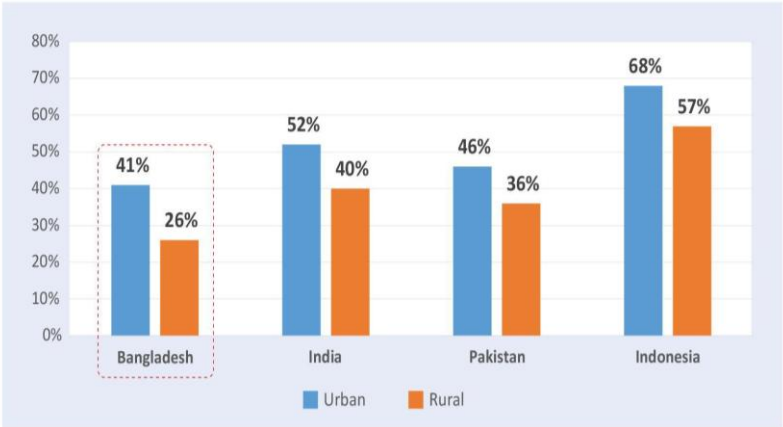


Figure 16.2: Smartphone Ownership (% of adults)

Source: The State of Mobile Internet Connectivity Report 2024**, GSMA.**

16.2.1.2 High Data Cost Restricts Frequent Internet Use

In addition to low internet adoption, the frequency of usage (measured by daily internet activity) is also lower in comparison to peer countries, as indicated by the GSMA survey.

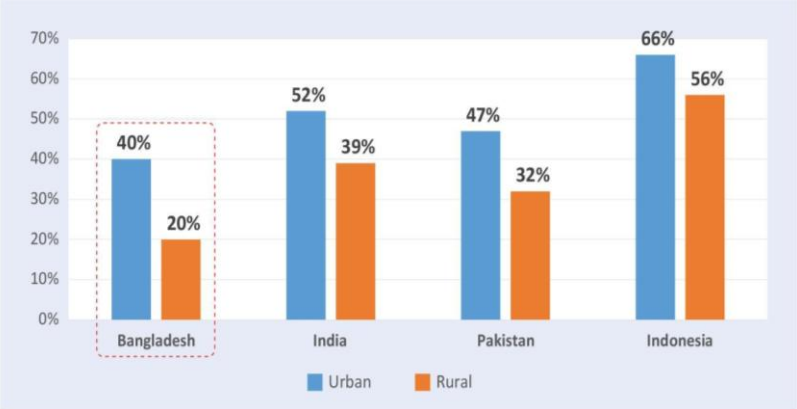


Figure 16.3: Daily Internet Use

Source: The State of Mobile Internet Connectivity Report 2024**, GSMA.**

Among those who own smartphones and have experience using the internet, high data costs are cited as the primary barrier preventing more frequent internet usage (Table 16.1).

Table 16.1: Why are the Reasons People Don't Use the Internet More (Top Reason)

Urban	Data Cost (17%)
Rural	Data Cost (21%)

Conversely, individuals without smartphones or those who have never accessed the internet often report a lack of reading and writing skills, particularly in rural areas, as the leading reason for not using mobile internet. The cost of smartphones ranks as the second most significant obstacle for these individuals (Table 16.2).

Table 16.2: Why People Don't Use Internet Though They Are Aware about Internet

Urban	Reading/Writing difficulty (28%)	Smart phone cost (8%)
Rural	Reading/Writing difficulty (19%)	Smart phone cost (11%)

As a result of the low adoption of mobile internet, there is a noticeable underutilization of internet resources in critical areas such as education, government services, and online banking among the population (Figure 16.4).

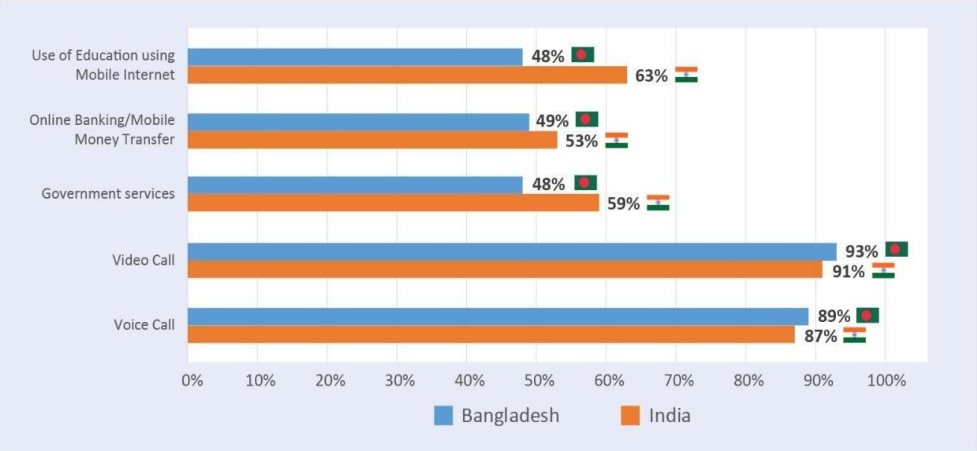


Figure 16.4: Purpose of Using the Internet: Comparison between Bangladesh & India

Source: The State of Mobile Internet Connectivity Report 2024**, GSMA.**

16.2.1.3 Analysing the Burden of Data Costs on Low-Income Mobile Users:

Data pricing represents a significant barrier to mobile adoption because, according to GSMA estimates, the poorest 40% of the population in Bangladesh and other South Asian countries must allocate at least 1% of their monthly income to afford just 1 GB of mobile internet. To access 5 GB, this cost rises to nearly 2% of their monthly income, making it a considerable financial burden for many individuals.

Data collected from leading mobile operators in the country reveals that the majority (51%) of mobile data users in Bangladesh, totalling 49 million, can afford to purchase less than 1GB of data per month. Average billing per user per month (ARPU- including both voice and data) of mobile users is only Tk 143 which is one of the lowest in South Asia (ARPU in India is 1.3 times more than this. These data reflect the low affordability of the low income people in accessing the internet and other telecommunication services.

The table below highlights the significant disparity in data consumption between mobile users and wired broadband users, particularly in urban areas. On average, a city broadband user consumes 20 times more data than the typical mobile data user. Among mobile internet users, rural individuals consume less than half the data compared to their urban counterparts, according to reports from one of the leading mobile telecom operators.

Table 16.3: Average Data Consumption Per User in Bangladesh

Mobile data users	6.5 GB*
Wired Broadband users (mainly in cities)	150 GB

Source: Leading mobile operators and internet service providers (ISPs).

* Average mobile data consumption in India is 24 GB (3.5 times than in Bangladesh)

16.2.1.4 Mobile Data Price: Why Are Costs So High?

Excessive Taxation on Users: One of the primary factors driving up mobile data costs is the high level of taxation and government revenue requirements. It is estimated that for every Tk 100 data pack purchased by a mobile user, more than Tk 50 is allocated to the government in various forms, including supplementary duty (20%), VAT (15%), revenue sharing (5.5%), surcharges (2%), social obligation funds (1%), and spectrum related fees (~9%). This significant financial burden contributes substantially to the overall price of mobile internet services.

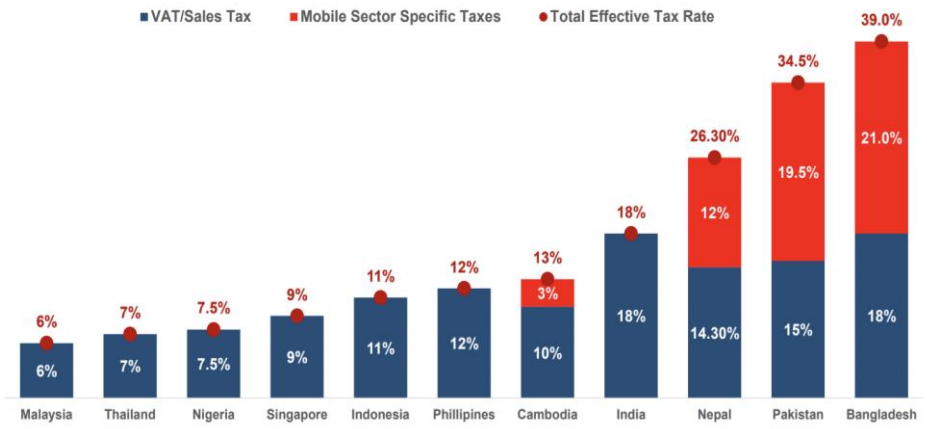


Figure 16.5: Subscriber Taxation on Mobile Services in Different Countries

Source: Taxation on mobile industry in Bangladesh**, GSMA (2022).**

Artificially Fragmented Supply Chain: Additionally, the data transmission value chain comprises multiple layers (existence of 29 licensing categories has created a complex telecom ecosystem, leading to inefficiencies and non-value-added entities. This creates layered intricacies that ultimately impact quality of service and cost of service to subscribers.), including International Gateway (ITC), Internet Gateway (IIG), and Nationwide Transmission Network (NTTN). The presence of several exclusive licenses within this framework often serves to promote rent-seeking behaviour without adding any real value to the service. These multiple layers contribute to unnecessary costs, raising the price of mobile data for consumers.

Moreover, current licensing regulations prevent the sharing of infrastructure among service providers. This restriction hinders opportunities for more cost-effective

investments in the overall data infrastructure, further exacerbating the high costs associated with mobile data. Without regulatory reforms to streamline these processes and reduce taxation, the financial barriers to mobile internet adoption are likely to persist.

High Data Transmission cost across the country because of NTTN rent seeking and lack of infrastructure sharing: Any ISP or telecom company purchases 1 GB data at only less than Tk 1 (Tk 0.5). The broadband service providers in the urban/city areas spend very little on top of that to deliver to the end users. Hence the price the broadband users pay to the service providers is very low (less than Tk 2 per GB).

But, for any telecom operators (who are the main service providers in rural areas), the transmission cost of the bandwidth is 6 times higher than bandwidth cost. For each 1 GB bandwidth, telecom operators need to pay NTTN (only 2 NTTN operators) Tk 1.2 and also Tk 2.6 to tower companies.

The current 'Nationwide Telecommunication Transmission Network (NTTN) policy' creates barriers for mobile and other internet operators, hindering optimal service delivery. It restricts MNOs (mobile network operators), ISPs (internet service providers) to lay fibre creating full dependencies for transmission (across country) on them. Such policy restricting MNOs, ISPs to lay fibre is nowhere practiced in the world. Also, the current regulatory practices don't allow any telecom operators to import and install necessary equipment such as DWDM (Dense wavelength-division multiplexing; this is an optical fibre multiplexing technology that increases the bandwidth of fibre networks). NTTNs are the only authorised entity to import and use DWDM. This artificial restriction is restricting cost optimisation in the ecosystem.

Another reason for low utilisation and high cost networks of telecommunication infrastructure is restriction of sharing. Telecom companies are not allowed to share their unused infrastructure equipment and spectrum. Though tower sharing is allowed, attempts in the past had been unsuccessful due to non-cooperation between operators.

Minimal impact of substantial government investment in connectivity due to governance and corruption challenges: In the last 12 years (since 2013), the government, through the Ministry of ICT and Telecommunication, has allocated/spent approximately Tk 20,000 crore (USD 2 billion) from the annual development budget for 27 projects aimed at improving connectivity nationwide. The main goal of these projects is to bridge the digital divide, especially in rural regions. The following table presents some of the largest projects in connectivity improvement.

Table 16.4: Seven Largest Government Projects for Improving Countrywide Connectivity

Project Name	Implementing Agency	Duration	Budget
Info Sarkar 3 (National Information & Communication Infrastructure Development)	Bangladesh Computer Council (BCC)	2017-2023	Tk. 2,131 cr
Modernisation of Telecommunication	BTCL	2017-	Tk. 3,315 cr

Network (MOTN) for digital connectivity		2024	
Establishing Digital Connectivity (EDC)	ICT Division	2021-2026	Tk 5,923 cr
Info Sarkar 2	Bangladesh Computer Council (BCC)	2013-2016	Tk. 1,295 cr
Optical fibre cable network (290 Upazila)	BTCL	2013-2016	Tk. 499 cr
Haor and Island Mobile Broadband	Teletalk	2019-2021	Tk. 389 cr
Coastal area Teletalk Mobile broadband	Teletalk	2021-2023	Tk 463 cr

Source: Information & Communication Division and Posts & Telecommunications Division, Ministry of Post, Telecommunication and Information Technology.

However, despite significant investment in connectivity infrastructure, the tangible results have been minimal, with many projects marked by inefficient spending and low utilisation rates. Industry experts point to several contributing factors, such as poor project management, politically motivated project selection, and substandard equipment often resulting from corruption.

16.2.2 Recommendations for Ensuring Connectivity for the Mass

16.2.2.1 Eliminate Excess Taxation on Use of Internet

Considering the significant impact of internet-driven technologies in the lives of common people, particularly AI applications in education and healthcare, governments must recognise the internet as a '**social good'** to guarantee equitable access for all citizens, especially marginalised communities. The current high taxation and fiscal policies that impose charges exceeding 50% on internet users directly contradict the country's commitment to equitable development

We recommend the immediate withdrawal of 20% supplementary tax and 2% surcharge on the Internet. Also, BTRC should waive the 5.5% revenue sharing and 1% Social obligation fund (SOF) for internet revenue.

16.2.2.2 Liberalisation of Licensing Regime

A review of the current telecom licensing framework (ILDTS Policy 2010) is necessary to decrease the multiple layers of licenses.

We recommend eliminating IIG, ICX, IGW, IOF, and NIX layers from the current telecom ecosystem. This will directly decrease cost in both data and voice for telecom operators. Operators can use the cost saving for investing in rural last mile connectivity (mostly data where investment is urgently required).

The new and liberated licensing environment should pave the way for a unified licensing regime. License shall allow an access network service operator (e.g., telecom operator or ISP) to build, operate, maintain, sell, resell, lease, sub-lease any form of telecommunication network infrastructure, systems, and facilities to offer telecommunication and infrastructure services in Bangladesh.

16.2.2.3 Allow Telecom Operators to Invest in Data Transmission for Extending Rural Connectivity

Since almost all rural people can only access internet through mobile operators, it is important that BTRC must immediately allow Mobile Network Operators or ISPs to lay optical fibre (nationally and regionally, as well as last mile). BTRC should also allow last mile operators import/install necessary equipment such as DWDM to generate resource optimisation and improvement of service quality. In the midterm, operators should be allowed to lay their own fibre and rent access fibres to NTTN (Nationwide Telecommunication Transmission Network) operators.

16.2.2.4 Allow and Encourage Infrastructure Sharing for Cost Optimisation

Active sharing ((radio equipment, RAN sharing, antenna sharing etc.) and Spectrum sharing (e.g., huge unused sharing of teletalks) should be allowed immediately to bring down the overall cost of operation and drive efficiency. Tower sharing within telecommunication operators should be actively encouraged (also made mandatory in certain cases) for efficient use of resources.

16.2.2.5 Encourage Global Platform Players to Invest in Data Centres in Bangladesh

According to technology and network experts, a quick solution for lowering data costs involves using cache servers located within Bangladesh. Currently, over 70% of our data traffic is linked to a few global platforms, such as Google, Meta, and ByteDance (TikTok). If these companies were to invest in data centres and establish their own content delivery networks (CDNs) and caching systems—currently based in India and Singapore to serve the Bangladeshi market—it would enable local users to access content from these platforms more quickly and at a lower cost. One reason these global companies have not set up data centres in Bangladesh is due to legal concerns; they seek legal protection, such as intermediary liability protection.

16.2.2.6 Facilitate Smartphone Financing by Telecom Operators and Handset Companies in Partnership With Banks and MFS

In most of the countries where there is high smartphone penetration, we can see a lot of device financing schemes. There are 12 months or 24 months plans and data users get the phone upfront and pay the cost in equal monthly instalments. This can be financed by banks or MFIs. Telecom companies (like in other countries) can also offer bundled packages (phone set with data or talk time plan). However, to create a viable business case for telecom operators to introduce these new products, several rules need urgent adjustment. These include phone locking system activation mechanism, flexibility in setting up EMI terms etc.

16.3 Leveraging Data and Building Digital Public Infrastructure (DPI)

Data serves as the cornerstone of any digital transformation. When responsibly collected, secured, and utilised, data becomes a powerful asset for informed decision-making, resource optimisation, and innovation. Citizens can access improved services; governments can tackle inefficiencies and businesses can unlock new opportunities resulting in enhanced economic participation.

Digital Public Infrastructure (DPI) refers to the foundational systems and services—distinct from physical infrastructures like roads and railways—that drive the digital economy. These are digital utilities which create a foundation on which various digital services can be built, both by public and private sectors.

DPI is described as an integrated set of secure, interoperable digital systems based on open standards and specifications, aimed at providing **equitable access to public and private services at societal scale**. These systems are governed by applicable legal frameworks and rules that facilitate development, inclusion, innovation, and trust.

In essence, DPI is a blend of (i) networked open technology standards developed for the public good, (ii) facilitating governance, and (iii) a community of innovative and competitive market participants driving continuous innovation.

DPI complements data by offering scalable platforms and frameworks, such as **national ID systems, interoperable payment networks, and secure, consent-based data-sharing mechanisms**. From a technology perspective, DPI provides the open standards and protocols - the *rails* - upon which layers of applications and services can be built, via APIs, at population scale. For Bangladesh, adopting a comprehensive strategy to develop DPI and effectively harness data will pave the way for a digitally empowered and inclusive economy.

