Background Studies for the Second Perspective Plan of Bangladesh (2021-2041)

Volume-2

Editor:
Dr. Shamsul Alam

General Economics Division (GED)
Bangladesh Planning Commission
Ministry of Planning
Government of the People's Republic of Bangladesh
June 2019

Background Studies for the Second Perspective Plan of Bangladesh (2021-2041)

Volume-2

General Economics Division (GED)
Bangladesh Planning Commission
Ministry of Planning
Government of the People's Republic of Bangladesh

Background Studies for the Second Perspective Plan of Bangladesh (2021-2041)

Published and Cover Designed by:
General Economics Division (GED)
Bangladesh Planning Commission
Government of the People's Republic of Bangladesh
Sher-e-Bangla Nagar, Dhaka-1207, Bangladesh
Website: www.plancomm.gov.bd

First Published: June 2019

Editor:
Dr. Shamsul Alam, Member (Senior Secretary)

Editorial Assistance:
Feroza Begum, Chief
Md. Forhad Siddique, Deputy Chief
Sheikh Moinul Islam Moin, Senior Assistant Chief
Josefa Yesmin, Assistant Chief
Shifat Anwar Tumpa, Assistant Chief

Disclaimer: At the behest of GED, the Background Papers were prepared by eminent researchers/scholars with the aim to use as inputs of the Second Perspective Plan of Bangladesh (2021-2041). GED, Bangladesh Planning Commission, in no way bears any responsibility for accuracy of any statement, figure/data that contained in the background papers where onus lies to author(s) only.

Printed By:
Chhoa
19/A, Lakecircus, Kalabagan, Dhaka-1205.
Cell: +88 01865-282828

Copies Printed: 300

M.A. Mannan, MP
Minister
Ministry of Planning
Government of the People's Republic of Bangladesh

Message

It gives me immense pleasure to learn that the General Economics Division (GED) of Bangladesh Planning Commission is going to publish 16 background papers in six volumes which have been used as the inputs for preparing the country's Second Perspective Plan (2021-2041). The background papers of the Second Perspective Plan is the culmination of macroeconomic and sectoral issues of Bangladesh for future intervention that GED has pursued with various eminent economists, social scientists, researchers, and academicians at the national level.

My felicitations to the Member (Senior Secretary) and the officials in the General Economics Division (GED) for their perseverance in shaping this document. Documented background papers will be helpful for policy-planners, development practitioners, researchers, academicians and students as well. I believe that officials working in government ministries and agencies will be immensely benefited from these background papers for upgrading and updating their knowledge and professional competences. Finally, I thank GED leadership for undertaking this endeavour for printing background papers of the Second Perspective Plan in book volumes for much wider use. I earnestly wish their success.

(M. A. Mannan, MP)

Dr. Shamsul Alam
Member (Senior Secretary)
General Economics Division (GED)
Bangladesh Planning Commission

Foreword

Following the 2009 National Election that reinstated democracy in Bangladesh, two major changes ensued in the planning landscape of the country. First, Bangladesh returned to its five-year planning system discontinuing the PRSPs. The country, then, decided to synergize its short- and medium-term planning intervention introducing a long-term perspective plan. The efforts culminated into the preparation of first ever Perspective Plan of Bangladesh (2010-2021). The Plan, in fact, was an elaboration of the Vision 2021 announced by the Hon'ble Prime Minister Sheikh Hasina. It provided a roadmap for accelerated growth and laid down broad approaches for the eradication of poverty, inequality, and human deprivation. Most importantly, it provided the broader context in which the Sixth and the Seventh Five Year Plan would be implemented.

Embracing the Perspective Plan's creed, the 6th Five Year Plan (2011-2015) has completed its tenure and the 7th Five Year Plan (2016-2020) has crossed the halfway of its intended period of implementation approaching the end. The preparatory activities of the 8th Five Year Plan are expected to begin in 2019. However, like the two preceding plans, it needs a longer-term perspective plan to set the context and create the policy pathway. Moreover, in the meantime, Bangladesh has gone through some major socioeconomic transformation—it crossed the lower-middle income threshold of World Bank country classification in 2015 and qualified for the first time to graduate into a developing country in 2018. Based on her presentiment that such changes are imminent, the Hon'ble Prime Minister directed GED to initiate Second Perspective Plan (2021-2041) formulation process in the National Economic Council (NEC) meeting held on 20 October 2015.

And following that instruction the process of preparing the Second Perspective Plan has been initiated by General Economics Division at the end of 2016. The process formally started with preparation of a 'Concept Paper'. In addition, Planning Commission constituted a high level "Panel of Experts" for guiding the process of formulating the Plan within a participatory framework. For developing the Plan strategies and indicating the desirable development path that would lead to fulfilling its objectives, sixteen different

background studies covering different socio-economic sectors and sub-sectors, and a technical framework for macroeconomic projection for 2021-2041 were prepared. These background papers were undertaken for generating quantitative/qualitative benchmark values and targets for relevant indicators of the Plan and fill in critical knowledge gaps. Renowned economists, academicians, researchers and development practitioners in the relevant fields with a long-standing flair were assigned to conduct the studies within the stipulated timeframe. Later, the final drafts of the background papers were reviewed by relevant experts in the government as well as from professional and academic community. Based on such elaborate feedback, the drafts were modified and finalised by the author(s) under the overall supervision and guidance of General Economics Division (GED).

These background studies provided valuable information/inputs which significantly contributed towards drafting the Second Perspective Plan. These studies are rich in contents and, if made available, will enrich the knowledge base relating to development challenges and development options facing Bangladesh. In view of the importance of these studies, it has been decided that GED will publish these studies for making these available to interested readers, researchers and academia.

The background papers have been published in six separate volumes. It is expected that these volumes will help the readers to understand the rational for the choice of the specific domain underlying the Plan and the design of the policy package adapted for the Plan for reconciling the goals of efficiency with those of equity. The studies attempted to spell out a reform strategy and agenda for agriculture, food security, industrialisation, poverty reduction, social inclusion, transportation, quality infrastructure, sustainable management of natural resources, and other development issues like governance, gender, urban development, service sector development, health and population management, human development, ICT and information highway, employment and labour market in the light of current conditions as well as past experience trends.

Now, I would like to take the opportunity to convey my gratitude to the people behind this splendid task. First and foremost, I will recall the diligent contribution from the relevant officials of GED for their untiring support and cooperation in managing all the studies. Finally, the publication will be a success only when it served the purpose of the readers that intended to.

I believe, this book of background papers prepared to help formulate the Second Perspective Plan of Bangladesh would be considered as one of the valuable knowledge products of GED.

(Professor Shamsul Alam, M.A. Econs., PhD)

Acknowledgements

Preparing a long-term Second Perspective Plan (2021-2041) is not a simple task. It involves a number of steps and facets and background studies constitute the lion's share of this rigorous endeavor in terms of time and efforts. As the General Economics Division (GED) is going to publish the background studies as a collection of 16 papers in 6 volumes, it likes to exert its gratitude to all the actors involved.

First and foremost, GED likes to express its humble gratefulness to the Hon'ble Prime Minister Sheikh Hasina for her visionary leadership. Perceiving in advance the changing socioeconomic landscape of the country, she first felt the need of a second perspective plan to be formulated. In the National Economic Council (NEC) meeting of the 20th October 2015, she provided a clear guidance in this regard. Hence began the ensuing activities.

GED acknowledges the guidance and timely direction provided by the Hon'ble Minister for Planning Mr. Abdul Mannan, MP, gave valuable time and precious guidance. GED is indebted to him.

GED, gratefully recalls the valuable contribution of the Panel of Experts headed by Dr. Wahiduddin Mahmud for his suggestions and advices all through. The reviewers' (members of technical committee) contribution to the background papers are also acknowledged herewith.

GED is indebted to the outstanding leadership of Dr. Shamsul Alam for this endeavor and the others. In his ten years tenure, he has raised GED, the policy-planning hub of the country, into the highest level of excellence. He is the person who reviewed and edited the background papers and transformed them into one interlinked document that ultimately culminated into the Second Perspective Plan (2021-2041).

Ms. Feroza Begum, not only as the Chief, GED but also as the Project Director of Mid-Term Review of the Perspective Plan and Formulation of Bangladesh Vision 2041 coordinated all the administrative and financial procedures. Mr. Md. Forhad Siddique, Deputy Chief and Deputy Project Director seconded his with his ubiquitous involvement in all the activities. Ms. Josefa Yesmin, Assistant Chief, as the Assistant Project Director exerted her best to make the initiative a success story. Preparing the project proposal, concept paper and other relevant documents as well as providing data support, Mr. Sheikh Moinul Islam Moin, Senior Assistant Chief, played his role in the process. Ms. Shifat Anwar Tumpa, Assistant Chief also provided constant support in the process of preparation of these background papers.

Last but not the least, many officials from the General Economics Division (GED), Bangladesh Planning Commission, Ministry of Planning and other Ministries of the government graced with their presence to project-related meetings and discussions.

We gratefully acknowledge the efforts by all concerned in the Bangladesh Planning Commission.

Brief Contents

Part-1

Trade and Industry Strategy in the 21st Century for Sustained Rapid Growth and Job Creation 1-64
Dr. Zaidi Sattar

Part-2

Employment and Labour Market Policies for a Maturing Economy 65-154
Dr. Rizwanul Islam

Detailed Contents

Part-1

Trade and Industry Strategy in the 21st Century for Sustained Rapid Growth and Job Creation

List of Tables ix
List of Figures x
List of Boxes x
Abbreviations xiv
Executive Summary 4
A. Industry And Trade In The 21St Century 7
B. The Fourth Industrial Revolution And Beyond 8
C. Trading In A New Wave Of Globalization 12
D. Challenges And Opportunities In A Competitive World 16
E. Lessons From Experience Of High Performing Economies 18
F. Bangladesh Export Performance And The Trade Regime 25
G. Export Competitiveness And Trade Policies Of The Future 39
H. Courting Fdi In Export-Oriented Manufacturing 49
I. Strengthening Institutions For Trade And Industry 55
J. Conclusions And The Road To Transformation To Hic 58
References 60
ANNEX-A 63

List of Tables

Table 1: Effective Exchange Rates for Exports Imports in Korea, 1962-75 20
Table 2: Nominal and Effective Protection for Manufacturing 21
Table 3: Structure of Imports and Exports FY2016 26
Table 4: Bangladesh: 2016 Trade Openness in Asia 28
Table 5. The Enabling Trade Index 2016; Bangladesh 30
Table 6: Comparison of Infrastructure Quality, 2016-2017 31
Table 7: Ease of Doing Business (2016) 32
Table 8: Snapshot of Bangladesh Trade Regime FY2017 37
Table 9: Evolution of Tariffs and Protection 41
Table 10: Exports of Goods and Services expressed as share (%) of GDP 45

List of Figures

Figure 1: Projected economic structure and employment share (%) 8
Figure 2: Charting the Course of Industrial Revolutions 9
Figure 3: Export performance since 1990 27
Figure 4: Rising share of trade in GDP 27
Figure 5: Growth of RMG exports exceeds that of Non-RMG exports 28
Figure 6: Relative Export Concentration 2015 28
Figure 7: Large number of Export Products 29
Figure 8: Exchange Rate Movements FY03-FY17 34
Figure 9: CD and Para Tariff Trends 42
Figure 10: Trends in Output and Input Tariffs: Bangladesh 44
Figure 11: Trends in Output and Input Tariffs: High-performing economies 45
Figure 12: Trends in Output and Input Tariffs: Vietnam and India 45
Figure 13: Futuristic Tariff Profile (FY17-41) 46
Figure 14: Global FDI Flows 2005-2016, Billion US$ 52
Figure 15: Regional Distribution of FDIs 2016, US$ Billions 52
Figure 16: FDI Inflows in East and South Asia 2016, US$ Billion 53
Figure 17: Trend of FDIs in Bangladesh 1996-2016 53
Figure 18: Sectoral Distribution of FDIs in Bangladesh 54

List of Boxes

Box 1: Robots Replacing Humans in Garments Manufacturing! 10
Box 2: Applications of 3D Printing in Industrial Production 11

Part-2

Employment and Labour Market Policies for a Maturing Economy.

	Executive Summary	68
1.	Introduction	75
Part 1:	An Overview of the Employment and Labour Market Situation	78
2.	The Supply Side: Demographic and Labour Force Situation	78
3.	The Employment Situation: An Overview	82
4.	Youth Unemployment and Unemployment of the Educated	96
5:	Overseas Employment: Trends, Prospects and Challenges	100
6.	The Employment and Labour Market Situation: A Summing Up	115
Part 2:	Looking at the Future: Projections of Employment	116
7.	Employment Projection and Prospects	116
Part 3:	Strategies and Policies for Employment	129
8.	An Overview of Employment Strategies and Policies	129
9.	Towards an Employment Strategy	134
	References	147

List of Tables

Table 1:	Growth of Population (Numbers are in million), 2000 to 2013	78
Table 2:	Working Age Population, 2000 to 2013	79
Table 3:	Annual Growth of Labour Force (per cent per annum)	79
Table 4:	Male and Female Labour Force Participation Rates, 1991 to 2015-16	80
Table 5 a:	Age-specific Labour Force Participation Rates by Gender	81
Table 5 b:	Age-specific Labour Force Participation Rate by Gender, 2013 and 2015-16	81
Table 6:	Labour Force by Level of Education	82
Table 7:	Employed Population Aged 15 and Over by Levels of Education (%), 2013 and 2015-16	82
Table 8:	Sector Composition of Employment (% of total) by Gender, 1999-2000, 2005-06, 2010	83
Table 9:	Growth of Employed Persons by Industry and Gender (% per annum)	84
Table 10:	Elasticity of Employment with Respect to Output	84

Table 11: Elasticity of Employment with respect to Output, 2005-06 to 2010 and 2010 to 2015-16 85
Table 12: The Ready-made Garments Industry: Growth of Employment and Exports, 1989-90 to 2015-16 86
Table 13: Underemployment in Bangladesh (% of labour force) 88
Table 14: Underemployment in Bangladesh by Location and Gender (% of labour force) 89
Table 15: Excessive Work by the Employed Population 90
Table 16: Changes in the Structure of Employment by Status in Employment (percentage of total employment) 91
Table 17: Employment in the informal sector 92
Table 18: Labour Productivity (GDP per employed person) 96
Table 19: Youth Unemployment Rate 97
Table 20: Youth Unemployment Rate by Gender and Location: 2013, 2015-16 97
Table 21: Proportion of Employment by Industry and Age Group, 2015-16 97
Table 22: Informal Employment as Percentage of Total Employment (Youth and Total, 2015-16) 97
Table 23: Own Account Workers and Contributing Family Workers (Youth and Total, 2015-16) 98
Table 24: Top Ten Occupations of Male and Female Migrant Workers, 2005-2015 103
Table 25: Overseas Employment of Bangladeshi Workers to Major Destination Countries 108
Table 26: Employment Projections under Alternative Assumptions about Employment Elasticity (With GDP growth forecast for the Perspective Plan: 8% p.a. between 2020 and 2025 and 8.5% p.a. between 2025 and 2030) 120
Table 27: Employment Projections under Alternative Scenarios of the Pattern of Growth (with GDP growth of 8% per annum and employment elasticity of 0.35) 121
Table 28: Projections of Population and Labour Force, 2031 and 2041 122
Table 29: Coverage of Micro-credit Programmes, 2015-16 131
Table 30: Budgetary Allocations for Employment-Based Social Safety Net Programmes 132
Table 31: Bangladesh: Some Indicative Targets in Education and Skill Development for 2030 144
References 147

List of Figures

Figure 1:	Index of Real Wages, 1993-94 to 2008-09 (1969-70=100)	93
Figure 2:	Increase (%) in Nominal Wages and Consumer Price Index, 2011-12 to 2014-15	94
Figure 3:	Overall and Youth Unemployment Rates	96
Figure 4:	Youth Unemployment Rate by Levels of Education, 2015-16	98
Figure 5:	Overall Unempoyment Rate by Level of Education	99
Figure 6 a:	Overall Unemployment Rate (%) by Gender and Level of Education, 2013	99
Figure 6 b:	Overall Unemployment Rate by Level of Education and Gender, 2015-16	100
Figure 7:	Total Number of Workers and the Number of Female Workers Going Abroad	101
Figure 8:	Percentage Share of Overseas Employment by Destination Countries	102
Figure 9 a:	Country of Employment (All Workers, 1976-2016)	102
Figure 9 b:	Country of Employment (Female Workers, 1991-2016)	103
Figure 10:	Share (%) of Various Skill Categories in Total Migrant Workers	104
Figure 11:	Gender Difference in the Skill Composition of Migrant Workers, 2005-2014	105
Figure 12:	Total Number of Workers Going Abroad, 1990-2016	106

Abbreviations

AdVAT	Advance Value Added Tax
AI	Artificial Intelligence
AIT	Advance Income Tax
ASEAN	Association of Southeast Asian Nations
ASYCUDA	Automated System for Custom Data
BBS	Bangladesh Bureau of Statistics
BGMEA	Bangladesh Garments Manufactures and Exporters Association
BKMEA	Bangladesh Knitwear Manufactures and Exporters Association
CD	Customs Duty
DMCC	Dubai Multi-Commodities Centre
DRAM	Dynamic Random Access Memory
DWT	Deadweight Tonnage
EBA	Everything but Arms
ECR	Export Concentration Ratio
EERM	Effective Exchange Rate for Imports
EERX	Effective Exchange Rate for Exports
EPB	Export Promotion Bureau
EPZ	Export Promotion Zone
ERP	Effective Rate of Protection
ETI	Enabling Trade Index
EU	European Union
FCG	Final Consumer Goods
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
FY	Fiscal Year
GDP	Gross Domestic Product
GED	General Economic Division
GNI	Gross National Income
GNP	Gross National Product
GSP	Generalized System of Preferences
GVC	Global Value Chains
HCI	Heavy and Chemical Industries
HIC	High Income Country
HS	Harmonized Commodity Description and Coding System
ICT	Information and Communications Technology
ISAC	Industrial Sector Adjustment Credit
LC	Line of Credit
LDC	Least Developed Country
LMIC	Lower Middle Income Country
LPI	Logistics Performance Index
MFA	Multi-Fiber Arrangement
MFN	Most Favored Nation
MGI	McKinsey Global Institute
MSC	Multimedia Super Corridor

NBR	National Board of Revenue
NEM	New Economic Model
NRP	Nominal Rate Protection
OECD	Organization of Economic Cooperation and Development
PRI	Policy Research Institute
PTA	Preferential Trade Area
QR	Quantitative Restrictions
RCEP	Regional Comprehensive Economic Partnership
RD	Regulatory Duty
REER	Real Effective Exchange Rate
RMG	Ready Made Garment
RTA	Regional Trade Agreements
SAFTA	South Asian Free Trade Area
SBW	Special Bonded Warehouse
SD	Supplementary Duty
SEZ	Special Economic Zones
SME	Small and Medium Enterprises
TNC	Trans-National Corporation
TPP	Trans Pacific Partnership
TTIP	Trans-Atlantic Trade and Investment Partnership
TTRI	Trade Restrictiveness Index
UD	Utilization Declarations
UMIC	Upper Middle Income Country
UNCTAD	United Nations Conference on Trade and Development
VAT	Value Added Tax
WDI	World Development Indicators
WITS	World Integrated Trade Solution
WTO	World Trade Organization

Part-1

Trade and Industry Strategy in the 21st Century for Sustained Rapid Growth and Job Creation

Dr. Zaidi Sattar*

* Dr. Zaidi Sattar is Executive Chairman, Policy Research Institute an Independent Think-Tank, Dhaka, Bangladesh

Executive Summary

The global business community now recognizes Bangladesh as a nation of dynamic first generation industrial entrepreneurs who can compete with established players in the world market – export performance of readymade garments (RMG) is the classic example. Bangladesh has become a global powerhouse in low-cost manufacturing. But profound changes are taking place in the global economy. A fast-paced technological revolution, the digital age, is under way which will eventually change the way we live, work, and interact with the global community. The future of manufacturing is also digital. These changes are unlike anything humankind has experienced before. Properly harnessing these global forces will enable Bangladesh to grow at higher rates in future that were simply not possible before. And Bangladesh industry must conform to stay competitive.

Structural Change. A rapid pace of industrialization centered on export-oriented manufacturing has been responsible for growth acceleration of the Bangladesh economy thus far. The country has gone through structural change since its independence, following the canonical shifts of output and labor, from agriculture to industry, a structural transformation attributable to changing demand patterns: owing to higher income elasticities for manufactures, the share of expenditures in agricultural goods tends to decline. Consequently, industry share in GDP outstrips those of agriculture as national incomes rise. Looking into the future, there is little doubt that industry will remain the key driver of growth at least until Bangladesh becomes an Upper Middle-Income Country (UMIC) by 2030. Thereafter, (or even earlier), the economy will be driven by a combination of futuristic digital and industrial revolution in which, according to expert analyses, services will be making heavy inroads.

Industry 4.0. The Fourth Industrial Revolution is upon us -- a phenomenon defined by trends such as the Internet of Things (IoT), robotics, 3D printing, and artificial intelligence (AI), which are changing the way we live and work. The Internet of Things (IoT), with intelligent manufacturing is increasingly becoming the norm in advanced industrial economies. According to global industry experts, the future of manufacturing will be characterized by that of smart manufacturing—the application of information and communication technologies (ICTs) to every facet of modern manufacturing processes. The digitalization of manufacturing will transform the manufacturing process as much as it will transform the operations, energy footprint of factories, and the management of manufacturing supply chains. There are concerns however; that it might potentially reduce the relative advantage of low labor-cost exporters like Bangladesh. Therefore, public policy will play a pivotal role in ensuring and sustaining Bangladesh's global competitive advantage in the future.

Shifting patterns of Globalization. In the past 25 years, falling costs of transportation and communication and removal of barriers to trade have been the driving force behind globalization - the closer integration of economies into the global marketplace. According to research by various organizations (World Bank, 2002; Mckinsey Global Institute, 2017), globalization has played a pivotal role in fostering economic growth and poverty reduction. Bangladesh has been among the strongest beneficiaries of this development. Several important features of the current and future trends of globalization have been identified.

Global analysts agree that the next 25 years will experience a new wave of accelerated globalization driven by cross-border flow of technology, capital, and knowledge, within a global infrastructure characterized by the greatest trade openness to trade and investment. Also notable is the rising importance of global value chains, where services are actually embodied in manufactured goods.

Over the next 25 years the stage is set for developing and emerging economies like Bangladesh to move center stage in the global economy. Tremendous opportunities will be created along with income inequality, tensions in labor markets, environmental challenges. In charting a long-term perspective of Bangladesh's transformation to a high-income country, at least three important features of the current and next wave of globalization should be kept in view: (a) boundless growth of trade, (b) greater integration of capital and financial markets, and (c) rapid pace of technological innovation and diffusion. With the help of appropriate policies Bangladesh must ensure that growth is inclusive by addressing the challenges arising from income inequality and potential labor market disruptions.

Challenges in a Competitive World. In the unfolding industrial universe of the future, Bangladeshi firms will face the stark reality that competitive advantage founded on low labor cost cannot be guaranteed for all time. Competitive advantage is dynamic and will be evolving. From its current phase of factor-driven competitive advantage Bangladeshi firms will have to move into investment and innovation driven competitive advantage (a la Porter). Without such efforts, entrepreneurs need be warned that the current competitive advantage in labor-intensive garment exports could well be lost in future. The state will have to play a significant but facilitating role in ensuring that the competitive advantage of our private firms is sustained over the long-term.

Lessons from High Performing Economies. Korea, Taiwan, Malaysia, Thailand, all of these high performing economies that eventually crossed the high-income threshold acquired the following characteristics: macroeconomic stability, high shares of trade in GDP, heavy investment in people (skills development), and strong competition among firms. Bangladesh already has some of these characteristics, and will have to focus on acquiring the rest, especially on investment in people and skill development. All these countries sought to exploit the international market and adopted export-push strategies by the 1980s, or earlier, with active promotion of manufactured exports. This proved to be the most successful combination of fundamentals and policy interventions and hold the most promise for other developing economies. Two strategic policy prescriptions for Bangladesh that emerge from their experience of dynamic export-oriented growth may be divided into fundamentals, or selective interventions. Fundamentals are macroeconomic stability, high investments in human capital, stable and secure financial systems, limited price distortions, and open to foreign technology. Selective interventions include mild financial repression (keeping interest rates low but positive), directed credit, selective industrial promotion, and trade policies that push non-traditional exports.

Trade openness and Export Competitiveness. There is strong international evidence that export performance, and its offshoot, progress in export diversification, is in large part the outcome of the trade policy regime governing export production and trade. Though there was wide variation in the extent of incentives, most of the high performing East Asian

countries engaged in some form of selective promotion subsidies, preferential financing, tax incentives, subsidized infrastructure, and foreign investment incentives. Because all of them, at some point or the other, had on-going import-substituting policies to support domestic industrialization, export incentives were necessary to effectively offset the anti-export bias of effective protection provided to import-substituting industries. Evidence from Bangladesh over the past two decades provides confirmation to the proposition that trade openness has had a positive impact on export performance. But there is still some way to go as Bangladesh's export basket is not very diversified. One of the features of a competitive dynamic economy is to ensure that domestic prices of tradable are close to international prices which would require protection levels to be modest. Bangladesh has high levels of effective protection to import substitutes which keep domestic prices significantly above international prices with considerably higher profitability of domestic sales compared to exports. A swift rationalization of the protection structure has become an imperative for export diversification.

Exploiting Global Value Chains. The fragmentation of production processes across different countries has given rise to global value chains (GVCs) creating opportunities for intra-industry trade globally, especially giving a boost to trade in intermediate goods. But the technical 'know-how' needed for the production of an intermediate good in the GVC must be obtained since Bangladeshi entrepreneurs are not exposed to such expertise. That justifies the critical need for foreign direct investment, and policy makers must mitigate any constraints that undermine the prospects of FDI. Not only in the production of intermediate goods, courting FDI will be essential for future technology leapfrogging to capture production and market access in manufacturing products of the coming decades. A clear strategy will have to be laid out for mobilizing foreign direct investment (FDI) through private investments and public–private partnerships. Drawing lessons from the FDI experience of comparators will be critical for this approach as Bangladesh is significantly lagging behind at present.

Strengthening institutions. Historical research finds conclusive evidence that inclusiveness of political and economic institutions is critical for sustained prosperity. Bangladesh is on way to building the kind of institutions that yield prosperity for the long-term. The next decade will be crucial for strengthening economic institutions that will help entrepreneurs seize market opportunities emerging in a fast-changing global economy driven by innovation and Schumpeterian forces of creative destruction in the global marketplace.

Trade and Industry Strategy in the 21st Century for Sustained Rapid Growth and Job Creation

A. Industry And Trade In The 21st Century

We are living in a world that is transforming at speeds almost incomprehensible to the average mind. Unlike historical growth rates experienced in the past centuries, it is now possible for developing economies like Bangladesh to grow at 7, 8, 9, or 10 percent annually. This is because of the enabling effect of a rapidly integrating global economy. The global economy provides two things. One is a huge market which is getting more integrated over time. Provided an economy has some competitive edge – and Bangladesh does -- it can basically grow as fast as it can invest and build productive capacity. The second thing— even more important—is that the global economy provides knowledge, technology, know-how. Globalization coupled with instantaneous transmission of digitized information results in acceleration and augmentation of the flow of knowledge, technology, and learning. According to Karl Schwab, the founder and head of World Economic Forum, the digital age will bring change "unlike anything humankind has experienced before." Properly harnessing these global forces will enable Bangladesh to grow at higher rates in future that were simply not possible before.

The transition from agriculture to manufacturing is still the path to higher productivity and rising living standards for Bangladesh – a structural transformation that is bound to continue and intensify over the next decades. In the future, this transition will come with intense pressures for innovation and securing industrial competitiveness, as manufacturing goods make up 70% of global trade. There is clear consensus that Bangladesh's future growth and prosperity lies in outward-looking industrialization to create good jobs and income by exploiting our competitive advantage. That will require Bangladesh industrial and trade policies to evolve in tandem with global trends, and developments in industry and trade of the future. In particular, our policymakers will have to recognize that our competitive advantage today based on low-skilled and low cost labor could be threatened by evolving technology and innovation in the 21st century.

Seizing on this global trend and banking on the current state of Bangladesh's development, the Perspective Plan 2021-41 provides a road map for transforming Bangladesh from a Lower Middle-Income Country (LMIC) to Upper Middle-Income Country (UMIC) by 2030 and then becoming a High-Income Country (HIC) in the 2040s. It is a Plan for one of the speediest transformation of a developing economy in history. The challenge is daunting but the potential exists if the nation could embark on a dynamic path of sound political and economic governance for effectively harnessing its human energies and natural resources.

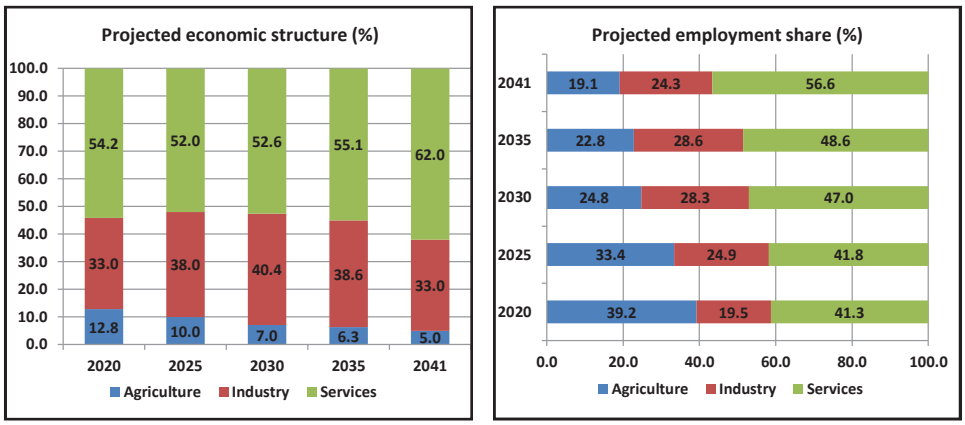
This chapter lays out the vision for the next 25 years of trade and industrial development in Bangladesh in the context of evolution of global trade and industry over the same period. The fact is that trade and industry across the globe will undergo significant transformation by the 2040s, some of which are modestly predictable while others can only be surmised. Drawing from Bangladesh's own experience and from ideas articulated by global experts about the shape of things to come, this chapter will first describe a vision of industrial evolution and transformation over the course of the first half of the 21st century, followed by a similar assessment of the evolving global trade scenario.

For much of the next quarter century, the bulk of job creation in Bangladesh will be taking place in a diversified manufacturing sector that is globally competitive, export-oriented, and focused on breaking into emerging markets while expanding its market share in developed economies of the world. Recognizing that Bangladesh's future industrial prospects will be intricately linked to the projected trends in (a) global and regional trade, (b) the future of globalization, and (c) the evolution of trade policies determined by the transformation of manufacturing and services of the future, this chapter develops an integrated strategy for future growth and job creation for Bangladesh building on the interplay of these three interlinked and strategic forces that can fuel economic growth and propel Bangladesh across the high income threshold in the 2040s.

B. The Fourth Industrial Revolution And Beyond

Growth acceleration of the Bangladesh economy thus far has been driven by rapid pace of industrialization, primarily based on export-oriented manufacturing. As manufacturing grew faster than agriculture, structural change that has been taking place since independence basically shows industrial GDP replacing agriculture with the result that industry in FY2016 made up 31.5% with manufacturing at 20% of GDP. Looking into the future, it is a foregone conclusion that industry will remain the key driver of growth at least until Bangladesh becomes an Upper Middle-Income Country (UMIC) by 2030. Thereafter, (or even earlier), the economy will be driven by a combination of futuristic digital and industrial revolution, in which services will be transformed into a modern digitized sector (from its current informal state) some of it can only be surmised at the present time. By 2041, like other developed economies, services will become the predominant sector in the economy in terms of output and employment. Projections made by General Economics Division of the Planning Commission with respect to sectoral contribution to GDP and employment for the period 2020-2041 are shown in (Figure.1).

Figure 1: Projected economic structure and employment share (%)

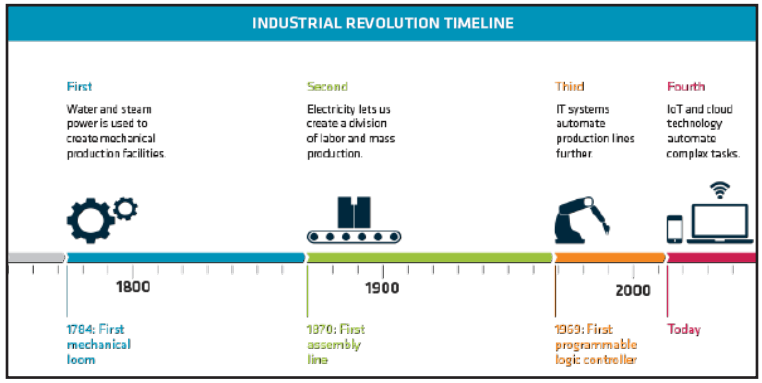


Source: GED projections

The world economy is now in the grip of the Fourth Industrial Revolution. In order to strategize on the approach to trade and industrial growth over the next 25 years, it would be necessary to get a good understanding of what the on-going Fourth Industrial Revolution

(Figure.2) is, what it means for Bangladesh, and the kind of opportunities and challenges it presents for Bangladesh's race to become a UMIC and HIC. The first and second industrial revolution of the 19th and 20th centuries are long over. The Third Industrial Revolution brought computers and the internet. The Fourth is expected to be much broader as machines are becoming smart and connected, contributing to dynamic fusion of technologies in the digital age. The prospect of another industrial revolution – the Fifth -- in the course of the next 25 years cannot be ruled out and must be taken into account in formulating national policies that are flexible and compatible with the changing landscape of trade and industry in the 21st century.

Figure 2: Charting the Course of Industrial Revolutions



Source: Extracted from Mjolner Infomatics, Realizing the Fourth Industrial Revolution.

What will a Perspective Plan be looking for in carving out a strategy for sustainable industrialization consistent with global developments of the next 25 years?

According to an OECD report (OECD, 2016), the Fourth Industrial Revolution (FIR) entails a confluence of technologies ranging from a variety of **digital technologies** (e.g. 3D printing, Internet of Things, advanced robotics) **to new materials** (e.g. bio- or nano-based) to **new processes** (e.g. data driven production, artificial intelligence, synthetic biology). These technologies will be available in the near future (10-15 years, according to OECD, 2016). As these technologies have an impact on the production and the distribution of goods and services, they will have far-reaching consequences for productivity, skills, income distribution, well-being and the environment.