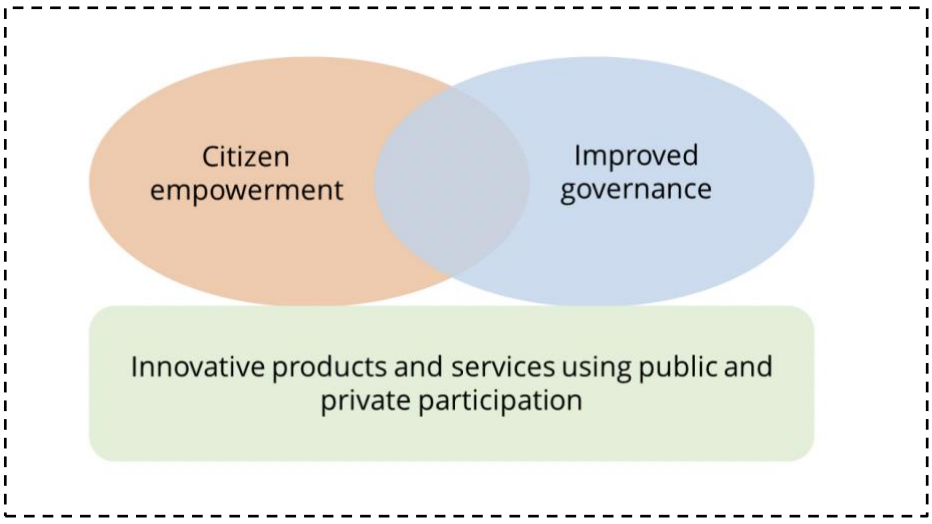


Figure 16.6: Societal Impact of DPI and Data through Empowerment, Governance and Innovation

Source: Author's own illustration.

16.3.1 Key Benefits of Leveraging Data and DPI

For Bangladesh, investing in a strong DPI framework and leveraging data is crucial for achieving sustainable development, enhancing global competitiveness, and ensuring equitable growth across all segments of society.

DPI is a critical enabler of digital transformation and is helping to improve public service delivery at scale. DPI and data utilisation can empower millions of families financially by expanding their access to banking, credit, and digital financial services. Such inclusion strengthens grassroots economic stability and promotes social equity. Simplified and efficient digital platforms ease the business environment, reducing bureaucratic hurdles and operational barriers. Data and DPI programmes directly supports multiple United Nations Sustainable Development Goals (SDGs), including poverty reduction (SDG 1), gender equality (SDG 5), economic growth and decent work (SDG 8), innovation and infrastructure (SDG 9), and reduced inequalities (SDG 10), ensuring inclusive and sustainable development.

16.3.2 Foundational DPIs Bangladesh should Prioritise Immediately

1. **Identification:** This involves enabling secure and unique identification of individuals, and businesses and facilitates seamless authentication, verification, and integration of identity information, enabling efficient delivery of public and private services.
2. **Consent driven Electronic Data Sharing:** Ensures a smooth flow of personal data across both public and private sectors, contingent upon user consent, while incorporating safeguards for personal data protection in line with relevant data governance frameworks. The framework for such data sharing should be based on overarching principle that allows individuals to access the information generated in digital data form by their activity and, most importantly, dictate their terms for sharing it, thus helping businesses to leverage the power of data without compromising users' right to privacy
3. **Financial Transaction (transfer and payment) Interoperability:** Facilitates quick, seamless and easy transfer of money among individuals, businesses, and government entities.

16.3.3 Important Quick Win DPI Initiatives

Although the economic and social justifications for investing in key Digital Public Infrastructure (DPI) initiatives are compelling, it's important to adopt a selective "quick win" strategy to kickstart the DPI journey by prioritising those initiatives that can deliver the greatest impact within a short timeframe (2-3 years). This section proposes seven key initiatives. This section outlines seven key initiatives, many of which are interrelated.

16.3.3.1 Unified National ID for All Citizens

Bangladesh actually started the journey of biometric unique ID before lot of other countries (including India that started Aadhar project in 2009). The NID project was rolled out in 2007 and it now the NID database (still managed by Election commission)

maintains comprehensive records of adult citizens, including biometric data and digital photographs. The Election Commission facilitates online NID verification, enabling citizens to remotely open bank accounts and access digital wallets through eKYC procedures. However, to establish a truly universal identification system, it is essential to include data for all citizens, particularly minors.

The easy and practical way to have a unified ID system for the country will be to consolidate data from existing registries such as the National ID (NID) database, Birth & Death Registration System (BDRIS), and Civil Registration and Vital Statistics (CRVS). By providing services for verification, authentication, and authorisation, it will become the backbone of identity management in the country. Collaboration among key stakeholders, including the ICT Division, Election Commission, BTRC, Ministry of Education, BDRIS, and CRVS, will be critical to achieving the objective of this Unified ID project.

16.3.3.2 Legal Foundation for Data Protection and Sharing

A comprehensive legal framework is critical to safeguarding citizens' rights, building public trust, and encouraging data sharing to empower citizens. Ministry of ICT has already prepared a draft of the Personal Data Protection Act 2024, which addresses personal data rights and protection measures. Inspired by the European Union's GDPR and India's DPDP Act (Digital Personal **Data protection Act 2023)**, this ordinance aims to create a balanced approach to privacy protection and innovation, supporting technological progress while empowering citizens and safeguarding their rights. This draft also ensures provisions for consent-based data sharing. Considering the significance of this issue, a Personal Data Protection and Sharing Ordinance should be issued without delay to establish the legal foundation of data empowerment of citizens. The proposed legislation will define secure protocols for data usage, introduce mechanisms for consent-based data sharing, and ensure that citizens maintain control over their personal information.

16.3.3.3 Consent Framework and Data Transfer & Sharing Architecture

To materialise the effective ownership by individuals (in line with personal data protection and sharing legal framework), the first and foremost step is to establish a common **consent framework** and **data transfer architecture** to enable data owners to better protect their personal data and also offer them means by which they can realise greater value from it. If data owners are able to wrest back control over their data that resides in silos that are under the control of data controllers (where data are primarily captured or used), they will be able to use it to their advantage in a number of different ways.

For instance, financial data (e.g., transaction history of an MFS user) can be used to provide insights into creditworthiness of a loan seeker that would be invaluable to those struggling to secure a loan through normal banking channels. If this data-driven evidence of creditworthiness can qualify someone for a loan, a large number of persons currently excluded from the regular financial system can be covered. Similarly, health data when

aggregated into a personal health record, offers longitudinal insights into an individual's health that can be used to better triangulate diagnosis and treatment.

In order to realise these sorts of data-driven benefits, we need to create a data transfer and consent framework that allows data subjects to authorise, in a granular fashion, to transfer their personal data from one data host/controller to another. Any such data transfer framework should be capable of recording the purpose for which the data is being transferred and, once transferred, the limited period of time for which it can be retained. Most importantly, the framework should be designed so that the consent of the data subject is provided as proximally to the actual transfer as possible - so that the data owner is able to effectively exercise agency over the transfer.

16.3.3.4 Instant Digital Payment System

An interoperable instant digital payment system is critical for building a seamless and inclusive digital economy in Bangladesh. While mobile financial services (MFS) have made notable progress with around 89 million active wallets and extensive cash-in/out networks, their usage for shop and retail payments remains minimal. Furthermore, the absence of services that enable direct transactions between MFS platforms and banks or vice versa restricts the broader adoption of digital payments. The Bangla QR initiative, a national QR code scheme, holds great potential to simplify and standardise digital payments. However, to truly achieve a cashless economy, Bangladesh needs to move beyond QR code-based payments and implement a system that supports seamless, instant transactions across all use cases, including peer-to-peer (P2P), peer-to-business (P2B), business-to-person (B2P), and government-to-person (G2P) payments.

India's Unified Payments Interface (UPI), operational since 2016 serves as a successful model of an interoperable payment system. Similarly, Rwanda's Smart Cashless Initiative (2018) and Pakistan's Raast (2021) demonstrate the transformative potential of national payment platforms to drive digital transformation and financial inclusion.

Currently, Bangladesh Bank's National Payment Switch Bangladesh (NPSB) facilitates inter-bank transfers but lacks interoperability with MFS platforms. With minimal upgrades to the NPSB platform, a fully interoperable and efficient digital payment system could be launched within months. There is another 'interoperability payment platform' named *'binimoy'* that can be improved further to allow interoperable P2P transfer. If implemented, the systems would enable instant, seamless transactions across stakeholders and introduce advanced features like real-time fund transfers, payment requests, and automated recurring payments. Such developments would enhance financial inclusion, accelerate retail payment adoption, and lay the foundation for a robust cashless economy.

16.3.3.5 Financial Data Sharing Platform

A Financial Data Sharing Platform is critical for securely exchanging financial information among banks, MFS providers, and fintech companies. Using advanced technologies like blockchain, the platform will streamline loan approvals, enhance transparency, and reduce fraud, boosting trust and efficiency in the financial ecosystem.

The platform will connect banks, financial institutions (FIs), and payment service providers (PSPs) to facilitate seamless data exchange. Singapore's SGFinDex is an ideal model, allowing citizens to access financial data from various institutions through a single, secure system. India's Account Aggregator models also provide valuable insights for creating consent-driven data-sharing ecosystems.

In Bangladesh, such a platform can be developed through public-private partnerships or government initiatives, ensuring data is shared only with user consent. Financial institutions can securely use this data to offer tailored services, simplifying access to loans, insurance, and other financial products.

16.3.3.6 Government Open Data Platform

The Government Open Data Platform will make non-sensitive government datasets publicly accessible to researchers, innovators, and businesses. By fostering transparency and promoting accountability, this platform will drive innovation and enable data-based solutions to societal challenges, such as healthcare, education, and urban planning. Regular updates and standardised formats will ensure usability and relevance.

A number of countries have noteworthy examples of open data platforms. For instance, data.gov.in serves as the official open data portal of the Government of India, granting access to a diverse range of datasets across sectors such as health, agriculture, education, and transportation. Additionally, the UK Data Service is a comprehensive resource for social and economic data in the UK, providing access to various datasets for research and analytical purposes.

16.4 Digital Services Industry: Untapped Potential

16.4.1 Underutilised Opportunities for Economic Contributions from the Digital Sector

In our neighbouring economies, the digital service industry has played a significant role in overall economic development. Regrettably, despite considerable rhetoric and significant amounts of public investment, Bangladesh has not yet realised its immense potential in vital areas such as job creation and export contributions. Furthermore, even with a wealth of local talent available to support the digital industry, there remains a high reliance on foreign software within both the government and private sectors.

16.4.1.1 New Job Creation: Employment Gaps and the Rise of Freelancing

The ICT industry in Bangladesh currently employs around 150,000 individuals. Each year, over 20,000 graduates enter the ICT field, yet the sector struggles to accommodate them, with more than 50% remaining unemployed 2-3 years after graduation. This disparity underscores the difficulties in harnessing the ICT sector as a substantial source of employment.

A notable characteristic of Bangladesh's ICT industry is that most companies are small or medium-sized, with very few employing over a thousand engineers. In contrast, even mid-sized IT firms in India often have workforces exceeding ten thousand. Due to the typically small size of companies and the limited opportunities to hire a large number of engineers, many young IT graduates opt to work on various freelancing platforms or

establish small boutique IT firms. While some of these self-employed individuals can earn a substantial income—some making as much as US$ 5,000 per month—most earn considerably less than they would as formal employees, and many lack a consistent income stream.

16.4.1.2 Export Underperformance: Comparing our Struggles with Neighbouring Countries

In terms of exports, Bangladesh's ICT sector contributes less than $600 million USD, which is about 1% of the country's total exports. This is considerably lower than regional counterparts such as India and Pakistan, where ICT exports are substantial parts of their economies. India's ICT exports alone exceed $200 billion, comprising over 25% of its total exports, whereas Pakistan's ICT sector accounts for close to 10% of its national exports, reflecting a stark contrast in export proficiency.

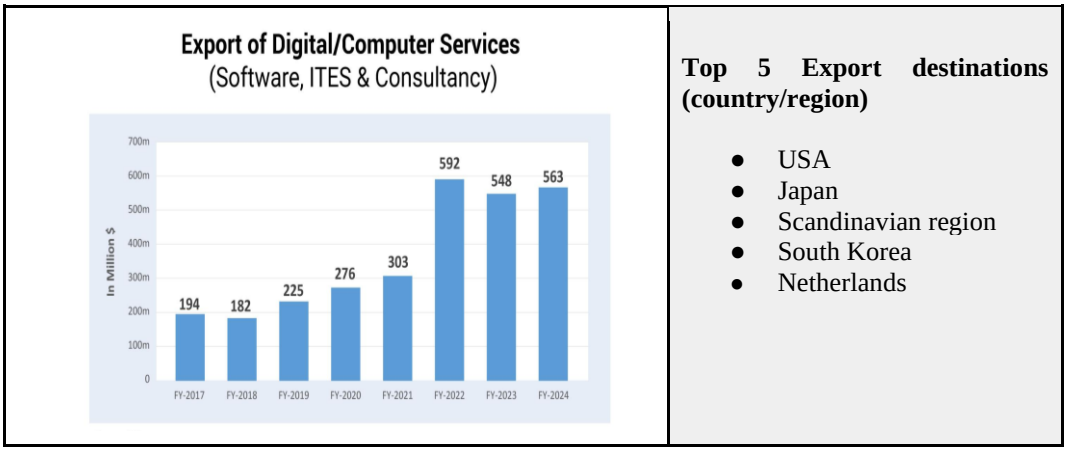


Figure 16.7: Export of Digital/Computer Services (Software, ITES & Consultancy) and Top Export Destinations

Source: Export Promotion Bureau (EPB).

16.4.1.3 The Impact of Foreign Reliance on ICT Development in Bangladesh

Within the local market, the use of foreign solutions persists as a significant issue. Despite the development of critical digital services by local providers, like tax automation for government services, many critical digitisation projects still rely on foreign providers. Large corporations, especially in banking, telecommunications, and FMCG sectors, often prefer global vendors due to a lack of trust in local solutions. This dependence results in higher costs and challenges in acquiring support services.

In manufacturing, while there is an appreciable use of local ICT solutions, particularly in export-oriented businesses, industrial automation remains limited. This shortfall affects efficiency and labour productivity, a key aspect needing improvement.

16.4.1.4 Navigating the Consumer Internet Landscape in Bangladesh: A Blend of Local and Global Forces

The consumer internet business sector in Bangladesh, encompassing social media, OTT (over the top) media services, e-commerce, ride-sharing, and online travel booking, features both local and foreign entities. Global platforms dominate certain markets, like

social media and online marketplaces, while domestic firms lead in OTT media, e-learning, online travel and digital health. However, the local consumer internet platforms still depend heavily on foreign venture capital funding as achieving profitability remains a significant challenge because of limited market size.

16.4.2 Identifying the Challenges

Similar to other industries, the growth challenges faced by the local digital sector can be analysed through the framework of demand, supply, financing, and regulation. The following section discusses each of those.

16.4.2.1 Demand Side Challenge

Local market: Out of over five thousand registered software and IT service companies (excluding ISPs and import-based hardware firms), more than 70% primarily focus on the local market. Several challenges persist in this landscape. Traditionally, the local industry has thrived in two major sectors: government contracts and large corporate clients. Few software or digital service companies have ventured into developing products or services for micro or small businesses (e.g., small retail or restaurant that accounts for over 80% of total small businesses) direct consumer markets. While some venture-funded tech startups are entering this space, their numbers remain limited.

In terms of value, the government market continues to dominate the local sector due to typically larger contract sizes compared to the private sector. However, companies operating within this market face numerous challenges, including non-transparent procurement processes, bribery issues, slow product delivery and payment triggered by client readiness problems. Over the past decade, although the procurement of technology solutions has significantly increased, complaints regarding procurement practices have also risen sharply.

As far as the private enterprise market is concerned, pricing remains the most significant challenge for many service providers. With a large number of small players—most IT firms consisting of fewer than 20 members—undercutting on prices is quite common. As a result, maintaining profitability is a major hurdle for most IT companies.

The enterprise market size is also relatively limited, as many multinational companies, as well as local banks and FMCG companies, prefer to use foreign software solutions. Additionally, large local businesses often develop their own in-house IT teams for software development and maintenance (including ERP, production management, and supply chain systems). Clients tend to feel more comfortable with in-house development rather than outsourcing to vendors. Furthermore, local software companies face issues related to low levels of production, which diminishes the cost advantages for clients when considering solutions from external vendors compared to developing software in-house.

Export Market: Exporters in the industry mainly fall into 2 categories. Service export and product (digital product) export. Software and IT service companies, including business process outsourcing (BPO) firms, primarily export to markets in North America, Europe, and East Asia, particularly Japan. Competition in these markets is quite intense. Large and mid-sized Bangladeshi software companies predominantly rely on two

commercial engagement methods: project-based outsourcing, where the client outsources an entire project with clear objectives and deliverables on a specified timeline and budget, and staff augmentation, in which the service provider allocates specific personnel to the client company. For BPO services, the commercial engagement is usually outcome-based or transaction-based, depending on the nature of the business.

B2B service export businesses (both software and BPO) necessitate substantial marketing and pre-sales efforts to engage potential clients. Given that most software exporting companies are medium or small in scale, there are notable gaps in their sales generation efforts (most small and medium companies cannot afford such costs). Additionally, there are foreign exchange regulations concerning the establishment of fully or partially owned entities in target markets, which further restrict client acquisition success, particularly with large government or enterprise clients.

In contrast to service exports, several product companies have achieved relatively strong success in revenue growth by selling SaaS (Software as a Service) products that they have developed across various domains, most of which utilise a subscription-based pricing model. The advantage of these product companies lies in their market reach, as they are not confined to any particular region; many have clients in over a hundred markets globally. Their sales strategies can leverage online channels, including SEO and social media marketing, as well as referral-based networks. Currently, there are more than a couple of hundred SaaS product companies in this sector generating steady income, primarily targeting small and medium-sized enterprises (SMEs) in both developed and developing markets.

16.4.2.2 Supply and Infrastructure

Human Resource: The primary resource for any digital service business is its human resources. In a typical tech company, whether focused on local or export markets, over 70% of operating expenses are dedicated to HR related costs, salary of engineers being the largest component of HR costs. Both the quality and affordability of human resources are critical considerations for any software or IT service business.

A few years ago, particularly up until the middle of the last decade, there was a significant shortage of skilled IT engineers across all levels, including both entry-level and senior positions. However, in the past ten years, enrolments in IT engineering programmes have surged, nearly doubled (figure). This high growth has been driven by the significant shift of students from business subjects (e.g., BBA) to engineering subjects (70% of the enrolment in engineering subjects are in IT related subjects). Consequently, currently there is no shortage of fresh or entry-level IT engineers, although concerns about the overall quality of engineers persist.

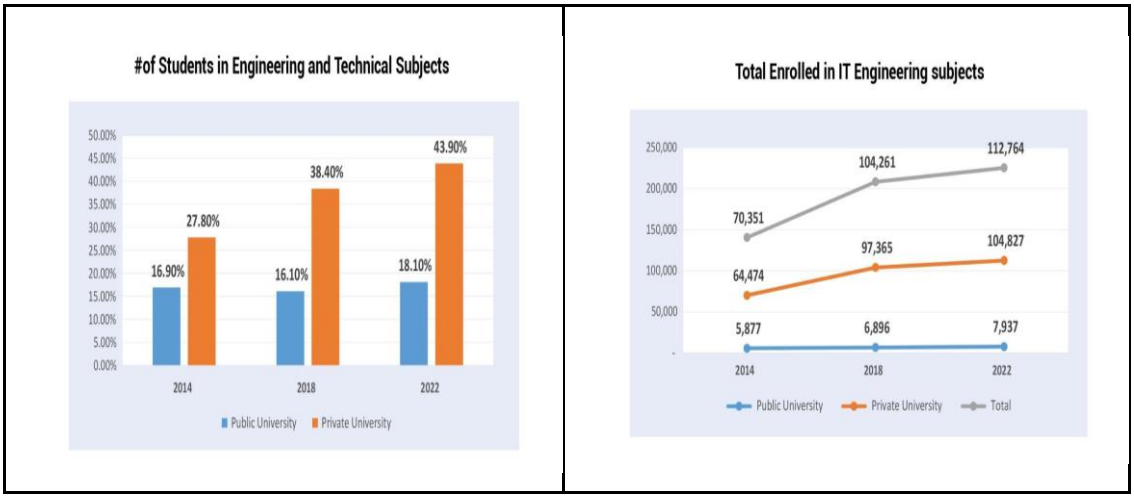


Figure 16.8: Enrolment Trends in Public and Private Universities

Source: University Grants Commission (UGC) Annual Reports (2014, 2018, 2022).

Despite this progress, a major ongoing challenge is the substantial shortage of senior-level technology leaders (both with regard to quantity and quality). Many companies face difficulties in filling roles such as CTOs, solution architects, project managers, product managers, business or systems analysts, and data analysts. One significant factor contributing to this shortage is brain drain, where skilled individuals migrate to other countries that have a high demand for such professionals. Unfortunately, there is a deficiency in institutional capability within companies, primarily due to their small size, as well as within academic institutions, which restricts the development of a robust pipeline for senior tech leadership. Furthermore, recent government investment in skills development programmes has predominantly targeted junior-level positions rather than managerial or technical leadership roles.

It is a common view among tech entrepreneurs that unless the talent ecosystem in the technology sector is substantially enhanced, achieving growth—and even maintaining sustainability—will be quite difficult. This issue has become increasingly urgent with the impending AI revolution, which is expected to disrupt demand for tech jobs and erode the cost advantage of lower-end roles that can easily be replaced by AI tools.

Infrastructure: In the past few years, the government, particularly the Ministry of ICT, has heavily invested in establishing IT parks across various districts. A total of 12 IT/High tech parks have been built in 14 districts at a cost of over 2,500 crores during last 8 years. Unfortunately, most of these infrastructures have been motivated by political interests and have not involved sufficient consultation to assess actual industry needs. Currently, over 90% of IT companies are located in Dhaka (the workforce of these IT companies are all housed in the city), yet there is no international technology park in the city—only one Software Technology Park (STP) at Kawran Bazar, which offers minimal facilities beyond office space. The nearest IT park accessible to tech companies is in Kaliakor, Gazipur, which is quite far from Dhaka. Very few tech firms in software or services have made the move to Kaliakor. The situation is alike in other significant IT

parks in Sylhet, Rajshahi, and Jessore. Many of these parks are struggling with low capacity utilisation, even several years after they were established.

Private commercial technology parks are virtually non-existent, primarily due to high land and real estate costs in Dhaka where there is high demand for IT parks. As a result of the lack of both government and private technology parks, most IT companies are forced to rent accommodations, often in residential buildings. When these companies seek to expand their operations, they frequently face obstacles because these buildings are typically too small.

Cloud infrastructure also poses an infrastructural challenge. Similar to the IT parks, the government has made significant investments, amounting to hundreds of millions of dollars, in several data centres (Tk 1,600 crore 4-tier data centre established in 2021 is the latest one). However, these data centres are not operated by professional experts and are primarily used for government services, such as A2i and the Election Commission. The private sector has limited access to utilise these cloud infrastructures. Recently, a few private companies have invested in data centres, but service level issues, including reliability and security, have led most software development firms to rely on foreign cloud service providers. This can represent a considerable expense, taking up as much as 10% of the total operating costs for some B2C tech platform companies. Additionally, as these foreign cloud services require payment in foreign currency, the recent depreciation of the local currency has further financially impacted these businesses.

16.4.2.3 Financing Challenges

A significant obstacle to growth in the digital service industry is the absence of formal financing. This sector holds little to no representation in the loan portfolios of most banks. Financial institutions often hesitate to lend to software companies for several reasons. Primarily, many IT service companies, such as outsourcing and BPO firms, possess few tangible assets (like land, buildings, or machinery), making it difficult for banks to establish effective collateral. In the case of product-based software companies (such as platform or SaaS firms), their capitalised assets are typically the commercial value of the product or the value of intellectual property (IP). However, in Bangladesh, the lack of specific central bank guidelines for evaluating IP value as collateral complicates banks' willingness to lend to the sector. Despite several software companies demonstrating stable revenue streams, financing methods like revenue-based financing (RBF) or work order-based financing (e.g., factoring) are seldom utilised by banks.

The capital market could serve as a viable option for promising technology companies to secure long-term growth funding. Nevertheless, very few software firms have pursued initial public offerings (IPOs). Regulatory requirements, such as a minimum paid-up capital of Tk 30 crore, mandatory profitability, and non-market-based book valuation rules, deter companies from entering the IPO market. Additionally, the SME board, which has a lower minimum paid-up capital requirement, has struggled to attract medium or small-sized companies due to its lack of market depth and liquidity.

Box 16.1: Special Financing Support by Government and Bangladesh Bank for software service companies and startup

ESF Fund: Tk 100 cr Entrepreneurship Support Fund (ESF) has been earmarked for number of years to provide lending support to ICT and agro entrepreneurs. The loan terms are very attractive (only 2% interest rate with 8 year tenure). But till 2023, no IT company could avail this lending facility as the policies and the approval process (managed by ICB) are not at all relevant or suitable for most of the technology companies (e.g. mortgage and other policies). The approval process is also too long involving 15 steps!

Startup Fund: In 2021, Bangladesh Bank introduced a Startup Fund totalling Tk 500 crore (as refinance scheme) aimed at encouraging banks to lend to startups. Loans under this scheme, which feature a collateral fee, carry an interest rate of just 4% and are set at a tenure of five years. In addition to the Tk 500 crore allocated for refinancing, banks were directed to allocate 1% of their net profit toward startup funding. Over the past three years, it is estimated that Tk 700 crore (1% of banks' profits) has accrued from the operating profits of banks. Unfortunately, less than 10% of these funds—amounting to under Tk 40 crore—have actually been disbursed across approximately 150 startups during this period. The primary reasons for the low disbursement include policy issues, such as a maximum loan limit of Tk 1 crore, and banks' insufficient knowledge in evaluating startup businesses.

FDI in Digital Service (including startup) Industry

FDI in the Digital service industry has come in three major channels. There are few offshore development centres (100% owned by foreign investors) working in software development for their global product development or serving clients across the world. The number of such companies are not many (around 20). Samsung R&D (South Korea), Optimizely (USA), IQVIA (USA), Kona (South Korea), Selise (Switzerland), Cafelo (Norway), Therap (USA), BJIT (Japan), Orbitax (USA), Mercury (USA) and Monstarlab (Japan) are some notable ones, each employing over 100 high end IT engineers. Most of these companies have been set up over ten years ago. Recently, there has been a noticeable decline in new investments in this model, as it relies heavily on a large pool of globally competitive IT engineers which is difficult to source in the country in scale.

Another form of foreign direct investment (FDI) involves platforms such as Uber, Foodpanda, and Daraz, which have established operations in Bangladesh to offer digital platform services aimed at the local market. These companies operate as wholly-owned subsidiaries of their parent firms based in the US (Uber), Europe (Foodpanda), and China (Daraz). Over the past decade, these platforms have invested more than 500 million USD, primarily focusing on market development (including customer acquisition and brand promotion) as well as the development of distribution channels.

The third and largest amount of investment has been in tech startups (fintech, edtech, ecommerce, logistics, healthtech, agrotech). Within USD 1 billion investment in a total of 458 startups, foreign investment (mainly from VCs) came in 263 startups. How International funds made up more than 90% of investments in those startups.

Though the country has achieved 1 billion USD investment in the tech startup sector, the amount is very low compared with few other peer countries including India (USD 150 billion in last 10

years) and Pakistan (over 1.5 billion in last 10 years). Also, the spread of investment is very concentrated (bKash itself constitutes over 20% of foreign VC investment).

The primary challenges highlighted by foreign venture capital investors include a lack of a sizable market consisting of digitally savvy middle-income consumers, low awareness of Bangladesh among major foreign investors, stringent regulations—particularly in the fintech sector—and limited exit options for investors. Additionally, the recent macroeconomic instability has further complicated efforts to attract venture capitalists to commit their funds in Bangladesh.

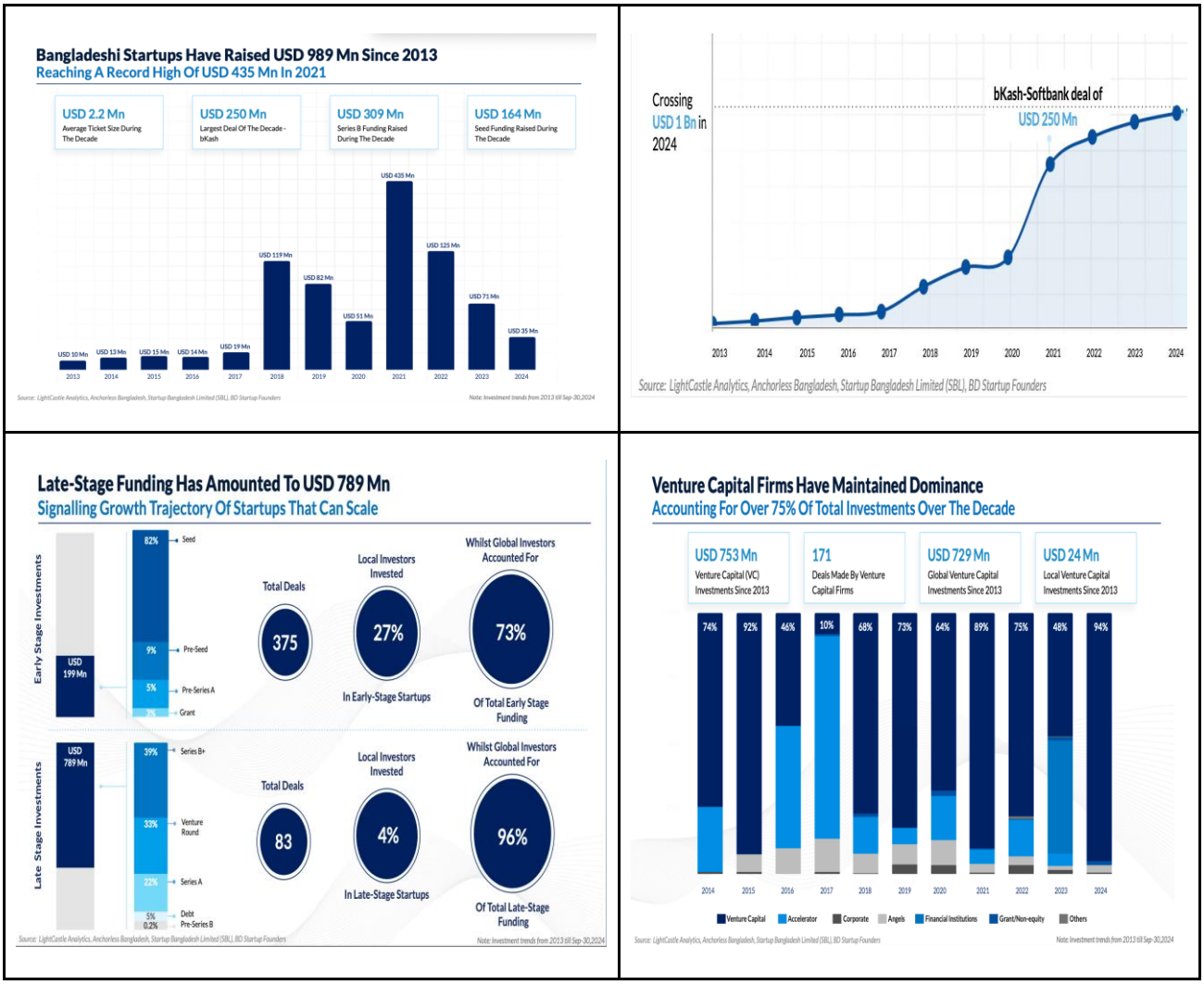


Figure 16.9: Trends of Foreign Investment in Bangladesh Startup Companies

Source: Bangladesh Startup Investments Report - 2024, LightCastle Partners.

16.4.2.4 Policy and Regulatory Support

Government has been maintaining a very supportive tax and other fiscal support policy for digital service industry. For example, all software and IT-enabled service businesses are exempted from income tax (till FY 2027). This facility has been extended for last one and decade. Given that most of the investment in the digital service industry are self-

financed (because of lack of bank financing), this exemption facility is considered by digital entrepreneurs as one of the most important policy support from government.

As far as the support for export promotion of this sector is concerned, government has introduced 10% cash incentive for export in 2017. Later the cash incentive rate was slashed to 8% in February 2024 and subsequently to 6% in 2024 (as a part of IMF driven fiscal reform initiative). This 40% reduction of cash subsidy did not impact the export industry that much as during the same time the export companies could benefit from huge devaluation of the currency (over 40% in FY 2024).

Although there has been substantial policy support for the digital service industry, its growth rate, profitability, and job creation have remained quite low over the past two decades. Entrepreneurs and industry experts identify significant challenges on both the demand and supply sides. The government's push for digitalisation in the last decade has notably expanded the ICT market; however, this growth has primarily resulted in hardware procurement—often influenced by corrupt practices in large-scale purchases—instead of focusing on software and services. Given that nearly all hardware is imported, the local digital service sector has not reaped the benefits of this demand surge. The industry strongly recommends that a portion of the procurement budget for government digitisation initiatives be allocated specifically to software components. Additionally, it is essential to implement fair rules in government procurement policies for digital solutions. Competent local providers frequently find themselves excluded from the tendering process due to restrictive criteria, such as minimum revenue requirements, international certifications, and prior experience in similar projects.

With regard to regulation, the most important regulatory reforms should be done in capital account in foreign exchange. It is extremely difficult for any foreign investor to have an exit. That discourages foreign investors to invest directly in local digital service company (either startup on non-startup). Also, local companies are not allowed to open subsidiary (without special central bank permission which is very difficult to have) in outside market for expanding their business.

16.5 Top 10 Recommendations for Digital Transformation

		Theme	Impact
1	Declare Internet as ‘social good’ and reduce all kinds of extra excessive taxation (e.g., 20% supplementary duty, surcharge, revenue sharing)	Digital Divide	Reduction of mobile data cost that will help internet adoption significantly in the rural low income areas.
2	Liberalise telecommunication license regime (in favour of unified licensing) for the full ecosystem.	Digital Divide	By limiting the layers, it will help to eliminate rent-seeking that pushes the transmission and distribution cost. Also, the move will significantly increase investment (FDI) in the sector
3	Allow and active push (make mandatory) for resource and infrastructure sharing (active	Digital Divide	Drive efficient utilisation of resources and cost efficiency. It will help all the players financially to monetise their investment

	sharing) including towers and spectrum		better and pass on the financial benefit to end users in terms of reduced price. Also, better service quality in unserved areas.
4	Unified personal ID system for all citizen	DPI	Seamless authentication, verification, and integration of identity information, enabling efficient delivery of public and private services
5	Personal Data protection and Sharing Ordinance/Act	DPI	Provide legal foundation for privacy protection and use of personal data by the owner of data. Facilitate innovation, supporting technological progress while empowering citizens and safeguarding their rights
6	Consent Framework and Data Transfer & Sharing Architecture	DPI	Empower citizens to own their data and control the use at their will for realise greater value from it
7	Instant Digital Payment across payment platforms	DPI	Facilitate and guarantee the necessary interoperability of all types of financial transactions (P2P, P2B, P2G) within a seamless, real-time system
8	Shift the focus of digital skill development to emphasise mid-level technical leadership skills rather than general digital skills in junior level	Digital Industry Development	Tackle the primary obstacle to industry growth, which is the significant lack of technical leadership within local IT companies
9	Refine and streamline the financing rules and regulations to allow local financial sectors, such as banks and capital markets, to meet the funding needs of the digital industry without relying on traditional collateral or asset-backed financing	Digital Industry Development	Significant positive impact on the growth of the industry by solving the access to fund issue (both long-term and short-term). Will result in more innovation, new product development, and explorations of new markets worldwide.
10	Regulatory Support for inward and outward FDI	Digital Industry Development	Integration of international financing industry (including VC, debt financing) with local industry. At the same time, export oriented local companies will be able to expand operation by acquiring or investing outside country.