According to global industry experts the future of manufacturing will be defined by **smart manufacturing** the application of information and communication technologies (ICTs) to every facet of modern manufacturing processes that is already transforming the global manufacturing economy. According to these experts, the Internet of Things (IoT) has arrived, named **Industry 4.0,** with intelligent manufacturing increasingly becoming the norm in advanced industrial economies. The digitalization of manufacturing will transform how products are designed, fabricated, used, operated, and serviced post-sale, as much as it will transform the operations, processes, and energy footprint of factories and the management of manufacturing supply chains. What is disconcerting is that it will also change the global landscape of manufacturing competition, potentially reducing the relative advantage of low labor-cost exporters like Bangladesh. The countries and enterprises and industries therein that lead in embracing smart-manufacturing techniques will gain first-mover advantage over global competitors. Therefore, public policy will play a pivotal role

in setting the competitive landscape affecting smart manufacturing leadership, impacting everything from how quickly countries' enterprises will be able to research, develop, adopt, and diffuse these technologies to how ready their workforces and supply chains will be to leverage them. Bangladesh policymakers cannot ignore these developments.

A sample of the key technological transformations in industry includes:

- **The Internet of Things (IoT).** This will bring radical change. The term 'Internet of Things' (IoT) refers to the connection of devices and objects to the Internet. Thanks to new sensors and actuators, and in combination with big data analysis and cloud computing, the IoT enables autonomous machines and intelligent systems. The IoT can bring improved process efficiencies, customer service, speed of decision-making, consistency of delivery and transparency/predictability of costs (Vodafone, 2015). Beyond production, health services and vehicle efficiency are expected to undergo radical improvements through IoT, bringing major economic and social benefits.

- **Robots,** which are set to become more intelligent, autonomous and agile. By being faster, stronger, more precise and consistent than workers, robots have vastly raised productivity on assembly lines in the automotive industry. They are likely to do so again in an expanding range of sectors and processes. Companies like Ford, GM, GE, and Wal-Mart, are taking advantage of automation with robotics to deliver better products at lower prices, bringing jobs back from low labor-cost countries to USA, which has a higher quotient of skilled labor to work in collaboration with robots. BCG Research (2015) predicts that by 2025, adoption of advanced Robots will boost productivity by up to 30 percent in many industries and lower total labor costs by 18 percent or more in countries such as South Korea, China, the U.S., Japan, and Germany.

Box 1: Robots Replacing Humans in Garments Manufacturing!

The transformative impact of the Fourth Industrial Revolution is all around. Society is already being redesigned by new technologies that combine the physical, digital and biological worlds. Disruptive technologies such as robotics and artificial intelligence (AI) are already altering workplaces. Bangladeshi companies have started using robotic machines in their factories, replacing hundreds of repetitive tasks and compelling workers to skill up. Emerging technologies will continue to serve consumers with better precision and efficiency. Such disruption calls for a reboot in thinking vis-à-vis future of manufacturing and employment.

Sewbot, robot that can sew together a complete item of clothing, could replace labor in the manufacture of low-cost garments. Sewbot–SoftWear Automation's clothes-making robot–was developed at Georgia Tech's Advanced Technology Development Center. In 2012, there was push to develop the concept and form a company to commercialize the technology. By 2015, the company was selling a more basic version of the robot that could make bath mats and towels. The newest version can make T-shirts and partially sew jeans. Other, yet similar, technologies to further develop Sewbot-type machines are in the pipeline across different research centers.

When the Chinese clothing manufacturer Tianyuan Garments Company opens its newest factory, it will be in Arkansas, not China, and instead of workers hunched over sewing machines, the factory will be filled with fully autonomous robots and their human supervisors. Once the system is fully operational, each of the 21 production lines in the factory will be capable of making 1.2 million T-shirts a year, at a total cost of production that can compete in terms of cost with apparel companies that manufacture and ship clothing from the lowest-wage countries in the developing world, such as Bangladesh. The factory will be one of the first to use a technology that could herald immense changes in how the apparel industry works.

Sewing robots will lead to a transition from garment-worker intensive apparel sector to automation of clothes-making. The transition may be messy but as the robots become cheaper and more sophisticated it will most likely replace clothes-making jobs in high volumes. This revolutionary change will threaten jobs in developing countries. In Bangladesh, where there are cheap garment workers, the majority of the country's exports are clothing. If companies like H&M and Walmart choose to relocate production of some apparel to North America and Europe, workers in Bangladesh and other low-wage countries will most likely lose jobs – an alarming prospect indeed.

Source: Adapted from Sewbot website (2016), Softwear Automation website (2017), World Economic Forum (2017), Mjølner Informatics (2017), and articles from The Telegraph, Fast Company and Dhaka Tribune.

- **Nanotechnology,** through which new properties are being imparted to materials, making them stronger, lighter, more electrically conductive, more sieve-like, and so on.

- **3D printing** includes a group of technologies and processes that use a digital file to build a physical three-dimensional object using additive manufacturing. 3D printing makes it as cheap to create single items as it is to produce thousands and thus undermines economies of scale (Wikipedia). 3D printing already permits printing of complex objects (such as an electric battery) that embody multiple structures made from different materials. 3D printing could augment manufacturing productivity, although today the technology is most economical for small quantities of complex customized products. According to The Economist (February 10, 2011 leader) it may have as profound an impact on the world as the coming of the steam engine in 1750—or the printing press in 1450, or the transistor in 1950. It is impossible to foresee the long-term impact of 3D printing. But the technology is coming, and it is likely to disrupt every field it touches.

- **Cloud computing** has been credited with increasing competitiveness through cost reduction, greater flexibility, elasticity and optimal resource utilization. It is raising manufacturing productivity through interlinked supply chain, distribution and services. Cloud computing is accelerating new product development and introduction (NPDI) strategies to attain time-to-market objectives, and enabling, marketing and customer service automation applications.

Box 2: Applications of 3D Printing in Industrial Production

Apparel and footwear. 3D printing has entered the world of clothing with fashion designers experimenting with 3D-printed bikinis, shoes, and dresses. In commercial production Nike is using 3D printing to prototype and manufacture the 2012 Vapor Laser Talon football shoe for players of American football, and New Balance is 3D manufacturing custom-fit shoes for athletes.

High fashion. In the world of high fashion courtiers such as Karl Lagerfeld designing for Chanel, Iris van Herpen and Noa Raviv working with technology from Stratasys, have employed and featured 3d printing in their collections.

Eyewear. 3D printing has come to the point where companies are printing consumer grade eyewear with on-demand custom fit and styling (although they cannot print the lenses). On-demand customization of glasses is possible with rapid prototyping.

I**ndustrial Art and Jewelry.** 3D printing is used to manufacture mouldes for making jewelry, and even the jewelry itself. 3D printing is becoming popular in the customizable gifts industry, with products such as personalized models of art and dolls, in many shapes: in metal or plastic, or as consumable art, such as 3D printed chocolate.

Automotive industry. In early 2014, Swedish supercar manufacturer Koenigsegg announced the One: 1, a supercar that utilizes many components that were 3D printed. In the limited run of vehicles Koenigsegg produces, the One: 1 has side-mirror internals, air ducts, titanium exhaust components, and complete turbocharger assemblies that were 3D printed as part of the manufacturing process.

The effect of technological change in industry and other economic activities on employment and earnings inequality has recently drawn increased attention from academics and policymakers. Given current state of technology in Bangladesh manufacturing, the major impact of these technological transformation is likely to be felt in the 2030s decade, with creeping technological evolution in the 2020s. Industrial policies of today will have to take note of these impending developments though one may hope optimistically that Bangladesh's labor cost advantage will remain unaffected for at least another decade.

Contrary to popular belief, research on firms and industries (Miller and Atkinson, 2013) shows that the employment effects of technological change are generally positive as productivity-enhancing technology causes job losses in some cases and job gains in others. But the number of firms and industries which experience employment growth exceeds the number in which employment contracts. Bangladesh industry is gradually embracing the latest technologies though cost imperatives make labor-intensive production still attractive. It will take several more years for technological change to catch up though leapfrogging innovations that are technology intensive will also happen in the near future, as recent reports from the RMG sector seem to suggest (Islam, R. 2017). These changes (described as automation) have to be closely watched due to the risk of machine-driven labour displacement, which might undermine labour-cost advantages on which Bangladesh has been relying so heavily. Strategies for industrial development that take a longer perspective must factor in these impending transformations in industry in order to be relevant over the long-term.

C. Trading In A New Wave Of Globalization

According to the World Bank (2002), it was globalization that helped poor countries break into the global market for manufactures and services – a successful integration that generally supported poverty reduction in countries like Bangladesh and Vietnam. Pascal Lamy, the former chief of WTO, affirmed that the best thing to come out of globalization was poverty reduction, and the worst thing was inequality (Global Agenda Outlook 2013, WEF). Since global economic integration has supported poverty reduction it should not be reversed.

No doubt, globalization has been a powerful force for economic growth. Research from the McKinsey Global Institute (MGI, 2017) finds that the movement of goods, services, finance, data, and people across borders adds to GDP and fuels productivity growth. But while globalization accelerates growth, it also amplifies inequality and disruption giving rise to political backlash and spawning protectionism as seen in major markets today. Policy makers are now being challenged to preserve the benefits of globalization while addressing its negative externalities. Because of the growing critique of trade openness in developed countries in recent times, Martin Wolf (CUTS 2014) of the Financial Times described the global trade regime as a "troubled triumph". But the onward march of globalization demonstrates that it is indeed a triumph that is here to last for many decades – something Bangladesh economy has to accept as given.

The state of globalization and contemporary global trends in the world economy has been aptly described by Arvind Subramaniam and Martin Kessler of the Peterson Institute for International Economics, in Washington DC, who identified several important features (Subramaniam and Kessler, 2013) that will have to be taken on board in formulating any long-term national perspective plan with a futuristic outlook:

1. Hyper-globalization and Universalization: widespread embrace of globalization and greatest openness to trade and investment in world economic history.
2. Mega-traders: rise of China, India, and other emerging market economies.
3. De-materialization of trade: rising importance of services in global trade
4. Proliferation of regional and preferential trade agreements and the current discussion of megaregional ones.

Future of globalization. The world has been globalizing for centuries. But the past 25 years has experienced a rapid pace of globalization, at speeds not attained in the past – described as hyper-globalization. There is near consensus among global analysts that the next 25 years will experience a new wave of accelerated globalization driven by cross-border flow of technology, capital, and knowledge, within a global infrastructure characterized by the greatest trade openness to trade and investment.

Rise of China and India. The World Bank (Global Economic Prospects, 2007) projects that high-income countries will see their GDP doubled in the next 25 years while GDP in developing countries will more than triple, driven mainly by the impact on the global economy from expansions in China and India. Along the way, there will be many anticipated and unanticipated shocks to the global economic system which global leaders will have to cope with through better and more coordinated global economic governance. China is likely to remain the export powerhouse and mega-trader to contend with. Bangladesh policymakers will have to be conscious of these international developments as the economy will be far more integrated with the global economy than it is today.

Future of Trade –rise of services. One notable development is what Subramaniam and Kessler (2013) calls the "dematerialization" of global trade, that is, the rise of trade in services. Only recently have we begun to realize more fully the importance of services to the world economy. The contribution of services to production and trade has been steadily growing. New statistical work by the OECD and WTO shows that when we measure services in terms of their real contribution to trade – that is in terms of value-added rather than gross flows – the share of services in global trade was almost half in 2009, as opposed to less than one-quarter using the old measure.This is due to the rising importance of global value chains where services are actually embodied in manufactured goods showing that trade in services is larger and growing faster in value-added terms than traditional statistics show.

Bangladesh is behind in developing cross-border value chains and trading in intermediate goods. GVCs can be an important avenue for Bangladesh to build productive capacity where local firms could capture a significant share of the trade in value added. But East Asian economies have powered ahead seizing early opportunities, particularly in their trade with China, the leading global assembler. There is still scope for gaining a foothold in regional value chains provided we make significant investment in technology dissemination, skill building and upgrading, and making deep trade facilitation reforms. A structured approach would include embedding GVCs in our industrial development policies, in particular creating an environment conducive to trade and investment and building productive capacities in local firms and skills in the local workforce so that the economy can attract FDI from regional and global sources.

Global analysts foresee a world in which service-led industries are dominant and where businesses with explicit sustainability goals will succeed. This is one area that needs immediate policy attention if Bangladesh is to seize opportunities as barriers to trade in services crumble in future. Another key focus of future export competitiveness of Bangladesh will have to be the development of world class service industries.

Proliferation of RTAs/PTAs. In the past 25 years it appears that the era of hyper-globalization has also been accompanied by a proliferation of RTAs/PTAs. Since 1990, the number of PTAs has risen to over 300, and roughly half the exports of the top 30 exporters go to RTA partners. While two mega-PTAs – Trans Pacific Partnership (TPP) and Trans Atlantic Trade and Investment Partnership (TTIP) – have apparently lost momentum for the time being, the mega-regional in Bangladesh's backyard is the ASEAN+ which is moving up to become an economic community of East Asian countries (Regional Comprehensive Economic Partnership) with the original 10 economies (Indonesia, Malaysia, Singapore, Thailand, The Philippines, Brunei, Cambodia, Vietnam, Laos, Myanmar) joined by another five Pacific economies (China, Japan, Australia, New Zealand, S. Korea) and India. Bangladesh is behind in its regional initiatives being a member of only one FTA, SAFTA, and needs to heighten its proactivity to tie up with other regional groups to access growing markets in proximity of South Asia.

Future of global trade and Bangladesh. In the world today, $40 trillion worth of goods – roughly two-thirds of global GDP -- are traded every year across borders along ever shifting import and export routes. 70% of this trade is in manufactured goods whose dominance in trade is likely to continue for long. In the past 25 years, falling costs of transportation and communication and removal of barriers to trade have been the driving force behind the closer integration of developing economies into the global marketplace. Bangladesh has been among the strongest beneficiaries of this development. Over the next 25 years the stage is set for developing and emerging economies like Bangladesh to move center stage in the global economy. Tremendous opportunities will be created along with acute stresses arising from income inequality, tensions in labor markets, environmental challenges. With rapid technological progress touching every aspect of society, global trade in goods and services will accelerate, with greater integration of financial markets, creating opportunities for faster long-term growth.

What is evolving over time is that, thanks to technological breakthroughs, industrial good that were the exclusive preserve of developed countries (e.g. car parts, semiconductors, consumer electronics) is now manufactured and exported by developing countries. These developments create enormous opportunities for Bangladesh to seize, creating jobs and income at home. Importantly, with the help of appropriate policies Bangladesh must ensure that growth is inclusive by addressing the challenges arising from income inequality and potential labor market disruptions.

Thus in charting a long-term perspective of Bangladesh's transformation to a high-income country, at least three important features of the current and next wave of globalization should be kept in view: (a) boundless growth of trade, (b) greater integration of capital and financial markets, and (c) rapid pace of technological innovation and diffusion. World trade has exploded since the 1960s, growing faster than output, and causing global exports to rise from only $1 trillion to $16.5 trillion in 2015 and is projected to reach $65 trillion by 2050. Despite the brief interlude of discontent with globalism across some OECD countries, trade integration is expected to accelerate, and Bangladesh's future industrialization lies in seizing the expanding export opportunities in the world economy. Thanks to financial and capital market integration, which will intensify over time, inward FDI flows to developing countries reached $200 billion pre-crisis, fell sharply post-crisis, but is again showing signs

of a resurgence, led by inflows into China and India. We will have to make the strongest efforts to create the kind of investment climate that captures a much larger share of global FDI in order to build our infrastructure of the future. Finally, Bangladesh can look forward to further technological breakthroughs and their diffusion accelerating the flows of goods, capital, and knowledge, and we have to position ourselves with adequate investments in education and skill development in order to fully absorb the gains arising from these changes.

How significant is de-globalization trend? The preceding describes the evolving global architecture within which Bangladesh trade and industrial policies will have to operate. Some political developments in the advanced industrial countries have raised skepticism against current trends in globalization and trade openness. This is because not all aspects of globalization are positive. Easier access to knowledge and information could also create a world that is more volatile with increased economic uncertainty as the global financial crisis of 2008-09 has shown. Trust in global governance erodes when business and political leaders fail to resolve crisis and improve lives in their own communities. That provides fodder to the voices of economic nationalism fueling forces of protectionism and de-globalization (a la Trump). Disappointing growth rates across the developed world have prompted their political leaders not to sacrifice what they consider national interests for global prosperity. But leading experts on the global economy (Stephen King, 2017) invoke the lessons of history to warn that such pursuit of nationalist agendas could result in a race to the bottom while rejection of globalization and a return to "autarky" will risk economic and political conflict.

The good news is that this sort of parochialism has been countered by leading trade experts as well as the wider political stream in those countries, and the mood has softened. The assessment of global analysts is that the current ambivalence to globalization is an episodic fallout of inward-looking political developments that is already showing signs of decadence. In the broader historical context this could become a passing phase. According to global analysts (Seidel and Chandy, 2016) the coming years will be characterized either by stabilization in the level of globalization, or further growth in the degree of integration but at a more modest pace than in the past. Therefore, scenario changes from the current – hopefully brief -- wave of de-globalization and protectionist sentiments to a new wave of globalization will be surmised by this study for the coming twenty-five years. Bangladesh's industrial progress therefore will have to be envisioned in a highly integrated world involving seamless flows of goods, services, capital, and even labor.

Under these future scenarios of globalization, trade analysts (Oxford Economics and HSBC research reported in Global Trade Review 2015) have prognosticated on the major trends that will shape the future of trade. A striking conclusion of the report is that service-led industries will become dominant and businesses with explicit sustainability goals will succeed. That is, businesses will have to make sure supply chains are sustainable. The trade of services will be a dominant feature of future trade and the way we define world trade volumes will need to be changed as a result, such as accounting for trade in value added services. This is because so much of the traded goods have ingrained service components in them. For example, only a percentage of the work that goes into a smartphone is hardware – an industrial product. A significant volume of services is provided with this product in terms of software updates which also need to be accounted for. Similarly, increasing export of healthcare and education services will emerge as significant components of trade volume in the future.

To sum up, Bangladesh will have to contend with five notable trends that will shape the future of trade:

1. **Trade liberalization will continue.** The pace of trade liberalization will continue with the extension of free trade and the continuing harmonization of standards and regulations to reduce barriers to trade, fostering the rise of "mega-regionals". A more stable political and currency environment is anticipated, making trading easier for companies around the world.

2. **Trade facilitation will reduce cost and increase speed of trade.** Trade will be boosted by improvements in logistics. The cost of shipping will fall, driven by a combination of larger vessels and the expansion of shipping lanes. New airports, with increased energy efficiency and further streamlining of border control processes, will speed up trade and reduce air freight costs too. In addition, continued advances in transport technology and infrastructure will increase capacity, opening up new trade routes.

3. **Global value chains will evolve and consolidate.** Bangladesh will have to make up for opportunities lost in integrating into global and regional value chains by courting FDI and joint ventures to develop and trade in a wide range of intermediate goods and services. This approach provides one more avenue for fostering the elusive export diversification.

4. **Digital innovation in industry and trade and the drive to sustainability.** Digital innovation will continue to provide opportunities for businesses and individuals. New technologies create fresh products and business models that can be adapted for different markets, undermining the importance of location. Increasingly interconnected economies will bring rapid change and transmission of ideas around the world. The supply chain will need to innovate to respond to increasing expectation and demand for greater environmental sustainability.

5. **Mass customization.** Factories of the future will be small and flexible rather than large and rigid, and located close to the end customer. With digitization products can be easily customized and sold in different markets, representing a shift from mass production to mass customization.

6. **Micro-multinationals will emerge and thrive.** With digitization and tightly connected global networks small and medium enterprises (SMEs) have an opportunity to level the competitive playing field against larger firms. New technologies such as 3D printing will enable smaller players to deliver customized products anywhere in the world. That portends a radical shift in economies of scale. This will give Bangladesh SMEs a fighting chance to complete in the global marketplace.

D. Challenges And Opportunities In A Competitive World

In the previous section we have argued that globalization will be an integral part of the global economic system for the foreseeable future and the only way for economies to survive and thrive in that sort of global trade architecture is to be competitive. While

national governments provide the institutions and economic framework in which firms can strive for gaining competitive advantage, it is up to the firms to carve out competitive niches in a variety of products. They do so by deftly harnessing the nation's factor endowments and its national and physical resources thereby enhancing productivity and reducing costs. Michael Porter (1998), the guru of the Competitive Advantage of Nations, found that nations pass through several phases in achieving and sustaining competitive advantage, the first of which is factor-driven, the stage in which Bangladesh finds itself today. Abundance of low-skilled labor give it the cost advantage in labor-intensive products such as apparel and footwear. To augment this competitive advantage on to other products and sustain it for the long-term, Bangladeshi firms will have to invest and resort to innovation, going beyond the employment of low-cost labor in future.

As the 21st century rolls into the third decade and onwards, tremendous opportunities will open up for Bangladesh entrepreneurs in a competitive global market to trade in goods as well as services. But opportunities will be associated with enormous challenges stemming from fierce competition in global markets with rapidly changing demand structures, over time and space. The speed of Bangladesh's industrialization with job creation will depend on how well the economy is integrated with the global economy, with well-heeled policies to capture external markets while removing distorted incentives in domestic markets.

A nation's industrial and export success over time will be defined by the ability of its firms to acquire and sustain competitive advantage. But there is nothing guaranteed about competitive advantage. The past and future of competitive advantage could be a lot different. Internationalization of competitive advantage has already taken place. As trade barriers have come down, it has also become difficult to shelter uncompetitive firms. Gone are the days when it could be said that countries with low cost labor will have all the advantage in labor-intensive products and nations with plenty of capital will specialize in capital-intensive products. Technology and innovation has cut into the roots of this thinking. China's labor cost advantage was not enough to catapult it into the global stage as the export powerhouse. The application of technology and innovation was just as important for its firms to gain sustained competitive advantage in many diverse technology-intensive products. Having recognized that innovation requires sustained investment in research, physical capital, and human resources, the Chinese government is now making sufficient resources available for its firms to invest more in these areas (R&D) to gain and sustain the competitive edge.

There are stark lessons for Bangladesh. Competitive advantage founded on low labor cost cannot be guaranteed for all time. The new theory of competitive advantage starts with the premise that competitive advantage is dynamic and evolving. It was Joseph Schumpeter who recognized decades ago that there was no "equilibrium" in competition (McCraw, 2012). In the international competition of tomorrow, competitive advantage cannot be a static idea but a dynamic one. Bangladeshi firms in RMG or other export industries must recognize the fact that competitive advantage grows and is sustained through relentless improvement, innovation, and change. From its current phase of factor-driven competitive advantage Bangladeshi firms will have to move into investment and innovation driven competitive advantage (a la Porter). Without such efforts, the current competitive advantage in labor-intensive garment exports could well be lost in future. History and cross-country evidence shows that there are few competitive advantages that cannot be copied. Take the

case of S. Korea which trumped Japan in the production of TV and electronic products in a matter of years. So did Brazil over Italy in leather shoes, and China-Vietnam is about to do so in non-leather sports shoes. Which means that Bangladesh's current leadership in garment exports can only by augmented and sustained over the long-term only through relentless innovation, and improvement in management of labor, skills, technology, and capital, extending its competitive advantage to many more products. The state will have to play a significant but facilitating role in ensuring that the competitive advantage of our private firms is sustained over the long-term.

To address future challenges and ensure competitiveness, a harmonious public-private endeavor has to develop in Bangladesh in the following priority tasks:

- Easing **infrastructure constraints**
- Enhancing the **quality of the workforce**
- Investing in **R&D** to promote innovation at every stage of production
- Improving the **business climate** and reducing the **costs of doing business.**
- Mobilizing the large amounts of **financing needed for physical and social infrastructure,** including through private investments and public–private partnerships
- Ensuring **environmental sustainability and climate resilience**

What is clear is that in the coming decades, as Bangladesh graduates out of its LDC status into a Middle Income Country (MIC), under international rules of the game (WTO compliant), it would be difficult to shelter uncompetitive firms or industries because in keeping step with global competitors Bangladesh will have moved towards greater trade openness making exports and domestic sales equally profitable. To create employment for some two million entrants to the job market, jobs in large and SME enterprises will have to be linked as much to the economy's external sector as to its domestic market, recognizing that factories of the future will be small and flexible rather than large and rigid, and located close to the end customer.

E. Lessons From Experience Of High Performing Economies

There are only a few instances of low-income developing economies of the 1960s reaching middle-income status and going on to become developed economies. These countries are in East Asia: South Korea, Taiwan, Hong Kong and Singapore. Apart from Hong Kong (now part of China) and Singapore which are city states, there are important lessons to be drawn from the development strategies pursued by Korea and Taiwan, the two countries that successfully avoided the "middle income trap" to reach high-income status. Other developing economies in East Asia that also became high-performers in the 1970s and 1980s include Malaysia, Thailand, and Indonesia. None of them however reached high-income status and continue to be upper middle income developing economies, though Malaysia is closest to reaching high-income threshold. China, which recorded double-digit GDP growth for two decades at a stretch and is on course to become a high-income country by 2030, has not been included in this group because of the distinct nature of its government and economic system, something Bangladesh cannot and perhaps will not emulate. Elsewhere, Brazil and South Africa have stagnated for long with per capita income under $12,000, falling into a "middle income trap", according to some analysts (Kharas and Kohli, 2011).

Currently, Bangladesh economy, having reached Lower Middle-Income Country (LMIC) status, stands at the cusp of moving out of the LDC group. UMIC beckons in 2030, and the present Government is embarking on a strategy of reaching high-income status by 2041. Export-push, among other domestic policies, is very much on the cards. Bangladesh faces the dual challenge of export expansion and diversification of its largely mono-product export basket. It is a matter of historical record that the nature and composition of exports undergo substantial transformation as economies move from low-income status to that of a middle-income or high-income country. And all this will have to be done in a global market of speedy transformation and evolution of trade and industry. Some lessons could be drawn from some of the successful economies in South East and East Asia (e.g. S. Korea, Taiwan, Malaysia, Thailand, and India-China). But care must be taken not to cling to any format but devise and adapt our own best policy scenario in a rapidly transforming world because, by most accounts, the next 25 years are expected to be nothing like the previous 25.

In what follows, the development experience of Korea, Taiwan, Malaysia, and Thailand, are reviewed with particular focus on their industrial and trade strategies as they moved from low-income to high-income status (Korea and Taiwan); approaching high-income status, as is the case with Malaysia; or caught in the grip of "middle-income trap" as is the case of Thailand. ANNEX-A presents summary of key indicators of development transformation in these four economies.

Korea

Korea has transformed itself from a stagnant agrarian society into one of the most dynamic industrial economies of the world within four decades. Korea's industrialization began in a war-ravaged economy in the 1950s with a completely decimated industrial sector. An import substitution policy emerged to restore some basic industries like sugar refining, milling and spinning, plus glass, cement, and fertilizers. But by the close of the 1950s the government was quick to realize the futility of such policies in a country with a small domestic market. In the 1960s industrialization strategy switched to aggressive export promotion and import liberalization with a selective import protection scheme for the domestic market. It came from the recognition that Korea did not have a sufficiently large population to contemplate a strategy other than export-led development. Thus the 1960s industrialization strategy involved importation of raw materials and intermediate goods, adding value through processing, followed by exports. The trade regime was generally biased in favor of exports but essentially neutral with regard to composition of exports. Tariff exemptions on equipment and raw materials imported for export production were also introduced along with financial and other inducements.

But the government did intervene to affect the factor intensity of exports, encouraging investment in industries such as shipbuilding, electronics, machinery, petrochemicals, anticipating that Korea will soon have comparative advantage in these industries. Most important, private entrepreneurs took the hint and began investing in just these strategic industries identified by the government. To accelerate investment, capital goods imports received preferential treatment while intermediate goods imports were encouraged to raise the capacity utilization rate. Export-oriented strategy solidified as Korean officials saw the benefits of export-push – improved balance of payments and accumulation of foreign exchange reserves. Export-GNP ratio which was only 6% in 1960 moved up to 40% in 1980.

With a mix of exchange rate and other support policies one strategic approach followed was to turn the effective exchange rate for exports (EERX) more favorable than that for imports (or import substitutes, EERM). L. Westphal (1978) computed the ratio of EERX/ EERM and found them to be greater than unity for the entire period 1962-1975 (Table.1). That means the trade regime was not neutral but tilted in favor of export production.

Table 1: Effective Exchange Rates for Exports Imports in Korea, 1962-75

Years	1962	1965	1970	1971	1974	1975
Ratio of EERX/EERM	1.03	1.04	1.18	1.22	1.17	1.12

One deviation was the drive for promoting heavy and chemical industries (HCI) during the 1970s. Six industries were identified as strategic: steel, petrochemicals, nonferrous metals, shipbuilding, electronics, and machinery. They received support in the form of tax incentives, detailed engineering, subsidized public services, and preferential financing. The outcome of these policy interventions was not all positive; rather bottlenecks emerged, the baking system became loaded with non-performing debt, while labor-intensive industries were starved of credit. Realizing their mistake, the government switched course (World Bank, 1993). Nevertheless, some manufacturing giants, like Samsung and Hyundai, were able to take advantage of the interventions soon becoming global names in cars and electronics. Since the 1980s, Korea emphasized financial and import liberalization, continuing the export-push with focus on technology-intensive production. With a strategic focus on changing the factor-intensity of exports over time towards technology-intensive production, Korea succeeded in moving ahead with export-oriented industrialization that also encouraged innovation and technological progress. Consequently, it has also established world prominence in such technology areas as semi-conductors, LCD, telecommunication equipment, automobiles, shipbuilding, and so on. Indeed, it has emerged from nowhere as one of the key international players in the global economy.

Korea's high growth and rapid transformation continued during the 1980s and 1990s. With income per capita having reached developed country levels, Korea joined the OECD in 1996. It is now the 13th largest economy in the world with a per capita income (2016) around $35,000. It has also established world prominence in such technology areas as semi-conductors, LCD, telecommunication equipment, automobiles, shipbuilding, and so on. Indeed, from low-income beginnings in the 1950s, it has emerged as one of the key international players in the global economy.

The principal lesson from the Korean industrialization experience is that export-push worked even under domestic interventions that supported import-substituting or strategic industries. During the entire export-push period Korea continued with providing moderate level of effective protection to selected import-substituting industries (Table.2), with high protection to heavy, chemical, and apparel manufacturing. While average nominal tariffs on consumer goods declined (12.7% in 1988), effective rates were higher but still averaged under 40%, lower than other developing countries during those years (Jung-Ho, 1993).

Table 2: Nominal and Effective Protection for Manufacturing

Protection	1978	1982	1988
Nominal Rate (NRP)	19.7	17.2	12.7
Effective Rate (ERP)	24.4	31.5	NA

Source: Yu Jung-Ho (1993)

The critical thing was that any anti-export bias of interventions were offset by support that gave exports a more favorable exchange rate with greater profitability. While there was considerable protection of goods sold in the domestic market at various times, the overriding strategy that the Korean government engineered was the application of a variety of instruments, especially export targets and rebates, to ensure that exporters faced international prices for their tradable inputs. Korean growth was essentially driven by a superior export performance.

Taiwan

With a population of 23.5 million, and GDP of $529 billion, Taiwan is the 24th largest economy in the world, and 5th largest in Asia. It is classified as a high-income country by the World Bank with $22,500 income per capita. Taiwan transformed itself from a predominantly agrarian economy in the 1950s to highly industrialized economy by the end of the 20th century. Over time, the factor intensity of its exports has undergone radical change, from labor-intensive manufactures in the 1960s and 1970s to predominantly capital- and technology-intensive products since the 1980s. The economy of Taiwan is now an indispensable partner in the Global Value Chains of Electronics Industry (World Bank, 2010). Electronic products and components and personal computers are areas of international strength of Taiwan's Information Technology industry. The electronics sector is now Taiwan's most important industrial export sector and is the largest recipient of United States investment.

Being a small economy, Taiwan's leaders realized at the outset that trade would have to be its lifeline. Indeed, foreign trade has been the engine of Taiwan's rapid growth during the past 70 years. Taiwan's economy remains export-oriented, depends on an open world trade regime, and remains vulnerable to downturns in the world economy. The total value of trade increased over fivefold in the 1960s, nearly tenfold in the 1970s, and doubled again in the 1980s. The 1990s saw a more modest, slightly less than twofold, growth. Throughout Taiwan's history, export growth has been the cornerstone of its development policy. In the early 1980s. Taiwan embarked on a development programme designed to shift the economy away from reliance on labour-intensive industries towards the development of technology-intensive products and industries, with appropriate state interventions. While continuing to pursue ongoing trade liberalization, the government simultaneously adopted a sectoral policy of identifying and promoting "strategic industries" in order to further industrial development and restructure industry. Industrial goods now make up 98% of its exports. As for trade policy, except for the initial post-war period, Taiwan generally pursued a policy of an open and liberalized trade regime with emphasis on export-oriented industrialization.

A review of Taiwan's process of economic development reveals that it has adopted several different economic strategies. In the 1950s, an import-substitution policy was followed

to reconstruct the economy and establish an industrial base after the Second World War. High tariffs and import restrictions helped develop some labor-intensive industries like textiles, apparel, wood, and leather products. However, the costs of import substitution soon appeared in growing trade deficits and declining growth. In the 1960s, an export-promotion policy was put forward to stimulate exports and to speed up economic growth. Tariffs and import controls were gradually reduced, especially for inputs to export. At that time, labor-intensive industries were comparatively advantageous and became the key industries that gained the support of the government.

After the oil crises of the 1970s, capital intensive and technology-intensive industries became the new key industries. In the 1980s, as wages rose Taiwan began losing its competitive advantage in labor-intensive products and exports lost ground. So, in order to promote industrial development and improve the country's industrial structure, the concept of "strategic industries" (mechanical products, information, and electronics sectors) was adopted (Kuo, 2015). The focus now shifted to high-technology industries: information, biotechnology, electro-optics, machinery and precision instruments. The shift to high-technology also necessitated close coordination of industrial, financial, science and technology, and human resource policies. The country soon passed the stage where its companies merely imported high-tech components. A large number of high-tech firms emerged producing increasingly sophisticated and higher-value added industrial products. That trend has continued into the 21st century with 98% of its exports being manufactured goods with high degree of sophistication. Taiwan is the world's largest supplier of contract computer chip manufacturing (foundry services) and is a leading LCD panel manufacturer, DRAM computer memory, networking equipment, and consumer electronics designer and manufacturer. All said and done, Taiwan is poised to reap the benefits of any forthcoming industrial revolution in the future.

Malaysia

Malaysia's economy has evolved from a low-income, agriculture-based economy with gross national income (GNI) per capita of US$240 in 1962 to an upper middle-income manufacturing and services driven economy with US$9,850 GNI per capita in 2016. With the current high-income threshold of US$12,475 set by the World Bank Malaysia is on track to become a high-income nation by 2020.

Malaysia's early transformation is attributed to strategic vision, bold policy decisions and ability to mobilize support from both public and private sectors. Malaysia's industrial transformation can be divided into three phases. In the first phase, 1957-1970, the country's mainstays were rubber and tin production, as well as entrepot trade centers in Penang and Malacca. While the government protected import-substituting industries, protection was moderate, averaging only 7 percent, compared to a range of 25 to 90 percent for countries in the same level of income. This policy provided the initial spurt to manufacturing growth in the economy.