Reference:

GSMA. (2024). The state of mobile internet connectivity 2024. Retrieved from https://www.gsma.com/r/wp-content/uploads/2024/10/The-State-of-Mobile-Internet-Connectivity-Report-2024.pdf

Bangladesh Bureau of Statistics. (2024). 1st quarterly report on ICT application and usage (2024-25). December 2024.

Export Promotion Bureau. (n.d.). Export data. Retrieved from https://epb.gov.bd/site/view/epb_export_data

University Grants Commission. (2023). 49th annual report 2022. Retrieved from https://ugc.gov.bd/site/view/annual_reports/

GSMA. (2022). Taxation on mobile industry in Bangladesh. Retrieved from https://www.gsma.com/about-us/regions/asia-pacific/wp-content/uploads/2022/04/4-pager-Bangladesh-WEB.pdf

Lightcastle Partners. (2024). Bangladesh startup investments report - Q3, road to recovery. Retrieved from https://lightcastlepartners.com/insights/2024/12/bangladesh-startup-investments-q3-2024/

Chapter 17: Youth Unemployment Paradox: Finding Solutions to the Supply-Demand Disconnect[1]

17.1 Introduction

Employment in Bangladesh is a complex and evolving issue intricately tied to the nation's socio-economic fabric. While Bangladesh has made significant strides in various sectors over the years, challenges such as underemployment, informal labour, youth unemployment, and gender disparities continue to persist. According to the Bangladesh Bureau of Statistics (BBS, 2023), 75.3% of the population is aged 41 or younger, indicating a predominantly youthful demographic. However, the country's labour market has struggled to create sufficient decent jobs to accommodate this youth population, resulting in higher unemployment rates and growing mismatches in the labour market.

This chapter primarily focuses more on the issue of youth unemployment and delves deeper into the multifaceted nature of the problem, analysing contributing factors and presenting a comprehensive set of evidence-based recommendations.

17.2 Understanding Youth Unemployment in the Overall Context of The Economy and Employment

Bangladesh, being a very young country, must create enough jobs for the millions of people entering the job market every year. As we analyse the troubling trends in youth unemployment, a pressing question arises: is our economic growth structurally job-less? Over the last two decades, the economy has experienced consistent growth of 5-7%. The labour force, on the other hand, has increased by 29% in the last 12 years, averaging about 2% annually. Yet the employment situation for youth has deteriorated, indicating that this growth has not translated into more job opportunities for the younger population.

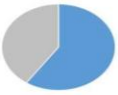
	15-29 yrs	30-64 yrs	64+ yrs	Total
Unemployment rate	7.27%	1.15%	0.50%	3.25%
% of Labour Force (total unemployment number)	36.34%  19.4M	59.57%  5.05M	4.00%  0.15M	100%  24.6M
% of Total unemployed	78.80%	20.50%	0.60%	100%

Figure 17.1: Labour Force and Unemployment Trends by Age Group (2023)
Source: Labour Force Survey, 2023.

[1] This chapter is jointly prepared by Fahim Mashroor, CEO & Co-founder of Bdjobs.com; Fahmida Khatun, Executive Director, Centre for Policy Dialogue (CPD); Syed Yusuf Saadat, Research Fellow, CPD; Afrin Mahbub, Programme Associate, CPD; and Ayesha Suhaima Rab, Programme Associate, CPD.

The unemployment scenario in Bangladesh is notably severe for the youth. Despite a national unemployment rate of only 3.25% in 2023, the rate for individuals aged 15-29 is much higher at 7.27%. This rate is six times greater than that of the 30-64 age group.

Of the total unemployed labour force, 78.8% falls within the 15-29 age group, which represents approximately 36% of the overall labour force (Table 17.1). This demographic faces an alarming unemployment rate that is 6 times greater than that of individuals aged 35-54.

Moreover, urban youth encounter an unemployment rate that is more than 1.5 times higher than that of their rural peers, emphasising substantial differences in employment opportunities based on location. In rural areas, unemployment rates among males are significantly higher than those among females, whereas in urban areas, the trend is reversed.

Table 17.1: Unemployment Rate by Age Group, Gender, and Area (%)

Broad age group	Rural			Urban			Bangladesh		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
15-24	11.75	3.59	7.41	10.94	12.84	11.49	11.53	4.72	8.24
25-34	4.64	3.22	3.95	4.78	9.98	6.33	4.68	4.42	4.57
35-44	0.86	1.29	0.99	1.09	2.04	1.32	0.94	1.48	1.09
45-54	0.49	0.49	0.49	0.96	0.98	0.97	0.64	0.59	0.63
55-64	0.47	0.35	0.44	0.92	0.33	0.84	0.57	0.35	0.53
Total	3.39	2.51	3.06	3.46	6.50	4.20	3.41	3.23	3.35

Source: Labour Force Survey, 2023.

The informal sector remains a dominant player in employment, with approximately 85% of the workforce engaged in informal jobs—only slightly improved from 89% in 2013 (Figure 17.2). In Bangladesh, a significant gender gap persists in the prevalence of informal work, reflecting a structural imbalance in labour market participation. In 2022, 97% of women were engaged in informal employment, compared to 78% of men, highlighting the unequal nature of job opportunities.

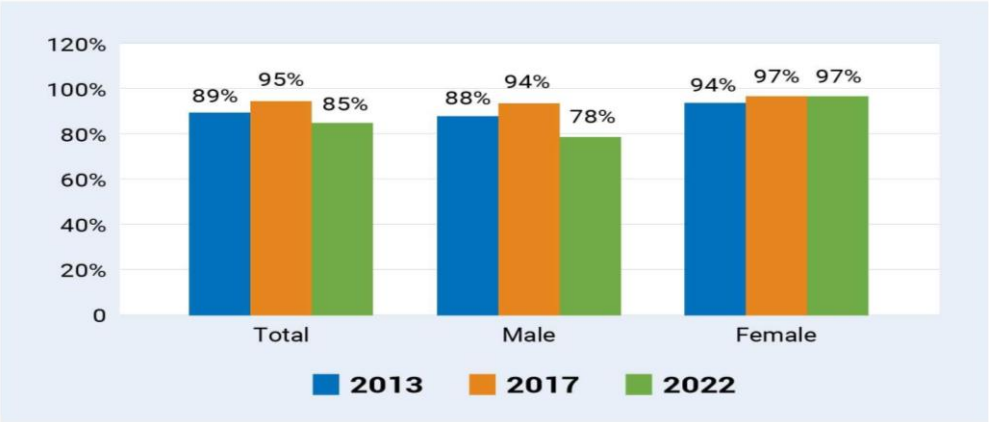


Figure 17.2: Employment in Informal Sector (%)
Source: Labour Force Survey (2013,2017 and 2022)

The agricultural sector, mostly informal, continues to employ over 45% of the workforce, compared to 47.6% in 2010, indicating a persistent reliance on traditional employment sectors that may not provide sufficient opportunities for career advancement or stability.

The capacity of the formal sector, encompassing manufacturing and services, plays a significant role in absorbing the annual influx of new job seekers during the last two decades. Export-oriented RMG played a leading role in creating new jobs in the formal sector. However, growth in these sectors has not kept pace with the expanding labour force, leading to a mismatch between education and available employment opportunities.

Ironically, despite the high level of urbanisation and corporatisation of manufacturing and service sectors, new job creation growth in rural areas has been much higher than that in urban areas during the latter part of the last decade (in contrast to the first half of the decade). This phenomenon is mainly driven by steady growth of female participation in agriculture. Most of the urban jobs were concentrated in Dhaka city (there has been net job loss in other divisional cities of Chittagong, Sylhet, and Rajshahi).

The emergence of the gig economy has introduced new avenues for self-employment, allowing many to carve out their own opportunities. However, questions remain regarding the sustainability and growth of gig work as a long-term career path.

Additionally, overseas employment has played a role in alleviating domestic unemployment numbers by providing opportunities for youth abroad. Understanding the impact of these various employment sectors and the broader economic landscape is crucial in addressing the complexities of youth unemployment and developing effective solutions for enhancing job opportunities in the future.

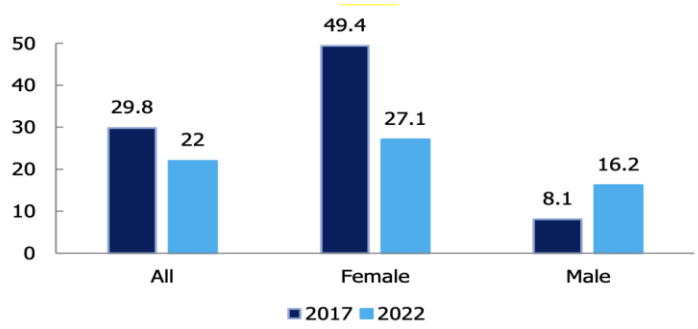


Figure 17.3: Share of Youth (15-29) Reporting NEET (Not in Education, Employment, and Training)

Source: Labour Force Survey (2017 and 2022), BBS.

An additional challenge is the rising NEET (Not in Education, Employment, or Training) population, especially among young males, which has doubled in the past five years (2017 to 2022). This trend underscores the increasing difficulties young men encounter in securing stable employment and illustrates the gap between educational achievements and the demands of the labour market. For young females, a rise in enrolment in

educational programmes and greater involvement in agricultural activities has brought about a decline in NEET numbers; however, the 27% figure remains significantly high.

17.3 Deep Dive on Youth Unemployment Scenario

17.3.1 The Conundrum of Educational Attainment and Unemployment Rates

The latest national labour force survey reveals a strikingly paradoxical trend with regard to the inverse relationship between educational attainment and unemployment rate. Although the overall unemployment rate in the country remains at slightly less than 4%, the unemployment rate among graduates and those with tertiary education has surged, increasing nearly 2.5 times over the past 12 years.

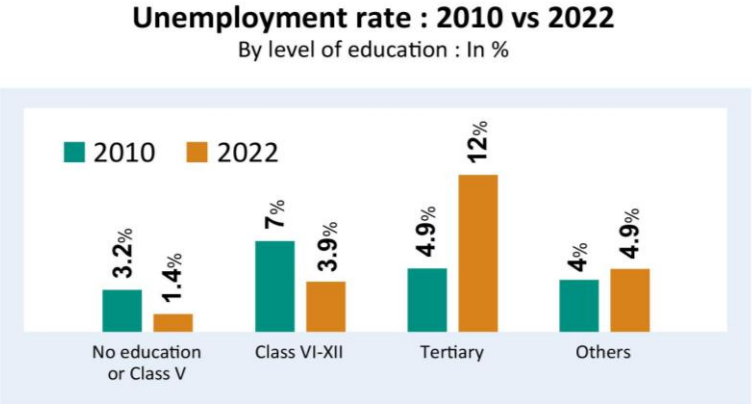


Figure 17.4: Unemployment Rate 2010 vs 2022

Source: Labour Force Survey (2010 and 2022), BBS.

The recent student uprising began with a call to abolish the quota system in public sector employment, but it also highlighted the broader issue of youth unemployment among graduates. Government positions can only support slightly over 5% of the entire workforce, and the private sector is not generating sufficient job opportunities. The percentage of unemployed youth with tertiary education increased markedly, from 9.7% in 2013 to 27.8% in 2022.

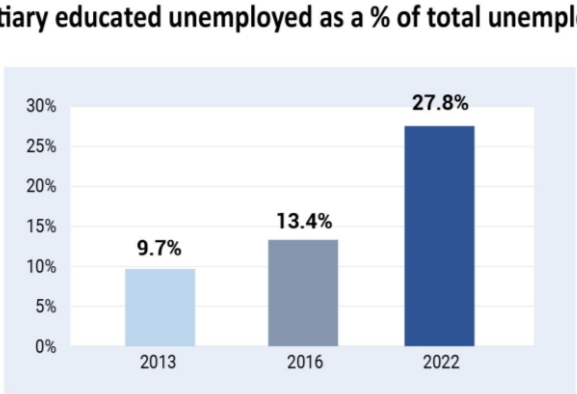


Figure 17.5: Tertiary Educated Unemployed as a % of Total Unemployed

Source: Labour Force Survey (2017 and 2022), BBS.

The reverse relationship between higher educational attainment and employment is evident for both genders. Specifically, female graduates face a higher likelihood of unemployment than male graduates. The unemployment rate for female graduates is four times that of girls with a higher secondary degree, while for males, the ratio stands at two.

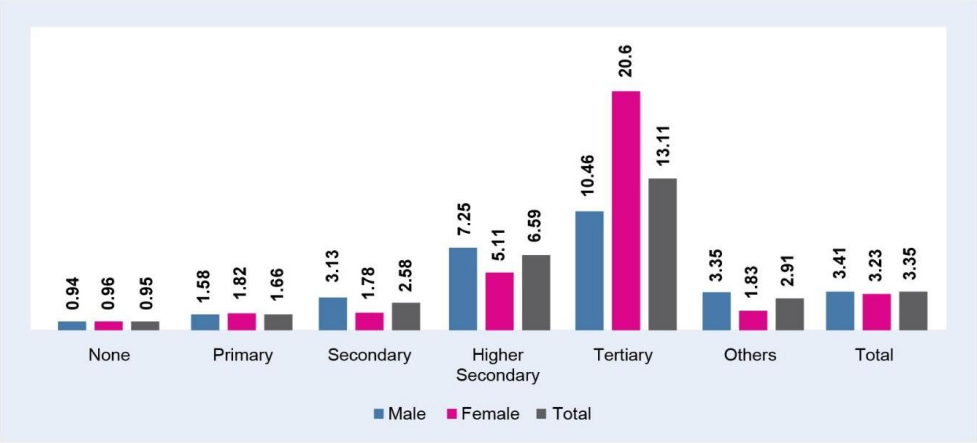


Figure 17.6: Unemployment Rate (%) by Level of Education- 2023

Source: Labour Force Survey (2023), BBS.

17.3.2 The Big Question: Is the Youth Unemployment Phenomenon a Self-Inflicted Problem Driven by Social Aspiration?

A thorough examination of the sudden rise in graduate youth unemployment uncovers intriguing insights into the swift socio-economic changes and the corresponding aspirational dynamics within society. As illustrated in the figure (Figure 17.7), the graduate labour force in the country remained relatively unchanged, growing moderately from 3.2% to 3.5% between 2000 and 2010. However, in the last decade, it surged dramatically, tripling to over 9%, marking a phenomenal increase.

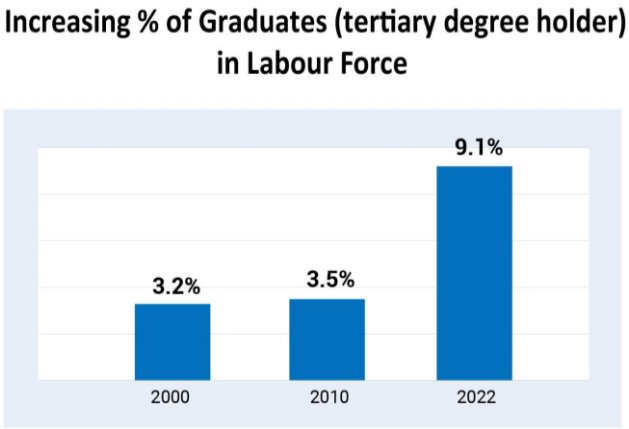


Figure 17.7: Increasing % of Graduates (Tertiary Degree Holders in Labour Force)

Source: Labour Force Survey (2000, 2010 and 2022), BBS.

According to the socio-economic and education sector experts, several factors contributed to this sudden jump.

- Social aspirational factors can be identified as a primary driving force behind this trend. For many individuals in lower or lower-middle-income groups, obtaining a graduate degree still serves as a mark of social recognition rather than a direct route to employability. Historically, a significant portion of rural society could not afford to send their sons and daughters beyond primary education. However, economic improvements—primarily fuelled by remittance income and increased agricultural earnings, especially in the northern and central regions of the country—have lowered the opportunity cost for parents, enabling them to send their children to college and resulting in a higher enrolment rate.
- Over the past two decades, there has been a remarkable increase in private sector investment in tertiary education. The number of private universities has tripled during this period, while public universities have doubled in number. Additionally, the number of colleges affiliated with national universities has steadily risen, with currently 2,257 colleges under the National University. More than 1,500 of these colleges are privately established, the majority of which were founded after 2000. These institutions, distributed throughout the country, offer enrolment opportunities at a relatively lower cost compared to private universities. This expansion in institutional supply has significantly contributed to the surge in the number of graduates over the last decade.