The second phase, from 1971 till 1990, saw growth centered on the rise of construction and manufacturing, with focus on equitable distribution. Export-oriented manufacturing gained momentum and foreign direct investment was promoted. Privatization took off and together with the development of the Multimedia Super Corridor (MSC) in 1990s were considered instrumental in achieving rapid industrialization. In trade policy, the government began

more active promotion of natural resource exports, particularly rubber, timber, palm oil, and light manufactured exports, particularly textiles, footwear, and garments. Export processing zones, free trade zones, and licensed manufacturing warehouses that permitted duty-free import of materials to be assembled were crucial for the successful combination of import substitution and export promotion. Anti-export bias of policy was reduced as effective protection to industry declined from 31 per cent in 1979 to 17 per cent in 1987.

In the third phase, from 1991 till 2007, Vision 2020 was introduced, setting the goal for Malaysia to be a self-sufficient industrialized nation by 2020. Malaysia sought out new growth areas and pushed towards higher-value added and knowledge-based industries amid erosion in its comparative advantage in labor costs and labor-intensive manufacturing. Malaysia aggressively courted FDI to promote export-oriented industrialization.

The fourth phase, from 2008 till the present, sees the country's transformation into a high-income nation being challenged by the global crisis (2008-09), leading to the New Economic Model (NEM), unveiled in 2010. The NEM was designed to address concerns that the country was stuck in a middle-income trap with sub-par growth potential and lack of private sector dynamism. Consequently, focus has shifted to seizing opportunities presented by the fourth industrial revolution (Industry 4.0) to promote high-technology industries and minimize dependency on manpower. Priorities include automation, digitalization, robotic development and big data. The country is nearing high-income status, inclusiveness with equitable distribution of wealth, combined with financial and environmental sustainability.

Thailand

In the 1970s and 1980s, Thailand economy averaged 7-8 per cent annual growth to be included among the high-performing economies of East Asia by the World Bank (World Bank, 1993). But, following the Asian financial crisis of 1997, the economy lost its growth momentum and analysts[1] contend that not only has its medium- to long-term average growth declined by 2 percentage points, Thailand is now in the grip of a "middle-income trap" that could last for two decades, unless it embarks on a restructuring program that focuses either on manufacturing or services, not both.

Like Malaysia, Thailand's economy initially (1955-70) relied heavily on resource-based exports comprising primary and agricultural products, dominated by rice. It maintained industrial protection, modest by comparator standards, for specific industries. Effective protection for consumer goods manufactures were in the range of 25-30 per cent while machinery and intermediate inputs garnered 15-20 per cent. Import substitution strategies deepened somewhat during 1971-85 with tariffs on consumer goods raised to 30-55 per cent while those on capital and intermediate goods were reduced, thus raising effective protection levels in manufacturing (found to be 77% in 1981, 66% in 1985, according to Brimble, 1993). Textiles, pharmaceuticals, and automobile assembly were particularly favored, but domestic content requirement were established. Early in the 1980s, however, Thailand changed course, moving away from an import substitution stance as trade policy shifted explicitly in the direction of export promotion. Export taxes were eliminated and the exchange rate was devalued, eventually moving to a managed float. For much of the 1980s export-push incentives were specifically designed to offset remaining distortions

1 Nonarit Bisonyabut of Thailand Development Research Institute, as quoted in The Nation, October 11, 2014.

from Thailand's import substitution era. Export processing zones, duty-free imports, and tax rebates came into play.

Until the Asian financial crisis of 1997, the Thai economy recorded average growth rates of 7.5 per cent per annum since 1982. That growth rate slipped to only 3.5 per cent in 2005-15, signaling the possibility of a middle-income trap, with a per capita GNI around $6000 in 2015. Thailand faces the immediate challenge of avoiding the middle-income trap by identifying strategies to introduce new processes and find new markets to maintain export growth.

Ramping up domestic demand is also important—an expanding middle class can use its increasing purchasing power to buy high-quality, innovative products and help drive growth.

LESSONS

What lessons can Bangladesh draw from the transformative experience of the four East Asian economies reviewed?

The review of experience of these East Asian economies reveals some notable commonalities:

(a) all countries began as low-income economies in the 1950s, relying on resource-based exports of primary and agricultural products;

(b) in the early and middle phases of their development, all economies embraced import substitution industrialization with effective protection levels moderately lower than other developing economies;

(c) all instituted outward-looking export-push strategies for manufactures, some more aggressively than others, without completely abandoning import-substitution policies;

(d) Korea countered anti-export bias of protection policies more effectively to achieve industrial modernization with high growth rates; Taiwan adopted a more liberal trade stance, moving away from labor-intensive manufacturing to technology-intensive industries, with rich dividends; Malaysia achieved moderate success in its export-push with emphasis on technology-intensive products; Thailand economy however slowed down after the Asian financial crisis compared to the boom of 1975-96 period.

(e) All countries sought to exploit the international market and adopted export-push strategies by the 1980s, or earlier, with active promotion of manufactured exports. Export push strategies have been by far the most successful combination of fundamentals and policy interventions and hold the most promise for other developing economies.

(f) As strategies for industrialization, the policy of promotion of specific industries (picking winners) generally did not work (Page and Petri, 1993) and therefore holds little promise for developing countries. Directed credit worked sometimes but carries high risk. It was export-push strategy that proved by far the most successful intervention and holds the most promise for developing economies.

To sum up, all of these high performing economies that eventually crossed the high-income threshold (or approached HIC, like Malaysia, except Thailand, which got caught in the middle-income trap) acquired the following characteristics: macroeconomic stability, high shares of trade in GDP, heavy investment in people (skills development), and strong competition among firms. These features are the outcome of many diverse instruments and public interventions, leading to accumulation, efficient allocation, and rapid technological catch-up. With all the import-substitute protection that was imparted in these economies, research shows that their domestic prices were closer to international prices compared to other developing economies, suggesting that protection in these countries was more moderate. Two strategic policy prescriptions that emerge from their experience of dynamic export-oriented growth may be divided into **fundamentals,** or **selective interventions.** Fundamentals are macroeconomic stability, high investments in human capital, stable and secure financial systems, limited price distortions, and open to foreign technology. Selective interventions include mild financial repression (keeping interest rates low but positive), directed credit, selective industrial promotion, and trade policies that push non-traditional exports. Several leading economists (Westphal, 1978; Brimble, 1993; Kuo, 1983) have carefully studied the experience with regard to selective industrial promotion, such as HCI (heavy and chemical industries) in Korea, "strategic industries" in Taiwan, and the verdict is not clear that such selective promotion actually worked. That puts a damper on the Bangladesh approach of picking winners in the promotion of "thrust sectors" calling for a reassessment of this approach.

F. Bangladesh Export Performance And The Trade Regime

Bangladesh needs to accelerate its growth in an inclusive manner in order to have the maximum poverty reduction impact. The experiences of Taiwan and South Korea in the 1960's, 1970's, and 1980s, Malaysia, Thailand, and Singapore during 1970-90, China since 1980, and eventually India since the 1990's, provide strong evidence that exports can play a leading role in supporting rapid growth, boosting the emergence of a modern manufacturing sector, providing employment, and reducing poverty. The challenge of creating good jobs for the two million labor that is added to the workforce every year can only met by sustained expansion of exports in the global marketplace, something the limited domestic market can hardly match.

Moreover, to reach high-income status by 2041, the economy will have to record average growth of 8% in 2020s, and 9.5% in the 2030s. Historically, we have seen that that kind of high growth has been driven by superior export performance in the East Asian economies, whose development experience has been reviewed in the previous section. Besides, robust empirical evidence has been provided by many researchers on the positive relationship between export and growth (Sachs and Warner, 1995; Srinivasan and Bhagwati, 1999). Export activity has also proved to be productivity enhancing and stimulates growth by transferring resources from lower productivity activities to the higher-productivity goods identified by the entrepreneurial cost-discovery process in export markets (Hausmann and Rodrik, 2003). Surveying the evidence in East Asia and other developing countries, economists conclude that rapid and sustained GDP growth is closely associated with a fast pace of export growth (Brenton and Newfarmer, 2007).

Trade openness will be another critical factor in facilitating export success in an integrated world economy. Nobel Laureate economist Michael Spence (2007) argued that sustained

high growth of economies in the post Second World War period has been achieved by leveraging the demand and resources of the world economy through trade. As developing and emerging economies strive to reach the level of developed and high-income countries, the sanguinary role of trade in their progress becomes all the more integral. Trade openness therefore is another lever of development that will have to be fully integrated with Bangladesh's growth process. That is to say, over the next 25 years, Bangladesh's progress to middle-income and high-income status will have to be largely driven by a high performing export sector that is competitive in a highly globalized world.

With the labor cost advantage that Bangladesh enjoys, at least for another decade there seems to exist good prospects for extending into exports of labor intensive products other than RMG such as agro-processed industry, food products, other manufactures and assembly operations. By broadening the export base, diversification can stabilize and expand export revenues, enhance value added, and boost economic growth.

Earlier, it has been clarified in Section D what the implications are of a changing landscape of competitive advantage. With the kind of rapid transformation taking place in global manufacturing today (and projected for the future), Bangladesh can ill afford to cling to the current factor-intensity (labor-intensive) of its exports. Like Korea, Taiwan, and Malaysia, it can be surmised that by 2030, if not earlier, Bangladesh will have to move towards technology-intensive exports and requisite investment in developing appropriate skills and logistics to ensure the future competitive advantage of Bangladeshi firms will have to begin now. The Perspective Plan (2021-41) could provide the road map for making that happen.

Leveraging the growing global demand for commodities as well as services through export-oriented development should then be a strategic goal for the Bangladesh economy in its quest to achieve middle income status by 2030, and high-income status by 2041. Bangladesh's export performance so far presents signs of strength as well as weakness in its export basket. Although the total number of distinct export products (HS-6 code) in FY2016 reached 1575, the vast number of them (about 900) recorded export volumes of under $1 million. Export concentration (RMG share at 82% of $34.5 billion in FY2017) has emerged as a formidable challenge to address and overcome. Furthermore, the structure of exports show concentration of final consumer goods without much diversity from intermediate and capital goods (Table 3).

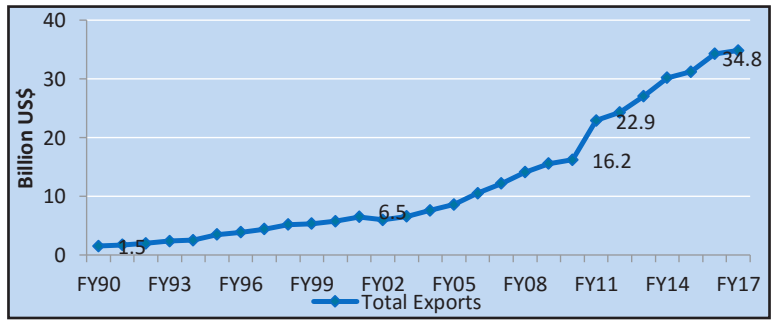
Table 3: Structure of Imports and Exports FY2016

Product Categories	Imports		Exports	
	$billion	Share (%)	$billion	Share (%)
Basic raw materials	5.98	13.10	0.32	0.96
Intermediate goods	16.37	35.86	1.37	4.06
Capital goods	9.00	19.71	0.10	0.29
Final Consumer Goods	14.30	31.33	31.82	94.68
Total	45.66		33.60	

Source: NBR ASYCUDA database and PRI staff estimates

Export performance. There is growing consensus in economic literature that countries achieving structural change in exports through increased export diversification also grew rapidly and inclusively. To chart out an export strategy for the future it would be good to review Bangladesh's recent and past export performance. Bangladesh exports gathered pace since the early 1990s, as a direct outcome of trade liberalization. Compared to the decades of the 1970s and 1980s, export performance was exemplary, averaging double digit growth rates annually for nearly 25 years since 1990. Between 2000 and 2010, exports tripled (from $5 billion to $15 billion). In FY2017, total exports of US$34.8 billion was nearly seven times exports of FY2000 (Figure.3). Over 95% of exports comprised manufactures making Bangladesh unique among LDCs in its export composition.

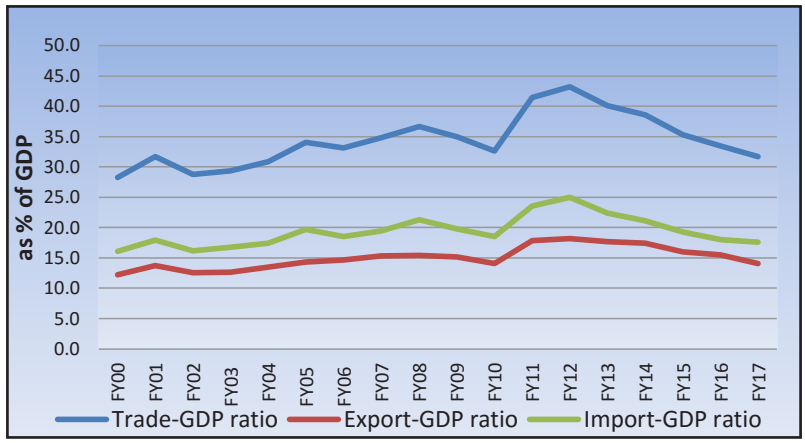
Figure 3: Export performance since 1990



Source: EPB

Progress in trade openness since the early 1990s clearly had a positive impact on a superior export performance. The share of trade in GDP has been rising since 1990 when it was only at 19%. As Figure.4 reveals, exports, imports, and overall merchandise trade has been rising to support the contention that Bangladesh has become a trading nation with its rising dependence on international trade for jobs and income. But progress in trade openness slowed down since the mid-1990s, leaving Bangladesh well behind the average trade-GDP ratio of East Asia and Emerging Asia, but close to the average of South Asia (Table 4).

Figure 4: Rising share of trade in GDP



Source: EPB; Bangladesh Bank; BBS

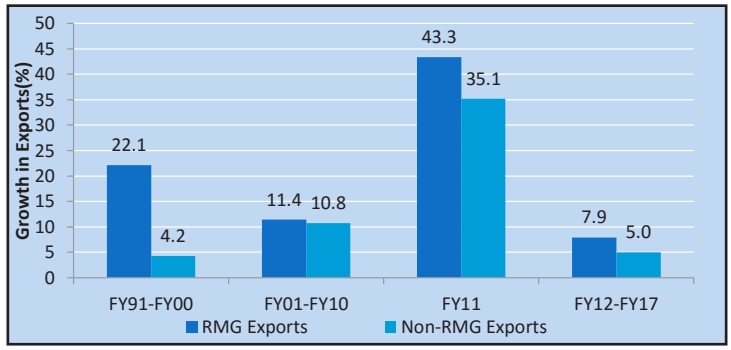
Table 4: Bangladesh: 2016 Trade Openness in Asia (Trade-GDP ratio)

	Exports	Imports	Total
Bangladesh*	14.1	17.6	31.7
South Asia	11.5	16.9	28.4
Southeast Asia**	44.7	42.2	86.9
Emerging Asia***	20.2	17.1	37.3
Low Income countries	12.7	27.8	40.5

*The data for Bangladesh is for the FY2016-17
**Timor-Leste has been excluded due to unavailability of data
***This group consists of China, India, Indonesia, Malaysia, Thailand and Vietnam
Source: WTO, WDI database of World Bank

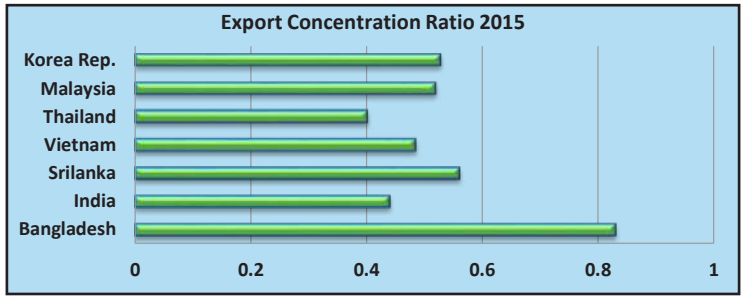
The notable feature in this evolving trading pattern is the emergence of readymade garment exports and RMG industry as the leading sector of the economy. By 2015, Bangladesh became the second largest single-country exporter of RMG in the world, after China. But the fact that RMG exports have been growing at an average annual rate faster than that of non-RMG exports (Figure 5), leads to a rising share of RMG in the export basket, resulting in further concentration of exports (Fig.6X). Export diversification thus becomes a challenge that must be addressed, (a) because over-reliance on a single export commodity makes the economy vulnerable to external shocks, and (b) a diverse export basket is a sine qua non of stable export revenue and its growth.

Figure 5: Growth of RMG exports exceeds that of Non-RMG exports



Source: EPB

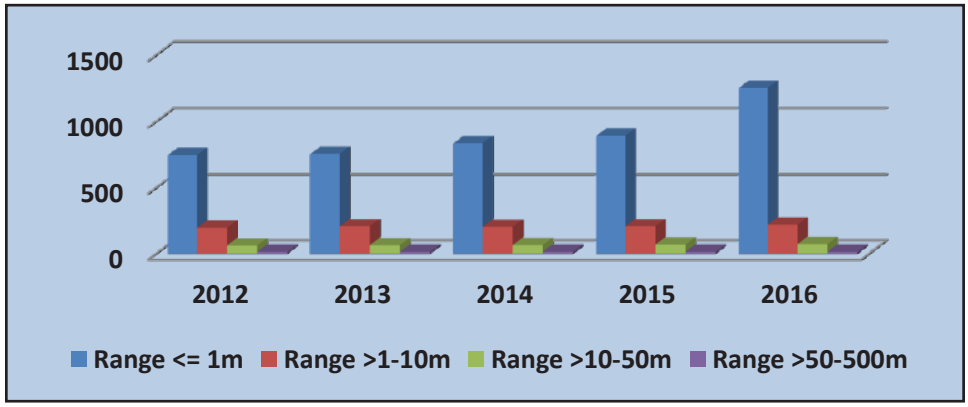
Figure 6: Relative Export Concentration 2015



Source: WITS database, World Bank

Figure 6 shows the relative position of Bangladesh and its selected comparator countries (China, India, Indonesia, Thailand, Malaysia, Sri Lanka) in terms of export concentration measured by ECR (15)[2]. Bangladesh has the highest export concentration of 0.82, nearly twice the concentration level of Thailand. What is surprising is that Vietnam, a strong competitor of Bangladesh in the RMG sector, has a fairly diversified export basket, similar to that of India.. Apart from footwear and RMG, it exports a diverse group of manufactures from electronic and electrical goods and to printing machineries, agro-based products such as canned and frozen seafood, and resource-based products like petroleum. It is no surprise that India has a well-diversified export basket as its production structure is similarly diversified. There is a lot of depth in each of the product categories, like final consumer goods (durable and non-durable), basic industries producing capital goods and machineries, a large intermediate goods industry supplying to domestic and world markets, and an assortment of primary and agricultural products that are basic raw materials for manufactures and agro-based industries. The fact that Sri Lanka also has a fairly diversified export basket goes to show that small open economies need not rely overwhelmingly on any one product groups for export income.

Figure 7: Large number of Export Products



Source: ASYCUDA database, NBR

The challenge of export expansion and diversification. How has Bangladesh faired in the quest for achieving a superior export performance with a diversified export basket that contains more of non-RMG products? Some are generic to the entire economy or the manufacturing sector, but some factors are specific to the export sector. Some others relate to the challenge of export diversification. Figure. 7 shows that Bangladesh exports a large number of products in small quantities (1200 HS-6 products <=$1 million in FY16) without these exports growing into major export items in a diversified export basket. Considerable research has been done on the constraints to exports performance in Bangladesh. These constraints can broadly be grouped under the rubric of

I. Challenges with trade infrastructure, and
II. Challenges related to trade policy and the incentive regime

I. Challenges with trade infrastructure

2 Top 15 exports as percentage of total exports.

Constraints under trade infrastructure cover factors that affect cost competitiveness, such as technology and labor productivity, enabling environment for trade, the state of trade logistics, ease of doing business, access to finance, and availability of skills. Most of these could be described as supply side constraints behind-the-border, except for those arising from customs administration and port efficiency.

- **Technology and labor productivity** are obvious factors that influence cost competitiveness today, and the foreseeable future. Bangladesh in general is still weak on technology and its average labor productivity is low. These are two areas where Bangladesh needs to work much harder to improve its export competitiveness for the long-term. Bangladesh can learn valuable lessons from its own experience with RMG exports. In the case of RMG Bangladesh has an edge over its main competitors (China, India, Vietnam, Sri Lanka) in terms of both technology and labor productivity for a wide range of specific product categories that has allowed Bangladesh to penetrate the export market and increase its market share. Bangladesh acquired the technology at the early stages of the evolution of the RMG industry through strategic partnership between Desh Garments of Bangladesh and Daewoo of Korea (Khondker and Sonobe, 2011). Subsequently, this technology got disseminated widely through the RMG network. Over time, new partnerships with leading fashion houses of the world have allowed a continuous upgrading of designs and quality control that has not only helped Bangladesh to expand RMG exports but also to upgrade its export products. A similar approach is needed in other export sectors like Footwear and Leather goods, and electronics, by courting FDI and joint ventures with an eye on the future. The challenge of technology adoption and upgradation with a vision for the distant future is very real. And it is a steep climb for Bangladesh given its current state of technology in manufacturing and the forthcoming transformations vis-à-vis Industry 4.0 and beyond.
- **The enabling environment for trade** is a key determinant of cost competitiveness of exports. In recognition of its importance considerable attention is now being paid by various countries to this factor. Globally, several indicators of this enabling environment have been prepared that are regularly updated on an annual basis to track progress relative to competitors. Two commonly used indicators are the Enabling Trade Index (ETI) and the Trade Logistics Performance Index (LPI). The ETI 2012(--TBU) ranking for Bangladesh is shown in Table.5. Bangladesh does poorly on most of the indicators included in this index, but scores especially low on transport. This is not surprising as transport and power have emerged as serious constraints to manufacturing sector in general. Export competitiveness is sharply reduced by the high transaction costs relative to competitors related to transport services as well as the inefficiencies of custom procedures.

Table 5. The Enabling Trade Index 2016; Bangladesh

	Rank (out of 136 countries)	Score (1-7)
ENABLING TRADE INDEX	123	3.5
BORDER ADMINISTRATION	130	3.0
Efficiency and Transparency of border administration	**130**	**3.0**
INFRASTRUCTURE	108	3.1
Availability and quality of transport infrastructure	**109**	**2.7**
Availability and quality of transport services	**100**	**3.5**
Availability and use of ICTs	**112**	**3.1**

MARKET ACCESS	84	4.4
Domestic Market Access	**127**	**3.4**
Foreign Market Access	**12**	**5.3**
OPERATING ENVIRONMENT	128	3.5
Physical security	**119**	**3.8**

Source: Global Enabling Trade Report 2016, World Economic Forum

Infrastructure deficiencies. A comparison of infrastructure quality among Asian countries ranks Bangladesh poorly (Table.6). In order for countries to be competitive in the arena of global trade and investments, the availability of quality infrastructure which is a key input, is very crucial. Bangladesh suffers from severe bottlenecks in terms of the quality of infrastructure when compared to other countries. The poor supply of power, gas, transport networks and telecommunications to all enterprises, and the malfunctioning of the country's land and sea ports have been obstacles for exporters. Only sustained investments in infrastructure (estimated at $10 billion a year) over the next two decades can bring Bangladesh up to par with its comparators.

Table 6: Comparison of Infrastructure Quality, 2016-2017

Country/ Region	Country Ranking/1	Overall Infrastructure	Electricity	Roads	Railroads	Port
Southeast Asia(average)	51	68	67	64	54	72
South Asia (average)	89	87	96	80	48	92
Bangladesh	106	120	110	113	72	89
China	28	43	58	39	14	43
India	39	51	88	51	23	48

Source: The Global Competitiveness Report 2016-2017, World Economic Forum

Port services- The Chittagong port, which handles nearly 85 percent of the country's trade merchandise suffers from labor problems, poor management, and lack of equipment. Its container terminal handles only 100-105 lifts per berth a day, well below the UNCTAD productivity standard of 230 lifts a day. Ship turnaround time is 5-9 days, significantly above the 1 day standard of more efficient ports. Port modernization, upgradation, and establishment of deep sea ports will have to be in Bangladesh's long-term agenda.

Road network - Poor road conditions and lack of transportation are especially constraining for enterprises in far-flung rural areas. Public spending on road maintenance is seen to fall short of what is required. One of the major transport corridors for international trade is the road connecting Dhaka and Chittagong. This road needs to be converted into an 8 lane highway along with all the trappings of modern traffic management.

Railway system- The container unit train operation between Chittagong and Dhaka has the potential to provide an important benefit to both importers and exporters. While there are some operational problems with the yard layout and operation in Chittagong and Kamalupur and with the availability of rolling stock, these are much less important than the failure to provide sufficient train frequency or to operate in a commercial manner. Investment in modernization and establishment of speed train network have to be on cards.

Air freight and Airport storage services - The unreliability and unavailability of the air freight services affects the ability of produce growers to make long-term arrangements with foreign buyers that enable both parties to ensure high quality and safe production. An open sky policy for regular air cargo movement needs to be put in place. Insufficient air cargo capacity in BIMAN leads to a quota system with small average quota sizes and imposes constraints on expansion of exports by air.

- Ease of Doing Business. The regulatory environment for doing business in a country is yet another indicator of broad-based export competitiveness. The regulatory regime can raise the transaction cost of doing business and hurt exports. In the highly competitive global markets the ability to respond swiftly and timely to business opportunities and commitments can be critical factor underlying export competitiveness. Importantly, the regulatory environment is a major determinant of FDI inflows that can also substantially influence the domestic supply capacity to respond to the world export markets.

Historically, the business environment of South Asia has been intrusive with high transaction costs. Deregulatory efforts in South Asian countries, especially in Bangladesh and India, started in earnest only since the 1990s. While progress has been made, there is still a long way to go. Table.7 shows the Ease of Doing Business rankings for 2012.

Table 7: Ease of Doing Business (2016)

	Ease of Doing Business Rank ▲	Starting a business	Registering Property	Getting Credit	Trading across borders	Enforcing contracts
Bangladesh	176	122	185	157	173	189
Singapore	2	6	19	20	41	2
Hong Kong	4	3	61	20	42	21
South Korea	5	11	39	44	32	1
China	78	127	42	62	96	5
Malaysia	23	112	40	20	60	42
India	130	155	138	44	143	172
Thailand	46	78	68	82	56	51
Indonesia	91	151	118	62	108	166
Vietnam	82	121	59	32	93	69
Pakistan	144	141	169	82	172	157

Source: Doing Business Report 2017, World Bank

Not surprisingly, Bangladesh performs quite poorly on the whole with a rank of 129. All its competitors face a better business environment. In terms of specific regulatory constraints, investors in Bangladesh face a particularly difficult challenge in getting electricity; in registering property; and in enforcing contracts. Bangladesh, however, does a good job in protecting investors. On the whole, despite a series of deregulatory reforms since the 1990s, the overall business environment in Bangladesh is difficult relative to competitors that tends to increase the transaction cost and lowers competitiveness. Considerable more progress is needed in a range of business transactions indicated in Table.7 with a view to making the Bangladeshi investment climate much more attractive for attracting foreign investment and improving export competitiveness.

- Addressing Low Labor productivity and Skills Gap. On the labor front, Bangladesh is very favorably endowed with a large supply of under-utilized labor. The flexibility of labor market has helped the RMG sector to mobilize and train workers at low cost (Ahmed, 2012). Despite having an abundance of human resources, Bangladesh lags behind its Asian neighbors and trade rivals in terms of quality of labour and therefore labour productivity. Growing numbers of foreign workers in Bangladesh point to a shortage of supervisory and mid-level management skills. Mid-level and higher-level management employees are usually hired from neighbor countries rather than the own country indicating a lack of semi-skilled and high-skilled workers. The incidence of enterprise-based on-the-job training is very low in Bangladesh, especially as compared to other countries particularly in East Asia. One study suggests that only 25 percent of Bangladeshi manufacturing establishments provide their employees with in service formal training (Riboud and Tan, 2009). This percentage is very low as compared to East Asian countries such as Malaysia and China where the rates are 50 percent and 75 percent respectively. As noted earlier, the RMG sector is in an excellent example of the kind of in-house training that delivers results. This practice needs to be replicated on a wider scale across the manufacturing sector.

II. Challenges related to trade policy and the incentive regime

The experience of the high-performing East Asian economies clearly demonstrates the criticality of export-oriented trade policy for a superior export performance. Trade policy could be a constraint or support to export growth and diversification depending on how it is formulated and implemented to ensure competitiveness of exports. Together with export incentives it also concerns the attractiveness of investors to go into exports vis-à-vis domestic production. The three main components of these policies relate to exchange rate management; trade policy and fiscal incentives.

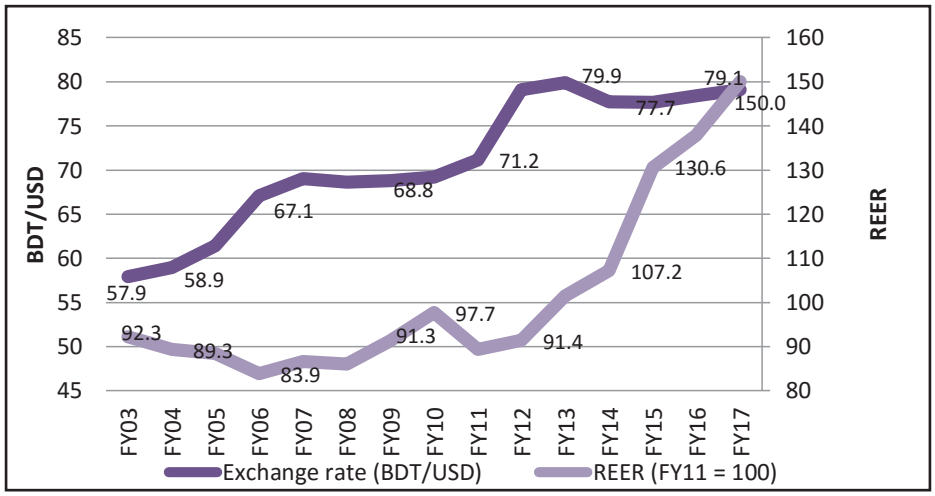
- **Exchange rate management:** Poorly managed exchange rates can be disastrous for economic growth. According to Dani Rodrik (Rodrik, 2008), avoiding significant overvaluation (or appreciation) of the currency is one of the most robust imperatives that can be gleaned from the diverse experience with economic growth around the world, and one that appears to be strongly supported by cross-country statistical evidence. Overvalued currencies are associated with foreign currency shortages, rent seeking and corruption, unsustainably large current account deficits, balance of payments crisis, and stop-and-go macroeconomic cycles, all of which are damaging to economic growth. Just as overvaluation hurts exports and growth, so undervaluation (depreciation) facilitates it. For most countries, periods of rapid growth are associated with undervaluation. Rodrik cites China as the most fascinating case where economic growth tracks movements in the index of undervaluation. The rapid growth of GDP per capita in China since the 1970s was found to closely parallel the increase in the undervaluation index.

Thus exchange rate is a critical determinant of export incentives and as such sound exchange rate management is very important for maintaining export competitiveness, particularly for non-RMG exports, which suffer from significant anti-export bias, as will be explained later. The channel through which exchange rate impacts growth is of course

through trade. The focus of exchange rate management in Bangladesh has to be on the real effective exchange rate (REER), which is essentially the nominal exchange rate adjusted for Bangladesh inflation relative to inflation in its major trading partners.

Bangladesh adopted a market-based exchange rate regime with effect from May 2003. By adopting a market-based exchange rate management and combining this with a prudent monetary and fiscal policy management over the longer term, Bangladesh avoided an appreciation of its real effective exchange rate for the most part. As a long-term strategy for export expansion, the appropriate exchange rate management would be to avoid rigidity or real appreciation of REER; a moderately depreciating REER would work better to sustain competitiveness of exports, particularly non-RMG exports. Figure.8shows that there has been a slippage in this policy as the REER has been appreciating since FY12 making exports less competitive. This situation needs to be reversed as export performance during FY12-17 has suffered in consequence.

Figure 8: Exchange Rate Movements FY03-FY17



Source: Bangladesh Bank; Note: Rise in REER index indicates appreciation

- **Trade policy stance:** Though exchange rate management is part and parcel of trade policy, other instruments that affect export incentive include tariffs, quantitative restrictions on imports, subsidies, and so on. Perhaps the single most important determinant of export competitiveness is the incentive regime emerging from trade policy. Bangladesh like other South Asian countries started with an autarkic trade policy regime with a host of quantitative restrictions and high tariffs (Ahmed and Sattar 2004; World Bank 2004). This complex system of anti-trade and anti-export regime slowly got dismantled, especially since 1990. Today the trade regime is much changed compared to the one prevailing in the 1970s and the anti-export bias of the trade regime is much lower but still a significant problem for exports.
- **Fiscal incentives:** Like most developing countries seeking to expand exports, the Government has taken a positive fiscal stance in promoting exports. The RMG sector is the highest beneficiary of the various fiscal concessions. In addition to

the duty drawback scheme accorded to all exporters, the RMG exporters enjoy the special privilege of paying only a nominal income tax on their earnings. The income tax is fixed at a very low level on total gross earnings of the RMG sector as a withholding tax on exports, which is also the final tax. This is now fixed at 0.6 percent (FY2018) of total export earnings, which is a small tax burden in terms of percentage of true profit of the RMG exporters. While the duty drawback is a legitimate scheme to ensure export competitiveness, the income tax treatment of RMG earnings is highly controversial as its relevance to influence export decision is not clear. In addition, the government offers direct cash subsidy to exports of non-traditional items, announced on an annual basis, with the rate varying from 5% on jute yarn to 20% on halal meat and potatoes in the current year (FY2018).

Trade regime and exports. There is strong international evidence that export performance, and its offshoot, progress in export diversification, is in large part the outcome of the trade policy regime governing export production and trade. Evidence from Bangladesh over the past two decades provides confirmation to the proposition that trade openness has had a positive impact on export performance. But export diversification has stalled in the face of stellar success of RMG exports that only accentuated export concentration. As we saw earlier, a whole host of factors affect export performance, in addition to trade policy. In the case of RMG, many special factors played a positive role that are missing for other exporters.

The role of these various factors in explaining the growth of RMG exports illustrates their importance. The key factors and policies that explain the dynamism of RMG exports include the following.