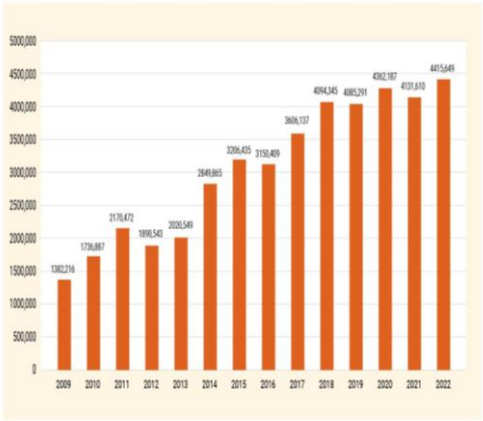


Figure 17.8: Trends of Enrolment in Public University (50)

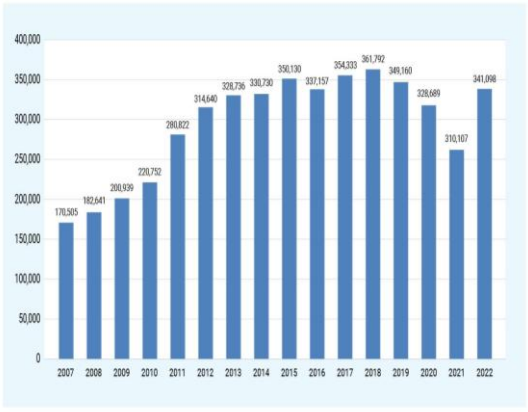


Figure 17.9: Trends of Enrolment in Private University (104)

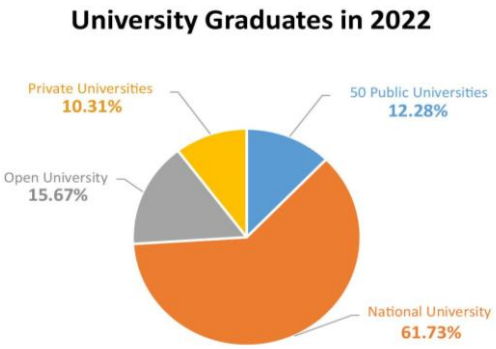
Source: UGC Annual Report 2014, 2018 and 2022.

- Each year, more than 2.4 million individuals are entering the workforce. Given the current enrolment of students in all public institutions—including colleges under the National University, Open University, and Islamic University—every year over 700,000 (Table 17.2) graduates complete their studies and get

certificates, accounting for nearly 30% of the 2.4 million new entries in the job market. Just a decade ago, this figure was below 10%.

Table 17.2: Number of Students who Passed from Universities (2022)

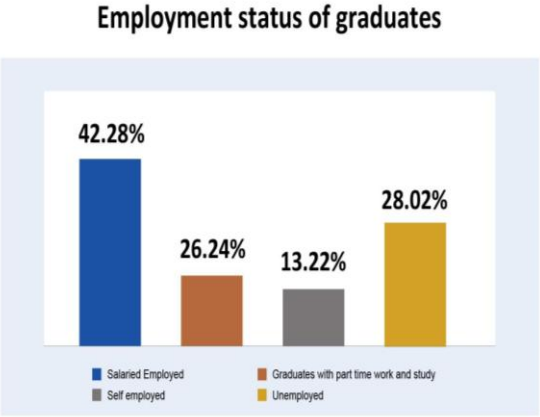
50 Public Universities	86,237	**12.28%**
National University (2,200+ colleges)	433,320	**61.73%**
Open University	110,030	**15.67%**
Private Universities	72,406	**10.31%**
Total Number of students who passed	701,993	**100.00%**



Source: UGC Annual Report 2022.

Box 17.1: Employment Status of Graduates Coming out of Colleges under National University

The Bangladesh Institute of Development Studies (BIDS) has been conducting tracer studies on graduates of tertiary-level colleges under the National University on a regular basis. The first study was carried out in 2021, with the latest occurring in 2023. This research focuses on various aspects, including the employment status of these graduates. The 2023 survey reveals a high unemployment rate of 28% and a 26% rate of underemployment (teaching or part-time). Additionally, a noteworthy 13% of graduates have decided to stop searching for jobs and have chosen to establish their own small businesses.



Source: Calculation Based of primary survey

17.3.3 Why Are Graduates Not Finding Employment Despite Sustained Economic Growth?

Although the country has experienced sustained economic growth over the past two decades, especially in the manufacturing and service sectors, one might wonder why this expansion has not yielded sufficient employment opportunities for the increasing number of graduates entering the job market. The factors contributing to the high rate of graduate unemployment are complex and varied. The next section highlights several key reasons.

17.3.3.1 Much Higher Demand for Blue Collar Workforce than White Collar

Our primary employment sectors exhibit a structural bias toward blue-collar workers. The demand for graduates in the domestic manufacturing and service industries remains

quite low, with manufacturing employing only 9% of white-collar workers and services employing just 23%. Key industries such as ready-made garments (RMG) are still highly labour-intensive, necessitating many more machine operators than positions suited for graduates. Additionally, some of the largest service industries, including transport, retail, and construction, also favour blue-collar jobs. Unlike some neighbouring economies, such as India, which have developed robust manufacturing and service sectors that absorb a significant number of graduates—such as electronics, automobiles, software, business process outsourcing (BPO), and the financial industry—Bangladesh has not seen similar growth in these areas.

17.3.3.2 Mismatched Supply of Graduates

The majority of graduates are obtaining degrees in fields with minimal relevance in the job market. As shown in the following table, within the largest pool (over 60% of total graduate pool in the job market) of graduates who come from national University, majority have studied in subjects like Arts (31%) and Social Sciences (32%), while those studying Science (9.7%) and Commerce (22.7%) represent much smaller proportions. Unfortunately, none of the colleges affiliated with national universities offer engineering or technical subjects. It is, therefore, not surprising that a significant percentage of graduates remain unemployed due to a curriculum that is not aligned with industry needs. While some of these graduates find low-paying positions, such as teaching in primary schools or kindergartens, many continue to be unemployed for three to four years before ultimately losing hope of securing formal employment.

Table 17.3: Number of Students in Different Types of Universities and Subjects

Subject	University Type								Grand Total	
	Public Universities (50)		**National University**		**Open University (2,200 + colleges)**		**Private University (104)**			
	Number of Students	Percentage (%)	Number of Students	Percentage (%)	Number of Students	Percentage (%)	Number of Students	Percentage (%)	Number of Students	**Percentage (%)**
Arts and Humanities	40,964	**14.0%**	985,400	**31.0%**	377,221	**87.0%**	37,773	**11.0%**	1,715,013	**40.6%**
Social Sciences	44,425	**15.2%**	1,029,333	**32.4%**	-	**-**	11,900	**3.5%**	1,073,758	**25.4%**
Education	7,459	**2.5%**	6,315	**0.2%**	29,592	**6.8%**	-	**-**	43,366	**1.0%**
Fine Arts	1,945	**0.67%**	208	**0.01%**	-	**-**	-	**-**	2,153	**0.05%**
Business	41,385	**14.1%**	720,655	**22.7%**	4,115	**0.9%**	75,058	**22.0%**	766,155	**18.1%**
Law	7,554	**2.6%**	4,467	**0.14%**	-	**-**	20,772	**6.0%**	12,021	**0..3%**
Pharmacy	963	**0.33**	81	**0.00**	-	**-**	10,989	**3.2%**	1,044	**0.02%**
Science	38,036	**13.0%**	309,672	**9.7%**	5,080	**1.2%**	6,823	**2.0%**	352,788	**8.3%**

Biological Sciences	21,359	**7.3%**	128	**0.00**	-	-	4,771	**1.4%**	21,487	**0.5%**
Medical	6,089	**2.0%**	21,846	**0.7%**	-	-			27,935	**0.6%**
Agriculture	21,344	**7.3%**	68,704	**2.1%**	7,212	**1.6%**	1,698	**0.5%**	97,260	**2.3%**
Engineering and Technology	52,912	**18.1%**	86	**0.00**	-	-	1,49,753	**43.9%**	52,998	**1.2%**
Public Health	-	-	-	-	-	-	6,017	**1.7%**	6,017	**0.14%**
Medicine	-	-	-	-	-	-	1,031	**0.3%**	1,031	**0.02%**
Textile and Fashion	-	-	-	-	-	-	10,476	**3.0%**	10,476	**0.25%**
Grand Total	292,296	**100.00**	3,170,804	**100.00**	433,272	**100.00**	190,348	**100**	4,225,621	**100.00**

Source: UGC Annual Report 2022.

In public and private universities, the supply-demand imbalance is not as severe as it is in national universities. For instance, a significant portion of students (18%) are enrolled in engineering and technical disciplines, while 20% and 14% are studying science (including biological sciences) and commerce, respectively. Additionally, about 7% of students are focused on agricultural studies. Graduates from public universities in these fields tend to have much higher employability compared to those in social sciences and arts, which still account for approximately one-third of total enrolment across 50 public universities.

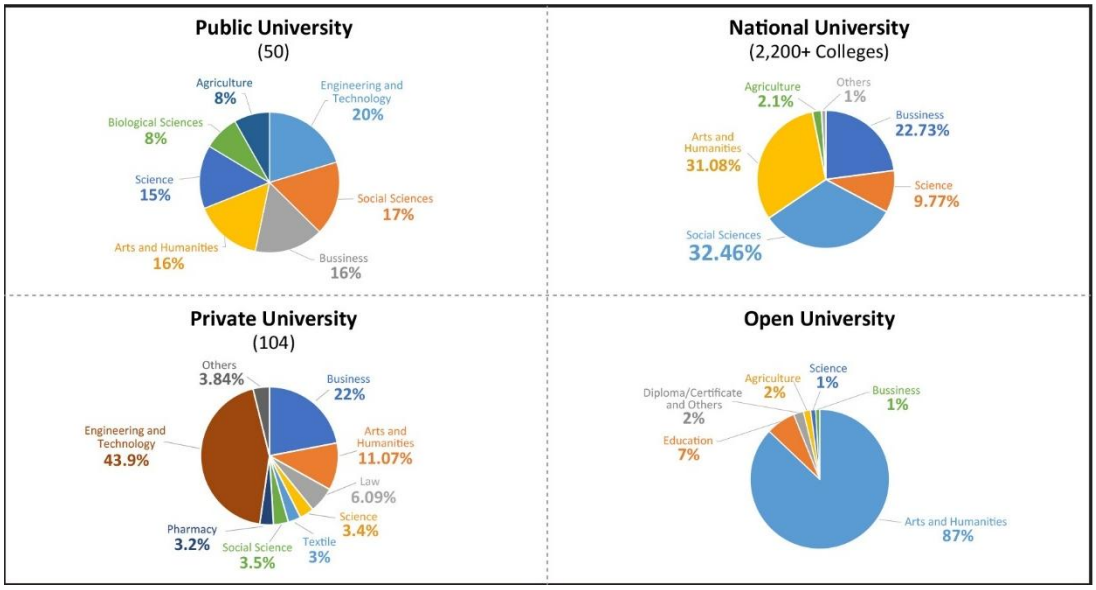


Figure 17.10: Distribution of Students

Source: UGC Annual Report 2022.

In private universities, a notable transformation has occurred over the last decade. Between 2000 and 2015, there was a heavy emphasis on business-oriented programmes such as BBA and MBA, with over 80% of private university students enrolled in business subjects. This led to an oversaturation of business graduates, resulting in increased unemployment among them. In response to this market demand, several private universities began to diversify their offerings, introducing numerous engineering programmes, particularly with a strong focus on IT and software-related fields.

Table 17.4: Engineering and Technical Enrolment in Private Universities

Year	Enrolment rate
2014	27.80%
2018	38.40%
2022	43.90%

Source: UGC, Annual Report 2022.

While the mismatch issue with regard to industry demand is much less in public and private universities, the unemployment scenario among these groups is still quite grim. Majority of the employers opine that the quality of graduates is much below than the expected level. Most of the graduates lack any kind of applied knowledge on what they have learned in their academic programmes. One of the major gaps commonly identified is lack of practical and industry orientation of teaching faculties. Also, in many cased the curriculums are not updated according to industry requirements. University authorities often blame the regulators, mainly University Grants Commission (UGC) for their over regulation for this problem.

17.3.3.3 The Shift in Graduate Aspirations: The Allure of Government Jobs over Private Sector Opportunities

A significant portion of students from both public and private universities are disinclined to pursue careers in the private sector. Many would rather wait 4-5 years to apply for government jobs, such as the BCS exam and other positions, than seek employment in private companies. Over the last decade, the allure and preference for government jobs have increased considerably. Following the implementation of the 2015 pay commission, salaries for junior-level government positions, along with other benefits, have risen above what a fresh graduate could expect to earn in the private sector. Furthermore, the appeal of job security, social status, and authority associated with government roles has made them significantly more attractive than most private sector jobs. This disproportionate attraction to government employment—which is limited in availability—has led to a situation where many graduates are experiencing ‘voluntary’ unemployment.

17.4 Gender Dynamics in Youth Unemployment Trends

Younger and more educated demographics, particularly females, are facing alarmingly high unemployment rates. This issue is exacerbated in urban areas, where female

unemployment is particularly pronounced. One major factor contributing to this trend is the limited mobility of women, which restricts their ability to migrate to urban centres in search of employment opportunities. Cultural, societal, and economic barriers often hinder women from relocating for work, thereby perpetuating high unemployment rates in these urban environments.

According to the Asian Development Bank (ADB), women face greater challenges than men in securing higher-quality, full-time jobs. Data from the Household Income and Expenditure Survey (HIES, 2022) further underscores this disparity. On average, men spend 2 hours more per day on paid work than women, working 8.7 hours compared to 6.7 hours for women. Additionally, women are more likely to work part-time, with 35.5% of female employees engaged in part-time roles, compared to 28.7% of male employees. This disparity is particularly pronounced in the agricultural sector, where 8 out of 10 women work part-time, compared to about 5 out of 10 men.

A recent World Bank report (Bangladesh Country Update - Oct 2024) concentrating on employment provides an in-depth analysis of female unemployment. It reinforces labour force survey (LFS) data and trends, indicating that young and educated women are facing serious challenges similar to those experienced by men, and these issues are more pronounced than those of other demographic groups.

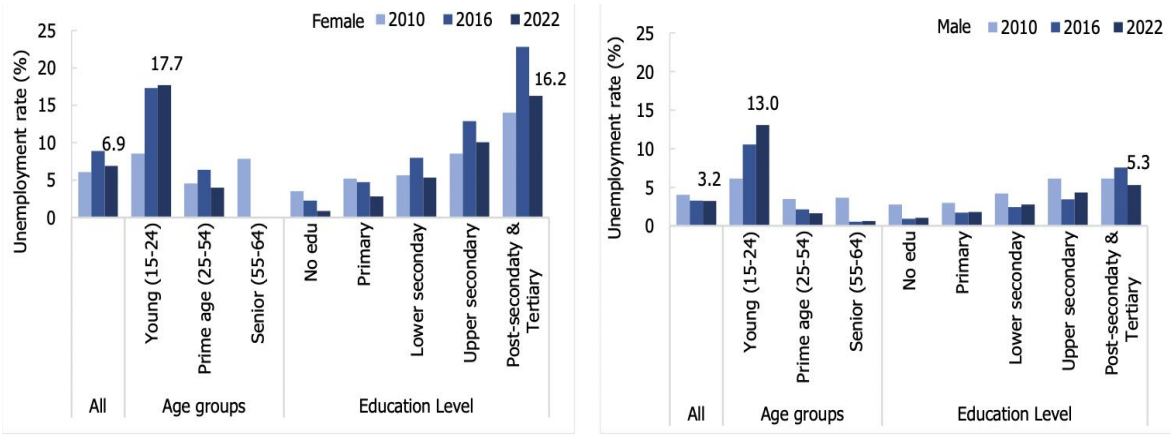


Figure 17.11: Trends (2010-2022) of Unemployment for Different Cohorts (Gender, Age, and Education)

Source: World Bank, Bangladesh Country Update- October, 2024.

Furthermore, the disparity in labour force participation rates between men and women tends to diminish with higher levels of education. However, this trend reverses after achieving tertiary education, suggesting that women encounter greater difficulties in finding suitable employment that aligns with their qualifications once they complete higher education. The combination of high unemployment rates for educated women, particularly in urban settings, and the barriers to mobility and job access illustrates the multifaceted nature of gender-related challenges in the labour market. Addressing these issues is crucial for fostering an inclusive economy that leverages the potential of all young individuals.

Another significant source of frustration regarding women's participation in white-collar managerial roles in formal sectors is the gradual decrease in their representation as a percentage of the total workforce. The following figure highlights the comparative trends across several neighbouring countries.

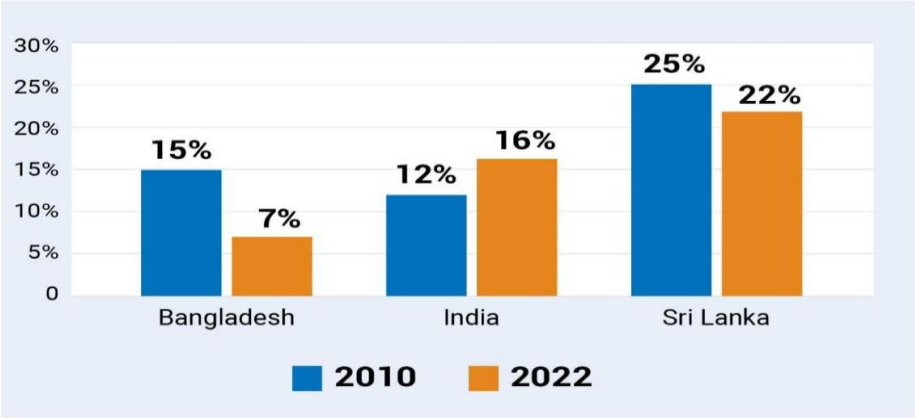


Figure 17.12: Female Representation in Managerial Positions

Source: Authors' illustration based on data from (ILO, 2024).