- **Multifibre Arrangement (MFA) 1974-2005:** The MFA, an external but fortuitous development, provided the initial impetus. Faced with quota restrictions, Korean firm Daewoo entered into partnership with Desh Garments of Bangladesh to produce garments in Bangladesh using the underused Bangladesh quota in the USA and Europe. The seeds of a dynamic industry were thus sown by improved market access to US and European markets. Soon other entrepreneurs started entering the profitable venture.
- **Bonded Warehouse System:** To provide world-priced inputs and support the nascent garment industry the Bangladesh government allowed duty-free access to imports for the RMG sector through the bonded warehouse system. This created a duty-free environment for the RMG sector even though the rest of the economy faced huge tariff and non-tariff barriers. This free trade regime for the RMG sector has been a leading factor for spurring the growth of RMG exports.
- **Back-to-back Line of Credit (LC):** The RMG sector was able to lower its cost of production by having a system of back-to-back LC by which inputs were procured against export orders. This saved the industry substantial working capital cost.
- **Low Cost Labor:** Bangladesh being a labor surplus country, RMG investors were able to tap into this huge surplus labor. In particular, the RMG sector has relied on female labor that has low participation rates and as such has low reservation wages. Additionally, this labor is very reliable and disciplined. In more recent

years, this access to low cost labor relative to China, India, Sri Lanka and Vietnam has increased tremendously the prospects for expansion of the RMG sector as labor cost increases, particularly in China, making Bangladesh a much more attractive destination for RMG export production.

- **Labor Training:** RMG labor requires minimum training that could be easily provided in-house and honed in on the job.
- **Technology:** The initial technology transfer happened as Korean investors, armed with the knowhow of RMG production and trade, came to Bangladesh to take advantage of the quota allocated to Bangladesh. The technology being relatively simple was quickly adapted and transferred to other investors (local) through competitive buying of managers and trained labor.
- **Infrastructure:** Here policy progress has been limited, both in power and in transport. As for power, RMG producers have tended to adjust to the realities of power outages and rationing by having back-up generators. But this is potentially a factor that will hurt the future expansion of RMG unless actions are taken to improve infrastructure.
- **Tax incentive:** The government has taken a very liberal attitude towards taxation of earnings from RMG by having a very low effective tax rate on income from RMG exports.

After all factors have been considered, evidence shows that Bangladesh leads the world in low cost labor that is largely unskilled or semi-skilled. In essence, low wages appear to effectively compensate for low productivity, so that, in the ultimate analysis, garment exports from Bangladesh become costs competitive. Does this competitive advantage extend to other products as well? Of course, it does, i.e. for most labor-intensive products. Footwear is among the rising star for much the same reason. Shipbuilding (ocean going vessels) is another activity that has recently combined technical soundness with low labor costs to give it competitive advantage, and Bangladesh has emerged as a competitive exporter of ocean-going vessels (under 10,000 DWT) within a short period [3]. At least for the medium-term, low cost labor will continue to be the source of competitiveness of Bangladesh exports in RMG as well as non-RMG products. However, policymakers and private entrepreneurs will have to look out for (and ready to adopt) the technological advances occurring in the global marketplace in the coming decades in order to ensure sustained competitive advantage in exports.

The important role of the trade regime in spurring RMG exports was suggested above. In the next section, we will review the trade policy developments and the key features of current and past trade policies that facilitated or impeded the diversification of exports. The main thrust of our argument here is that while deficiencies in trade and transport infrastructure hurt exports in general, Bangladesh trade policy has had built-in bias against the emergence and proliferation of new products in the export basket. That bias continues as of fiscal year 2017-18. This section will conclude with an articulation of the basic parameters of our future trade policy in strengthening competitive advantage in a transforming global marketplace.

3 Recently, ships built for Germany and Denmark received strong certification of technical merit from the European buyers.

Table.8 gives a snapshot of the current trade regime in Bangladesh. The most significant items to note are the absence of trade QRs, a floating (albeit managed) exchange rate system, two para-tariffs (SD& RD), fewer tariff slabs (5), and a moderate trade-GDP ratio.

Table 8: Snapshot of Bangladesh Trade Regime FY2017

Policy Instrument	Bangladesh	S. Korea
Exchange Rate Regime	Unified, Managed Float	Unified, Managed Float
Payment convertibility Current account Capital account	Yes, some limits No	Yes, largely unlimited Yes, some limits
Import restrictions Import licensing QRs on imports	No Trade QRs gone WTO compliant QRs remain	No Only WTO compliant ones
Tariff structure Top CD rate Average protective rate Tariff slabs (customs duty) Para-tariffs	25 26.9 3, 5, 12, 25 RD and SD*	8.0 8.0 Many No
Trade openness, trade-GDP ratio (%)	31.7	63.8

Source: NBR, Ministry of Commerce and PRI staff estimates

One worrisome development in Bangladesh budgetary management and tariff policy is the growing importance of a range of para-tariffs (supplementary and regulatory duties) that have grown in significance and are almost inversely correlated with the reduction in custom duties (Figure.9), thus essentially undercutting any movement in the direction of tariff rationalization. These para-tariffs have tended to offset much of the gains intended for raising productivity and competitiveness of exports through the impact of lower customs duties on protection. The large dispersion of both custom duties and para-tariffs tends to distort production incentives through high rates of effective protection to import substitutes. Importantly, the current tariff regime undermines export competitiveness and impedes growth of new exports, thus inhibiting progress in export diversification.

In light of the preceding analysis, Bangladesh's trade policy stance may be summed up thus: whereas a significant degree of trade openness has been realized over the past two decades, through the virtual elimination of all trade-related QRs, tariff rationalization, after the initial intensive phase in the early 1990s, faced considerable setbacks and was not carried through to its conclusive phase. On balance, the tariff structure and its consequent protective effect appears to favor import substituting industrialization rather than exports. Indeed, when effective rates of protection (ERP) to domestic sales are brought into the picture, the anti-export bias of the incentive regime becomes pronounced.

Note that Bangladesh's leading and most successful export sector – RMG – is virtually unaffected by the anti-export bias of the tariff regime. Why? From the very beginning, RMG industries evolved within a sort of "free trade enclave" that essentially neutralized an otherwise high tariff regime through the institution of Special Bonded Warehouses (SBW) to ensure duty-free imported inputs. Supporting facility of back-to-back LC

system provided much needed access to working capital in foreign exchange [4]. Later, once RMG became the leading export, it was given high priority for port clearance and other administrative processes. RMG industry thus developed as a 100% export-oriented sector, not in competition with other manufacturing geared to domestic sales. However, other exports were not as privileged as they had to cope with the high tariff regime while importing required raw materials and intermediate or capital inputs [5]. The dysfunctional duty drawback system was no match to the SBW facility. So when non-RMG manufacturing producers compared relative incentives between exports and domestic sales, they found zero or negative ERP for exports and very high ERP for domestic sales. That meant that whereas processing margins were close to free trade margins for exports, they were significantly higher for sales in the domestic market.

This is how the trade policy regime reveals an anti-export bias for non-RMG exports thus discouraging emergence and expansion of new products in Bangladesh's export basket. As shown earlier, although the number of HS-4 export products over $1 million rose from 170 in FY05 to 259 in FY12, only a handful of products exceeded $100 million. Most were under $10 million and remained so for long periods without much expansion. A significant proportion of domestic producers outside the RMG sector are now in the export business in addition to producing for the domestic market. However, the balance of incentives seems to discourage them from expanding export production or launching new export products. Getting access to export markets and retaining them requires cost and quality competitiveness – two challenging aspects of export success – which might be too much for some producers who find the sheltered domestic market more profitable and far easier to handle. In consequence, product diversification in exports becomes a casualty.

In concluding, it is important to bear in mind that the special instruments – e.g. SBW and back-to-back LC system – directed towards the RMG industry had the effect of creating a free trade channel or enclave within a high tariff regime that applied to the rest of the export or import-substitute industries. The whole purpose of these instruments was to ensure world-priced inputs for the RMG industry so that they can compete at par with others in the world market. Unlike the dispensation of direct or indirect subsidies or duty drawback facility which are meant to offset duties paid on imported inputs, SBW is not a compensating mechanism but an export facilitating measure that eliminates the upfront cost-raising effect of input tariffs that would make exports uncompetitive. The presumed revenue loss on account of the existence of this facility has never been a policy issue (known as tax expenditure) in the wake of the exemplary gains made by the RMG industry in terms of domestic employment creation and export expansion. Exports have zero protection in the destination markets; hence their inputs cannot be subject to positive duties. The administrative complexities of managing the SBW system due to leakages arise from the existence of generally high tariffs elsewhere. As import tariffs generally decline, the incentive for leakage is significantly reduced, as has been the case for RMG, where exporters found the challenge of opening new markets much more rewarding than the quick monies that might be earned from duty-free inputs leaked onto the domestic market. After long debate, the footwear export industry also received the same SBW facility but

4 Imported inputs such as fabric and accessories were made available on credit linked to export orders, and eventually settled from export proceeds.

5 Lately, NBR has been selectively – very hesitatingly -- providing SBW facility to non-RMG exporters. Still, vast numbers of small non-RMG exporters are essentially deprived of world-priced inputs.

the vast array of small exporters have not. Electronic and digitized management of SBW system can substantially reduce the administrative costs and improve efficiency of the system when accorded to all exporters.

Cost competitiveness in the global marketplace is measured by cents not dollars. Unless exporters are fully compensated for duties paid on imported inputs they lose competitiveness. It is a basic principle of export competitiveness that all exporters must be ensured world-priced inputs. Recognizing this, NBR has been selectively albeit hesitatingly granting SBW facility to non-RMG exporters but evidence suggests that the practice has not taken off, at least for the vast numbers of small exporters. This is clearly one reason why non-RMG exports have not reached significant proportions in the export basket.

G. Export Competitiveness And Trade Policies Of The Future

Ensuring export competitiveness in the global marketplace must be a key export strategy for all times. High performing economies of East Asia have always had this principle uppermost in their policies when striving for export-push in the 1970s and 1980s. Though there was wide variation in the extent of incentives, all of them engaged in some form of selective promotion subsidies, preferential financing, tax incentives, subsidized infrastructure, and foreign investment incentives. Because all of them, at some point or the other, had on-going import-substituting policies to support domestic industrialization, export incentives were necessary to effectively offset the anti-export bias of effective protection provided to import-substituting industries. The record shows that these policies worked and export-push policies produced exemplary export performance for several decades.

Two points relevant for the Bangladesh context must be noted: (a) effective protection levels were moderate in those days (manufacturing protection were under 60% in Korea and Thailand, under 40% in Malaysia and Taiwan, and declined over time), and (b) the higher the import-substitution protection levels greater the competence of bureaucracy required to offset the anti-export bias of such policies.

Because of the wide divergence between input and output tariffs (high tariff escalation) ERPs were found to range from 100% for beverages to 400% for biscuits and plastics (PRI, 2012) with rates averaging upwards of 250% for all manufactured. This is the state when effective protection on exports are close to zero. Such a major incentive bias in favor of protection for domestic sales requires exemplary competence in a bureaucracy to offset the anti-export bias even if that were intended. Bangladesh clearly does not have that kind of administrative acumen in its crop of bureaucracy. Which implies that whatever export-push policies that might be designed will have a steep climb to effectiveness in boosting exports and their diversification.

The prevailing tariff structure does not resemble that of a UMIC or HIC. A major challenge for policymakers in Bangladesh for the next decade and beyond will be to reorient trade and tariff policy that will be consistent with a dynamic export-oriented economy. end the growing divergence between input and output tariffs and put it in reverse gear so that the trends in input-output tariffs are in line with what we find in the UMIC and HIC economies.

Trade policy analysis of the preceding sections and the historical evidence from high-performing economies establish several key features of successful export-push policies for industrialization in an economy with significant level of effective protection, as is the case in Bangladesh:

(a) Protection must be time-bound. Protection, even if justified on strategic grounds of dynamic comparative advantage, must be made time-bound, with prior announcement for scaling down protection over time. Protection in LMIC and UMIC economies are modest at best, and in HIC, only for selected agricultural commodities (e.g. rice in Japan and Korea are subject to 300%+ duties).

(b) Access to world-price inputs must be ensured. While import substitution policies prevail, support schemes have to be put in place to ensure that all exporters have access to world-priced inputs so that they compete in the international market on a level playing field; high protection to import substitutes prevent graduation of such industries from becoming export-oriented.

(c) Access to long-term and short-term financing must be made available to both large and small exporters in a country where large numbers of small exporters are unable to scale up their export activities due to various constraints.

(d) Foreign direct investment (FDI). Partnership with good international investors that can support technology transfer, create market access abroad and jobs at home, can be the ultimate boost for exports. Most important for the next decade, FDI can help bridge the technology gap and make Bangladesh manufacturing play catch up with the latest advancement in global manufacturing.

(e) Government support to open external markets. For developing countries like Bangladesh preferential access is granted under various schemes (e.g. EBA in EU, GSP in others) in developed markets, but government assistance and support through embassies are prerequisites for successful market penetration in the largest global markets, such as EU, North America, Japan, and emerging economies.

(f) Policy flexibility helps. Not all good policies produce their intended outcome. Experience of successful export economies shows how flexibility in policy implementation averts crisis. When a policy does not yield results there should be scope for changing directions.

Protection Policy, Exports and Export Diversification

The most common position with regard to trade policy in Bangladesh may be summarized thus: trade is to be promoted, exports are to be expanded, but imports are to be restricted (a) to protect domestic import substitute industries from stiff import competition, (b) to raise revenues by imposing a wide spectrum of taxes and levies on imports, and (c) to keep the country's balance of payments at manageable levels. This approach to trade results in a structure of tariffs that impinge heavily on global competitiveness of exports and import substitute production, necessitating significant reforms and modernization of all constituents of trade policy, customs administration, and trade infrastructure, in order for Bangladesh to be dynamically competitive into the next decades of its development. It is an empirical fact that while tariffs around the world has come down significantly over the past 25 years, tariffs in Bangladesh remain stubbornly high relative to its comparators. Trade theory and empirical evidence suggests this is not conducive to a dynamic export performance. So there is much to be done.

Tariffs, protection, and trade policy affecting exports. Theoretically speaking, a tariff is an indirect subsidy on import substitutes and a tax on exports. The protection that is afforded through nominal and effective tariffs is also a tax on consumers who bear the ultimate burden of the protection tax by having to pay higher than world prices (tariff-inclusive price) for imported products. So policymakers need to balance the support they extend to producers with the social costs of protection. The community as a whole stands to gain from protection only when the objective of protection is met: domestic import substitute producers become globally competitive in the shortest possible time so that protection can be removed and domestic prices of import substitutes converge to international prices. The longer this takes, higher are the social costs of protection.

The other adverse implication of tariffs and protection is the anti-export bias they create resulting in dis-protection of exports which, in the first place, have to operate under zero protection in the world market, provided they are fully compensated for duties they have paid on imported inputs prior to exporting. If they do not receive full duty drawback or if they are not given the facility of importing inputs duty-free, export production becomes subject to negative protection – a substantial anti-export bias of policy.

Hence, the trade policy stance that is suitable for globally competitive export production must be characterized by low and uniform tariffs and a seamless export-import regime that facilitates least-cost transactions at the border. Does the Bangladesh tariff regime fulfill this requirement?

Around 1990, an assessment of the World Bank's Industrial Sector Adjustment Credit (ISAC II) project revealed that roughly 40% of the tariff lines were subject to over 100% tariffs in addition to widespread bans and restrictions on imports. It produced a highly prohibitive import regime that nevertheless failed to result in any breakthrough in import-substitute production or preventing an impending balance of payments crisis. Tariff rationalization and import liberalization became a trade policy imperative.

We have come a long way since those days of prohibitive tariffs and import controls. Table. 9 gives a picture of the evolution of tariffs in terms of their implications for nominal protection [6].

Table 9: Evolution of Tariffs and Protection

Tariffs (%)	FY92	FY01	FY 05	FY 10	FY17
Avg. CD (un- weighted)	70.6	21.1	16.3	13.7	13.3
Avg. para-tariffs	2.7	7.1	10.2	10.2	12.4
Avg. Nominal Protection	73.3	28.2	26.5	23.9	25.6
Top CD rate	350.0	37.5	25.0	25.0	25.0
Top NPR*	362.5	59.0	60.0	79.0	85.6

Source: NBR & PRI staff estimates

Tariffs and para-tariffs[7] on imports are now the single most important determinant of trade protection after successive governments in Bangladesh made progressive trade openness the cornerstone of trade policy. Whereas tariffs and quantitative restrictions (QR) together

6 Nominal protection rates have to be distinguished from tariff/tax incidence as some trade taxes, such as VAT on imports (which are trade neutral) or Supplementary Duties (SD) do not have a one-to-one impact on protection.

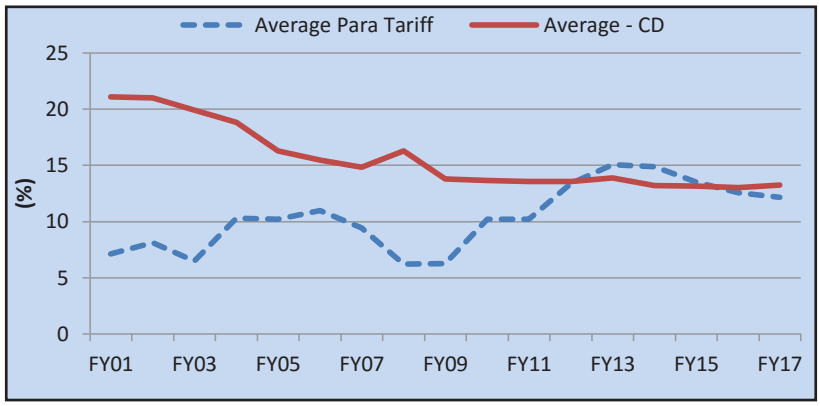
7 Trade taxes other than custom duties that are akin to tariffs.

determined the extent of openness or restrictiveness of trade policy in the 1990s and before, the QR slate has been wiped pretty much clean since FY2005, leaving tariffs as the main instrument of trade policy and protection. The tariff structure has been simplified

by moving to only six non-zero CD slabs – 1%, 2%, 3%, 5%, 10% and 25%, but the imposition of a plethora of import taxes and levies (e.g. SD, RD, VAT, AdVAT, AIT) make the tariff structure rather complex. Although the average customs duty has come down over the past 25 years, the average nominal protection rate (NPR) shows mixed trend. It initially declined rapidly between FY92 and FY01 but then started rising again over FY10-FY13. What is notable is (a) the perceptible divergence between the top NPR rate (which moved up since FY01) and the average NPR; (b) the top NPR and top CD rate; and (c) gradual preponderance of para-tariffs (Figure 17). Also notable are the prohibitively high NPRs on consumer goods that are domestically produced. Such high rates, if effective, constitute de facto import bans.

The new element is the emergence and sharp rise of para-tariffs (Figure.9) as a protective instrument of trade policy, which rose to about 50% of average NPR since FY13. Going by

Figure 9: CD and Para Tariff Trends



NPR rather than CD, it becomes evident that the top NPR, which is an indicator of the highest level of nominal protection given to an import-competing product, is not 25%, but as high as 86% imposed on footwear and textile fabrics. This is the top rate appearing on a significant number of tariff lines, though there are occasionally higher NPRs on such items as biscuits and confectionaries (in excess of 100%); excluding the high tariffs on cars, alcoholic beverages, and cigarettes, which are meant to generate revenue or to discourage consumption. Though cross-country comparison of tariffs is made on the basis of CD[8] , it is fair to conclude from available cross-country data that NPR levels are relatively high in Bangladesh thus raising the first wall of anti-export bias. Globally, tariffs have been coming down so that there is a general perception that they do not pose any barrier or market access problems any more and attention is now being diverted to non-tariff measures. Once Bangladesh graduates out of its LDC status or moves across the middle-income threshold, exporters to Bangladesh could soon start drawing attention to the relatively high tariff and para-tariff levels.

8 Due to lack of comparable cross-country information on trade taxes other than CD.

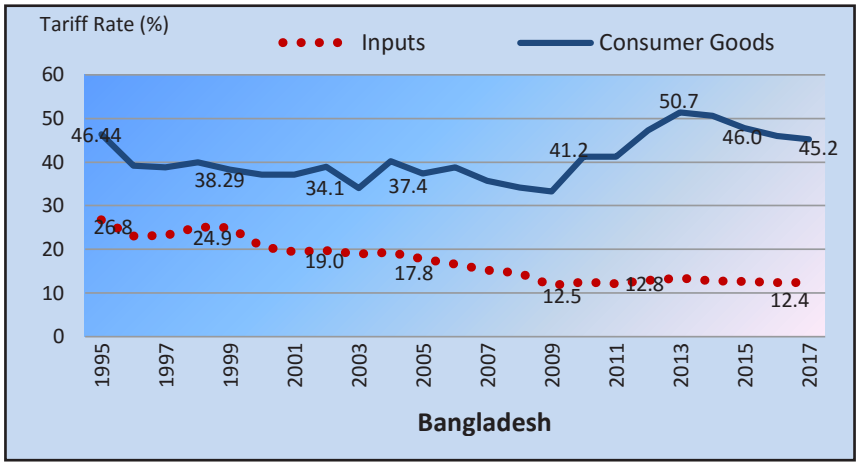
According to the World Bank's Trade Restrictiveness Index (TTRI) based on MFN tariffs, Bangladesh ranks 97th among 125 countries. That perception is based entirely on nominal tariffs and does not include para-tariffs. A recent PRI study for the World Bank and WTO (PRI, 2012) found effective rates of protection[9] (ERP) for most import substitute products to range from 100% to over 300%. The ERP computations across products and firms now reveal that effective protection rates far exceed NPRs by wide margins because average input tariffs are well below output NPRs, ranging from over 100% for agro-based products like fruit juice, to over 300% for such products as bicycles and plastic bottles. Barring a few products like carbon rods and jute textiles, which are intermediate products, most of manufacturing in Bangladesh is concentrated on consumer goods production, all of which have output NPR rates between 47-86% (100% for biscuits!). More important for global competitiveness of Bangladesh's exports, these high NPR and ERP levels create anti-export bias that has perverse resource allocation implications. More than NPR, it is the effective protection levels that accentuate anti-export bias as they are much more pronounced than NPRs. And there seems no indication that these levels are on the decline; rather, the trend seems to be opposite, implying that effective rates of protection are on the rise. Research and cross-country evidence regarding protection confirm that (a) protection once given has a tendency to perpetuate as producers in protected activities develop a vested interest in maintaining it; (b) industries protected for too long become inefficient and uncompetitive at the global level as they have little incentive to innovate or raise productivity.

If anti-export bias is so prominent in our trade policy orientation, it is pertinent to ask how is it that RMG exports rose to such heights as to make Bangladesh one of the leading RMG exporters of the world. It goes to the sagacity of our policy makers to have devised a "free trade channel" for this 100% export-oriented sector within an otherwise high tariff regime. Aided by the MFA which gave access to world markets, domestic policies designed exclusively for RMG industry, comprising special bonded warehouse and back-to-back LC, were able to soundly neutralize anti-export bias of a high tariff regime. Indeed, these policies constituted the bedrock of success for this labor-intensive industry that symbolized Bangladesh's strength in low-skill intensive manufacturing, the sort of specialization that should spill over to other industries as well.

A close examination of the structure of tariffs reveals that the decline in average NPR was due primarily to the reduction in tariffs on basic raw materials, capital goods and intermediate inputs, while the top CD rate remained flat at 25% since FY05, topped up by generous supplement of levies such as supplementary duty (SD) and regulatory duty (RD) – para-tariffs. The trends in nominal protection rates of import categories reveals that in the recent past the average NPR for input categories have been declining rapidly while that of final consumer goods remained practically flat if not increased. The wedge between output and input tariffs has become unusually large, unlike that in any other country (Figure.10). What is seldom recognized is that this trend of input and output tariffs is unique for Bangladesh and deviates far from the pattern followed by the high-performing economies in East Asia.

9 ERP measures the relative change in value added at domestic prices (protective effect on output net of protective effect on inputs) over value added measured in world prices.

Figure 10: Trends in Output and Input Tariffs: Bangladesh

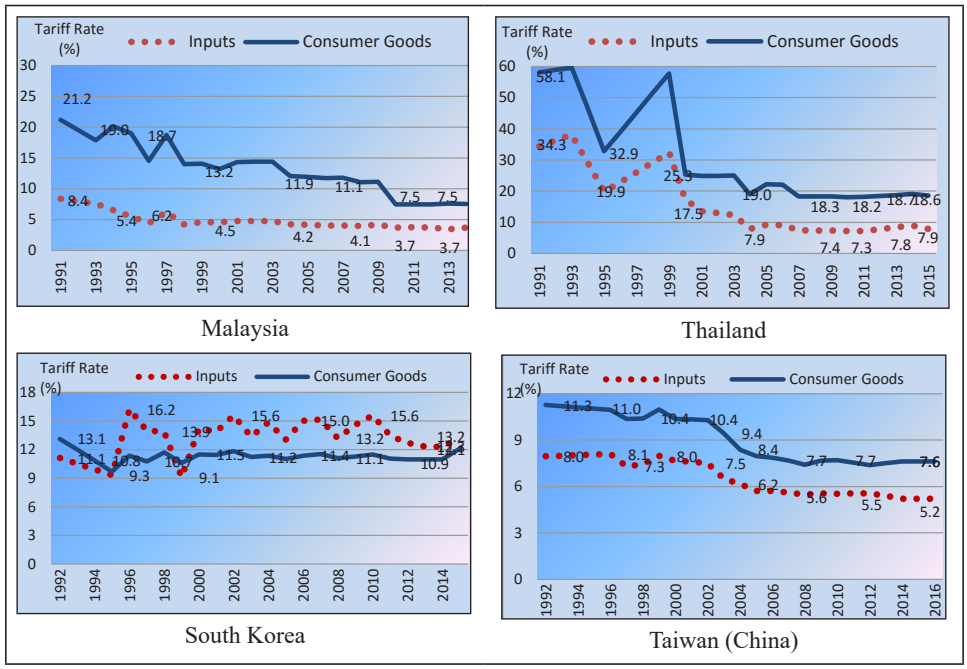


Source: NBR; WITS Database, World Bank

The common perception is that reduction in input tariffs while keeping output tariffs high makes domestic production of import substitutes more competitive. But the net outcome of this process is higher effective protection to domestic producers over time yielding windfall profits simply through tariffs and without any improvement in productivity or competitiveness. This simply cannot be a long-term protection strategy for an economy seeking a productive and competitive industrial sector of the future.

Figure.11 presents trends in output and input tariffs over two decades for the four high-performing economies of East Asia. Without exception, all countries have pursued a policy of commensurately lowering output tariffs as they lowered input tariffs. Not even other developing countries which liberalized trade over decades showed such proclivity for tariff dispersion (Figure.12 for Vietnam, India). Besides, the divergence between input and output tariffs were nowhere near the exorbitant levels seen in Bangladesh. Clearly, this is a long-term strategy of lowering effective protection to import substitute production with a view to improving efficiency and global competitiveness – as trade theory would suggest. This is also a strategy for elimination of anti-export bias of tariff policy which has yielded good results in that all of the countries in question have been able to transform import substitute industries for export production, or create new export-oriented industries, resulting in substantial increase in export-GDP ratio over time (Table.10).

Figure 11: Trends in Output and Input Tariffs: High-performing economies



Source: WITS Database, World Bank

Figure 12: Trends in Output and Input Tariffs: Vietnam and India

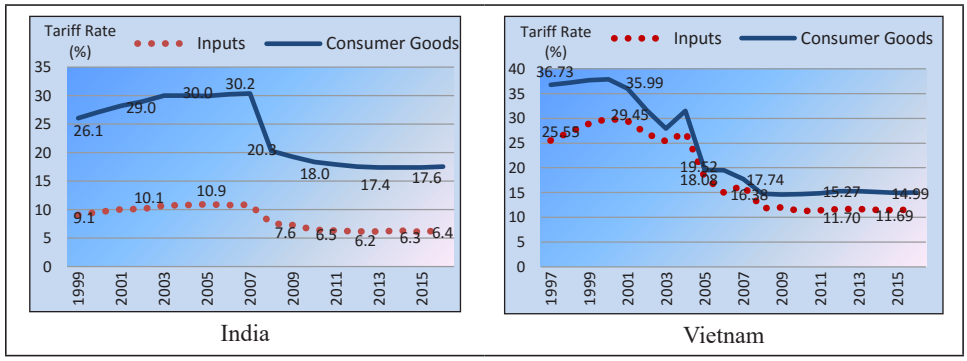


Table 10: Exports of Goods and Services expressed as share (%) of GDP

Country	Year	
	1970	2016
Bangladesh	8.31	15.23*
Korea	13.63	42.24
Taiwan	13.5	70.0
Malaysia	41.41	67.24
Thailand	14.99	68.93
Vietnam	6.62**	93.62

*The data for Bangladesh is for the FY17
**Data for the year 1986

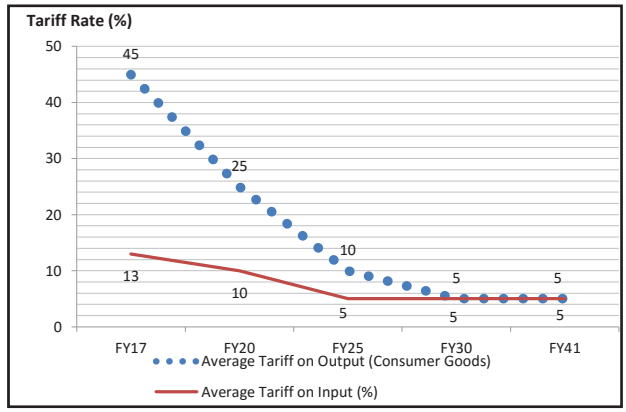
Source: World Development Indicators (WDI) database, The World Bank; Bangladesh Bank; BBS

There is yet another twist in the story for the long-term. We have mentioned that the fastest growing segment in international trade is the trade in intermediate goods; and East Asian countries, like Korea, have had great success in exploiting global value chains by linking up with China, the super assembler of the world. To spur the production and export of intermediate goods, requires a different tariff profile where relative incentives to intermediate goods production is no worse, if not better than final goods production. This configuration of tariffs was adopted by S. Korea.

Though somewhat higher than other OECD countries, the structure of tariffs in S. Korea approximate developed country features. Since 1990, average input tariffs trended downward and was lower than output tariffs, as usual, but a reversal of that trend is observed since 1995 when average input tariffs were higher than output tariffs – a clear preference for higher incentives to primarily the intermediate goods sector, to take advantage of global value chains and develop the intermediate goods sector. It seems Korea has adjusted to the notion of keeping trade policy orientation neutral between inputs and outputs (mostly final consumer goods), which is done by moving towards uniform tariffs, with a slight tilt in favor of intermediate goods (during 2000-2010, average input tariffs are about 1% points higher than average output tariffs). At any rate, where exports are concerned, Korea has maintained an efficient system of free trade channels for export commodities.

To continue on a path of sustainable export growth with a diversified basket of goods, Bangladesh faces an immediate challenge to restructure its tariff regime in order to gradually phase out effective protection levels and anti-export bias. A possible tariff and protection regime of the future is charted in Figure.13. In view of the currently high levels of NPR on final consumer goods (FCG), the proposed structure calls for gradual but significant reduction of NPR on these goods while making modest adjustments to input tariffs along the way. Hence, the average FCG NPR of 45% in FY17 will have to be reduced to 25% by FY20, to 10% by FY25, and to 5% by FY30. Meanwhile, average input NPRs will decline from 13% in FY17, to 10% by FY20, and down to 5% by FY30. Thereafter, the tariff regime will be one with low uniform tariffs of about 5% without distinction between input or output. On the face of it, the proposed tariff and protection trend would appear contrary to current trends, but that seems to be the only way to go if Bangladesh is to undergo transformative change in its structure of production where production, jobs and income hinge on the success of exports which, by FY30 and beyond, could constitute 60-75% of GDP.

Figure 13: Futuristic Tariff Profile (FY17-41)



Apart from the uniformity of the tariff structure, other aspects of efficiency and transparency will be added to customs administration which, by 2025, will no longer have a major role in revenue collection because domestic taxes (income tax and VAT) will become the principal revenue instruments. Trade facilitation will be the underlying principle of its existence. Still, protection of specific products through the application of tariff peaks (a high tariff rate) might emerge from time and time and exceptions to the uniform tariff rule would then have to be made as temporary measures. Such a tariff structure will impart minimal distortion to domestic production and trade. From 2030 onwards, a modern high-tech industrial sector should be able to function with seamless movement of goods and services across borders or via online with least transaction costs.

Exploiting Global Value Chains. Pascal Lamy, the former head of the World Trade Organization (WTO), described global trade of today as less about products and services and more about trade along value chains which span not just across countries but also continents. This evolving pattern of global trade creates opportunities for changing the structure and direction of Bangladesh trade over the next decade. According to a WTO-UNCTAD report (WTO 2011)), trade in intermediate goods was the most dynamic sector of international trade in the past two decades, accounting for more than 50% of non-fuel world merchandise trade. This is a new trend that has evolved in the character of export-led growth. With the 'unbundling' of production across countries fostered by widespread trade liberalization, advances in ICT, and lower transportation costs, entrepreneurs often find it more economical now to 'unpackage' their factories and locate various production stages far from each other, to other countries in accordance with these countries' respective comparative advantages.

The fragmentation of production processes across different countries has given rise to global value chains (GVCs) creating opportunities for intra-industry trade globally as well as between contiguous economies within a region. East Asian countries have seized early opportunities from this development by linking up with China – the world's assembling powerhouse. Bangladesh started as a pure 'assembler' in a low value added GVC activity – cutting and making of readymade garments (RMG). Thanks to the initial infusion of FDI, bringing technology, management techniques, marketing access and information, both forward and backward linkages were established. Today, Bangladesh has become a leading exporter of RMG in the world – a clear example of the export-promoting and job creation potential of GVC.

There are important lessons from this experience regarding the prospects, challenges, and opportunities for Bangladesh stemming from GVCs in other product or service sectors. First, it was a foreign investor – in this instance, Daewoo of Korea – which facilitated Bangladesh's entry into the GVC by teaming up with a Bangladeshi company – Desh Garments. Second, it was a fact that the choice of the GVC component was based on Bangladesh's comparative advantage in low-skill intensive manufacturing production. Then, it must be the case that Bangladesh also had comparative advantage in many other low-skill intensive manufacturing production – which could be in final consumer goods or intermediate goods. Yet, there was no progress in the emergence of intermediate goods in Bangladesh's export basket.

What must Bangladesh do to exploit GVCs to break into new markets and export new products? What are the entry barriers? As mentioned earlier, to exploit GVCs, entrepreneurs may exploit two specific options: (1) produce intermediate goods; or (2) emerge as an 'assembling' hub. With regards to the first, Bangladesh entrepreneurs need to identify components that involve labor intensive or low skill intensive processes while searching to establish strategic partnerships with established transnational who will assemble the final product in another location. With regard to the second option Bangladesh may ponder emulating China's successes at GVCs by emerging as an 'assembling' hub. In this case it is instructive to look at the economic rise of China associated with the emergence of a distinctive structure for the Asian-US production system, commonly understood as the 'tri-polar trade through China' model. In this structure: (i) East Asian countries, except China, produce sophisticated parts and components and export them to China; (ii) China assembles them into final products; and (iii) these are further exported to the US market for consumption.