17.5 Assessment of Government TVET and Skill Development Effectiveness

Over the past two to three decades, the government has undertaken various projects and initiatives aimed at enhancing skill development, particularly for individuals who do not pursue tertiary education. Infrastructure across the country, such as Technical Skills Centres (TSC) and Technical Training Centres (TTC), has been established to offer trade-based training accredited by the Bangladesh Technical Education Board (BTEB). In recent years, there has been significant private investment (including NGO financed and managed) in the Technical and Vocational Education and Training (TVET) sector.

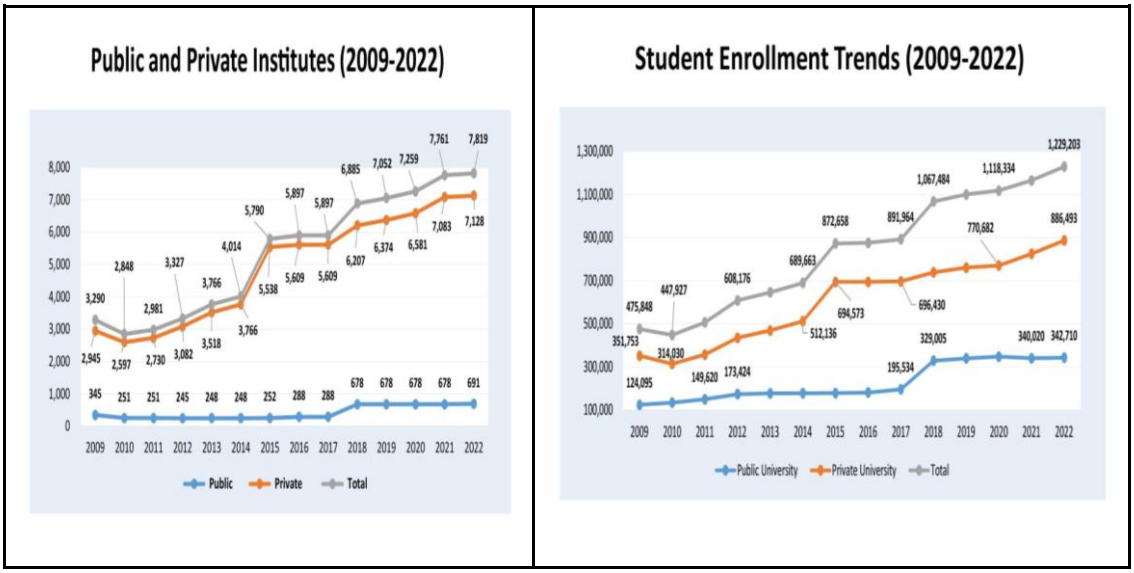


Figure 17.13: Number of Institutions and Student Enrolment Trend

Source: Bangladesh Education Statistics 2023, BANBEIS.

At present, there are 1.8 million students enrolled in various TVET programmes, with more than 75% of these enrolments occurring in private institutions. Given the significant presence of the private sector in this area, it is crucial to have effective and supportive regulations that enable these institutions to meet market demands. During consultation sessions, several private TVET institutes expressed concerns about excessive regulation. For instance, there are stringent restrictions on the number of seats available for nursing diploma programmes, despite a strong demand in both local and international markets.

Enrolment in TVET programmes at the SSC and HSC levels remains below 20%, despite significant investments from both the public and private sectors (Table 17.5). This low preference can be attributed to strong socio-cultural factors, including social recognition and aspiration, which overshadow the economic advantages of improved employability.

While there has been no recent comprehensive study on employability, employers generally acknowledge that the quality of training in most TVET programmes falls short. The requirement for modern equipment and specialised industry-connected faculty in various TVET tracks often poses a significant barrier to delivering high-quality training due to insufficient investment.

Table 17.5: TVET Institutions (number of Institutions, Students, and Teachers) under BTEB by Level of Curriculum, Management (Public or Private) and Specialisation

Level of Curriculum	Management	No. of Institutes	No. of Teachers		% of Female	No. of Students		% of Girls
			Total	Girls		Total	Girls	
Post-Secondary Non-tertiary	Private	1280	14901	4520	30.33	236301	73819	31.24
	Public	202	5008	1574	31.43	157972	31286	19.80
	Total	1482	19909	6094	30.61	394273	105105	26.66
Higher Secondary	Private	1377	12957	2283	17.62	449367	141795	31.55
	Public	156	1546	211	13.65	107288	22861	21.31
	Total	1533	14503	2494	17.20	556655	164656	29.58
Secondary	Private	3383	9387	2545	27.11	392804	129442	32.95
	Public	284	2989	524	17.53	124716	23544	18.88
	Total	3667	12376	3069	24.80	517520	152986	29.56
Training	Private	3527	6082	1502	24.70	320315	105132	32.82
	Public	386	2468	416	16.86	29759	9044	30.39
	Total	3913	8550	1918	22.43	350074	114176	32.61
Total	Private	9567	43327	10850	25.04	1398787	450188	32.18
	Public	1028	12011	2725	22.69	419735	86735	20.66
	Total	10595	55338	13575	24.53	1818522	536923	29.53

Name of Curriculum	No. of Inst.	Teachers			Students		
		Total	Female	% of female	Total	Female	% of girl
Diploma Level or Post-Secondary Non-tertiary							
Diploma in Engineering	482	12897	2422	18.78	187975	22860	12.16
Diploma in Textile engineering	34	655	132	20.15	50881	6188	12.16
Diploma in Agriculture	145	1586	400	25.22	35645	10930	30.66
Diploma in Fisheries	32	115	31	26.96	4581	1471	32.11
Diploma in Forestry	1	24	0	0.00	24	0	0.00
Diploma in Livestock	5	31	12	38.71	542	83	15.31
Diploma in Tourism and Hospitality[1]	12	340	135	39.71	12703	2625	20.66
Diploma in Engineering(Naval)	1	56	2	3.57	590	42	7.12
Diploma in Engineering (Army)	3	0	0	0	0	0	0
Diploma in Medical Technology[2]	112	241	51	21.16	27880	9444	33.87
Diploma in Nursing Science and Midwifery[3]	444	3458	2748	79.47	42410	38168	90.00
Diploma in Medical Assistant (MATS)[3]	211	506	161	31.82	31042	13294	42.83
HSC Level							
HSC (Vocational)	65	1337	144	10.77	57321	8543	14.90
HSC (BMT)	1460	12993	2290	17.62	473484	147578	31.17
Diploma in commerce	8	173	40	23.12	25850	8535	33.02
SSC Level							
SSC (Vocational)	3058	11257	2802	24.89	462093	136766	29.60
Dakhil (Vocational)	408	491	135	27.49	11836	3654	30.87
SSC Vocational Textile	51	552	109	19.75	10852	2536	23.37
JSC Vocational	150	76	23	30.26	32739	10030	30.64
Training[4]	3913	8550	1918	22.43	350074	114176	32.61
Total	10595	55338	13555	24.49	1818522	536923	29.53

Source: Bangladesh Education Statistics 2023, BANBEIS.

Nonetheless, there are notable exceptions. Several government-managed polytechnics successfully produce skilled engineers who enjoy high employability rates. Additionally, certain private TVET institutes (such as UCEP), provide excellent training, leading many students to receive job offers even before they complete their courses. Such successful models can serve as templates to replicate and achieve the desired outcomes for other TVET institutions.

Impact Assessment of Skill Development Programme beyond Formal TVET (under BTEB)

In recent years, the government, with the assistance of various international development partners and its own funding, has launched numerous skill development programmes. Many of these initiatives have been initiated and overseen by the Ministry of Finance and other relevant ministries, such as the Ministry of ICT and the Ministry of Youth Development. Unfortunately, the overall effectiveness of these programmes has been unsatisfactory. Table 17.6 (source: LFS, 2023) illustrates that most of these skill development training sessions are very short, lasting less than three months. Additionally, there is a prevalent concern that many government-supported trainees enrol primarily to receive trainee allowances rather than to genuinely develop their skills.

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Table 17.6: Population Aged 15+ who have Received Training by Duration, Sex and Area (%)

Duration of Training	Rural			Urban			Bangladesh		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
< 1 week	18.62	10.42	16.31	2.55	1.64	2.20	14.38	7.19	12.13
1-2 Weeks	5.99	13.18	8.01	2.50	5.19	3.55	5.06	10.25	6.69
3-4 Weeks	11.50	18.48	13.46	8.66	13.94	10.71	10.75	16.81	12.64
1-3 Months	26.39	30.08	27.43	34.62	45.15	38.70	28.57	35.61	30.77
4-6 Months	22.18	18.36	21.11	33.56	24.98	30.22	25.18	20.79	23.81
> 6 months	15.32	9.48	13.68	18.11	9.10	14.62	16.06	9.35	13.96
Total	100	100	100	100	100	100	100	100	100

Source: Labour Force Survey, 2023.

Another significant reason for the limited effectiveness of skill development initiatives is the mismatch between training programmes and labour market needs. As indicated in the following table (Table 17.7), a substantial portion of the workforce is employed in key sectors such as agriculture (including poultry, livestock, and fishery), manufacturing, trading, and transport. However, the highest volume of training is concentrated in areas like IT and computer-related fields. Notably, a considerable number of individuals (4.7%) are being trained in journalism and mass communication, a sector that offers very few employment opportunities, while only 2.7% of individuals are receiving training in the ready-made garments (RMG) industry related skills.

Table 17.7: Percentage of the Population Aged 15 and Older who has Received Training and been Employed Population by Major Industry

% of population aged 15 and older who have received training, by area of training and training type

Table 4.3.3 Percentage of population aged 15 and older who has received training, by type, sex and area (%)

Type of training	Rural			Urban			Bangladesh		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mechanical/civil engineering	2.33	0.55	1.83	1.46	0.4	1.05	2.1	0.5	1.6
Electrical and electronic engineering	5.51	0	3.96	3.32	0.09	2.06	4.93	0.03	3.4
Computer	35.27	29.7	33.7	56.51	42.04	50.89	40.87	34.23	38.79
Leather and textile	0.87	0	0.62	0	0	0	0.64	0	0.44
Catering, hotel and restaurant	0.58	0.34	0.51	1.66	1.12	1.45	0.86	0.62	0.79
Craftsman/handicraft and cottage work	1.4	10.92	4.08	1.38	6.09	3.21	1.39	9.15	3.82
Creative arts/artists/photography	0.84	0.17	0.65	0.45	0.05	0.29	0.74	0.13	0.55
Agriculture crop production and preserve	5.54	3.54	4.98	0.84	0.66	0.77	4.3	2.48	3.73
Non-crop agricultural activities	10.77	3.72	8.79	1.61	0.94	1.35	8.35	2.7	6.58
Health and paramedical services	4.17	6.6	4.85	4.83	6.9	5.63	4.34	6.71	5.08
Office management	2.84	3.54	3.04	1.43	1.74	1.55	2.47	2.88	2.6
Driving and motor mechanic	10.43	0.05	7.51	11.02	0.69	7.02	10.59	0.29	7.37
Beautician & hairdressing	0.52	4.22	1.56	0.1	3.59	1.46	0.41	3.99	1.53
Tourism	0.29	0	0.21	0.1	0	0.06	0.24	0	0.16
Journalism, mass communication	7.77	0	5.58	4.15	0.73	2.82	6.81	0.27	4.76
Foreign language	2.08	0.4	1.61	0.99	0	0.61	1.8	0.26	1.31
Construction related works	0.09	0	0.07	0.59	0.14	0.41	0.22	0.05	0.17
Furniture	1.09	0	0.79	3.37	0.63	2.31	1.7	0.23	1.24
Welding	1.63	6.56	3.01	1.41	1.99	1.64	1.57	4.88	2.61
Poultry	0.34	0	0.25	0.57	0	0.35	0.4	0	0.28
Plumbing / Pipe Fitting	1.88	27.64	9.13	2.56	31.28	13.7	2.06	28.98	10.48
Ready-made Garments (RMG)	3.76	2.05	3.27	1.65	0.92	1.37	3.21	1.62	2.71
Other	2.33	0.55	1.83	1.46	0.4	1.05	2.1	0.5	1.6
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Employed population aged 15 or above, by major industry

Table 6.3.2 Employed population aged 15 or above, by major industry, sex and area (%)

ISIC Rev-4/BSIC 2020 at 1 digit-Section	Rural			Urban			Bangladesh		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture, forestry and fishing	38.17	85.59	56.32	6.66	20.61	9.96	28.74	74.16	44.43
Sub-total	38.17	85.59	56.32	6.66	20.61	9.96	28.74	74.16	44.43
Mining and quarrying	0.14	0.01	0.09	0.08	0.04	0.07	0.12	0.02	0.09
Manufacturing	10.65	4.12	8.15	19.15	28.75	21.42	13.19	8.45	11.56
Electricity, gas, steam and air conditioning supply	0.19	0.01	0.13	0.30	0.04	0.24	0.23	0.02	0.15
Water supply, sewerage, waste management	0.02	0.01	0.01	0.14	0.10	0.13	0.05	0.02	0.04
Construction	8.12	0.24	5.10	8.09	0.71	6.34	8.11	0.32	5.42
Sub-total	19.12	4.39	13.48	27.76	29.64	28.2	21.7	8.83	17.26
Wholesale and retail trade, repair of motor vehicles	15.65	0.80	9.96	25.71	4.15	20.60	18.66	1.39	12.70
Transportation and storage	11.98	0.11	7.44	14.89	0.60	11.51	12.85	0.20	8.48
Accommodation and food service activities	2.85	0.35	1.90	4.06	2.27	3.64	3.21	0.69	2.34
Information and communication	0.25	0.01	0.16	1.10	0.32	0.92	0.51	0.07	0.35
Financial and insurance activities	0.64	0.12	0.44	1.72	1.38	1.64	0.96	0.34	0.75
Real estate activities	0.06	0	0.04	0.37	0.09	0.30	0.16	0.02	0.11
Professional, scientific and technical activities	0.38	0.06	0.25	1.31	0.58	1.14	0.66	0.15	0.48
Administrative and support service activities	0.85	0.06	0.55	1.46	0.61	1.26	1.03	0.16	0.73
Public administration and defence	1.20	0.11	0.78	2.73	0.97	2.31	1.66	0.26	1.17
Education	2.35	1.65	2.08	3.08	7.09	4.03	2.57	2.60	2.58
Human health and social work activities	0.61	0.46	0.55	1.15	3.16	1.63	0.77	0.94	0.83
Arts, entertainment and recreation	0.06	0.01	0.04	0.19	0.21	0.20	0.1	0.05	0.08
Other service activities	5.07	4.33	4.79	6.28	12.56	7.76	5.43	5.77	5.55
Activities of households as employers	0.75	1.95	1.21	1.53	15.76	4.9	0.98	4.37	2.15
Activities of extraterritorial organizations	0.01	0	0.01	0	0	0	0.01	0	0.01
Sub-total	42.71	10.02	30.20	65.58	49.75	61.84	49.56	17.01	38.31
Total	100	100	100	100	100	100	100	100	100

Source: Labour Force Survey, 2023.

17.6 Long-Term Perspectives on Youth Unemployment Amidst Future Economic Transition

As the nation has gradually transitioned from a low-income to a lower middle-income status, it is not surprising to observe an increase in youth unemployment, especially considering demographic trends and the similar unemployment challenges faced by other middle-income countries that have transitioned in the past century and recent decades (such as India, which experiences over 10% youth unemployment). With a dependency ratio well below 0.5, this situation may not pose a severe or unmanageable social and economic burden.

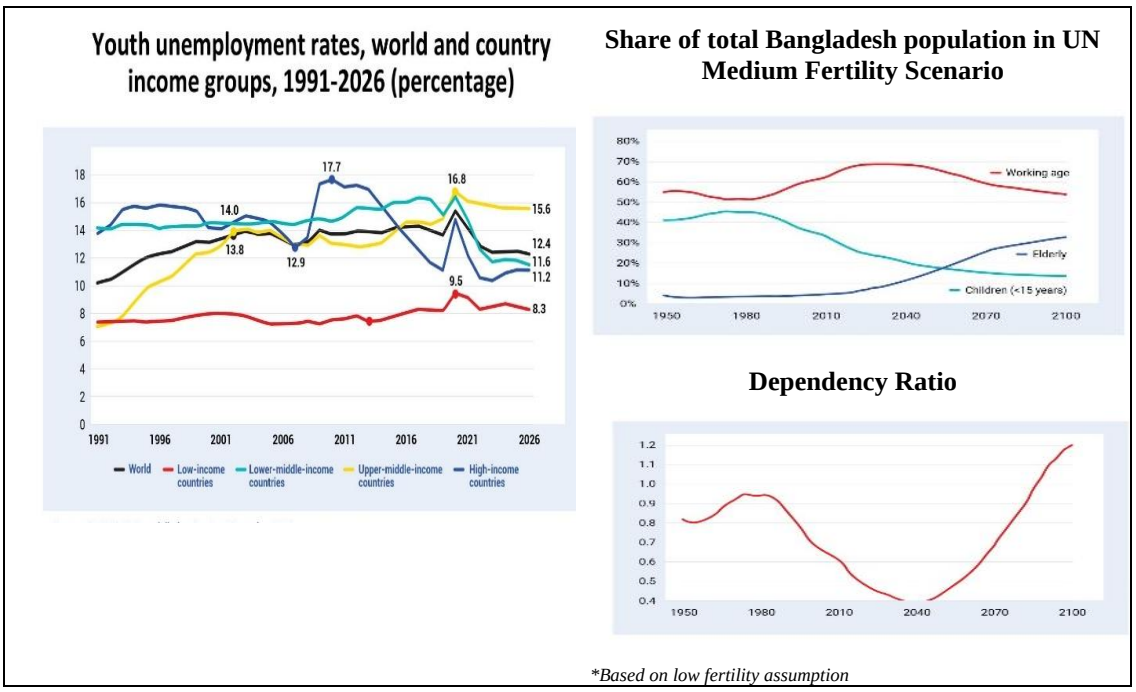

Figure 17.14: Youth Unemployment in the Context of Economic Transition and Demographic Projections

Source: ILO, UN population projections.