There are several issues worth discussing. To start with, if local entrepreneurs are willing to engage in the production of an intermediate good, then it is probable that they will face issues that are associated with efforts dedicated to 'learning how to imitate'. In short, the technical 'know-how' needed for the production of an intermediate good in the GVC must be obtained since Bangladeshi entrepreneurs are not exposed to such expertise. In this context, a prudent strategy for local entrepreneurs is to opt for a collaborative production structure that builds long-run commitments between local and foreign actors, so that the technical 'know-how' needed by the local actors is obtained by inviting FDI.

Thus it becomes apparent that a prudent option for a local entrepreneur is to seek collaboration with foreign firms for the production of intermediate goods, and also to emerge as a key 'assembling' player within the industry. This, however, will mean that foreign direct investment is needed, and policy makers must mitigate any constraints that undermine the prospects of FDI. Not only in the production of intermediate goods, courting FDI will be essential for future technology leapfrogging to capture production and market access in manufacturing products of the coming decades.

Furthermore, in order to promote integration into GVC (and attract FDI with this objective), the following steps would be essential:

- A liberalized investment policy regime, which offers scope for international firms to have unlimited stake in the local firm.
- Joint ventures with established actors within the GVC will allow the diffusion of technology, which ultimately boost the export potential of the local firm.
- Local firms must have the capacity to innovate and acquire a basic level of technological standard, so that such types of cooperation are possible.
- Availability of appropriately skilled labor at a competitive price, which motivates established foreign actors to participate in joint ventures with local players.
- The government has an important role to play in kick-starting GVCs in non-RMG export sectors. Various support policies (e.g. low-cost credit, tax waivers, generous transfer pricing rules) can be devised that can bypass current WTO 'rules of the game', as WTO regulations have yet to catch up with the rapid growth of trade in value added (GVC).

The critical role of foreign direct investment (FDI) in Bangladesh's future strategy for trade and industrial development, as well as in fostering GVC exports, will be analyzed in the next section.

H Courting Fdi In Export-Oriented Manufacturing

As a rapidly developing economy, Bangladesh will need to mobilize large amounts of financing needed for physical and trade infrastructure. Quite apart from concessional aid coming from multi-lateral agencies, a clear strategy will have to be laid out for mobilizing foreign direct investment (FDI) through private investments and public–private partnerships. One key strategy for export expansion and diversification will entail mobilizing FDI for export-oriented industries by competitively offering attractive physical and fiscal concessions to notable multinationals – micro or large. Drawing lessons from the FDI experience of comparators will be critical for this approach as Bangladesh is significantly lagging behind at present.

Potential Role of FDI in Promoting Export-oriented Industrialization

Export expansion and diversification is often constrained by limited domestic capital, technology and market knowledge. An important research question is can these constraints be eased by attracting foreign firms? It is not surprising that the role of foreign direct investment (FDI) in promoting export-oriented industrialization has attracted considerable attention in recent times. FDIs with their better technological and managerial skills and knowledge about international marketing conditions, are expected to improve the productivity as well as export performance of host country firms by creating certain positive externalities known as 'spillovers'. Spillovers can take place when FDI improves the productive efficiencies of domestic firms, making their products efficient in price and quality in the international market and thus improving their export performance. Such spillovers may occur either to domestic firms in the same industry group of foreign firms through competition, known as 'horizontal spillovers', or to firms in the upstream supply chain through buyer-supplier linkages, known as 'backward spillovers'. FDI can help to channel capital and technology into industries that have the potential to compete internationally, and the global linkages of multinational corporations can facilitate their access to foreign markets. In addition to exports that are generated directly by foreign affiliates, FDI can also promote exports of domestic firms through the teaching of proper marketing strategies, methods, procedures, and channels of distribution.

One final note on the criticality of FDI in supply chain trade (SCT) must be made. It has been argued that Bangladesh needs to get on the bandwagon of GVCs as a means to export-oriented industrialization. Cross-border FDI flows have been the lifeline for the growth of GVC (or SCT) trade that helps sustain the growing production networks across borders. Therefore, courting FDI in the future to capture and expand supply chains will have to be an essential strategy for Bangladesh's export-oriented industrialization.

The Empirical Evidence

There is now considerable body of evidence from countries in Europe, East Asia, South Asia and Africa that FDI supports the growth of exports. The focus here is on the experience of East Asia and South Asia.

In East Asia the experience of China is instructive as it has witnessed both a massive growth in exports and of FDI contemporaneously suggesting the positive role of FDI in exports. Zhang (2005) attempts to investigate the role of FDI in promoting manufacturing exports in China. The empirical evidence from the study suggests that FDI indeed has had a positive impact on China's export performance. The research finds that the export-promoting effect of FDI is much greater than that of domestic capital and its effect is larger in labor-intensive industries, as one might anticipate.

In approaching the subject from a spatial dimension Zhang found similar results. Examining the spatial patterns of exports and FDI, he found that FDI concentrated in the coastal areas and so did exports from them. Using panel data at the provincial level in the period of 1986 to 1997, the study found that 1% change in the level of FDI in previous year is associated with 0.29% increase in exports in the next year. The findings support the widely held belief that increased levels of FDI positively affect provincial manufacturing export performance.

The experience of China is particularly illustrative of the potential. The rapid growth of China's manufacturing exports with a wide range of diversified production and successful penetration in the global markets, especially in those of USA and Europe, suggests that a strategy of mobilizing FDIs to deepen China's manufacturing base and diversified export base has paid off handsomely. Since China is a net exporter of capital it is not so much the money but the technology, know-how and skills associated with FDI that have been instrumental. The lesson for Bangladesh and other developing countries is quite clear.

Johnson (2007) investigates the flows of FDI and trade in eight high-performing East Asian economies with a focus on the relationship between FDI and host country exports. The concerned countries are: China, Hongkong, Indonesia, Malaysia, Korea, Singapore, Taiwan and Thailand. The empirical evidence indicates that FDI inflows have a significant and positive effect on host country exports, suggesting that export-platform FDI may be important for the East Asian economies.

Vietnam in recent years has experienced a substantial inflow of FDI. Xuan and Xing (2008) look at the implications of FDI for export performance in Vietnam. The research analyzes the impact of FDI on the exports of Vietnam with gravity equations. The empirical results demonstrate that FDI is one of the major factors driving the rapid export growth of Vietnam. It has significantly facilitated the expansion of Vietnam's exports to FDI source countries. In particular, the empirical analysis shows that a 1 percent increase in FDI inflows is expected to lead to a 0.13 percent increase in Vietnam's exports to these countries.

Within South Asia India has experienced significant FDI inflows in recent years. Before the 1980s India was a heavily regulated and a virtually closed economy. Reforms since the mid-1980s have transformed India into an increasingly globalized economy. Responding to the liberalization of trade and investment policies, FDI inflows have grown rapidly in India since the mid-1990s. Prasanna (2010) investigates quantitatively the question of how FDIs have impacted on India's export performance. The research finds that the impact of FDI inflows on export performance is significantly positive.

The preceding review provides strong research evidence of the critical role played by FDI as a catalyst for export-oriented industrialization which was the lynchpin of high

growth in the East Asian economies. FDI inflows could play a similar role in Bangladesh's transformation into a high-performing industrial economy with robust exports in the next decades.

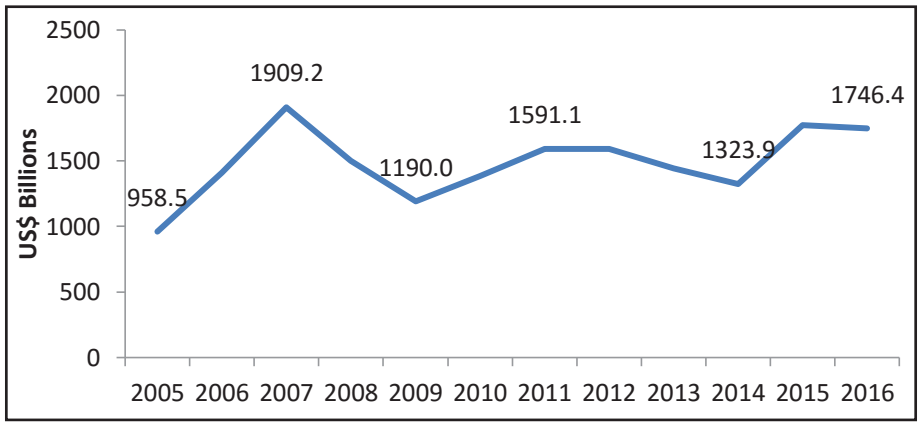
FDI fuels GVC exports. In Asia, FDI has played a particularly catalytic role in stimulating trade in intermediate goods over the past 25 years or so. From 2001 to 2016, Asia's share of global FDI increased from 12 percent to 28 percent; much of it had to do with the complementarity of trade and investment in the context of 'Factory Asia' and Asia's growing participation in cross-border global value chains (GVCs). GVCs are typically coordinated by Trans-National Corporations (TNCs), with cross-border trade of inputs and outputs taking place within their networks of affiliates, contractual partners and arm's-length suppliers. According to UNCTAD (2013) TNC-coordinated GVCs account for some 80 per cent of global trade. As a result of the role of TNCs in global trade, FDI is found to be closely linked with a countries' GVC participation. The correlation between FDI stock in countries and their GVC participation rates is strongly positive, and increasingly so over time, especially in the poorest countries, indicating that FDI may be an important avenue for developing countries to gain access to GVCs and grow their participation. Climbing the GVC development ladder implies not only increasing GVC participation and increasing domestic value added in exports. It also means moving into activities that can provide more development value added and increasing participation in more sophisticated GVCs, from resource-based activities, to low-, medium- and high-tech activities, to knowledge-based activities such as design, innovation, R&D, marketing and branding – as the experience of East Asian economies show.

Currently, Bangladesh faces the dual challenge of mobilizing more FDI and into the GVC operation. That is, its best chance of getting on the GVC bandwagon lies in aggressively courting FDI from multinationals that are seeking low-cost locations for producing parts and components or for final assembly within the framework of cross-border production integration. FDI thus becomes critical for Bangladesh to not only develop a wider base of intermediate goods industry but also to diversify exports into intermediate goods by vertically integrating with cross-border production entities. It needs to translate its RMG experience with GVC on to other sectors like Footwear and Leather goods, electronics, light engineering, and other sectors with an aggressive strategy of FDI-driven GVC over the course of the next decade. That would constitute a new form of export-oriented industrialization for Bangladesh on way to becoming a UMIC.

Bangladesh Experience with FDI

The recent trend in global FDI flows is shown in Figure.14. The global financial crisis of 2008-09 had a deleterious effect on the flow of global FDI but there is clear evidence of a recovery since 2010. Although still below the peak levels in 2007, global FDI flows were a healthy $1.7 trillion in 2016.

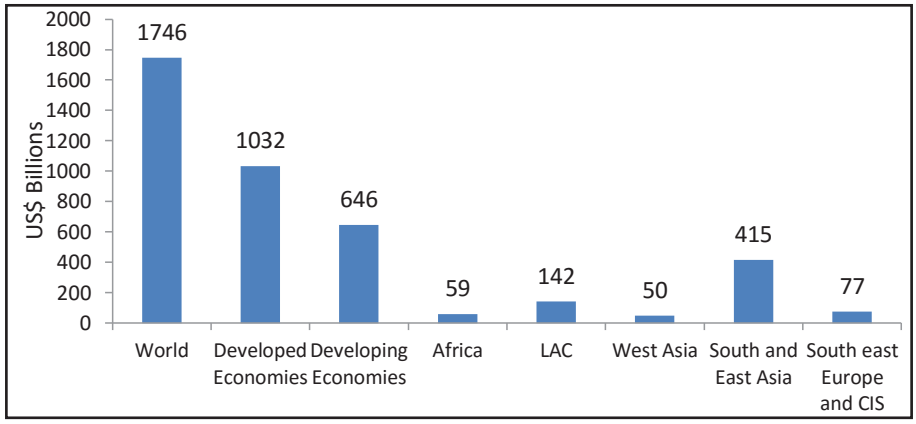
Figure 14: Global FDI Flows 2005-2016, Billion US$



Source: UNCTAD, 2016

The distribution of these flows by regions as shown in Figure.15demonstrate that developing countries are increasingly mobilizing FDI, accounting for some 40 percent of the total global FDI flows. Within the developing world, the South and East Asia Region got 67 percent of the FDI inflows to the developing countries with China marshalling a whopping 53 percent of that.

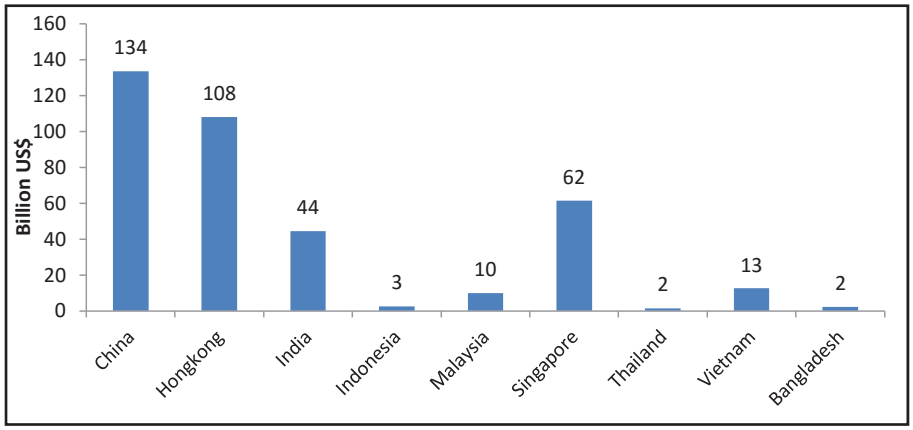
Figure 15: Regional Distribution of FDIs 2016, US$ Billions



Source: UNCTAD, 2016

Bangladesh is a minor player in FDI. As of 2016, it approached about 2 billion dollar, which is less than 0.04 percent of total inflows in South and East Asia as compared with $44 billion in India (Figure.16). Clearly, this is a missed opportunity for Bangladesh. In order to understand the constraints to FDI, it will be instructive to look at the lessons of the experience with FDIs so far.

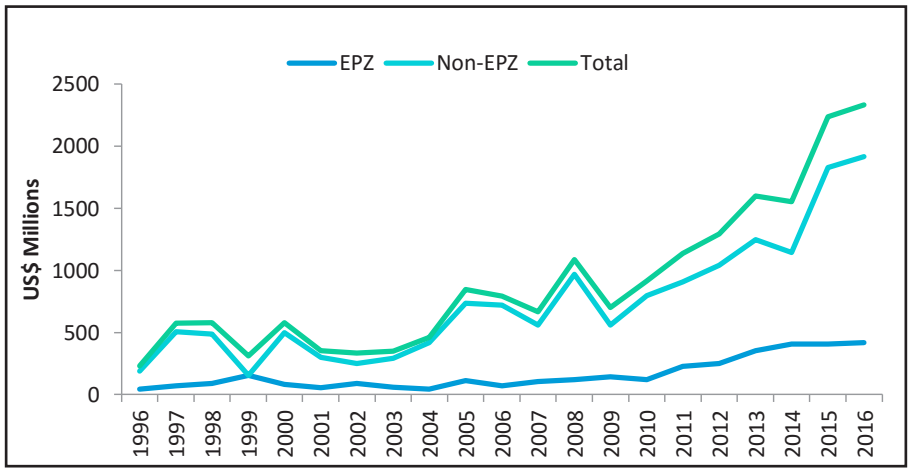
Figure 16: FDI Inflows in East and South Asia 2016, US$ Billion



Source: UNCTAD 2016

Figure.17shows the trend of FDI in Bangladesh between 1996 and 2016. The FDI inflows have now crossed the $2.0 billion mark. Much of the FDIs were outside the export-promotion zone (EPZs), simply because EPZ were limited in size relative to demand. This is also in sharp contrast with the experience in China where much of the FDIs went into the free trade zones. The Government's current plan to set up 100 special economic zones (SEZ) will be addressing the binding constraint of land with functioning infrastructure to attract FDI.

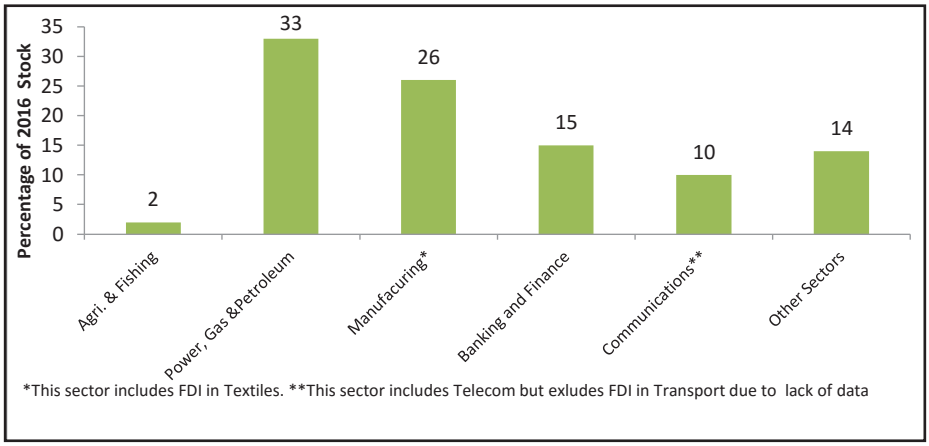
Figure 17: Trend of FDIs in Bangladesh 1996-2016



Source: Bangladesh Bank

The sectoral composition throws additional insight on the nature and pattern on FDIs in Bangladesh (Figure.18). Much of the FDI concentrated in three major areas: energy (33%), manufacturing (26%), banking (15%), and communications (10%). More recently, with the deregulation of the telecommunications industry a substantial amount of FDI has flown into the sector since 2004.

Figure 18: Sectoral Distribution of FDIs in Bangladesh



Source: Bangladesh Bank

The concentration of FDI in four core activities is not accidental and tells an important story of policy reforms and FDI inflows. In the early years much of the FDI concentrated in textiles and oil and gas. The textile industry was undergoing the well-known RMG revolution based on the deregulation of the RMG sector through trade policies and supportive fiscal and banking incentives. RMG entrepreneurs took advantage of this positive environment and invited foreign firms to enter into joint ventures. EPZ also attracted FDI into this sector. These FDI brought in new technology, financing and market access. Regarding power, oil and gas, the government invited foreign firms for private power generation, oil and gas exploration, offering them attractive terms. The deregulation in the banking sector has similarly attracted significant FDI inflows, especially since 2005. Finally, the deregulation of the telecommunications sector has attracted the most FDI since 2004. Even this limited evidence from Bangladesh is supportive of the global experience that FDI flows into countries and activities where business environment is deregulated and production incentives are attractive.

FDI experience in Bangladesh is too limited in scope to allow for a meaningful quantitative evaluation of the role in all exports, except RMG. Even in RMG and textiles, though it is the major destination for manufacturing FDI, much of the inflow has been limited to EPZ, as there was local resistance to FDI outside EPZ [10]. This situation is now changing as the government has put pressure on the BGMEA/BKMEA to issue utilization declarations (UDs) to foreign RMG firms as well. However, some indicative observations can be made of the potential based on this experience.

First, the FDI inflows did play a major role in spurring the RMG sector. The partnership between Desh Garments and the Daweoo enterprise of Korea is illustrative of this role. This partnership in the early stages of the evolution of the RMG sector allowed Bangladesh to acquire important technology and quality assurance skills that proved invaluable in the

10 As Utilization Declarations (UDs) for RMG exports were issued by the two associations, BGMEA and BKMEA, exporting firms has to be members in order to get the UDs and foreign investors faced entry barriers to these exclusive local clubs. Lately, Export Promotion Bureau (EPB) has decided to issue UDs to foreign firms, if they are unable to obtain them from the associations.

later stages when this knowledge got heavily diffused throughout the garment industry. Bangladesh RMG is similarly benefitting from partnership with name-brand firms in reaching out to the upscale RMG market in USA and Europe.

First, the FDI inflows did play a major role in spurring the RMG sector. The partnership between Desh Garments and the Daweoo enterprise of Korea is illustrative of this role. This partnership in the early stages of the evolution of the RMG sector allowed Bangladesh to acquire important technology and quality assurance skills that proved invaluable in the later stages when this knowledge got heavily diffused throughout the garment industry. Bangladesh RMG is similarly benefitting from partnership with name-brand firms in reaching out to the upscale RMG market in USA and Europe.

Second, FDI inflow in the energy sector is helping address a major energy constraint in Bangladesh. The true potential of the role of FDI in easing this constraint is not being exploited by Bangladesh owing to a range of policy and institutional constraints. But there is little doubt that GDP growth and export diversification will benefit tremendously from additional FDI in energy and transport sector.

Third, FDI flows in banking and telecoms are helping modernize these sectors and upgrade service quantity and quality. Both are critical inputs into the export supply chain. In particular, the potential for service exports in the ITC sector depends on strong FDI partnerships in both sectors.

Fourth, with GDP having crossed $250 billion, Bangladesh has attracted FDI into a rapidly growing hospitality industry which has attracted the top global Hotel chains like Westin, Radisson, Holiday Inn, Sheraton, Pan Pacific, to set up and manage high class hotels in the country. Hospitality infrastructure plays a vital role in facilitating exports and international trade.

Finally, taking the cue from the initial GVC experience in RMG, Bangladesh needs to launch a concerted effort to hop on to the GVC bandwagon by nurturing incumbent FDI and courting TNCs that are looking for low-cost production centers to expand their supply chains in the South and East Asia region. For the next decade and beyond, this particular feature of FDI promises to boost Bangladesh's trade and exports by diversifying into many potential export products that are many (some 900 export products were recorded under $1 million in 2016) but still small players in the country's export basket.

I. Strengthening Institutions For Trade And Industry

From a careful review of economic history, we find confirmation of the fact that rapid growth that transforms developing economies into developed economies in the course of a generation requires a combination of two things: sound economic policies and good institutions to implement them. Research has shown that differences in institutions related to trade and industrial activity explain a good deal of why export and industrial performance differs across countries. There is much to be done in reforming several of the institutions in Bangladesh that deal with trade and industry, particularly in the area of promoting exports and its diversification.

Sound policies. The World Development Report 1991 argued that sustained rapid growth results from the positive interaction of four critical aspects of economic policy: macroeconomic stability, human capital formation, openness to international trade, and a policy environment that encourages private investment and competition. That argument is valid today, and will remain so for the foreseeable future.

Macroeconomic stability with sustainable internal and external balance is a fundamental prerequisite of rapid growth. On this score Bangladesh does well for having maintained low and sustainable fiscal deficits, prudent management of public expenditures, modest inflation rates, and low level of public debt, both domestic and foreign. On the external front, exchange rate management has ensured exchange rate stability, a competitive exchange rate for the most part, and helped accumulation of foreign exchange reserves to comfortable levels, without any episode of external debt overhang or debt rescheduling.

Economic policies have to be market-friendly with the state playing a facilitating role. In letting markets function private agents will be facing a competitive environment in which to invest and allocate resources efficiently and productively. Bangladesh meets this criteria in modest terms. Having recognized the pivotal role of markets in development, Bangladesh followed a gradualist approach of moving toward market-friendly growth strategy with a carefully delimited government activism leaving much of activities in the hands of the private sector. While the industrial sector is no longer subject to investment restrictions for the private sector, there still remains a sizable quantum of state-ownership of enterprises in jute and cotton textiles, and some other products. Loss-making state-owned industries and a bunch of state-owned banks are the Achille's heels of the Bangladesh economy as they continue to gouge significant public resources periodically (through subsides and cash infusion) to stay afloat.

Trade openness and greater integration with the world economy has given exports a boost for many developing economies that were able to break into the global market for manufactures. With regard to trade openness, Bangladesh has made huge progress since 1990 but the agenda of trade reforms remains unfinished. There is still some way to go as we have not been able to transfer the success of RMG sector to other export products. One of the features of a competitive dynamic economy is to ensure that domestic prices of tradable are close to international prices. That would require protection levels to be modest as in the case of the East Asian economies during their import substitution phase. This is where Bangladesh has work cut out as high levels of effective protection to import substitutes keep domestic prices significantly above international prices with considerably higher profitability of domestic sales compared to exports. A swift rationalization of the protection structure has become an imperative for export diversification, i.e. expansion of non-RMG exports.

Export-oriented development in the future must take note that the future of global trade is digital. The mega-trends of digitization and more efficient systems are all in play around the globe. According to Dubai Multi-Commodities Centre (DMCC, 2015), on-going digital revolution by stimulating digital commerce in global trade is expected to create 350 million more businesses that will export goods and services adding as much as $29 trillion to the world economy over the next decade. Bangladesh will have to be ready with its own

digital strategy for the future in order to create opportunities for the vast numbers of small businesses (SMEs) that could gain access to world markets and take advantage of this revolution. Digital Bangladesh will have to shift some of its focus to digital trade creation opportunities with supportive regulation, access to funding, securing talent, and forging system efficiency.

Institutions. Economic historians who have studied prosperity and decline of nations have concluded that inclusiveness of political and economic institutions is critical for sustained prosperity (Acemoglu and Robinson, 2012). With a return to democratic politics in the 1990s, opening up of markets, deregulation and privatization of industrial enterprises, trade and exchange liberalization, Bangladesh is on way to building the kind of institutions that yield prosperity for the long-term. The next decade will be crucial for strengthening economic institutions that will help entrepreneurs seize market opportunities emerging in a fast-changing global economy driven by innovation and creative destruction. Though it appears that Bangladesh is on the right track with its growth trajectory on an upward trend, it should not give rise to complacency, as history shows that prosperity over time follows a non-linear process. In order to attain and sustain high economic growth what is needed is building and nurturing inclusive economic institutions that are effective in enforcing property rights, creating a level playing field for small and large entrepreneurs, SMEs and big business, and encouraging investment in innovation, adoption of new technologies and developing skills for the future.

Transforming the Bangladesh economy into a high-income economy over the next 25 years will require strengthening of institutions that promote sound economic fundamentals, enhance functioning of markets for efficient resource allocation, and foster competitive discipline. Intervention in markets would have to be kept to a minimum. The record of high-performing economies show that promotion of specific industries did not yield results as industrial development tended to be market-conforming and exports performed better when driven by factor-intensity based comparative advantage. That means we need to revisit the approach to "thrust sectors" providing instead a conducive policy environment for all investors and let those with the best potential succeed. The likely scenario in our digital future is that information asymmetry will fade to equalize market opportunities for all players.

What about institutions that determine policies for import substitute protection and export promotion? For one, there is no alternative but to phase out the current high level of effective protection as early as possible. Tariff protection -- if ever needed in the future -- as an economic policy can only be justified on a time-bound basis. Research on Bangladesh tariff structure and protection (PRI, 2012) reveals a high degree of tariff escalation resulting in a high magnitude of protection. A transparent and efficient tariff policy of the future can only conform to a scheme of low and uniform tariffs. This is also because escalated tariff structure with high import substitute protection creates significant anti-export bias of incentives. Moreover, bureaucratic institutions (customs and tax administration) that govern such protection schemes need to be highly efficient and incorruptible to effectively implement neutralizing schemes (e.g. bonded warehouses, duty-free imports). Likewise, export promotion policies like cash subsidies, favorable exchange rate, directed and concessional credit schemes, etc. also need to be results-oriented (e.g. yardstick of export targets) and time-bound. The best option for exports in the future would be to move towards a free trade regime with support for skill development and technological deepening.

As Bangladesh graduates out of its LDC status, it will need to be cognizant of some WTO rules that it had hitherto ignored – particularly, those relating to levels of protective tariffs and para-tariffs. Other multilateral disciplines will also come into play, such as rules governing intellectual property, subsidies, standards, and trade-related investment, which are going to be the same for developing and developed economies. Moreover, if Bangladesh were to seek membership of regional trading blocs, like RCEP, it would have to submit to their disciplines which are also likely to be stringent. Broadly speaking, economic institutions in Bangladesh will have to start getting ready to face and conform to a more competitive and rules-based global trading environment in the future. Nevertheless, trade facilitation with improved customs infrastructure and administration will remain effective mechanisms to promote exports while being consistent with multilateral rules.

J. Conclusions And The Road To Transformation To Hic

The present study has argued that the future of the world economy, trade and industry, is going to be digital. Bangladesh will have to be transformed into a digital economy with industry and services rapidly adopting the technological advances taking place around the globe. That calls for heavy investment in education and skill development as the economy moves into UMIC status. There is no scope for missing the bus. It has been made clear in this study that falling behind in making this investment in human capital will rob the country of its potential attainment of HIC status by 2041.

Development economists have often referred to Bangladesh as a model of development. Gone are the skeptics who had dubbed Bangladesh a "basket case". With all the technological breakthroughs and churning that will take place over the next 25 years, Bangladesh could indeed pull another surprise and join the ranks of HIC in the 2040s propelled by high growth in the 2020s and 2030s.

High growth is possible. According to Nobel Laureate Michael Spence, from ancient to modern times, the global flow of goods and services has never been static. It is now possible for countries to grow at 7,8,9, and 10 percent annually because of the enabling effect of the global economy. That is, economies can grow as fast as they can invest, provided they have some competitive edge. Bangladesh has proven its competitive edge in labor-intensive products, which will remain the basis of its global competitive advantage for the next decade before knowledge and skill-intensive growth takes over. Bangladesh will thus have to start now for achieving that transformation in competitive advantage.

These are some of the transformations that will be taking place as the economy moves up the income ladder:

- **Structural change:** the share of industry in GDP, at 33% in 2020, is expected to reach 40% in 2030, then decline to 33% by 2041; services at 54% of GDP in 2020 will be rising to become the dominant part of the economy reaching 62% of GDP by 2041. Agriculture, like in most developed economies, will shrink to only 5% of GDP by 2041 (Fig.1).
- **Fourth Industrial Revolution:** Bangladesh will need to play catch up and adopt the technological transformations of Industry 4.0 (IoT, 3D printing, etc.) in order to remain a global player in RMG and other potential exports.

- **New Wave of Globalization:** just as globalization created opportunities for Bangladesh to break into world markets for manufactures, it must remain fully prepared to embrace the new wave of globalization, seize emerging opportunities, and take on future challenges. That remains the only option for Bangladesh to become a highly industrialized economy of the future.
- **Future challenge of competitiveness:** In the unfolding industrial universe of the future, Bangladeshi firms will face the stark reality that competitive advantage founded on low labor cost cannot be guaranteed for all time. Competitive advantage is dynamic and will be evolving. From its current phase of factor-driven competitive advantage Bangladeshi firms will have to move into investment and innovation driven competitive advantage (a la Porter). Without such efforts, entrepreneurs need be warned that the current competitive advantage in labor-intensive garment exports could well be lost in future.
- **Lessons from East Asian economies** (Korea, Taiwan, Malaysia, Thailand): all of these high performing economies that eventually crossed the high-income threshold acquired the following characteristics: macroeconomic stability, high shares of trade in GDP, heavy investment in people (skills development), and strong competition among firms. Bangladesh already has some of these characteristics, and will have to focus on acquiring the rest, especially on investment in people and skill development.
- **Trade openness and reliance on external markets:** The experience of the high-performing East Asian economies clearly demonstrates the criticality of export-oriented trade policy for a superior export performance. Ensuring export competitiveness in the global marketplace must be a key export strategy for all times and access to world-price inputs must be ensured. The speed of Bangladesh's industrialization with job creation will depend on how well the economy is integrated with the global economy, with well-heeled policies to capture external markets while removing distorted incentives in domestic markets.
- **Exploiting Global Value Chains and courting FDI:** The fragmentation of production processes across different countries has given rise to global value chains (GVCs) creating opportunities for intra-industry trade globally, especially giving a boost to trade in intermediate goods. But the technical 'know-how' needed for the production of an intermediate good in the GVC must be obtained since Bangladeshi entrepreneurs are not exposed to such expertise. That justifies the critical need for foreign direct investment, and policy makers must mitigate any constraints that undermine the prospects of FDI. Not only in the production of intermediate goods, courting FDI will be essential for future technology leapfrogging to capture production and market access in manufacturing products of the coming decades.
- **S**trengthening institutions for trade and industry: Historical research finds conclusive evidence that inclusiveness of political and economic institutions is critical for sustained prosperity. Bangladesh is on way to building the kind of institutions that yield prosperity for the long-term. The next decade will be crucial for strengthening economic institutions that will help entrepreneurs seize market opportunities emerging in a fast-changing global economy driven by innovation and creative destruction (a la Schumpeter, 1942) [11].

11 The expression "creative destruction" was popularized by and is most associated with Joseph Schumpeter, particularly in his book Capitalism, Socialism and Democracy, first published in 1942.

References

Ahmed, Sadiq and Zaidi Sattar (2004). "Impact of Trade Liberalization: Looking at the Evidence". Economic and Political Weekly, Volume XXXIX, No. 36, pp 4059-4067.

Ahmed Sadiq (2012). "Employment, Productivity, Real Wages and Labor Markets in Bangladesh" Draft PRI Working Paper No.1, Policy Research Institute of Bangladesh: Dhaka.

Acemoglu, D. and James Robinson (2012). Why Nations Fail. The Origins of Power, Prosperity, and Poverty. Published by Crown Business, a division of Random House Inc. New York.

Boston Consulting Group (2015). "Takeoff in Robotics Will Power the Next Productivity Surge in Manufacturing", BCG Press Release, February 10.

Brenton, P. and Richard Newfarmer (2007). "Watching more than the Discovery Channel: Export Cycles and Diversification in Development", Working paper, Trade Department, World Bank, Washington, DC.

Brimble, Peter John (1993). "Industrial Development and Productivity Change in Thailand". Ph,D dissertation, Johns Hopkins University, Baltimore, MD.

DMCC (2015). The Future of Trade. Insights from Global Discussions. Dubai Multi-Commodity Center.

Global Trade Review (2015). "Five trends that will shape the future of trade." November issue. London/Singapore.

Global Agenda Outlook (2013). Pascal Lamy and Kevin Rudd debate "The Future of Globalization", at the World Economic Forum, January.

Hausmann, R., and Dani Rodrik (2003). "Economic Development as Self-Discovery". Journal of Development Economics, 72:602-633.

Islam, R. (2017). "Has Bangladesh entered a period of Jobless Growth?", The Financial Express, June.

Johnson, Andreas (2007). "FDI and Exports: the case of the High Performing East Asian Economies. Andreas Johnson", Center of Excellence for Science and Innovation Studies, Royal Institute of Technology, Working Paper Series in Economics and Institutions of Innovation No. 57: Stockholm

Kharas, Homi and Harinder Kohli (2011). "What Is the Middle Income Trap, Why do Countries Fall into It, and How Can It Be Avoided?", in Global Journal of Emerging Market Economies, Vo.3, No.3.

Khondoker, A. M. and Tetsushi Sonobe (2011). "An Inquiry into the Rapid Growth of theGarment Industry in Bangladesh", GRIPS Discussion Paper 11-10, National Graduate Institute for Policy Studies: Tokyo.

King, Stephen D. (2017). Grave New World. The End of Globalization, The Return of History. Yale University Press.

Kuo, Shirley W. Y. (1983). The Taiwan economy in transition. Boulder, Colo.: West-View.

Miller, B. and R.Atkinson (2013), "Are Robots Taking Our Jobs, or Making Them?", The Information Technology and Innovation Foundation". http://www2.itif.org/2013-are-robots-taking-jobs.pdf.

McCraw, Thomas K. (2012). "Joseph Schumpeter on Competition", Published in CPI Competition Policy International (ISSN 1554-6853) Spring, Vol. 8 No. 1.

Mjolner Infomatics (2015). Realizing the Fourth Industrial Revolution. https://mjolner.dk/tech/realizing-fourth-industrial-revolution/ .

OECD (2014). Science, Technology and Industry Outlook 2014.

OECD (2016). "Enabling the Next Production Revolution: The Future of Manufacturing and

Services". OECD Interim Report, Paris.

Page, John M, and Peter A. (1993). "Productivity Change and Strategic Growth Policy in the Asian Miracle". Background paper for The East Asian Miracle, World Bank, Policy research Department, Washington, DC.

Prasanna, N. (2010). "Impact of Foreign Direct Investment on Export Performance in India". Journal of Social Sciences, 24(1), pp 65-71

PRI (2012). "Assessment of Effective Rates of Protection. 2012 Survey of Manufacturing Industries". Report prepared for the World Bank by Policy Research Institute of Bangladesh (PRI). Dhaka.

Porter, Michael (1998). The Competitive Advantage of Nations. Pelgrave, New York.

Sachs, Jeffrey D. & Andrew Warner (1995), "Economic Reform and the Process of Global Integration," Brookings Papers on Economic Activity, Economic Studies Program, The Brookings Institution, vol. 26(1, 25th A), pages 1-118.

Schumpeter, Joseph (1942). Capitalism, Socialism, and Democracy. Published by Harper & Brothers (now Harper Collins), New York and U.K.

Spence, Michael (2007). "Wealth of Nations: Why China Grows So Fast", The Wall Street Journal, January 23.

Srinivasan, T. N. & Jagdish Bhagwati (1999). "Outward-Orientation and Development: Are Revisionists Right," Working Papers #806, Economic Growth Center, Yale University.

Seidel, B. and Lawrence Chandy (2016). "Future of Globalization in a Post-Trump World", Brookings Institution.

Subramaniam, Arvind and Martin Kessler (2013). "The Hyperglobalization of Trade and its Future", Global Citizen Foundation, http://www.gcf.ch/wp-content/uploads/2013/06/GCF_Subramanian-working-paper-3_-6.17.13.pdf.

UNCTAD (2013). World Investment Report 2013: "Global Value Chains: Investment and Trade for Development". Statement By James Zhan, Director, Division on Investment and Enterprise UNCTAD.

Vodafone (2015), "M2M Barometer 2015 report", Vodafone, http://m2m-mktg.vodafone.com/barometer2015

Wikipedia. https://en.wikipedia.org

Westphal, Larry E. (1978). "The Republic of Korea's Experience with Export Led Development", World Development, Vol.6, 347-82.

World Bank (1991). World Development Report 1991: The Challenge of Development. New York: Oxford University Press. © World Bank. https://openknowledge.worldbank.org/handle/10986/5974 License: CC BY 3.0 IGO."

World Bank (1993). The East Asian Miracle: Economic growth and Public Policy. Oxford University Press, New York.

World Bank (2002). Globalization, Growth, and Poverty: Building an Inclusive World Economy. World Bank Policy Research Report. World Bank and Oxford University Press.

World Bank (2004). Trade Policies in South Asia. An Overview. Report No. 29949, Poverty Reduction and Economic Management, South Asia Region, The World Bank: Washington DC

World Bank (2007). Global Economic Prospects: Managing the Next Wave of Globalization. Chapter 2, The Coming Globalization. Washington, DC.

World Bank (2010). "Global Value Chains in the Electronics Industry", Timothy J. Sturgeon and Momoko Kawakami. Working Paper Series #5417, The World Bank.

Woetzel, J., Diaan-Yi Lin, J. Seong, A. Madgavkar, and S. Lund (2017). "China's role in the next phase of globalization". McKinsey Global Institute Report.

Wolf, Martin (2014). "The Future of Global Trade Policy", in Better Governance for Inclusive Growth, CUTS 30th Anniversary Lecture Series 2013-14. CUTS International, Jaipur.

WTO-OECD (2011). "Trade patterns and global value chains in East Asia: From trade in goods to trade in tasks". Joint report of IDE-JETRO and WTO.

Xuan, NT and Xing (2008). "Foreign Direct Investment and Exports: The Experience of Vietnam", in Economics of Transition, Wiley Online Library.

Yoo, Jung-ho (1993). "The Political Economy of Protection Structure in Korea", chapter in Trade and Protectionism, NBER-EASE Volume 2, Takatoshi Ito and Anne O. Krueger, eds., University of Chicago Press. http://www.nber.org/chapters/c8081

Zhang, Kevin Honglin. (2005) "How Does FDI Affect a Host Country's Export Performance? The Case of China", Department of Economics, Illinois State University: Normal, IL

ANNEX-A

Table-A1: Republic Of Korea: Key Growth Drivers During Transition From Lower Middle Income(LMYC) to Upper Middle Income(UMYC) and Beyond

Economic Indicator	**1970s**	**1980s**	**1990s**	**2000s**
Real Sector Block				
Real GDP growth (%)	10.5	8.8	7	4.7
Per Capita GDP Growth (%)	8.3	-3.2	8.7	8.0
Economic Transition	**1971**	**1980**	**1990**	**2000**
Agriculture share of GDP (%)	29.5	15.9	8.4	4.4
Industry Share of GDP (%)	25.2	35.4	39.6	38.1
Service Share of GDP (%)	45.5	48.7	51.9	57.5
Investment rate (%)	25.5	34.6	39.6	32.9
ICOR	2.4	21.5	2.8	
Saving rate (%)	15.9	25.4	39.2	34.3
GNI Per Capita	1979	3663	8451	14989

Table-A2: Taiwan: Key Growth Drivers During Transition From Lower Middle Income(LMYC) to Upper Middle Income(UMYC) and Beyond

Economic Indicator	**1970s**	**1980s**	**1990s**	**2000s**
Real Sector Block				
Real GDP growth (%)	10.8	8.5	6.9	2.6
Per Capita GDP Growth (%)	3.3	4.8	6	6.4
Economic Transition	**1971**	**1980**	**1990**	**2000**
Agriculture share of GDP (%)	15.3	7.5	4	2.1
Industry Share of GDP (%)			38	32.4
Service Share of GDP (%)			58	65.5
Investment rate (%)		28.4	24.8	26
ICOR				
Saving rate (%)				32
GNI Per Capita	451	2386	8431	15142

Table-A3: Malaysia: Key Growth Drivers During Transition From Lower Middle Income(LMYC) to Upper Middle Income(UMYC) and Beyond

Economic Indicator	**1970s**	**1980s**	**1990s**	**2000s**
Real Sector Block				
Real GDP growth (%)	7.9	5.9	7.2	4.8
Per Capita GDP Growth (%)	3.3	4.8	6.0	6.4
Economic Transition	**1971**	**1980**	**1990**	**2000**
Agriculture share of GDP (%)	28.4	23.0	15.2	8.6
Industry Share of GDP (%)	30.5	41.8	42.2	48.3
Service Share of GDP (%)	41.1	35.2	42.6	43.1
Investment rate (%)	21.5	27.9	32.6	26.8
ICOR				3.5
Saving rate (%)		26.8	30.4	35.9
GNI Per Capita	2006	3199	4359	6470

Table-A4: Thailand: Key Growth Drivers During Transition From Lower Middle Income(LMYC) to Upper Middle Income(UMYC) and Beyond

Economic Indicator	**1970s**	**1980s**	**1990s**	**2000s**
Real Sector Block				
Real GDP growth (%)	7.1	7.3	5.2	4.3
Per Capita GDP Growth (%)	1.9	3.0	9.6	3.4
Economic Transition	**1971**	**1980**	**1990**	**2000**
Agriculture share of GDP (%)	23.9	23.2	12.5	8.5
Industry Share of GDP (%)	27.1	28.7	37.2	36.8
Service Share of GDP (%)	49	48.1	50.3	54.7
Investment rate (%)	24.2	29.1	41.4	22.3
ICOR				5.9
Saving rate (%)		22.7	32.8	29.2
GNI Per Capita	946	1392	2472	3390

Source: World Bank's World Development Indicators

Part-2

Employment and Labour Market Policies for a Maturing Economy

Dr. Rizwanul Islam*

* Dr. Rizwanul Islam is a renowned economist and served for International Labour Organization, Geneva.

Executive Summary

Objectives

The basic objective of the present study is to develop a long-term strategy for productive employment in Bangladesh within the framework of the Perspective Plan for 2041. The study includes the following:

- Quantitative estimates of possible employment creation that would be associated with the envisaged output growth;
- Strategies and policies needed to make economic growth more employment oriented – at least over the period when surplus labour will continue to exist in the economy;
- A strategy for making employment more productive and for improving the quality of jobs when a large informal economy continues to persist; and
- An outline of a strategy for building human capital needed for the changing economic landscape

The above is built on an analytical review of the employment and labour market situation in the country. While gender issue is used as a cross-cutting theme, particular attention is given to youth employment.

The paper is presented in three broad parts. While Part 1 provides an overview of the employment and labour market situation in the country, Part 2 looks at the future and presents projections of employment. Part 3 is devoted to developing strategies and policies for employment.

An Overview of the Employment and Labour Market Situation

Labour force

The overview of the employment and labour market situation shows a mix of good and bad news. The share of working age population in total population increased up to 2013 and declined after that (i.e., between 2013 and 2015-16). This is surprising because according to the projection of population made by the Bureau of Statistics, this proportion is expected to increase till 2041.

There was acceleration in the growth of labour force between 2000 and 2010, after which the rate of growth declined. That has happened despite increase in female labour force participation rate. There has been a gradual increase in female labour force participation rate. Although the trend was disrupted in 2013, data from the labour force survey of 2015-16 shows that it is rising again. If the overall trend continues, this can be positive factor for future economic growth of the country.

Although projections of population show that the share of working age population is expected to increase till 2041, the observed decline in the share and deceleration in the growth of labour force raise the possibility that the advantage of demographic dividend may come to an end earlier than expected. Another unknown factor in this respect is what is going to happen to enrolment in education.

Another piece of good news from the supply side is the improvement in the level of education of the labour force. This is evidenced from the decline on the proportion with no education and increase in the proportion with primary and secondary education.

Employment

The good news here is a rise in the growth of employment in manufacturing between 2010 and 2013. Although this came at the cost of falling labour productivity, it created an expectation that labour-intensive industrialization could serve as a mechanism for absorbing surplus labour in the country. However, that good news did not last long; data from the LFS of 2015-16 shows a decline in the absolute numbers employed in the sector. So, one is left to wonder as to what is happening to growth and employment in the sector. While official statistics indicate decent output growth, the most recent data on employment point to the possibility that output growth has not been accompanied by growth in employment.

There was a rise in the real wages of workers – till about 2010-11. And it is interesting that the rise was more pronounced for the agriculture sector. The rise in real wages coupled with a rise in the growth of manufacturing employment during 2010-13 created an impression that surplus labour may have been exhausted. However, data from various sources including the labour survey of 2015-16, the website of BGMEA, and data on wages and prices from the Bureau of Statistics (and Ministry of Finance) show that the good news on employment and real wages did not last long.

The disappointing news on employment starts from the fact that the overall elasticity of employment with respect to output (i.e., GDP) has been declining over time. One might, of course, argue that that this is natural in a developing economy and should be indicative of improvement in labour productivity. Indeed, growth of employment relative to output growth should leave room for improvement labour productivity. However, one needs to worry when there is a trade-off between growth in productivity and employment [1], and the latter is insufficient to absorb surplus labour at a sufficiently fast pace. The sharp decline in overall employment elasticity and a decline in manufacturing employment observed after 2013 give rise to such worry. Moreover, since this has been happening at a time when output growth has been high, one wonders whether the country has been going through a period of jobless growth.

Apart from slow growth of employment, a particular cause of concern is high rate of unemployment among the youth. While this represents a waste from the point of utilization of an important factor of production, it is also worrisome from a social point of view. What is also noteworthy is that education is not helping the youth in finding jobs – as is indicated by the direct relationship between education and unemployment. This is an area that requires particular attention.

Another point of concern – especially from the point of view of the relationship between economic growth, employment and poverty and inequality - is the stagnation (if not a decline) in real wages of workers. Although real wages increased for a few years after 2008, the trend did not continue. If growth in money wage rates and consumer prices are

1 The countries of East and South East Asia, e.g., Republic of Korea, Malaysia and Taiwan-China, were able to avoid such a trade-off and to combine high rates of economic growth with growth of employment and improvement in labour productivity.

any indicators, there appears to have been a decline in real wages in recent years. Policy makers need to worry about it, especially if real wages are looked at as a means of reducing poverty and improving income distribution.

On the external side, there was a substantial increase in the number of workers finding overseas employment in 2016. Although the external demand for workers is subject to fluctuations in changes in economic and other conditions in the destination markets, increase in overseas employment helps relieve the pressure on the domestic labour market (and also contributes to the foreign exchange earnings of the country). In addition to the rise in numbers, there was a gradual increase in the share of skilled workers in the total number of overseas employment – thus indicating the possibility of a change in the skill composition of such jobs. However, Bangladesh is still looked at by the receiving countries primarily as a supplier of unskilled and low skilled workers. There are a number of challenges that policy makers still face in this field. They include the following:

- A much better understanding and monitoring of markets would be needed, and the overseas employment strategy will have to be geared accordingly.
- Once the surplus labour available in the country is exhausted and workers with low education and skills will no longer be available (or availability will decline sharply), the strategy will have to change in a substantial way. Preparations for such changes will have to start during the next five to ten years.
- The perception in receiving countries about Bangladesh as a supplier of only low skilled workers will have to be changed.
- Preventing abuses of migrant workers at both the sending and receiving ends, guaranteeing their rights and ensuring their welfare remain major challenges.
- High cost of migration is a serious problem. More disconcerting is that much of the excess cost does not reflect the true expenses of travel and related costs. Payments to intermediaries represent a large part of the total costs of migration. This needs to change, and the cost needs to be aligned more closely to actual costs.

Employment Projection and Prospects

For purposes of looking at the future in terms of employment prospects and challenges, the period up to 2041 has been divided into two broad phases: the first phase is expected to last till 2030 while the second phase is expected to start after 2030. It may be recalled that 2030 represents the terminal year for attaining the SDGs of which full and productive employment is one. The present study postulates that attaining this target for the economy of Bangladesh would imply that surplus labour available in the country would be exhausted by then. Growth of employment that would be required to attain that turning point has been projected by using alternative assumptions about GDP growth and the relationship between output and employment growth.

The second phase of the employment challenge would start after the turning point mentioned above has been attained which is expected to be by 2030. By then, the economy is expected to move to the stage of upper middle income and on the path towards higher income status. The employment challenge for that period (i.e., 2030 to 2041) is analysed in both quantitative and qualitative terms, although no formal projections have been made for that period.

The basic results and conclusions based on the projections for the period up to 2029-30 may be summed up as follows:

- Assuming that (i) labour force will grow at a rate of 2.28 per cent per annum (which is the long-term average growth observed during 2002-03 to 2015-16, (ii) Some half a million workers will find jobs overseas annually, and (ii) full absorption of surplus labour by 2030 will entail the creation of jobs in excess of that required to absorb the new additions to the labour force, it is postulated that the economy will need to create 1.93 million jobs annually during the period of 2015-16 to 2029-30.
- If the economy grows at an annual rate of 8.5 per cent (as projected by the Planning Commission's Perspective Plan macroeconomic analysis for 2025), the elasticity of employment will have to be in the range of 0.3 in order to attain the employment target mentioned above.
- It may be recalled that during 2013 to 2015-16, the observed employment elasticity was 0.1765. If that pattern of growth continues, even an annual GDP growth of 8.5 per cent will be inadequate for purposes of generating the required growth of employment. If GDP growth turns out to be lower, the pattern of growth will have to change towards more labour absorbing path in order to attain the employment goal.
- The present study argues that with appropriate economic policies, the pattern of growth should be able to continue the labour absorption ability observed till about 2013. And in that case, even with GDP growth of 8 per cent, it should be possible to attain the employment goal mentioned above.
- In real terms, the above would imply that the manufacturing sector will play the role of the real driver of growth with output growth of around 15 per cent per annum and employment growth in the range of 9 per cent per annum. Given the experience of the successful cases of labour-intensive industrialization in East and South East Asia, this should be feasible. The requirement, of course, is a diversification in the composition of the manufacturing sector and much faster growth of a few more labour-intensive industries like shoes (both leather and non-leather), leather products, electronics, furniture, etc. – of course, alongside ready-made garments.

During the second phase of the period under study, i.e., 2030 to 2041, growth of labour force will decline further. One projection (by BBS) puts it as 0.83 per cent per annum which appears to be unrealistically low. Assuming a labour force growth of 1.5 per cent per annum (which is based on the recent experience) and using 85.2 million as the base figure for 2030 (the figure projected by this study), one gets an estimate of 100.36 million for 2041. That would imply an annual addition of 1.38 million from 2030 to 2041. Assuming overseas employment of about 400,000 per year, this indicates an annual job requirement of about one million.

If a GDP growth of 9 per cent per annum can be attained (as projected by the Planning Commission's macroeconomic projections), and employment elasticity does not drop below 0.2, the economy would be able to generate around 1.7 million jobs annually (against a requirement of about one million). If that happens, the economy will face a labour shortage. In reality, even when the economy matures, employment elasticity may remain well above 0.2 (possibly in the range of 0.3). In that case, the labour market is likely to become even tighter. These estimates indicate that it should be possible to maintain full employment with a GDP growth of around 8 per cent per annum.

Towards an Employment Strategy

Mention has already been made above of two phases of the period up to 2041 and differences in the nature of the employment challenge during the two phases. The strategy will naturally have to be different also. While attaining full employment has to be the major focus during the first phase, maintaining it alongside the quality of jobs will be the challenge for the second phase. Accordingly, the emphasis during the early period would have to be on structural transformation in the economy – especially, high growth of manufacturing and transfer of surplus labour to that sector, and reducing underemployment and employment in the informal economy through such a process. Simultaneously, progress has to be made towards improving conditions at work, providing social protection to workers and improving the situation regarding their rights at work.

When the economy matures, the qualitative aspects would have to receive greater attention. In other words, full and productive employment and decent work for all on a sustained basis has to become a reality. On the supply side, levels of education and skills of the workforce has to be further improved during the first phase. During the second phase, economic growth will be driven more by factor productivity, and the economy will be much more knowledge and skill-based. Hence, there has to be a much greater qualitative transformation of the workforce.

The issue of technological progress and the possibility of automation will also have to be taken into account in formulating a longer-term employment strategy. However, rather than taking a pessimistic view of the danger of job destruction, it would be advisable to adopt a pro-active policy so that the economy can benefit from the positive aspects of new and better jobs.

As for the **informal sector,** there are three aspects that need attention: (i) productivity, wages and earnings, (ii) obstacles and barriers faced by the informal sector enterprises, and (iii) conditions of work and social protection. During the first phase of labour absorption, more emphasis will have to be given to the first two issues, though the third should not be neglected altogether. However, as the economy attains the upper middle-income status, the quality of jobs with respect to conditions in which work is carried out and social protection of workers will have to reach a level that is commensurate with its income status. And work in that direction has to be initiated now. A beginning can be made with innovative measures for protection against ill health and old age.

Although the employment challenge needs to addressed in a general manner, the **youth** deserve specific attention for a variety of reasons – not least because their unemployment represents a greater waste of resources and is socially more dangerous, and they face difficulties that are specific to the group. While overall economic and employment growth are critical, the difficulties faced by the youth in accessing their first job and in becoming self-employed need to be addressed. Other serious problems include the mismatch between skills obtained in the world of learning and those required in the world of work. Experience, especially of countries with lower youth unemployment indicates the importance of carefully calibrating the education and skill development system to the needs of the labour market, a strong apprenticeship system, packaging entrepreneurship development programmes with credit and marketing support, and labour market intermediation to match job-seekers

and employers. Special employment programmes may also be conceived for the youth by drawing on ideas from public works programmes but changing the types of jobs to suit the qualifications of job-seekers. It would be useful to package all such measures through what is known as active labour market policies (ALMPs). This class of measures would become more important as the economy matures, but a beginning has to be made now.

As for the employment of **women,** the challenge at the present stage of the economy remains one of raising the rate of their participation in the labour force which, in turn, would need a combination of measures ranging from promoting the growth of sectors that are more amenable to their employment (e.g., labour intensive industries like garments, shoes, electronics, etc.) to removing barriers to their employment and establishing infrastructure to facilitate their employment.

In addition to activities that are women-friendly, there are variables that influence female participation in the labour force; they include education, fertility rate, affirmative action and direct intervention, and other measures like maternity leave.

- As female participation in labour force is seen to be related positively to education, spread of education, especially of technical education among women would be a good policy.
- Likewise, making family planning services more easily available would be helpful.
- The existing policy of reservation of a certain proportion of jobs in the public sector has been useful in increasing women's participation in the sector. The case for raising the quota may be looked at.
- The implementation of the existing provision for maternity leave needs careful examination.

Apart from women's participation in the labour force, their status at the place of work is another major concern. Issues that are relevant in that area include the nature of employment and their vulnerability, differences in wages, working conditions and opportunities for advancement. In order to address these issues, a variety of measures including stronger legislation and better implementation of such legislation, and changes in overall attitude are required.

Strategy for Developing Human Capital

A comprehensive strategy for developing human capital has to be part of the overall development strategy as well as the employment strategy because human capital is not only an important element in the growth equation but employability would be an important determinant of the success of the employment strategy. Bangladesh has already made important strides in this field as an LDC. However, as the economy moves to the upper middle income status, it would be necessary to focus on the more difficult aspects of human capital development, viz., combining good quality general education that is not only relevant for the labour market but also can lay the foundation for further skill development with technical and vocational education. During the first phase of the employment challenge mentioned earlier, the emphasis now has to be on improving the quality at all levels and types, and further expansion of secondary and technical education. At the same time, the

tertiary education system has to gear itself to meeting the requirements of a knowledge-based economy where both mechanical and information and communication technology will be on high demand. While it is not practical to make quantitative projections of the requirement of human resources with such education and skills, the experience of countries that have gone (and are going) through similar paths of growth can provide useful guide. For example, enrolment rate at the tertiary level was 36 per cent in Malaysia in 2011 compare to 13 per cent in Bangladesh in 2015. Likewise, enrolment in technical and vocational education in Bangladesh was 3 per cent in 2015 compared to 12 per cent in the Republic of Korea in 2008. These are the kind of targets that Bangladesh could aim at for 2030.

Towards an integrated strategy for employment

Employment has to be looked at as an outcome of economic growth, and hence, a strategy for employment has to be part of the overall growth and development strategy of the country. It would, therefore, be essential to have an integrated employment strategy combining necessary economic and labour market policies. The starting off point for such a policy has to be macroeconomic policies that would look beyond their conventional function of maintaining macroeconomy stability and give due consideration to what happens on the employment front. Coordinated application of monetary, fiscal, trade, exchange rate, and industrial policies is required to attain high rates of economic and employment growth simultaneously.

Monetary policy has to aim not only at maintaining price stability, but also to attain the desired level of employment growth. This dual mandate of monetary policy, viz., price stability and employment, would be critical especially when the economy moves to a higher level of development.

Fiscal policy has to be pro-growth, pro-employment and counter-cyclical. A coordinated application of fiscal and monetary policies would be especially important when the economy hits a downturn – something that cannot be ruled out in a market oriented economy.

In Bangladesh, fiscal measures have played an important role in providing incentives to specific industries. Rather than such ad hoc measures, the entire incentive structure needs to be geared towards attaining a genuinely export-oriented process of industrialization. And that means an incentive structure that would not discriminate between imports and exports and also between different industries. It has long been pointed out and argued that industry-specific ad hoc measures may have succeeded in promoting one or two export-oriented industries, but this kind of discriminatory support cannot engender a real process of export-oriented growth through growth of a range of labour-intensive industries. For the latter, it is essential for the incentive structure to be neutral between exports and imports and for export-oriented sectors to receive ex ante, non-arbitrary and time-bound support. It is, therefore, time that trade, exchange rate and fiscal policies be looked at in an integrated manner to produce a policy regime that would be appropriate for the country.

Analysis of the supply side of the labour market, especially of education and skills of the workforce, shows that despite considerable improvements in the field of education and ongoing efforts in the area of skill development and vocational training, there is considerable scope for further improvements. As for general education, a sizeable

proportion of the employed population is still without any education. At the other end, a very small proportion has tertiary level of education. Even with such low levels of education, unemployment of the educated is a serious problem, and seems to be getting worse. Furthermore, the enrolment ratio in technical and vocational education remains very low. On top of these, there is the issue of quality and relevance to labour market needs for all levels of education and training.

During the journey towards attaining the status of a developed and mature economy, policymakers will also have to confront the challenges of technological progress and its impact on the labour market. The education and training system will have to gear itself to meeting such challenges so that the economy as well as members of the workforce can benefit from the positive aspects rather than fall victim to forces of job destruction.

So, the challenge appears to be quite formidable and the agenda of action can be quite long. A strategy for developing human capital (outlined in this report) has to be an integral part of the employment strategy.

1. Introduction

1.1. The background and context

Since the 1990s, the economy of Bangladesh has witnessed acceleration in the rate of economic growth (measured by annual GDP growth). The performance of the country in social development, especially in the areas of education and health has also been quite impressive. But one area of concern is how the fruits of economic growth are being distributed amongst the people. And in that regard, the outcome of growth in terms of employment is important. There are studies pointing out that although economic growth has been satisfactory, performance in the area of employment has been less so – even taking into account the substantial number of employment generated in the export-oriented ready-made garment industry. Since productive employment plays an important role in transmitting the benefits of economic growth into incomes of the poor (and thus, in reducing poverty and improving the distribution of income), it is important to examine the nature and magnitude of the employment challenge faced by the country and to chart out strategies and policies addressing the challenge.

The employment challenge needs to be looked at not only in terms of overall numbers because an important aspect of the process of economic development is transfer of workers from sectors characterized by low productivity to sectors/activities with higher levels of productivity. It may be recalled that theories of economic development in countries characterized by dual economy (à la models of Lewis, 1954 and Ranis-Fei, 1961) postulate that the process of development involves a transfer of labour from traditional sectors (e.g., agriculture) where productivity is low to modern sectors (e.g., industry) where productivity and returns are higher. This is also emphasized in the post-MDG development framework articulated in the Sustainable Development Goals (SDGs). The "transformative agenda" mentioned therein needs to be interpreted in terms of a structural transformation of the economy as well as of employment. It may be noted that "Goal 8" of the SDGs emphasizes the importance of combining high economic growth with employment growth. For LDCs (of which Bangladesh is one), a GDP growth of 7 per cent per annum is being recommended while the target for employment (for all countries) is "full and productive employment" by the year 2030.

At the national level, the macroeconomic framework of the Seventh Plan (for the period FY2016-FY2020) projects GDP growth to range from 7 per cent in FY2016 to 8 per cent in the terminal year of the Plan – an average growth of 7.4 per cent per annum during the five-year period. The Plan projects additional job creation ranging from 2.3 million in 2016 to 2.9 million in 2020. The projected addition to employment each year would be higher than the projected addition to labour force, and thus the labour market would continue to tighten.

The Perspective Plan (PP) of Bangladesh for the period 2010-2021 envisaged raising annual GDP growth to 10 per cent by the year 2021. Employment promotion and structural transformation were among the six "strategic goals" of the Plan. The PP also envisaged reducing unemployment rate from 30 per cent in 2010 to 15 per cent by 2021[2] .

Looking at the longer term future, Bangladesh expects to graduate out of the LDC status by 2021, aspires to attain the status of upper middle income country by 2030, and to become a developed country in the decade of the 2040s. A process of rapid, sustained and inclusive economic growth associated with reduction (and eventual elimination) of poverty is envisaged for this period. Given the importance of productive employment in translating the benefits of economic growth into poverty reduction, the cornerstone of an inclusive development strategy would have to be an effective employment strategy that would include structural transformation and the absorption of surplus labour available in the country.

1.2. A brief overview of the relevant literature

In recent years, there have been a number of studies dealing with various aspects of employment and labour market in Bangladesh. While some are descriptive and provide a broad overview (e.g., ADB-ILO, 2016; CDER, 2017; ILO, 2013 a; IILS, 2013; CPD, 2011)), there are others dealing with specific groups like women (e.g., Rahman and Islam, 2013) and the youth (e.g., Toufique, 2014).

The most recent and the most comprehensive of the studies mentioned above, viz., ADB-ILO (2016), provides an analysis of a number of issues including economic diversification and structural transformation that is needed as well as issues relating to the employment of women. The study also provides an outline of the quantitative dimension of the medium term employment challenge.

Another recent study (CDER, 2017) extends the analysis of the ADB-ILO report mentioned above and looks at the challenge of employment in the context of SDGs. That study also looks specifically at the employment situation in the ready-made garment industry. On the supply side, it focuses on the challenge of employment faced by the youth.

Bangladesh Institute of Development Studies (BIDS) has undertaken a series of studies to identify skill gaps for selected sectors, viz., agro-food industry, ready-made garments industry, leather products, construction, hotel and tourism, health, light engineering, ICT, and shipbuilding. The study made quantitative assessments of the availability and requirements of skills in these sectors and found that there are shortages in all sectors, although the magnitude and type varies.

2 Presumably, these "unemployment" figures really meant "underemployment" rather than open unemployment, because the latter has been in the range of 4 to 5 per cent.

It may be mentioned in this context that there has not been any study dealing with longer term employment challenges, especially when it comes to considering challenges likely to emerge in a maturing economy. Such an exercise needs to be based on a good analysis and update of the employment and labour market situation. In that respect also, there is a gap in the literature in the sense that the above-mentioned studies were undertaken before the results of the labour force survey of 2015-16 were released. They naturally provide a picture of the labour market situation up to 2013. While data from the latest survey can be used to provide an up to date picture of the labour market situation, a comparison of the data from the survey of 2015-16 with that of the earlier surveys can provide useful insights into the direction in which the employment situation has been moving.

1.2. Objective and focus of the study

The basic purpose of the present study is to develop a long-term strategy for productive employment in the country. In doing so, cognizance will be taken of (i) the SDG 8 which includes the target of full productive employment by 2030; (ii) the likely path of structural transformation in the economy, and (iii) the existence of a very large informal sector despite sustained high rate of economic growth attained over a period of time. The study includes the following:

- Quantitative estimates of possible employment creation that would be associated with the envisaged output growth;
- Strategies and policies needed to make economic growth more employment oriented – at least over the period when surplus labour will continue to exist in the economy;
- A strategy for making employment more productive and for improving the quality of jobs when a large informal economy continues to persist; and
- An outline of a strategy for building human capital needed for the changing economic landscape

The above is built on an analytical review of the employment and labour market situation in the country. While gender issue is used as a cross-cutting theme, particular attention is given to youth employment.

Taking into account the background, the framework and objectives mentioned above, the paper is presented in three broad parts:

Part 1: An Overview of the Employment and Labour Market Situation

Part 2: Looking at the Future: Projections of Employment

Part 3: Strategies and Policies for Employment

Part 1: An Overview of the Employment and Labour Market Situation

2. The Supply Side: Demographic and Labour Force Situation [3]

2.1. Demographic characteristics

During the first one-and-a-half decade of the millennium of 2000, population growth in Bangladesh has been around 1.5 per cent per annum. This is confirmed by the growth of population recorded by the labour force surveys of 1999-2000 and 2015-16 (see the last row of Table 1). What is surprising is the big difference in the growth of male and female population shown by the successive surveys which is difficult to explain. The second notable demographic feature is the high rate of growth of urban population which shows the process of urbanization that has been taking place in the country.

The third notable demographic feature is the increase in the share of working age population that has taken place over time, especially up to 2013 (Table 2). And that increase applies to both males and females as well as for rural and urban areas. This implies the oft mentioned possibility of reaping the so-called "demographic dividend" – if of course the people of working age could be converted to human capital and utilized in an effective manner for productive purposes. It is also important to note that there has been a decline in the share of working age population between 2013 and 2015-16. Future surveys will tell us whether this marks beginning of the end of the possibility of demographic dividend or whether it is a temporary blip. From the point of view of formulating long-term strategies with respect to employment and labour market, this would need to be taken into account.

Table 1: Growth of Population (Numbers are in million), 2000 to 2013

Year	Total	Male	Female	Urban	Rural
2000	127.5	66.6	60.9	27.3	100.2
2006	137.3	70.0	67.3	32.3	105.0
Annual growth (%) : 2000 to 2006	1.24	0.83	1.68	2.84	0.78
2010	148.7	74.2	73.6	34.0	114.7
Annual growth (%) : 2006 to 2010	2.01	1.47	2.26	1.29	2.23
2013	154.2	76.6	77.5	43.2	110.9
Annual growth (%) : 2010 to 2013	1.22	1.07	1.74	8.31	-1.12
2015-16	158.5	79.6	78.9	44.6	114.0
Annual growth (%) 2013 to 2015-16	1.38	1.94	0.90	1.61	1.39
Annual growth between 2005-06 to 2015-16	1.45	1.29	1.60	3.28	0.83
Annual growth (%) : 2000 to 2013	1.47	1.08	1.87	3.59	0.78
Annual growh (%) : 2000 to 2015-16	1.46	1.20	1.74	3.33	0.86

Source: Calculated from LFS data

3 Sections 2 through 5 draw on the author's contribution to ADB-ILO (2016), with a thorough update based on recent data, especially from the labour force survey of 2015-16 and other relevant sources.

Table 2: Working Age Population, 2000 to 2013

	2000	2005-2006	2010	2013	2015-16
Total population (million)	127.5	137.3	148.7	154.2	158.5
Working age population (million)	74.2	84.6	95.6	106.3	106.1
Working age population as % of total					
Total	58.2	61.6	64.3	68.9	62.3
Male	57.5	61.4	64.5	68.0	60.8
Female	58.9	61.8	64.8	69.9	63.6
Urban	60.8	65.3	68.2	70.1	65.8
Rural	57.6	60.5	63.1	68.5	61.0

Source: Labour Force Survey, various years.

2.2. Labour force[4]

Data on labour force growth during the period of 2002-03 to 2015-16 are presented in Table 3. From this data, a few observations may be made on the growth of labour force and variation in growth during the inter-survey periods. First, labour force growth registered a sharp increase during the period between 2005-06 and 2010 compared to the earlier inter-survey period of 2002-03 to 2005-06. From 2.25 per cent per annum, it increased to 3.45 per cent. Second, growth of labour force slowed down quite sharply after 2010 - to 2.3 per cent per annum during the 2010-2013 period, and further down to 1.15 per cent during 2013 to 2015-16. Third, after a sharp rise in the growth of female labour force during 2005-2010, there was a reversal during 2010-2013. However, that decline has been reversed after 2013. Fourth, acceleration in the growth of urban labour force continued during 2010-2013, but growth of rural labour force declined very sharply during the latter period. But the opposite happened during 2013 to 2015-16. It is difficult to explain such sharp fluctuations in the growth of labour force in rural and urban areas.