However, the analysis in the preceding chapters provides sufficient evidence that realigning the supply, primarily driven by aspirational factors, could significantly alleviate the youth unemployment issue.

In the coming decades, as the working-age population begins to decline from its peak and the dependency ratio rises, significant improvements in youth unemployment through the creation of opportunities will be crucial. Without these advancements, social growth and prosperity could stagnate for an extended period.

17.7 Recommendation for Addressing Youth Unemployment

Our recommendations for generating meaningful employment for a significant number of youths in the country are based on three key approaches:

- The issue of youth unemployment is primarily a challenge related to graduate unemployment, as the rate of unemployability is significantly higher among

graduates compared to non-graduates. Therefore, policies and initiatives should primarily target young graduates, both current and future.

- Given the oversupply of graduates in the job market and the inability of the local formal industries (manufacturing and services) to absorb this large pool—most of whom come from national universities without practical industry exposure—targeted initiatives must be implemented. These should focus on providing training and encouraging graduates to explore employment opportunities in non-traditional markets such as Europe, Japan, and Korea to address the pressing issue of high unemployment.
- Looking ahead, it is crucial to halt the flow of mismatched graduate supply. The government's TVET and skill development initiatives need to be restructured and aligned with market demands and industry requirements. Additionally, the private sector should be supported in responding to market needs and encouraged to invest in modern technologies, such as industrial automation using IOT, robotics and AI.

The following section outlines 17 recommendations for tackling youth unemployment:

- ***Implement Compulsory Technical Vocational Training:*** Integrate mandatory non-IT technical vocational training within college curricula at national universities to equip students with practical skills relevant to emerging job markets.
- ***Incentivise Non-English Language Training****:* Create incentives for institutions to offer non-English language training programmes that cater to job growth in countries like Japan, South Korea, and Europe (Germany, Italy, France, Greece, Portugal, etc.), enhancing employability in those markets. Among the top 20 countries for remittance sourcing, English is not the working language in 15 of them (Bangladesh Bank, 2024).
- ***Short-duration Training for Global Employment:*** Develop and promote short-duration training courses for national university graduates in high-demand fields such as caregiving, culinary arts, and hospitality to facilitate entry into overseas job markets.
- ***Loan Programmes for Young Professionals for Migration:*** Establish loan programmes for outgoing professionals under the age of 30, including migration and foreign education loans, supported by a credit guarantee scheme (by central bank) to ensure accessibility.
- ***Enabling Self-employment Through Entrepreneurship:*** Given the country's job market size, the youth should be encouraged to be entrepreneurs right from school. Schoolchildren should be exposed to creative business ideas and taught skills to start and manage a business. Aspiring young entrepreneurs should be provided with financial support through access to credit from financial institutions and incentives from the government. Moreover, bureaucratic

complexities and red tape should be reduced to improve the ease of business for new and young entrepreneurs. They should also have the opportunity to receive mentorship from experienced and successful entrepreneurs.

- ***Industry Engagement (including mandatory industry attachment) in All Tertiary programmes:*** Foster direct partnerships between industries and universities to train recent graduates, offering incentives such as partial salary reimbursements for 6-12 months and tax credits to encourage companies to hire and train newcomers. Require that a minimum of 10% of credit hours for engineering and business programmes be taught by non-academic faculty from industry, government, and professional sectors to provide practical insights and relevance. Make industrial attachments a mandatory component for all non-arts and non-social science tertiary programmes, ensuring students gain hands-on experience in their field of study.
- ***Introduction of New Courses Targeting Future Jobs:*** Direct all public and private universities to introduce programmes in future oriented employment sectors such as smart manufacturing (industrial production engineering/management using IOT and other robotics technology), green/sustainable business management, cyber security, data analytics/big data, AI based health technology, Edtech and Agrotech.
- ***Re-brand TVET Education to Encourage Higher Enrolment*:** Initiate a campaign aimed at fostering respect and recognition for technical, vocational, and specialized skill jobs, emphasising their critical role in economic growth and societal advancement. This effort will help attract more candidates to these professions. Additionally, it may be necessary to rebrand TVET subjects and degrees to better resonate with societal aspirations and elevate their perception.
- ***Leverage AI for Education and Skill Training:*** Leveraging AI in education and skill training can significantly enhance employability by providing personalized learning experiences tailored to individual needs and market demands. With a shortage of teachers and trainers in many modern subjects and trades, AI-driven platforms can fill this gap by offering scalable and accessible training solutions. These technologies enable continuous skill development, ensuring that learners stay relevant in a rapidly evolving job market. By integrating AI into educational and training frameworks, we can create more efficient pathways to employment, particularly in high-demand sectors.
- ***National Skill Database and HRD Ministry:*** Develop a national skill database to track skills and training across sectors and establish a dedicated Human Resource Development (HRD) Ministry to streamline the management of NSDA, TVET, and skill development programmes, ensuring coherence and strategic alignment.
- ***Link Youth to Employers:*** Training institutes should connect NEET (Not in Education, Employment, or Training) youth with potential employers through job fairs, internships, and mentorships. Employer feedback should also be utilized to

align curricula with industry needs, enhancing student employability and helping to address the labour shortage.

- ***Improve Job Information Access:*** Many job seekers lack awareness of available opportunities. Job vacancies should be promoted via various channels, including newspapers, local radio, noticeboards, websites, and social media. Establishing job information centres in remote areas can enhance access, and career counseling services should further assist job seekers in navigating the market.
- ***Early Career Counseling:*** All educational institutions should offer career counselling services to help students explore career options and guide them in internships and job applications. Early exposure to the job market will better prepare students for the transition from education to employment.
- ***Create an Enabling Environment for Female Youth:*** To empower young women in the workforce, favourable conditions must be created for their participation in employment and entrepreneurship. This includes access to training and safe transportation, housing, and affordable childcare. Additionally, efforts should target the elimination of gender biases in financing for women entrepreneurs.
- ***Promote Fair Employment:*** Equal opportunity in recruitment is essential. Strong government policies should eliminate nepotism, discrimination, and corruption. Hiring must emphasize merit, and entry-level experience requirements should be reduced to provide young candidates with fair job access
- ***Train Informal Workers:*** With a significant workforce in the informal sector, targeted job-specific training is vital for enhancing their skills and job security. Establishing a registration system for informal workers will maintain information on their skills and facilitate access to training programs.
- ***Reform Vocational Training:*** Technical and vocational education is crucial for job opportunities. Training materials must be regularly updated to reflect industry demands. Both government and private sectors should allocate resources for more training centers, and companies should invest in ongoing skill development for existing employees through free training programs.

Reference

Bangladesh Bureau of Statistics. (2024). Labour force survey 2023.

Bangladesh Bureau of Statistics. (2023). Labour force survey 2022.

Bangladesh Bureau of Statistics. (2009). Labour force survey 2010.

The World Bank. (2024). Bangladesh development update - October 2024: Special focus: Creating jobs for a better future.

University Grants Commission. (2023). 49th annual report 2022. Retrieved from https://ugc.gov.bd/site/view/annual_reports/

University Grants Commission. (2018). 45th annual report 2018. Retrieved from https://ugc.gov.bd/site/view/annual_reports/

University Grants Commission. (2014). 41st annual report 2014. Retrieved from https://ugc.gov.bd/site/view/annual_reports/

Bangladesh Bureau of Educational Information and Statistics (BANBEIS), Ministry of Education. (2023). Bangladesh education statistics 2023. Retrieved from https://banbeis.gov.bd/site/page/08bb9b69-7e89-4b9c-ab36-db5b8af3c458/

Bangladesh Institute of Development Studies (BIDS). (2023). Follow-up tracer study on graduates of tertiary-level colleges.

Ministry of Planning, Government of Bangladesh. (2024). White paper on state of Bangladesh economy: Dissection of a development narrative.

International Labour Organization (ILO). (2024). ILOSTAT. Retrieved January 1, 2025, from https://ilostat.ilo.org/data/

International Labour Organization (ILO). (2025). World employment and social outlook: Trends 2025. Retrieved from https://www.ilo.org/resource/news/economic-recovery-losing-steam-new-ilo-report-says

Chapter 18: Conclusion- A Call to Action

18.1 A Time for Bold, Pragmatic Reforms

The challenges facing Bangladesh today are monumental, but they are not insurmountable. The economic crisis, social unrest, and institutional decay that the new government inherited are the result of decades of governance failures. Yet, this period of transition also provides a unique opportunity for structural reforms that can set the country on a path to sustainable and inclusive development.

Our recommendations are rooted in pragmatism. We have emphasised actionable steps that can yield quick wins—"low-hanging fruits"—to build public confidence in the reform process. These measures include improving transparency in public procurement, streamlining regulatory frameworks to encourage entrepreneurship and foreign investment, and addressing the immediate food and energy security crises through targeted policy interventions. Simultaneously, we have outlined medium- and long-term strategies to address deeper structural issues such as governance reform, financial sector stability, and equitable human resource development.

One of the key lessons from our consultations is that reforms must be designed with implementation in mind. Too often, policy documents remain aspirational and fail to deliver tangible results due to weak execution mechanisms. The new government must prioritise the establishment of a robust implementation framework, backed by continuous monitoring, evaluation, and feedback loops to ensure policies are adjusted based on real-time outcomes.

18.2 The Role of Youth and Civil Society

The July 2024 Uprising demonstrated the power of Bangladesh's youth to catalyse change. The energy, optimism, and commitment to justice exhibited by the younger generation must be harnessed to sustain the momentum for reform. Youth organisations, civil society groups, and citizen activists should be encouraged to participate in the reform process through structured engagement mechanisms.

Education and skills development must be prioritised to empower the youth with the tools they need to drive innovation and entrepreneurship. Bangladesh's demographic dividend can only be realised if its young population is equipped to compete in the global economy and contribute meaningfully to national development.

Civil society also has a critical role to play in holding the government accountable and ensuring that reforms are not derailed by vested interests. An engaged citizenry can act as a powerful check on the abuse of power and promote a culture of transparency and accountability.

18.3 Towards a Resilient and Inclusive Economy

Bangladesh's future economic growth must be more resilient and inclusive. The economy cannot be dependent on narrow sectors or a few powerful actors. Instead, it should be broad-based, with opportunities for all segments of society to participate and benefit. This requires a renewed focus on agriculture, small and medium enterprises (SMEs), and rural development, alongside efforts to modernise the industrial sector and integrate into global value chains.

The financial sector, which has been deeply compromised by years of cronyism and mismanagement, must be restructured to restore public trust. Regulatory reforms, stronger oversight mechanisms, and the introduction of digital financial services can play a crucial role in improving financial inclusion and stability.

Equally important is the need to address environmental sustainability. Bangladesh is one of the most climate-vulnerable countries in the world, and its development trajectory must account for this reality. Investments in renewable energy, climate-resilient infrastructure, and sustainable agricultural practices will be essential to ensure long-term prosperity.

18.4 A Vision for a New Bangladesh

The vision that emerges from this report is one of a Bangladesh that is just, prosperous, and accountable—a nation that values its people and prioritises their well-being above all else. Achieving this vision will require a fundamental shift in governance, with a renewed emphasis on meritocracy, rule of law, and respect for democratic principles.

The task ahead is immense, but the people of Bangladesh have shown time and again their resilience and capacity for innovation. With the right policies, leadership, and public engagement, the country can overcome its current challenges and emerge stronger, more united, and better prepared to face future uncertainties.

We conclude with a message of cautious optimism: while the road to reform is fraught with obstacles, it is also filled with opportunity. The next steps taken by the government, civil society, and citizens will determine whether Bangladesh's future is one of continued progress or stagnation. The Task Force remains hopeful that, together, the people of Bangladesh will rise to the occasion and build a brighter future for themselves and generations to come.

Annexes

A1: Summary of the Activities of the Task Force

Major Activities of the Task Force	**Date**
Meeting between the Honourable Advisor of the Ministry of Planning and the Member (Secretary) of GED	September 8, 2024
Approval of the summary of the proposed Task Force by the Honourable Chief Advisor	September 10, 2024
Issuance of an office order for the formation of the Task Force by the Planning Division	September 10, 2024
Communication by GED with the members of the Task Force	September 11-12, 2024
Meeting of Chair with Planning Advisor, accompanied by Member-Secretary	September 15, 2024
Informal discussion between the Member (Secretary) of GED (Task Force Member-Secretary) and the Respected Chairperson of the Task Force along with concerned Officials of GED	September 15, 2024
Meeting of Task Force members with the Respected Chairperson at his office for informal discussion on next steps	September 19, 2024
1st meeting of the Task Force	September 26, 2024
2nd meeting of the Task Force	October 1, 2024
3rd meeting of the Task Force	October 3, 2024
4th meeting of the Task Force	October 8, 2024
Consultation meetings with the stakeholders	From 15 October, 2024 to December 29, 2024
First draft	December 2024
Final draft	January 2025

Annex

A2: Consultations Meeting with Stakeholders

SL	Consultation	Date
1	Macroeconomic Overview and Current Growth Model	15/10/2024
2	Financial Sector Development	15/10/2024
3	Employment and Human Resource Development	16/10/2024
4	Economic Diversification and Industrial Strategy	21/10/2024
5	International Trade and Global Integration	21/10/2024
6	Agricultural Diversification and Food Security	28/10/2024
7	Cottage, Micro, Small Enterprises, and Entrepreneurship	30/10/2024
8	Health	31/10/2024
9	Infrastructure and Connectivity	03/11/2024
10	Governance and Institutional Reforms	04/11/2024
11	Education	06/11/2024
12	Power and Energy	07/11/2024
13	Poverty, Vulnerability and Social Protection	10/11/2024
14	Agrotech	10/11/2024
15	Structural Inequalities	10/11/2024
16	Digital Economy	12/11/2024
17	Environment & Climate Change	17/11/2024
18	Financial Institutions, Banking, and Fintech	19/11/2024
19	Meeting with BIDA, BEPZA, BEZA, PPPA etc	21/11/2024
20	Social Campaigns	26/11/2024
21	Youth	10/12/2024
22	Domestic Investment	18/12/2024
23	Blue Economy	24/12/2024
24	Planning Procedure	29/12/2024

A3: List of Abbreviations

4IR - Fourth Industrial Revolution
ACAPS - Automated Credit Application Processing System

ADB – Asian Development Bank

ADBI - Asian Development Bank Institute

ADP – Annual Development Project

AEZ – Agro-ecological Zone

AFLOU - Agriculture, Forestry & Other Land Use

AFP – Axial Flow Pump

AI – Artificial Insemination

AI – Artificial Intelligence

AIIB - Asian Infrastructure Investment Bank

AIT - Asian Institute of Technology

AIT – Advanced Income Tax

ALG - Advanced Logistics Group

ALRD - Association for Land Reform and Development

AMD - Advanced Micro Devices

ANPR - Automatic Number Plate Recognition

API - Active Pharmaceutical Ingredient

APSC - Annual Primary School Census

APTA - Asia Pacific Trade Agreement

AQI – Air Quality Index

ARPU - Average Revenue Per User

AR6 - Sixth Assessment Report

ATM - Automated Teller Machine

AWD - Alternate Wetting and Drying

BA – Bachelor of Arts

BAB – Bangladesh Accreditation Board

BACB - Bangladesh Association of Certification Bodies

BADC - Bangladesh Agricultural Development Corporation

BANBEIS - Bangladesh Bureau of Educational Information and Statistics

BAPEX – Bangladesh Petroleum Exploration and Production Company Limited

BARC - Bangladesh Agricultural Research Council

BARI - Bangladesh Agricultural Research Institute

BB – Bangladesh Bank

BBA - Bachelor of Business Administration

BBA – Bangladesh Bridge Authority

BBBF - Bangladesh Better Business Forum

BBIN - Bangladesh, Bhutan, India, and Nepal

BBS – Bangladesh Bureau of Statistics

BCC - Bangladesh Computer Council

BCC - Behaviour Change Communication

BCCSAP - Bangladesh Climate Change Strategy and Action Plan

BCCTF - Bangladesh Climate Change Trust Fund

BCG - Boston Consulting Group

BCIC - Bangladesh Chemical Industries Corporation

BCPCL - Bangladesh-China Power Company Ltd

BDHS - Bangladesh Demographic and Health Survey

BDP - Bangladesh Delta Plan

BDRIS - Birth & Death Registration System

BDRS - Bangladesh Research Society

BDT - Bangladeshi Taka

BEI - Bangladesh Enterprise Institute

BEPZA - Bangladesh Export Processing Zones Authority

BERC - Bangladesh Energy Regulatory Commission

BEST - Bangladesh Environmental Sustainability and Transformation

BEZA – Bangladesh Economic Zone Authority

BFTI - Bangladesh Foreign Trade Institute

BGMEA - Bangladesh Garment Manufacturers and Exporters Association

BHFS - Bangladesh Health Facility Survey

BIDA – Bangladesh Investment Development Authority

BIDS – Bangladesh Institute of Development Studies

BIGD - BRAC Institute of Governance and Development

BIM - Bangladesh Institute of Management

BIMSTEC - Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation

BIWTA - Bangladesh Inland Water Transport Authority

BNHA - Bangladesh National Health Accounts

BOD – Biological Oxygen Demand

BOOT - Build, Own, Operate, Transfer

BPA - Bisphenol A

BPDB - Bangladesh Power Development Board

BPL – Below Poverty Line

BPO - Business Process Outsourcing

BPSC - Bangladesh Public Service Commission

BR – Bangladesh Railway

BRAC - Bangladesh Rehabilitation Assistance Committee

BREB - Bangladesh Rural Electrification Board

BRF - Bus Route Franchising

BRF – Bus Route Franchise

BRICS - Brazil, Russia, India, China, and South Africa

BRRI – Bangladesh Rice Research Institute

BRT – Bus Rapid Transit

BRTA - Bangladesh Road Transport Authority

BRTC - Bangladesh Road Transport Corporation

BSCIS - Bangladesh Small and Cottage Industries Corporation

BSTI - Bangladesh Standards and Testing Institution

BTCL - Bangladesh Telecommunications Company Limited

BTEB – Bangladesh Technical Education Board

BTRC - Bangladesh Telecommunication Regulatory Commission

BUILD - Business Initiative Leading Development

BWDB - Bangladesh Water Development Board

CA – Current Account

CAD – Computer Aided Design

CBD - Central Business District

CBHC - Community-Based Healthcare

CC – Community Clinics

CC - Closed-circuit

CCRIP - Coastal Climate Resilient Infrastructure Projects

CCS – Carbon Capture and Storage

CEGIS - Centre for Environmental and Geographic Information Services

CEI - Chief electric inspector

CETPs - Central Effluent Treatment Plants

CGS - Credit Guarantee Scheme

CHCP - Community Health Care Provider

CHE - Catastrophic health expenditure

CHO - Chief Health Officer

CHT - Chittagong Hill Tracts

CIEL - Centre for International Environmental Law

CIMMYT - International Maize and Wheat Improvement Centre

CIPEFCC - Country Investment Plan for the Environment, Forestry, and Climate Change