Table 3: Annual Growth of Labour Force (per cent per annum)

	2002-03 to 2005-06	2005-06 to 2010	2010 to 2013	2013 to 2015-16
Total labour force	2.25	3.45	2.30	1.15
Male	1.19	1.44	2.47	0.70
Female	5.52	9.19	1.90	2.44
Urban	1.17	3.23	8.74	0.58
Rural	2.60	3.51	0.08	1.48

Notes: Labour force is defined as economically active population over 15 years of age.

Source: Calculated from Reports of Labour Force Survey, various years

It is not easy to explain the various patterns in the growth of labour force mentioned above. For example, increase in the growth of labour force during 2005-2010 is not surprising, and could be explained by several factors. First, those who entered the labour force during the 2005-10 period were already born in the early 1990s. Given the continued high growth of population at that time, high growth of labour force is not surprising. However, what

4 Some of the key definitions and methods used in the labour force surveys of Bangladesh are described in ADB-ILO (2016) and Islam (2014 b), Annex 1.

is surprising is the increase in the rate of growth, because the factor of population growth was present in the earlier inter-survey period. What may have caused the difference during the 2006-2010 period is a more flexible interpretation of the term economic activity that resulted in a larger proportion of population being included in the labour force by the survey of 2010 compared to the earlier one. This brings one to the second possible factor in explaining the rise in labour force growth, viz., very high growth of female labour force which was already much higher than the growth of male labour force in the earlier inter-survey period. During the 2005-2010 period, female labour force grew at an annual rate of 9.2 per cent compared to 5.5 per cent during 2002-05[5] . The above two factors possibly could not counteract a negative factor on labour force growth, viz., growth in enrolment in education.

If the factors mentioned above were active during the 2005-2010 period, one would have to argue that they reversed direction during the subsequent period (i.e., 2010-2013). Indeed, female participation rate declined during the latter period (although it remains to be examined and explained what may have caused this reversal). Whether this single factor outweighed the demographic factor of population growth is another question.

Looking at the difference between locations, one can note the much higher growth of urban labour force which continued. This is not surprising as rural-urban migration in a country like Bangladesh is a continuing phenomenon. However, the sharp decline in the growth of rural labour force is surprising. The sharp decline in urban labour force growth during 2013 to 2015-16 is also worth noting. One would wonder whether rural-urban migration has come to a complete halt after 2013, and if so why.

An important aspect of the labor force of the country is the difference in the participation rates between men and women. One notable and positive development in this regard is the substantial rise in female labour force participation rate (FLFPR) over time, although the level still remains substantially below those attained in a number of East and South East Asian countries. Table 4 presents relevant data. It needs to be noted, however, that after continuous increase in FLFPR for two decades, there was a decline during 2010-2013. Although that decline was reversed during 2013-2015-16, it would be important to monitor the trend in women's labour force participation rates and analyze factors influencing this. Women's participation in the labour force participation is important from the point of view of economic growth as well as household income.

Table 4: Male and Female Labour Force Participation Rates, 1991 to 2015-16

Year	Female	Male	All
1990-1991	14.0	86.2	51.2
1995-1996	15.8	87.0	52.0
1999-2000	23.9	84.0	54.9
2002-2003	26.1	87.4	57.3
2006	29.2	86.8	58.5
2010	36.0	82.5	59.3
2013	33.5	81.6	57.1
2015-16	35.6	81.9	58.5

Source: LFS, various years

5 See Rahman and Islam (2013) for a detailed analysis of changes in female labour force participation in Bangladesh up to 2010. The factors that have contributed to the rapid growth of female labour force have been analyzed in that study.

Data on age-specific participation rates are available for different age-groups for different surveys. Up to 2010, data are presented by more groups than for 2013 and 2015-16. Hence, the data are presented in two tables – in Table 5 a for the period up to 2010 and in Table 5 b for 2013 and 2015-16. From the former, it may be noted that for men, there was a decline in the age-group 15-19 and a small increase in the age-group 20-40. This is a positive development in the sense that working age population is probably spending more years in education, and participation rate has increased in the prime age group. However, the situation is different for females: participation rate has increased for 15-19 age group as well. Another difference between male and female participation rate is the sharp fall in the latter from the age of 50. This is a phenomenon that deserves in-depth investigation.

Table 5 a: Age-specific Labour Force Participation Rates by Gender

Age group	2010		2006		2000		1995-1996	
	Male	Female	Male	Female	Male	Female	Male	Female
15-19	48.44	29.40	62.88	13.76	55.85	23.35	61.3	18.0
20-24	75.93	40.98	80.41	29.00	74.01	26.30	78.8	15.8
25-29	92.10	44.71	95.28	33.67	91.30	27.08	93.5	16.0
30-34	97.29	46.62	98.68	34.88	95.65	26.51	98.3	15.8
35-39	98.34	47.67	98.81	34.82	98.23	25.66	98.4	18.2
40-44	98.05	46.24	97.72	35.15	97.78	26.57	99.0	17.0
45-49	97.37	47.58	97.75	32.63	97.63	23.42	98.8	14.3
50-54	94.11	10.25	95.35	31.12	95.76	18.28	98.0	14.3
55-59	88.52	11.18	92.36	27.72	93.50	18.85	96.1	14.4
60-64	77.20	6.63	82.70	22.62	81.39	11.11	88.6	11.4
65 +	57.93	8.32	59.25	14.83	56.56	8.99	70.2	8.4

Source: Labour Force Survey (various years)

Data in Table 5 b shows a decline in the labour force participation rate for the 15-29 age-group. This may be (and hopefully, is) due to greater numbers, from among those in the lower age cohorts, getting into education. One positive development is the increase in female participation in the age-group 30-64.

Table 5 b: Age-specific Labour Force Participation Rate by Gender, 2013 and 2015-16

Age group	2013			2015-16		
	Total	Male	Female	Total	Male	Female
15-29	53.8	67.1	41.4	49.9	69.6	32.3
30-64	63.3	97.2	30.2	68.0	94.6	41.0
65 +	33.6	54.6	12.5	34.2	52.3	11.1
Total	57.1	81.7	33.5	58.5	81.9	35.6

Source: Labour Force Surveys.

The level of education of the labour force is important from the point of view of the contribution it can make to economic growth of the country. In that respect, notable progress has been made by the country, in that the share of labour force with no education and those with only primary education has declined over time. Another piece of good news is the narrowing of the gender difference in this respect. While in 2000, a much higher proportion of the female labour force had either no education or only primary level education, the male-female difference in that regard was all but wiped out by 2010 (Table 6). The good news, however, ends there.

Table 6: Labour Force by Level of Education

Level of education	1999-2000			2010		
	Total	Male	Female	Total	Male	Female
No education	48.1	41.5	59.1	40.1	39.9	40.6
Class I-V	25.0	25.7	23.8	22.8	22.9	22.7
Class VI-VIII	11.4	13.4	8.2	14.3	13.8	15.3
Class IX-X	5.2	6.1	3.8	9.0	8.3	10.5
SSC or equivalent	7.1	8.9	4.0	6.2	6.5	5.6
HSC or equivalent				3.7	4.0	3.0
Bachelor or equivalent	3.2	4.5	1.1	2.1	2.5	1.2
Master or equivalent				1.4	1.7	0.8
Medical				0.2	0.2	0.1
Technical/Vocational				0.1	0.2	0.1

Source: Labour Force Survey, various years.

Data in Table 7 shows trends (between 2013 and 2015-16) that are difficult to explain. The proportion of those with no education has increased and those with higher secondary and tertiary education declined. These trends are noticeable for men as well as women.

Table 7: Employed Population Aged 15 and Over by Levels of Education (%), 2013 and 2015-16

Level of education	Total		Male		Female	
	2013	2015-16	2013	2015-16	2013	2015-16
No education	21.3	32.5	21.3	30.5	21.4	37.1
Primary	28.7	25.9	26.3	26.2	34.7	25.2
Secondary	30.6	30.1	31.1	30.2	29.3	30
Higher secondary	12.8	6	13.8	6.8	10.4	4.2
Tertiary	6.1	5.3	7	6.1	3.9	3.5
Others	0.4	0.2	0.5	0.2	0.4	0

Source: Labour Force Surveys.

Several weaknesses of the education level of the labour force are notable. First, the share with tertiary education is still rather low and has declined in recent years. Likewise, a very small proportion of the labour force (only one in a thousand) had technical or vocational qualification in 2010. This is not surprising given the low rate of enrolment in technical and vocational education as percentage of secondary enrolment – only 2.43 per cent compared with, for example, 6.31 per cent and 18.41 per cent in Malaysia and China respectively. Furthermore, the gender differential in labour force with tertiary education remains high (despite some narrowing).

3. The Employment Situation: An Overview

3.1. Employment structure and growth

In a discussion on employment in a developing economy like that of Bangladesh, it is usual to start by looking at the composition of employment by sector of the economy. One expects a decline in the proportion of employment in agriculture and an increase in the

shares of industry and services. The relevant data for Bangladesh are presented in Table 8. Several interesting features of the sector composition of employment emerge from this table. First, the share of agriculture has declined during 1999-2000 and 2015-16, but the magnitude of this decline is rather small. This is despite a substantial decline

Table 8: Sector Composition of Employment (% of total) by Gender, 1999-2000, 2005-06, 2010

Sector	1999-2000			2005-06			2010			2013			2015-16		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
Agriculture	50.76	51.91	46.24	45.76	39.27	66.54	47.57	40.18	64.84	45.10	41.41	53.64	42.69	34.00	63.03
Manufacturing	9.55	7.50	17.63	11.03	10.88	11.51	12.45	12.73	11.77	16.36	13.78	22.52	14.45	14.25	14.63
Construction	2.81	3.21	1.22	3.22	3.94	0.92	4.84	6.31	1.40	3.69	4.76	1.00	5.55	7.42	1.07
Services	36.10	36.71	33.71	37.41	43.05	19.36	35.36	41.13	21.87	34.11	40.05	22.85	36.97	43.70	20.82

Source: Calculated from Labour Force Survey, different years.

in the share of the sector's output in total GDP. As for the proportion engaged in manufacturing, the increase was small up to 2010, but quite sharp during 2010-2013. After 2013, there has been a reversal of the trend. The share of construction increased noticeably during 1999-2000 to 2010 – from less than 3 per cent to nearly 5 per cent. But after 2010, this share fluctuated – first declined to less than 4 per cent in 2013 and then rose to 5.5 per cent in 2015-16.

The gender difference in the sector composition of employment and the change therein is quite noticeable. On the one hand, the share of women in agriculture has been substantially higher than that of men and remains so. But the change that is noticeable is that during 2010-2013 the share of women in manufacturing doubled and became much higher than that of men. However, that gain did not last; in 2015-16, the share of employment of both men and women in the sector was roughly similar. One surprising element in the gender difference in sector composition is the much lower share of services for women. This is mainly due to the low rate of women's participation in sub-sectors like transport and wholesale and retail trade.

A look at the growth rate of employment (Table 9) brings out the following points. The good news up to 2013 was the gradual increase in the rate of growth of employment in manufacturing. While the rate of growth between 2005-06 and 2010 exceeded 6 per cent, the rate almost doubled during the subsequent period (2010-2013). This had raised the hope that labour-intensive industrialization in Bangladesh would be a major driver of growth and labour absorption in the same way as happened in several countries of East and South East Asia. Indeed, if growth of that order could be maintained for another decade or so, the economy of Bangladesh could go a long way towards absorbing its surplus labour. However, there seems to have been a reversal of that trend during 2013 and 2015-16 when there was an absolute decline in employment in the sector.

A second interesting point to note is the sharp fluctuations in the growth of employment in the construction sector. During 2005-2010, there was a large increase which is normal for an economy like that of Bangladesh. However, the increase in the growth of employment during 2005-2010 was followed by a negative growth during 2010-13 and a return to positive growth after that. Such wild fluctuations raise the question of whether periodic growth reflects more of a bubble in the real estate sector. The negative growth

of employment in the sector during 2010-2013 heightened this concern. However, it is good to see that employment in the sector has registered positive growth after 2013. It is important to understand the factors that influence growth in the sector and see that growth there is more durable and sustained.

The gender difference in the growth of employment (as a whole as well as by sector) is also noticeable. Growth of women's employment during 2010-2013 has been much lower than that of men. And that marks a sharp reversal of the experience during 2000-2010. This is consistent with a decline in the labour force participation rate of women during that period. Decline in the growth of employment for women may have discouraged them from participating in the labour force. However, the negative trend has been reversed after 2013.

Table 9: Growth of Employed Persons by Industry and Gender (% per annum)

Sector	1999-2000 to 2005-06			2005-06 to 2010			2010 to 2013			2013 to 2015-16		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Agriculture	1.53	-2.14	12.77	4.29	1.79	8.41	0.60	4.12	-5.00	-1.54	-9.13	11.55
Manufacturing	5.82	9.09	-1.15	6.34	5.15	9.62	12.34	5.83	25.64	-4.85	2.04	-16.39
Construction	5.66	6.05	1.34	13.52	13.01	19.51	-6.28	-6.17	-9.55	24.57	25.93	7.46
Services	3.91	5.27	-3.24	1.93	0.08	12.88	1.21	2.18	2.68	5.27	4.80	-1.83
Total	3.30	2.51	6.13	3.32	1.22	9.06	2.39	3.08	1.21	1.20	0.73	2.93

Source: Calculated from Labour Force Survey, different years.

3.2. Economic growth and employment

While growth of employment, especially in relation to the growth of labour force, is important, from the point of view of examining how employment intensive output growth has been, it is necessary to look at employment growth in relation to output growth. Elasticity of employment growth with respect to output growth is a summary measure of the latter, and can be estimated from available data. Estimates of employment elasticity for the sub-periods referred to in Table 9 are presented in Table 10 [6]. Several interesting points regarding the employment intensity of output growth in Bangladesh emerge from this Table.

Table 10: Elasticity of Employment with Respect to Output

	1995-96 to 1999-2000		1999-2000 to 2005-06		2005-06 to 2010		2010-2013		2013 to 2015-16	
Sector	**Output growth (% p.a.)**	**Employ-ment elasticity**	**Output growth (% p.a.)**	**Employ-ment elasticity**	**Output growth (% p.a.)**	**Employ-ment elasticity**	**Output Growth (% p.a.)**	**Employ-ment elasticity**	**Output growth (% p.a.)**	**Employ-ment elasticity**
GDP	5.36	0.5392	5.63	0.5861	6.11	0.5499	6.20	0.3887	6.80	0.1765
Agriculture	5.32	0.7293	2.90	0.8207	4.28	0.7103	3.28	0.1951	2.96	-0.5203
Manufac-turing	5.37	0.2607	7.48	0.7807	7.52	0.8697	9.67	1.2761	10.30	-0.4709

6 It may be noted that elasticity of employment with respect to output may be estimated by using different methods. One is the method of regression of employment with output as the independent variable. The other is to use data for two points in time and estimate employment elasticity as the ration between employment growth and output growth. Given the absence of time series data on employment, the latter method has been used here. While interpreting such point estimates of employment elasticity, the possibility of the estimates being influenced heavily by situations of the selected years should be noted. A second point to be noted with regard to the elasticity estimates presented in Table 10 is that data on employment and output have been obtained from two different sources. While output growth has been estimated from national accounts data (available from the Ministry of Finance), employment growth has been estimated from labour force surveys which are household based surveys conducted periodically by the Bangladesh Bureau of Statistics. It would be unrealistic to expect a high degree of reliability for estimates of employment elasticity based on such diverse data sources.

Construc-tion	8.89	0.2711	8.37	0.6344	6.10	2.4164	8.18	- 0.7677	8.74	2.8112
Services	5.09	0.2141	5.75	0.6887	6.51	0.2734	5.90	0.2051	6.25	0.8432

Notes and sources: (i) Output growth figures have been calculated from data in Ministry of Finance, Government of Bangladesh: Bangladesh Economic Review, various years. (ii) Employment elasticity has been calculated by using the output growth figures in this table and employment growth figures presented in Table 9.

First, for the economy as a whole, the ability of the economy to generate employment seems to have declined over time; and this decline is particularly sharp for the period 2013 to 2015-16. The same remark applies to the job creating ability of the agriculture sector. The latter is not surprising because in an economy like that of Bangladesh, not only the share of agriculture in total employment but also the absolute number employed in the sector is expected to decline.

Second, output growth in the manufacturing sector gradually became more employment intensive up to 2013. This has to be looked at as a positive development because given the availability of surplus labour, it is through the growth of labour intensive industries that the surplus labour can be transferred to the modern sector. Growth in the manufacturing sector since the 1990s has been driven primarily by the ready-made garments sector which is a highly labour intensive activity. High growth of this sector and heavy weight of the sector in total manufacturing must have contributed to making output growth in the sector as a whole increasingly employment intensive. However, what is surprising is the negative growth of employment in the sector during 2013 to 2015-16 despite output growth of around 10 per cent per annum. That should be a cause for worry. Of course, one may point out that the 2013 manufacturing employment figure was unusually high, and the subsequent year's figures should not be compared with that [7]. In order to address such a one-off inflexion in the data, employment elasticity was estimated for the five-year period from 2010 to 2015-16 and was compared with the elasticity figures for the previous five-year period (2005-06 to 2010). The results are presented in Table 11 below:

Table 11: Elasticity of Employment with respect to Output, 2005-06 to 2010 and 2010 to 2015-16

Sector	Employment elasticity, 2005-06 to 2010	Employment elasticity, 2010 to 2015-16
Agriculture	0.7103	-0.0639
Manufacturing	0.8697	0.4676
Construction	2.4164	0.5351
Services	0.2734	0.4468
GDP	0.5499	0.2700

Source: Author's estimates based on data mentioned for Tables 9 and 10.

Several points emerge from the comparison mentioned above. First, the overall employment elasticity (i.e., for the economy as a whole) for 2010 to 2015-16 is a little higher than for the period 2013 to 2015-16, but compared to the 2005-06 to 2010 period, the figure is just half. This implies that even if one ignores the 2013 labour force data, employment elasticity for the economy seems to have fallen sharply during the past decade. The same conclusion would apply to manufacturing and construction. For services, there has been a

7 Sadiq Ahmed pointed out this possibility.

rise. But for that sector also, the longer term trend (i.e., if one compares with the figures for 1990-2000 to 2005-06) indicates a decline (from 0.6887 to 0.4468). It would thus appear that employment elasticity for the economy as a whole and for manufacturing industries declined over time. Even if one makes allowance for possible data issues surrounding labour force surveys, the magnitude of the decline is so sharp that it should be a reason for worry on the part of policy makers.

It may be noted in this context that data from the website of BGMEA (presented in Table 12) also shows that employment in the industry has remained stagnant since 2011-12. This, of course, was not due to a decline in the growth of output or exports of the industry. As data presented in Table 12 shows, exports registered a healthy rate of growth even during the period when employment growth was slow or stagnant.

Table 12: The Ready-made Garments Industry: Growth of Employment and Exports, 1989-90 to 2015-16

Year	Annual growth of employment (%)	Annual growth of RMG export (%)	Growth of export per worker (%)
1989-90 to 1994-95	28.69	28.98	0.23
1994-95 to 1999-00	5.92	14.31	7.92
1999-00 to 2004-05	4.56	8.09	3.37
2004-05 to 2010-11	10.29	18.66	7.59
2010-11 to 2015-16	2.13	9.42	7.13

Source: Islam and Rahman (2017) based on data from the website of BGMEA. It may be noted that the website of BGMEA shows employment figures between 2011-12 and 2015-16 unchanged at 4 million. Ref. http://www.bgmea.com.bd/home/pages/TradeInformation (accessed on various dates including on 28 June 2017).

Apart from the RMG industry, LFS data shows that employment in another major industry, viz., food processing declined between 2013 and 2015-16 (from 1.23 million to 704,000). Whether this decline was due to a decline in the output of the industry or despite growth of output is an important question that needs to be addressed. But in order to do so, it would be necessary to go beyond LFS data because that is a survey of households which does not provide output data. On the other hand, the last year for which the survey of manufacturing industries was done is 2012. So, it is not easy to address what happened to output in various industries after that year.

Third, construction sector has also become increasingly more employment intensive over time. Moreover, the sharp fluctuation in the elasticity of employment in this sector comes as a surprise. On the one hand, the figure for 2006-2010 appears to be much higher than what is expected for this sector and what was observed in earlier periods in Bangladesh. Likewise, the decline in employment in this sector reported for the period of 2010-2013 is also a surprise, especially given the positive growth of output in the sector. The negative growth of employment associated with the positive growth of output has resulted in a negative employment elasticity for the sector – implying that during that period, output growth was associated with a decline in employment. However, there was a sharp increase in employment in the sector during 2013 to 2015-16.

Fourth, the employment intensity of growth in the service sector appears to have declined sharply during 2005 to 2013. This also cannot be explained easily, unless of course one

can demonstrate that the components of the sector that have grown at higher rate and have increased their weight in the sector are more capital intensive in nature. While this is not impossible, whether that has actually happened in Bangladesh or whether the sharp decline in employment elasticity of the sector represents another data issue remains an open question.

It needs to be noted that employment elasticity also provides an indicator of the direction of movement of labour productivity. An increase in the former implies a deterioration in the latter. An elasticity of more than one is particularly worrisome in that respect. Since this is found to be the case for manufacturing during 2010-2013, it would appear that employment growth in manufacturing during that period was attained at the expense of a decline in labour productivity [8]. The case of construction during that period lies at another extreme: output growth was achieved with a reduction in employment.

3.3. Unemployment, underemployment and excessive employment

Unemployment is regarded as an important indicator of the labour market situation of a country. However, in a developing country like Bangladesh, open unemployment usually does not provide a real picture of the labour market situation because of a variety of reasons. First, given the standard definition and measurement of unemployment, it is not unusual to see very low rates of open unemployment in developing countries. Only those members of the labour force who have not worked even an hour during the reference week and have been actively looking for work are categorized as unemployed. In developing countries where poverty is widespread, there is no unemployment benefit and social safety nets have at best limited coverage and effectiveness, very few can afford to remain without work. Moreover, in the absence of organized methods of job search, the notion of "looking for work" is rather ambiguous. So, it is not unusual to find unemployment rates to be low. And the same is the case with Bangladesh.

Open unemployment rate in Bangladesh has remained between 4 and 5 per cent of the labour force since the 1990s. In fact, the figure remained unchanged at 4.3 per cent during three consecutive surveys - 1999-2000, 2003-03 and 2005-06, and then inched up to 4.5 per cent in 2010. In 2015-16, the rate of unemployment went down to 4.2%. Thus, it seems that not only is the rate of unemployment low, it has remained surprisingly stable for a long period. Hence, in any serious discussion on employment and labour market, one has to go beyond open unemployment.

Given the existence of surplus labour in developing countries, underemployment is considered to be a useful alternative indicator of the labour market situation. However, the concept of underemployment is also not without complexity, and hence measures also vary. Two alternatives that are often suggested are visible and invisible underemployment. Visible underemployment refers to the underutilization of the available labour time of

8 It may be noted that in theoretical terms, output growth consists of growth in employment and in labour productivity. Both can increase simultaneously, as is demonstrated by the experience of the countries of East and South East Asian countries. This has been demonstrated by a decomposition exercise (Islam, 2010) for countries of Asia. That exercise shows that for Bangladesh, the contribution of productivity growth to GDP growth increased over time up to 2006. What happened after that year remains to be analyzed.

an individual and willingness of the individual to work longer. This is also referred to as the time measure of underemployment [9]. Invisible underemployment is an analytical concept referring to the productivity and income generating capacity of work in which one is engaged. There is no universally accepted measure of such underemployment. It could be measured in terms of productivity associated with or income generated by employment. Up to 2010, the labour force surveys of Bangladesh provide a measure of visible underemployment in terms of the time measure and categorize those working less than 35 hours a week as underemployed. Relevant data are presented in Tables 13 and 14.

The measure of underemployment used for the 2013 and 2015-16 LFS is different from those for the earlier years (described above) in two respects: (i) First, the threshold for weekly number of working hours is 40 hours (instead of 35 hours in the earlier surveys), and (ii) Second, two additional criteria are applied to determine whether one is underemployed: willingness and availability to work additional hours.

Before coming to the data in tables 13 and 14, it may be useful to sound a note of warning about using them to draw straightforward conclusions. For example, a comparison of the figures for 1999-2000 and 2002-03 indicates more than a doubling of the rate of underemployment. It is very difficult to explain such a sharp increase, especially since the economy was not doing so badly during those years. Likewise, the sharp decline in the years after 2002-03 also defies logical explanation [10].

Table 13: Underemployment in Bangladesh (% of labour force)

	1999-2000	2002-03	2005-06	2010	2013a	2013b	2015-16b
National	16.6	34.2	24.5	20.3	17.8	4.0	3.0
Rural	17.8	36.4	27.8	22.7	20.5	4.4	3.2
Urban	12.2	26.7	13.9	12.4	10.8	3.0	2.2

Notes: Notes: (i) a These figures have been calculated (by the authors of the present report) from raw data by using the 35 hours per week cut-off point, and hence are comparable to the figures for the earlier years.

(ii) b These are figures for underemployment reported in the official reports of the LFS. It needs to be noted that the definition of underemployment used in the 2013 and 2015-16 LFS is different from the one used for the earlier surveys, and hence the figures for those years are not comparable to the earlier ones.

Source: Same as in Table 1

Some clue for the observed volatility of the figures on underemployment could perhaps be found when the overall figures are broken down by gender and location. Figures presented in Table 13 indicate that the rate of underemployment shows much more volatility for women compared to men. For example, female underemployment increased sharply between 1999-2000 and 2005-06 and fell sharply thereafter. On the other hand, male

9 It may be noted the ILO (ILO, 2013 b) is working on another measure of labour underutilization that considers, in addition to time underutilization, "potential labour force" which is a concept defined to include three mutually exclusive groups: (i) unavailable job seekers – persons without employment who are seeking employment but not available, (ii) available potential job seekers _ persons without employment and not seeking employment but are available, and (iii) willing potential job seekers – persons without employment who are neither seeking employment nor available for employment but want employment. In addition, there may be "discouraged jobseekers" who are unemployed and willing to work and yet are not actively seeking jobs because of the perception of the lack of jobs.

10 One possible reason for the observed blip in the figure for 2002-03 is that the survey for that year was carried out during a short period which coincided with the lean season of agriculture. That may have contributed to the high rate of underemployment in that year.

underemployment shows secular increase over the entire period of these three labour force surveys. One may be tempted to conclude from these figures that after a sharp increase in female underemployment, it has declined after 2005, and that should be regarded as a positive sign. In this context, it may be useful to look at the difference in trend in female underemployment between rural and urban areas. The volatility is much higher for rural women than urban women. And that gives rise to the suspicion that the observed figures may reflect differences in inclusion in and exclusion from the labour force. For example, in 2005-06, many more rural women who work for short periods (particularly as unpaid workers) may have been included as members of the labour force, and that may have pushed the female underemployment rate to a very high level. In 2010, the opposite may have happened. Thus, how responses regarding female employment are recorded in the questionnaires can have serious implications for the results.

Because of the application of different criteria, the official figures of underemployment in 2013 are not comparable to those of the earlier years. Separate calculations (for 2013) made by using the same criterion as for the earlier years are also presented in Tables 13 and 14. These figures bring out a few points. First, the declining trend for overall underemployment as well as for rural and urban areas continued till 2013. For women, the decline was continuous from 2005-06. For men, there was a rise in 2010 followed by a fall in 2013.

Table 14: Underemployment in Bangladesh by Location and Gender (% of labour force)

	1999-2000	2005-06	2010	2013[a]	2013[b]
National	16.6	24.5	20.3	17.8	4.0
Male	7.4	10.9	14.4	13.1	3.8
Female	52.8	68.3	34.1	29.5	4.4
Rural	17.8	27.8	22.7	20.5	4.4
Male	8.1	12.4	16.7	n.c	4.2
Female	57.7	77.0	36.6	n.c	4.7
Urban	12.2	13.9	12.4	10.8	3.0
Male	4.7	5.9	6.9	n.c.	2.7
Female	38.2	39.8	25.6	n.c	3.7

Notes: (i) [a] These figures have been calculated (by the authors of the present report) from raw data by using the 35 hours per week cut-off point, and hence are comparable to the figures for the earlier years.
(ii) [b] These are figures for underemployment reported in the official report of the 2013 LFS. It needs to be noted that the definition of underemployment used in the 2013 LFS is different from the one used for the earlier surveys, and hence the figures for that year are not comparable to the earlier ones.

Source: Same as in Table 1.

Alongside underemployment, long hours of work are also a reality for many in the labour market of Bangladesh. Some data are presented in Table 15. Several points emerge from this data. First, if 50 hours per week is regarded as a cut-off point for excessive work, the average worker in Bangladesh does not appear from to suffer from that. However, for men – in both rural and urban areas, this seems to be the case. Moreover, large proportions of the workers irrespective of location and gender suffer from the phenomenon. This is more so for urban men, although rural men are not far behind. Second, there was an improvement during 2010-2013, though that was limited to men. For women, in both rural and urban areas, the proportion who worked excessive hours increased during that period. Third, the proportion people working excessive hours increased during 2013-15 – in both rural and urban areas. On the whole, it seems that working long hours is a strategy for survival in Bangladesh.

Table 15: Excessive Work by the Employed Population

	Average Hours Worked per Week			Percentage of the Employed Persons with Excessive Hours of Work		
	2010	**2013**	**2015-16**	**2010**	**2013**	**2015-16**
All employed	46	46	49	51.1	46.6	51.2
Male	51	47	53	64.8	51.0	60.9
Female	35	43	39	19.2	36.3	28.4
All Rural	45	45	47	50.8	44.4	47.8
Rural Male	50	46	52	65.4	49.3	59.0
Rural Female	34	42	36	17.0	32.8	22.9
All Urban	49	48	53	62.0	52.5	60.0
Urban Male	53	49	55	62.6	55.2	65.6
Urban Female	38	46	47	26.7	46.7	44.9

Note: Excessive hours are defined as work of more than 50 hours per week.

Source: Calculated from LFS, various years.

3.4. Vulnerable employment

As mentioned earlier, open unemployment in Bangladesh is low because people cannot simply afford to remain unemployed, so they try to eke out a living from some work. As a result, a large proportion of the employed are engaged in work that can be called "vulnerable". There is no universally accepted definition of vulnerability in this context, but the sense that is being conveyed is the vulnerability of workers engaged in such employment from various perspectives like stability of the job and income earned from it. The ILO identifies vulnerable employment as the self-employed and own account workers as well as those engaged in unpaid family work [11]. Data relating to this kind of employment are presented in Table 16. A few aspects relating to the trend in vulnerable employment emerge from this table.

First, between 2005-06 and 2010, no significant change appears to have taken place in the proportion of self-employed and own account workers and those in unpaid family work. In other words, the degree of vulnerable employment did not improve during that period. However, some changes are noticeable for the period 2010 to 2015-16. While the proportion of self-employed registered some increase, that of unpaid family helper decliend considerably.

Second, if one looks at a longer period, viz., between 1999-2000 and 2015-16, there has been an increase in the proportion of self-employment and own account work, especially for women. There was an increase in the share of unpaid family work till 2010 - indicating that many of the own-account workers possibly reverted to becoming unpaid family helper. During 2010 to 2015-16, the share of this category declined. On the whole, it would appear

11 This is also used as one of the indicators of MDG 1B relating to employment and labour market. The present author, however, considers this as an imperfect indicator of vulnerable employment because all the self-employed need not be vulnerable and there are others, especially those in casual wage employment, who may be vulnerable. On this, and a critique of the MDG indicators of vulnerable employment, see Islam (2014a).

that the degree of vulnerable employment has remained stubbornly high over the long term period. Moreover, if the proportion of paid employees is regarded as a proxy to regular employment, the situation appears to have worsened during the decade ending in 2010 and then improved in the three subsequent years [12]. In other words, with regard to the target of reducing the proprtoion of own account workers and contributing family workers in total employment, Bangladesh has a long way to go, although some signs of improvement can be seen.

Table 16: Changes in the Structure of Employment by Status in Employment (percentage of total employment)

Status	1999-2000	2002-03	2005-06	2010	2013	2015-16
Self-employed/own account workers (Total)	35.1	44.8	41.9	40.8	40.7	43.3
Male	49.4	50.6	50.0	47.5	52.22	47.6
Female	10.8	24.5	15.9	25.1	12.31	33.1
Employee	12.6	13.7	13.9	14.6	23.2	39.1a
Male	15.1	13.8	14.5	17.0	22.21	43.6a
Female	8.2	13.4	11.7	8.9	25.5	28.5a
Unpaid family helper	33.8	18.4	21.7	21.8	18.2	14.5
Male	10.2	9.9	9.7	7.1	5.1	4.6
Female	73.2	48.0	60.1	56.3	50.1	37.6
Day labourers	18.3	20.0	18.2	19.7	15.5	n.ax.
Male	25.0	22.9	21.9	25.8	18.9	n.a.
Female	7.8	9.6	6.5	5.3	7.2	n.a.

Notes: a: These figures include "day labourers", a category that was shown separately in the earlier surveys.
X: Day labourers are not shown separately in the 2015-16 report.

Source: Calculated from Bangladesh Bureau of Statistics: Labour Force Survey, various years.

Another indicator of vulnerable employment is the proportion of those engaged in the informal sector of the economy. When labour force growth is high and growth in formal sector jobs is insufficient to absorb all the new addition to the labour force, the informal sector performs the role of last resort. Although a segment of the informal sector may exhibit characteristics of dynamic growth of economic activities, a large proportion basically acts as the sponge for absorbing surplus labour. In Bangladesh, the share of employment in the informal sector has increased substantially from 78.48 per cent in 2005-06 to 87.43 per cent in 2010 [13]. In fact, the number employed in the informal sector grew at a higher rate (6.19 per cent per annum) between 2005-06 and 2010 compared to the earlier inter-survey period of 2002-03 to 2005-06 when annual growth was 1.96 per cent. It is thus clear that there has been a tendency towards informalization of employment in the country. During 2010 to 2015-16, there has been no reversal of this worrisome trend. Although the share of men engaged in the informal sector declined (remaining at very high level), that of women actually increased.

12 What happened during 2013 to 2015-16 remains unclear because the report for the latter year clubs "employees" and "day labourers" together and presents them under one head, viz., paid employees. This figure is about the same as the total of the components in 2013.
13 The informal sector is defined in terms of the number of workers employed – those employing less than four workers are classified as informal. The figures represent both urban and rural areas.