CMPT - Cutting, Manufacturing, Packaging, and Trimming

CMSD - Central Medical Stores Deport

COD - Chemical Oxygen Demand

COSOP - Country Strategic Opportunities Programme

CPD – Centre for Policy Dialogue

CPP - Climate Prosperity Plan

CPR - Contraceptive Prevalence Rate

CPSD - Country Private Sector Diagnostics

CPTU - Central Procurement Technical Unit

CRDP - Climate Resilient Development Pathway

CRVS - Civil Registration and Vital Statistics

CSA - Climate Smart Agriculture

CSAIP - Bangladesh Climate Smart Agriculture Investment

CTM - Cash Transfer Modernisation

DAE - Department of Agricultural Extension

DAE – Department of Agricultural Extension

DAEEP - Dhaka Ashulia Elevated Expressway Project

DAP - Diammonium Phosphate

DARPA - Defence Advanced Research Projects Agency

DBRTCL - Dhaka Bus Rapid Transit Company Limited

DEEP – Dhaka Elevated Expressway Project

DEPZ - Dhaka Export Processing Zone

DESCO - Dhaka Electric Supply Company Limited

DFID - Department for International Development

DGFP - Directorate General of Family Planning

DGHS - Directorate General of Health Services

DGME - Directorate General of Medical Education

DGNM - Directorate General of Nursing and Midwifery

DHIS - District Health Information System

DIS - Disability Information System

DLS – Department of Livestock

DMP – Dhaka Metropolitan Police

DMTCL - Dhaka Mass Transit Company Limited

DNA - Deoxyribonucleic acid

DNCC - Dhaka North City Corporation

DO – Dissolved Oxygen

DoA - Department of Agriculture

DoE - Department of Environment

DOF – Department of Finance

DOT – Department of Transport

DPC - Departmental Promotion Committee

DPDC - Dhaka Power Distribution Company

DPE – Department of Primary Education

DPHE - Department of Public Health and Engineering

DPI - Digital Public Infrastructure

DPM - Direct Procurement Methods

DPP – Development Project Proposal

DRR - Disaster Risk Reduction

DRS - Deposit Refund System

DSCC - Dhaka South City Corporation

DSSS - Development Support Services for States

DTCA - Dhaka Transport Coordination Authority

DUTP - Dhaka Urban Transport Project

DWDM - Dense Wavelength Division Multiplexing

ECI - Economic Complexity Index

ECNEC - Executive Committee of the National Economic Council

EDC - Establishing Digital Connectivity

EDCL - Essential Drugs Company Limited

EEF - Equity and Entrepreneurship Fund

EE&C - Energy Efficiency and Conservation Master Plan

EFCC - Environmental, Forestry, Climate Change

EGPP - Employment Generation Program for the Poor

EGPP - Employment Generation Programme for the Poorest

EIA - Environmental Impact Assessments

EIF - Enhanced Integrated Framework

EIS - Employment Injury Scheme

EM-DAT - Emergency Events Database

EPB - Export Promotion Bureau

EPB – Export Promotion Bureau

EPR - Extended Producer Responsibility

EPRC - Energy and Power Research Council

EPZ – Export Processing Zone

ER – Employer Requirements

ER – Exchange Rate

ERD – Economic Relations Division

ERP - Enterprise Resource Planning

ESDO - Eco-Social Development Organisation

ESF - Entrepreneurship Support Fund

ESG – Environmental, Social, and Governance

ESP - Essential Service Package

ETP – Effluent Treatment Plan

EU – European Union

EZ – Economic Zone

FA – Financial Account

FAO - Food and Agriculture Organization

FAT - Factory Acceptance Tests

FAT - Firm-level Adoption of Technologies

FDI – Foreign Direct Investment

FDMN - Forcibly Displaced Myanmar Nationals

FES - Friedrich-Ebert-Stiftung

FFW - Food for Work

FIMS - Field Inspection Management System

FMCG - Fast Moving Consumer Goods

FS – Feasibility Study

FTA – Free Trade Agreement

FWA - Family Welfare Assistant

FY – Financial Year

FYP - Five-Year Plans

GB – Giga Byte

GBF - Global Biodiversity Framework

GCF - Green Climate Fund

GDP – Gross Domestic Product

GED – General Economic Division

GER - Gross Enrolment Rate

GHG – Greenhouse Gas

GIEWS - Global Information and Early Warning System

GIS - Geographic Information System

GNI – Gross National Income

GoB – Government of Bangladesh

GPS – Global Positioning System

GPT – Garment Preferential Tariff

GRS - Grievance Redress System

GSMA - Global System for Mobile Communication Association

GSP - Generalised Scheme of Preferences

GVA – Gross Value Added

GVC - Global Value Chain

GW – Giga Watt

Ha - Hectares

HCFS - Health Care Financing Strategy

HEU – Health Economics Unit

HIES - Household Income and Expenditure Survey

HPN - Home Parenteral Nutrition

HPNSDP - Health, Population, and Nutrition Service Delivery Programme

HPNSP - Health Population and Nutrition Sector Program

HPNSP - Health, Population and Nutrition Sector Program

HPSP - Health and Population Sector Program

HRH – Human Resources for Health

HSD - Health Services Division

HSIA - Hazrat Shahjalal International Airport

HTPA - Hi-Tech Park Authority

HYV - High Yield Variety

ICB – Investment Corporation of Bangladesh

ICD – Inland Container Depot

ICEM - Institute of Civil Engineering and Management

ICT – Information and Communications Technology

ICVGD - Investment Component for Vulnerable Group Development

ICX - Interconnection Exchange

IDB – Integrated Database

IDCOL - Infrastructure Development Company Limited

IEEJ - Institute of Energy Economics, Japan

IEPMP - Integrated Energy and Power Master Plan

IFC - International Finance Corporation

IFPRI - International Food Policy Research Institute

IFRC - International Federation of Red Cross and Red Crescent Societies

IGW - International Gateway

IIFCL - India Infrastructure Finance Company Limited

IIG - International Internet Gateway

ILDTS - International Long Distance Telecommunication Services

ILO - International Labour Organization

IMED - Implementation Monitoring and Evaluation Division

IMF – International Monetary Fund

IMR - Infant Mortality Rate

IOF - IGW Operators Forum

IoT – Internet of Things

IP – Intellectual Property

IPCC - Intergovernmental Panel on Climate Change

IPO – Initial Public Offering

IPP - Independent Power Producer

IPP - Independent Power Producers

IPPU - Industrial Processes and Product Use

IPV - Intimate Partner Violence

IR – Interest Rate

IRR - Internal Rate of Return

IRRI - International Rice Research Institute

ISO - International Organization for Standardization

ISP - Internet service provider

IT – Information Technology

ITDP - Institute of Transport Development and Planning

ITF - International Trade Fair

ITU - International Telecommunication Union

IUCN - International Union for Conservation of Nature

IWM - Institute of Water Modelling

JICA - Japan International Cooperation Agency

KAIST - Korea Advanced Institute of Science and Technology

KG - Kilogrammes

KYC - Know Your Client

LA - Land Acquisition

LDC – Least Developed Country

LEED - Leadership in Energy and Environmental Design

LGED - Local Government Engineering Department

LGI - Local Government Institution

LGRD - Local Government and Rural Development

LLP – Low Lift Pump

LNG – Liquefied Natural Gas

LOC – Lines of Credit

LOI - Letter of Intent

LPA - Land Port Authority

LPG - Liquefied Petroleum Gas

LPI – Logistics Performance Index

LPL – Lower Poverty Line

LRT - Light Rail Transit

M&A - Mergers and acquisitions

MCBP - Maternal and Child Benefit Programme

MCBP - Mother and child benefit program

MCCI - Metropolitan Chamber of Commerce & Industry

MCD - Delhi Municipal Corporation

MCH – Maternal and Child Care

MCWC - Maternal and Child Welfare Centres

MDG – Millennium Development Goals

MEFWD - Medical Education and Family Welfare Division

MFA – Multi Fibre Arrangement

MFN – Most Favoured Nation

MFS – Mobile Financial Services

MIS – Management Information System

MIWE - Mastercard Index of Women Entrepreneurs

MLP – Multi-Layer Plastic

MMF – Man-Made Fibres

MMR - Maternal Mortality Ratio

MoA – Ministry of Agriculture

MoDMR - Ministry of Disaster Management and Relief

MoEFCC - Ministry of Environment, Forest and Climate Change

MoF – Ministry of Finance

MoHFW - Ministry of Health and Family Welfare

MoI – Ministry of Industries

MoI – Ministry of Industries

MoLGRDC - Ministry of Local Government, Rural Development and Co-operatives

MoP - Muriate of Potassium

MoP – Ministry of Planning

MoPEMR - Ministry of Power, Energy and Mineral Resources

MoPEMR - Ministry of Power, Energy, and Mineral Resources

MoRTB - Ministry of Road Transport and Bridges

MoT – Ministry of Transportation

MoTN - Modernisation of Telecommunication Network

MoWR - Ministry of Water Resources

MPO - Monthly Pay Order

MRT - MASS rapid transit

MSME – Micro, Small and Medium Enterprises

MSR - Medical and Surgical Requisites

MSS - Musculoskeletal Symptoms

MT – Metric Ton

MUN - Model United Nations

MW – Mega Watt

NADA - National Academy for Development Administration

NAP - National Adaptation Plan

NAPD - National Academy for Planning and Development

NBR – National Board of Revenue

NCD - Noncommunicable diseases

NDC - Nationally Determined Contribution

NER - Net Enrolment Rate

NEER - Nominal Effective Exchange Rate

NEMU - National Electromechanical Unit

NESCO - Northern Electricity Supply Company Limited

NGO – Non-Governmental Organisations

NHD - National Household Database

NID – National Identification

NIH - National Institutes of Health

NIP - National Infrastructure Pipeline

NIPORT - National Institute of Population Research and Training

NIX - National Internet Exchange

NLP – National Logistics Policy

NMR - Neonatal Mortality Rate

NPSB - National Payment Switch Bangladesh

NRB - Non-Resident Bangladeshis

NSA - National Student Assessment

NSDS - National Sustainable Development Strategy

NSF - National Science Foundation

NSIS - National Social Insurance Scheme

NSPD - National Survey on Persons with Disabilities

NSSS - National Social Security Strategy

NTP – National Tariff Policy

NTRCA - Non-Government Teachers' Registration and Certification Authority

NTTN - Nationwide Transmission Network

NUE - Nitrogen Use Efficiency

NWMP - National Water Management Plan

NWPGCL – North West Power Generation Company Limited

OAA – Old Age Allowance

ODA – Official Development Assistance

OMB - Office of Management and Budget

OMS - Open Market Sales

OOP – Out of Pocket

OP – Operational Plan

OSC - One-stop Service Centre

OSD – Officer on Special Duty

OSS – One Stop Service

OTT – Over The Top

PA – Project Aid

PC – Planning Commission

PCT - Pangaon Container Terminal

PD – Project Director

PET - Polyethylene Terephthalate

PET - Public Expenditure Tracking

PFM - Public Financial Management

PFM - Public Financing Mechanism

PGC - Power Grid Company

PGCB - Power Grid Company of Bangladesh

PGCB - Power Grid Company of Bangladesh Limited

PHC – Primary Health Care

PIU - Project Implementation Unit

PIU - Project Implementation Units

PM – Particulate Matter

PMO - Prime Minister's Office

PMT - Proxy Means Test

POP - Persistent Organic Pollutants

PPP – Public Private Partnership

PPRC - Power and Participation Research Centre

PRI – Policy Research Institute

PSC - Project Steering Committee

PSI – Pre Shipment Inspection

PSMP - Power System Master Plan

PSMP – Power System Master Plan

PVC - Polyvinyl Chloride

QEEES - Energy Supply (Special Provisions) Act

QR – Quick Response

RAJUK - Rajdhani Unnayan Kartripakkha

RAN - Radio Access Network

RAP - Rehabilitation Action Plan

RAPID - Research and Policy Integration for Development

RBF – Revenue Based Financing

RBI – Reserve Bank of India

RE – Renewable Energy

RECP - Regional Comprehensive Economic Partnership

REDD - Reducing Emissions from Deforestation and Forest Degradation

REER – Real Effective Exchange Rate

RER – Real Exchange Rate

RHD - Roads and Highways Department

RIA - Regulatory Impact Assessments

RIVER - Resilient Infrastructure for Adaptation and Vulnerability Reduction Project

RLTS - Regulatory and Laboratory Training System

RMG – Ready Made Garments

RMLF - Road Maintenance Levy Fund

RNA - Ribonucleic acid

ROI – Return of Investment

RSTP - Revision and updating of the strategic transport plan for Dhaka

SAARC - South Asian Association for Regional Cooperation

SACMO - Sub-Assistant Community Medical Officer

SAFTA - South Asian Free Trade Area

SANEM - South Asian Network on Economic Modeling

SBCC&R - Social and Behavioural Change Communication and Research

SBW – Special Bonded Warehouse

SCA - Seed Certification Agency

SCADA - Supervisory Control and Data Acquisition

SCITI - Small and Cottage Industries Training Institute

SD – Supplementary Duty’

SDG – Sustainable Development Goals

SEO – Search Engine Optimisation

SEZ – Special Economic Zone

SHI – Social Health Insurance

SME – Small and Medium Enterprises

SMI - Survey of Manufacturing Industries

SOE – State Owned Enterprises

SOF - Social Obligation Fund

SPS - Sanitary and Phytosanitary

SRDI - Soil Resource Development Institute

SREDA - Sustainable and Renewable Energy Development Authority.

SRO - Statutory Regulatory Order

SSB - Superior Selection Board

SSK - Shasthyo Shurokhsha Karmasuchi

SSNP - Social Safety Net Programmes

SSPS - Social Security Policy Support

SSTC - South-South Triangular Cooperation

STEM – Science, Technology, Engineering, Mathematics

STP – Strategic Transport Plan

STS – Smooth Transition Strategy

SUFAL - Sustainable Forest and Livelihoods

SVRS - Sample Vital Statistics

TBS – The Business Standard

TCB – Trading Corporation of Bangladesh

TDS - Total Dissolved Solids

TEMO - Transport and Equipment Maintenance Organisation

TEPC - Tianjin Electric Power Construction Company

TEU - Traffic Engineering Units

TFP – Total Factor Productivity

TFR - Total Fertility Rate

THE – Total Health Expenditure

TIA - Traffic Impact Assessments

TLS - Truthfully Labelled Seeds

TOD - Transit-Oriented Development

TPE - Total Pharmaceutical Expenditure

TPE – Total Persons Engaged

TRIPS - Trade-Related Aspects of Intellectual Property Rights.

TSMC - Taiwan Semiconductor Manufacturing Company

TSP – Triple Super Phosphate

TVET - Technical and Vocational Education and Training

U5MR - Under-5 Mortality Rate

UBI - Universal Basic Income

UDD - Urban Development Directorate

UGC - University Grants Commission

UHC - Universal Health Coverage

UHFWC - Union Health and Family Welfare Centres

UK – United Kingdom

UK – United Kingdoms

UNCTAD – United Nations Conference on Trade and Development

UNDP – United Nations Development Project

UNEP - United Nations Environment Programme

UNFCCC - United Nations Framework Convention on Climate Change

UNFPA - United Nations Population Fund

UNICEF - United Nations Children's Fund

UPG – Ultra Poor Graduation

UPHCP - Urban Primary Health Care Provider

UPHCSDP - Urban Primary Health Care Services Delivery Project

UPI - Unified Payments Interface

UPL – Upper Poverty Line

URSTP - Updating the Revised Strategic Transport Plan for Dhaka

USA – United States of America

USC - Union Sub Centre

USD - United States dollar

USPSAP - Urban Social Protection Strategy and Action Plan

UzHC - Upazila Health Complexes

VAT – Value Added Tax

VGF - Vulnerable Group Feeding

VWB - Vulnerable women benefit

VWB – Vulnerable Women Benefit

WA – Widow Allowance

WASA - Water Supply and Sewerage Authority

WB – World Bank

WBG – World Bank Group

WCM - Water Conservation And Management

WDI – World Development Index

WEDF - Women Entrepreneur Development Fund

WFP - World Food Programme

WHO - World Health Organization

WHO – World Health Organisation

WID - World Inequality Database

WTO – World Trade Organization

WZPDC - West Zone Power Distribution Company