Table 17: Employment in the informal sector

Year	Employment in the informal sector (million)			Share of informal sector employment in total employment (%)		
	Total	Male	Female	Total	Male	Female
2002-03	35.1	27.2	7.9	79.23	78.95	79.79
2005-06	37.2	27.5	9.7	78.48	76.18	85.69
2010	47.3	32.4	14.9	87.43	85.5	92.3
2013	50.1	35.6	15.2	87.4	86.3	90.3
2015-16	59.5	41.8	17.8	86.2	82.3	95.4

Source: Labour Force Survey, various years.

3.5. Trends in real wages

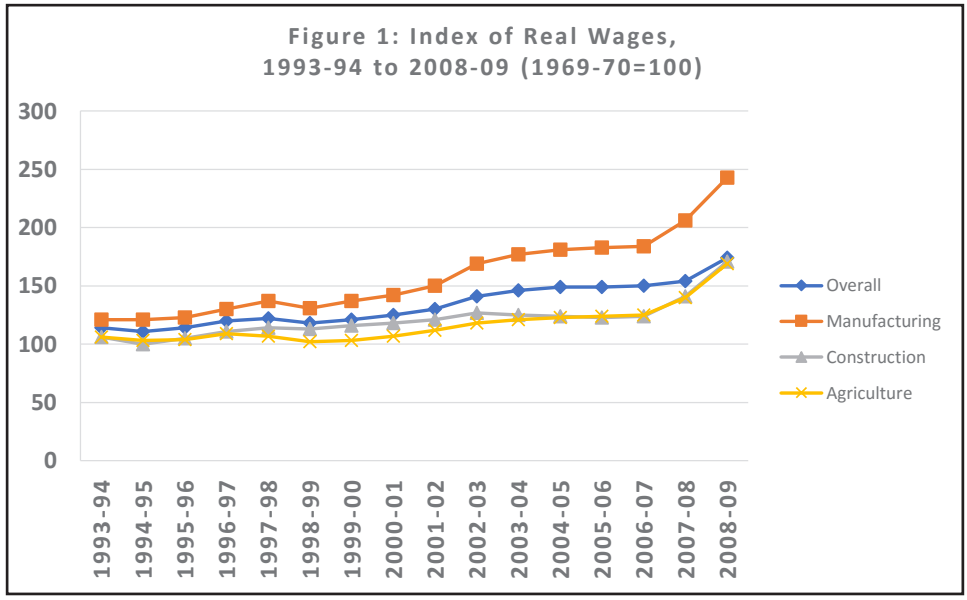
In a low income developing country like Bangladesh, wage rates of workers are important for a variety of reasons. While it is an important indicator of the quality of employment, it is critical for the poor who depend on their employment for their living. In that sense, wage is a key labour market outcome and has important implications for inclusive development. Increases in real wages and earnings can play an important role not only in reducing poverty, but also in reducing inequality in the distribution of income. But a rise in real wages may not necessarily help poverty reduction, especially if it is associated with a decline in the quantity of employment (for example, the number of days for which employment is available in a year for an agricultural labourer). The latter may actually neutralize the positive effect of the rise in real wages and prevent total earnings from increasing.

Likewise, a rise in real wages may not help improve income distribution if labour productivity increases at a faster rate than real wages. The gains from productivity increase may be unevenly shared by the factors of production, and the share of labour in value added may even decline. That, in turn, may have an adverse effect on personal income distribution.

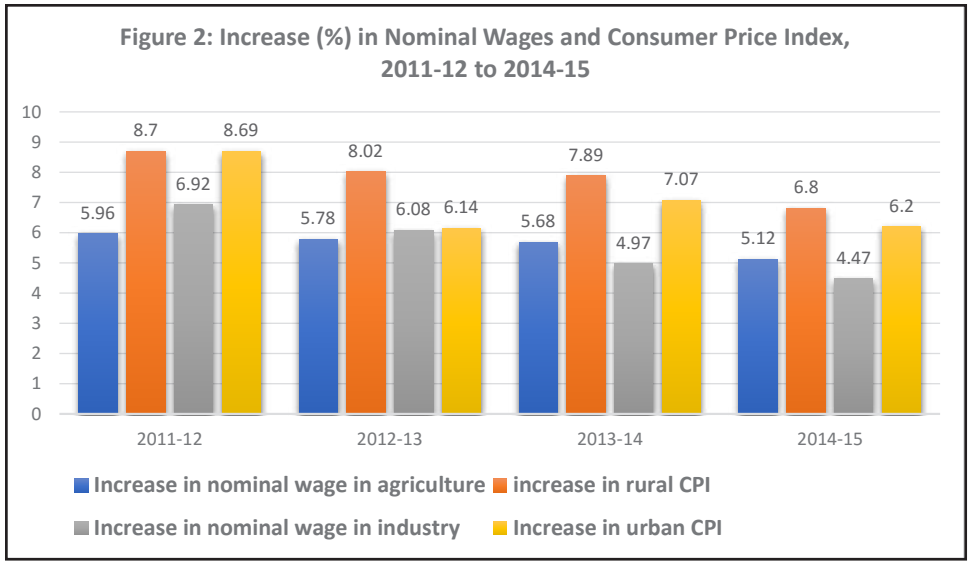
Furthermore, differences in wages between workers with different levels of education and skills can be an important factor influencing the distribution of income. At very early stages of economic growth, wage labourers are likely to be engaged mostly in agriculture, in rudimentary industries, construction, transport, and other informal sector activities. Such employment requires low levels of education and very little skill. On the other hand, a small modern sector creates demand for more educated and skilled workers. From the supply side, given the availability of a large number of people with little or no education and skills, wages of such workers are likely to be low at ealry stages of growth. With low levels of literacy and enrolment in education, a small educated labour force is likely to fetch higher wages and salaries in the small modern sector. But the situation changes as an economy moves to a higher stage of economic growth when demand for workers with some education and skills increases, and as a result, wages of workes with such education and skills are likely to increase. On the other hand, with gradual increase in enrolment at the tertiary level, the supply of graduates is likely to increase, reducing the pressure on their remuneration. As a result of the operation of these forces, the difference in wages between various levels of education is likely to narrow down.

In Bangladesh, wages as a whole are still rather low, pointing to low productivity of workers on the one hand and low levels of incomes on the other – resulting in large numbers remaining in the category of « working poor » . According to one estimate (GOB, 2013), in 2010, nearly 42 per cent of the employed labour force were below the international poverty line of US$1 (at PPP) per day.

If one looks at data on trends in real wages in Bangladesh, a somewhat mixed picture emerges. First, data on real wages of different categories of workers that are available from government sources (Figure 1) show that although Bangladesh witnessed an acceleration in economic growth since the mid-1990s, real wages of workers started to rise significantly only after 2007. In fact, real wages stagnated during 2003-2007. Second, real wages started to rise from 2008. It may be recalled that during that year there was a major food crisis throughout the world, the impact of which was felt in Bangladesh in terms of sharp increases in the prices of major food grains. There were increases in wages in response to such price increases – a trend that lasted for a few years. But things started to change from 2011-12, as can be seen from Figure 2.



Source: Constructed by the author using data from Government of Bangladesh, Ministry of Finance: Bangladesh Economic Review (various years).



Source: Constructed by the author using data from Government of Bangladesh, Ministry of Finance: Bangladesh Economic Review 2016 (in Bengali).

Government sources do not provide data on real wages after 2008-09. What is available are data on changes in nominal wages and consumer price index. Such data for agriculture and industry for the period of 2011-12 to 2014-15 are presented in Figure 2. It can be seen that in all these years, the rise in consumer price index (CPI) for rural areas exceeded the rise in nominal wages in agriculture. Likewise, the rise in urban CPI exceeded that of nominal wages in industry. These data, i.e., rise in nominal wages falling short of the rise in consumer prices, indicate that real wages in both agriculture and industry declined. This is a conclusion that emerges from available official data, and runs counter to the prevailing notion that real wages in Bangladesh have been rising. In reality, real wages did rise for some years since 2008; but the trend did not continue, and most likely got reversed in recent years [14].

Even when real wages were rising, inequality in the distribution of income increased. It is not difficult to explain this phenomenon. Calculations made by using data from the Survey of Manufacturing Industries of various years show that the rise in real wages fell short of the increase in labour productivity. In the manufacturing sector, for example, growth of employment cost per worker (a proxy for wages) during the entire period of 2001-02 to 2012 fell short of the growth of value added per worker (proxy for labour productivity). The share of employment cost in total value added stagnated around 25 per cent during 2000 to 2005 and then increased to 36 per cent in 2012.

14 In this context, one might wonder how other countries of South Asia have been doing with respect to real wages of workers. Data available up to 2012 show that real wages of agricultural labourers increased in India, Nepal and Sri Lanka and declined in Pakistan. In India, real wages of workers as a whole also increased. However, wages have not moved in tandem with increases in labour productivity and since the share of wages in value added has declined, the rise in real wages failed to make any contribution to improving the distribution of income. For data and detailed analysis of this issue, see Islam (2016).

Data on trends in real wages give rise to a number of important questions. First, to what extent does the trend reflect movements in labour productivity ? If movements in real wages do reflect those in labour productivity, and since real wages have risen more in agriculture and construction (at least in recent years), is it possible that productivity in these two sectors has increased faster than in manufacturing ? It may be recalled that during 2010-2013, manufacturing demonstrated an employment elasticity greater than one which implies a decline in labour productivity during that period. This is a question on which more in-depth research is needed.

Another factor that may have influenced movements in real wages in various sectors is rural-urban migration. This is a common phenomenon in many developing countries, and Bangladesh is no exception. The substantial difference in population growth between rural and urban areas (noted in section 2, Table 1) provides an indicator of such migration. Growth of labour force in rural areas has also been much lower. These factors, coupled with the spread of education among the younger generation may have adversely affected the supply of labour for agriculture. On the other hand, high rate of rural-urban migraiton may have boosted the supply of labour for manufacturing and thus helped keep the lid on real wages in the sector [15].

3.6. Labour productivity

One indicator of employment performance that was included in the MDGs is growth rate of labour productivity (GDP per employed person). This measure is also useful to get an idea about whether changes in real wages in an economy are in line with that in labour productivity. But given the state of data availability, it is not easy to obtain even a crude measure of labour productivity like output (i.e., GDP) per worker because employment data come from labour force surveys which are household surveys, and do not provide data on output. However, an effort has been made to calculate GDP per worker by using GDP data from national accounts and employment data from the LFS. The results, which are presented on Table 18, indicate an annual growth in labour productivity of about 4 per cent during the period of 2002-03 to 2010. After 2010, labour productivity continued to grow at over 3 per cent per annum. And the estimate for 2013 to 2015-16 indicates a doubling of the growth rate. So, it may be safe to conclude that at least half of the annual growth in GDP (which has ranged between six and seven per cent during the 2000s) has been due to growth in labour productivity. The contribution seems to have been higher in recent years (i.e., after 2010).

Given the order of magnitude for the growth in labour productivity (measured as GDP per person) observed from the figures in Table 18, it is surprising to see the decline in real wages after 2011-12 (see section 3.5 above).

15 A recent phenomenon is reverse migration from urban to rural areas. A survey carried out in 2013 by the Bangladesh Bureau of Statistics shows that between 2009 and 2013, the rate of rural to urban migration has increased (Byron, 2015). A higher rate of rise in agricultural wages compared to wages in manufacturing may have created incentives for such reverse migration.

Table 18: Labour Productivity (GDP per employed person)

Year	GDP (billion Taka)	Employment (million)	GDP per person (Taka)	Annual growth rate in GDP per person (%)
2002-03 (base: 1995-96)	2371.0	44.3	53,521	
2005-06 (base: 1995-96)	2846.7	47.4	60,057	3.92
2005-06 (base: 2005-06)	4823.4	47.4	101,759	
2010 (base: 2005-06)	6267.2	54.1	115,845	3.29
2013 (base: 2005-06)	7,519.9	58.1	129,430	3.77
2015-16 (base 2005-06)	8,835.5	59.5	148,496	7.11
2010 to 2015-16				5.09

Notes: As mentioned, the base year for the figure for 2002-03 is 1995-96. Hence, in order to calculate the growth rate between 2002-03 and 2005-06, the figure for the latter with base as 1995-96 has been used. For the rest of the figures, the base year is 2005-06.

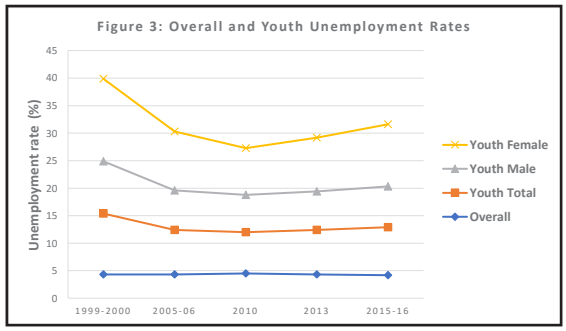
Sources: GDP figures are from Bangladesh Economic Review (various years), and the employment figures are from the Labour Force Survey (various years)

4. Youth Unemployment and Unemployment of the Educated

4.1. Youth unemployment and employment

The rate of youth unemployment is typically higher than overall and adult unemployment rates. And Bangladesh is no exception in that respect. However, the difference seems to be less sharp in Bangladesh (Figure 3 and Table 19). While youth unemployment is generally found to be two to three times the overall unemployment, in Bangladesh in 2010, it was less than twice the overall unemployment rate. And if one compares the figures of 2005 and 2010, there appears to have been a slight improvement: youth unemployment rate for the country as a whole has declined from 8.1 per cent in 2005-06 to 7.5 per cent in 2010. But the situation deteriorated in 2013 and 2015-16. The rate of youth unemployment as a whole as well as separately for men and women increased compared to 2010. The increase was sharper for women. Whether this is indicative of a worsening of opportunities for women in the labour market of Bangladesh is an important question.

As for difference by location (Table 20), youth unemployment is higher in urban areas. But the difference between rural and urban areas is substantially greater for women. It seems that young women in urban areas face greater difficulty in finding jobs compared to their rural counterparts. It is also possible that a larger number of urban young women compete for a smaller number of jobs.



Source: Constructed by using data from Labour Force Survey, various years.

Table 19: Youth Unemployment Rate

Year	Overall unemployment rate			Youth (15-29) unemployment rate		
	Male	Female	Total	Male	Female	Total
1999-2000	3.4	7.8	4.3	9.5	15.0	11.1
2005-06	3.4	7.0	4.3	7.2	10.7	8.1
2010	4.1	5.8	4.5	6.8	8.5	7.5
2013	3.0	7.2	4.3	7.0	9.8	8.1
2015-16	3.0	6.8	4.2	7.4	11.3	8.7

Source: Labour Force Survey, various years

Table 20: Youth Unemployment Rate by Gender and Location: 2013, 2015-16

	Rural		Urban	
	2013	2015-16	2013	2015-16
Male	6.4	7.3	8.6	7.6
Female	8.4	11.2	13.0	11.5
Total	7.2	8.6	10.4	8.9

Source : Labour Force Surveys, 2013, 2015-16

In order to formulate policies towards employment of the youth, it may be useful to know the sectors in which they are usually employed and the type of their employment. Data presented in Table 21 shows that compared to the average employed person, the youth are less in agriculture and more in industry. In the service sector, they are in the same proportion as the average employed. The difference in their proportion between agriculture and industry simply corroborates the oft-heard hypothesis that the youth prefer to work outside agriculture. However, data in Table 22 indicate that the youth are disproportionately represented in the informal sector. The difference is particularly noticeable for young men. Likewise, they are likely to be more as "contributing worker" compared to the average worker. But the proportion of the youth in own-account work is much lower than the average – thus indicating that self-employment is not an easy alternative for them.

Table 21: Proportion of Employment by Industry and Age Group, 2015-16

Age group	Agriculture	Industry	Services	Total
15-29	33.62	29.92	36.46	100
30-64	45.75	16.53	37.72	100
65 +	64.15	8.51	27.31	100
All	42.66	20.46	36.88	100

Source: Labour Force Survey, 2015-16

Table 22: Informal Employment as Percentage of Total Employment (Youth and Total, 2015-16)

Age group	Male	Female	Total
15-24	91.5	96.7	93.1
Total	82.3	95.4	86.2

Source: Labour Force Survey, 2015-16

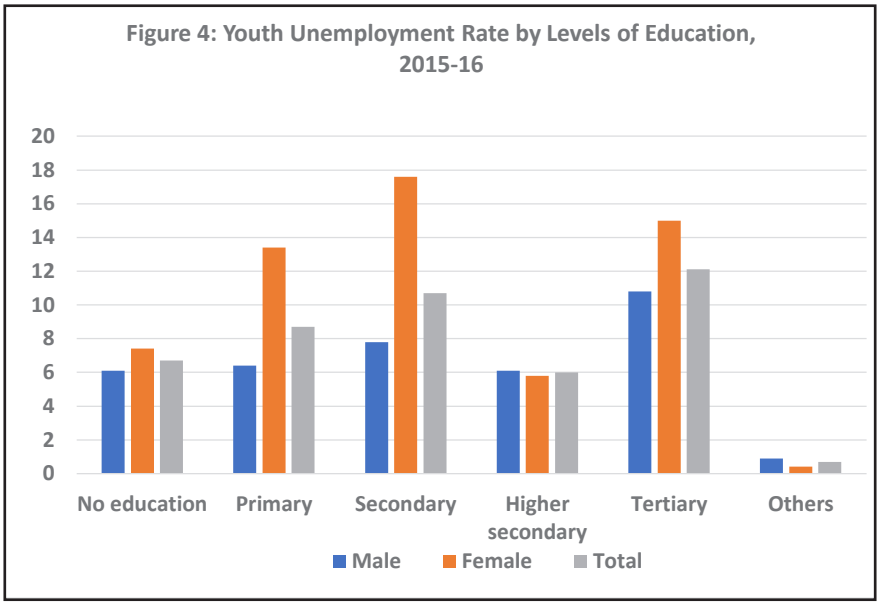
Table 23: Own Account Workers and Contributing Family Workers (Youth and Total, 2015-16)

Age group and status	Male	Female	Total
Own account worker			
15-24	31.5	28.7	30.6
Total	47.6	33.1	43.2
Contributing worker			
15-24	11.3	34.2	18.9
Total	4.6	37.6	14.5

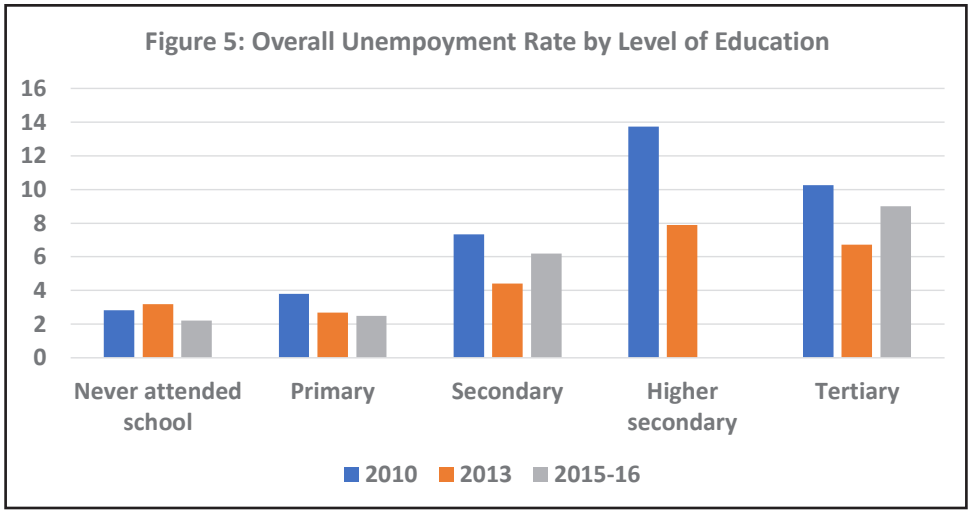
Source: Labour Force Survey, 2015-16

4.2. Unemployment of the educated

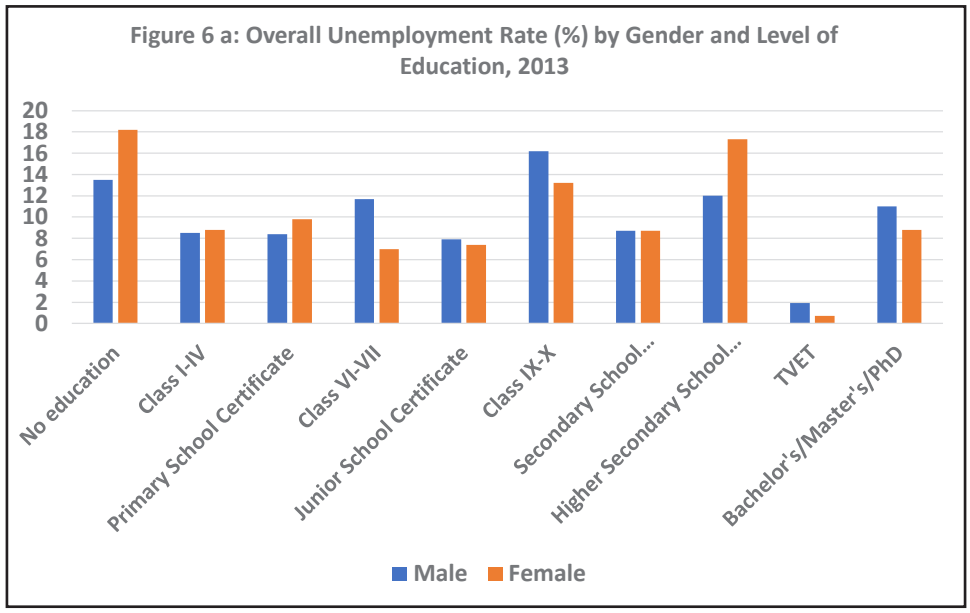
Education is usually regarded as a useful means of enhancing the quality of the labour force and improving their chances of getting entry into the world of work. While the transition from school to work has been found to be difficult irrespective of the level of development, in developed countries, the rate of unemployment varies inversely with the level of education. However, the opposite is found to be the case in developing countries; and Bangladesh is no exception. Rates of youth unemployment have been found to be higher for those with higher levels of education (Figure 4). Looking specifically at the differences in unemployment rates by levels of education, one can see that those with higher secondary education suffer from the highest level of unemployment. The situation is worse for women with this level of education (Figure 6 a and 6 b). Those with tertiary education fare better, but exhibit higher unemployment than those with primary or no education.



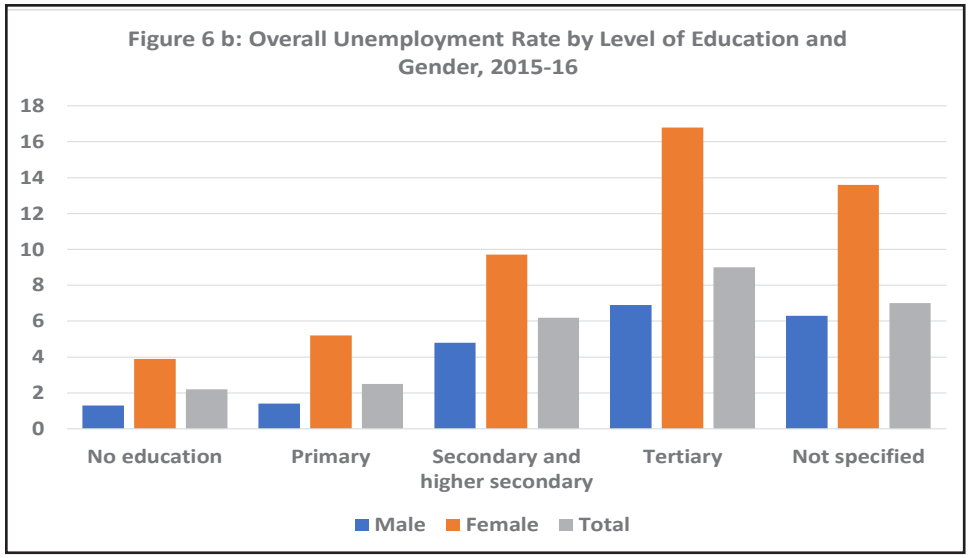
Source: Constructed by using data from Labour Force Survey



Source: Constructed by using data from Labour Force Survey, various years.



Source: Constructed by using data from LFS, 2013



Source: Constructed by using data from the Labour Force Survey, 2015-16

A study of school-to-work transtion (Toufique, 2014) provides further insights into the issue of youth employment and unemployment. It may be useful to recount a few key findings from that study. First, in addition to open unemployment, underutilization of labour[16] is very high among the youth. Nearly 38 per cent of the youth are neither in the labour force nor in education or training. Another 20 per cent are in irregular employment while 4.6 per cent were unemployed. The three groups mentioned above add up to over 62 per cent. Second, the STWT survey corroborates the much higher rate of unemployment of young women compared to men. Third, although unemployment is higher among the better educated, investment in education does bring positive returns to the youth in terms of wages/salaries and access to better jobs.

5. Overseas Employment: Trends, Prospects and Challenges

5.1. Trends and patterns

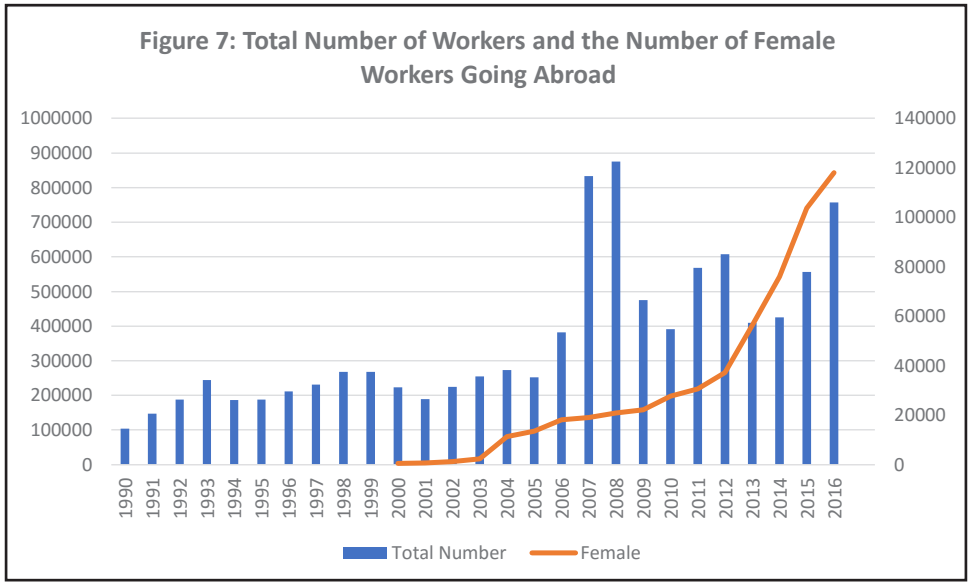
While emigration of people from Bangladesh has a long history [17], short-term migration for employment started in the 1970s and picked up pace gradually. From just over 6,000 in 1976, the number of people going abroad for jobs increased to around 100,000 by the end of 1980s. But the pace gained momentum during the 2000s and after 2005, there was a sharp increase in the flow for a couple of years[18] (Figure 7). However, that sharp rise was short-lived and the numbers in recent years have hovered around 500,000 (but exceeded 700,000 in 2016).

16 The term includes those who are neither in the labour force nor in education as well as people whose work does not allow them to make the most of their economic potential.
17 The first wave of emigration of people from the area that now constitutes Bangladesh started in the 1960s when Britain opened its doors.
18 It is difficult to say what caused this sharp but short-lived increase in the number of migrant workers. During discussions with experts in this field, it was mentioned that the political situation of the country during those years may have been responsible for a large number of people leaving the country for jobs abroad.

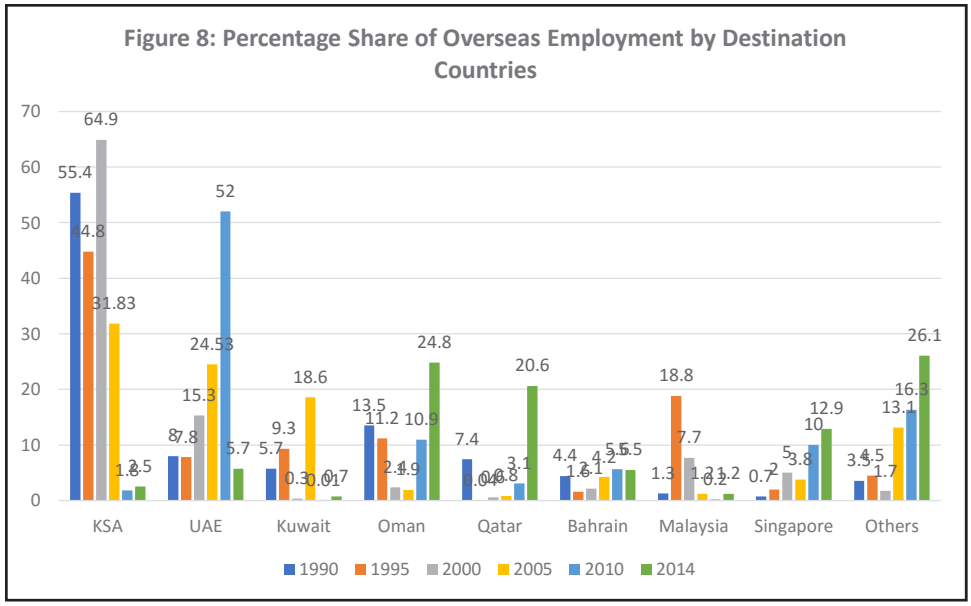
Although workers from Bangladesh find employment in a large number of countries of the world, a few countries in the Middle East (e.g., Saudi Arabia, Kuwait, United Arab Emirates, Bahrain, Oman and Qatar) and in Asia (viz., Malaysia and Singapore) account for most of the jobs. Of course, there has been a change in the mix of major destination countries for workers from Bangladesh (Figure 8). A few points are worth noting in that regard.

- In recent years, especially after 2007, there has been a sharp decline in the flow of workers to Kuwait, Saudi Arabia and Malaysia.
- The decline mentioned above has been made up to some extent by a rise in the flow to Oman, Qatar, Lebanon and Singapore.
- On the whole, there has been a slight diversification in the destination countries for overseas employment of workers from Bangladesh. Up to 2005, the major eight countries (viz., Saudi Arabia, UAE, Kuwait, Qatar, Bahrain, Oman, Malaysia and Singapore) accounted for over 95 per cent of the flow, but declined gradually after that to about 74 per cent in 2014.

The trend of overseas employment by gender indicates that in the past women accounted for a negligible proportion of migrant workers from Bangladesh. However, there has been notable increase in the number of female workers going abroad in recent years.

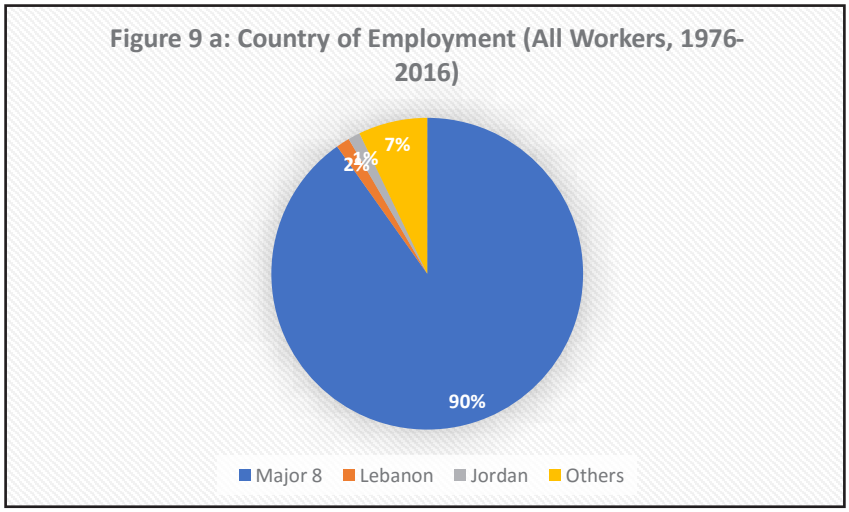


Source: Constructed by using data from the BMET website.

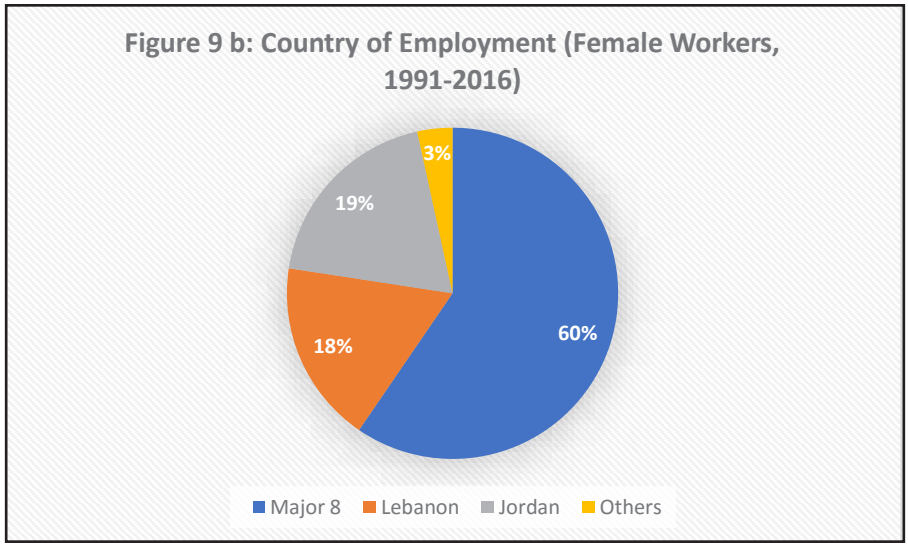


Source: Same as in Figure 7.

Apart from small numbers, there are differences in the destination as well as occupation in which women migrant workers are engaged. Figures 9 a and 9 b provide a comparative picture about the destination. For workers as a whole, the major eight countries mentioned above account for an overwhelming majority of migrant workers, for women, the share of these countries is much smaller (just half). For the latter, Lebanon and Jordan are major destinations, but for men they are not important destinations. Furthermore, the kind of work with which female workers migrate is quite different compared to male workers (see below, Table 22).



Source: Same as in Figure 7.



Source: Same as in Figure 7.

The difference in destination for women workers is also linked to their occupational pattern. More than half of the women migrant workers during 2005-15 were domestic workers (if one adds up what the government data classifies as "domestic workers" and "house workers"). About ten per cent represent occupations relating to the garment industry[19] (Table 24). It is thus clear that women migrant workers find work as either household help or in garment factories (the latter mainly in Jordan and Lebanon).

Table 24: Top Ten Occupations of Male and Female Migrant Workers, 2005-2015[20]

Male Occupation	Percentage of workers	Female Occupation	Percentage of workers
Labourer	38.50	Domestic worker	42.70
Worker	21.29	House worker	19.20
Waiter	4.08	Labour	14.97
Private service	3.99	Female labour	6.26
Mason	3.55	Machine operator	4.26
Cleaning labour	3.20	Sewing operator	2.29
Construction worker	2.61	Operator	2.09
Carpenter	2.12	Machine operator	1.73
Driver	1.61	Cleaning labour	1.58
Painter	1.60	Worker	1.11

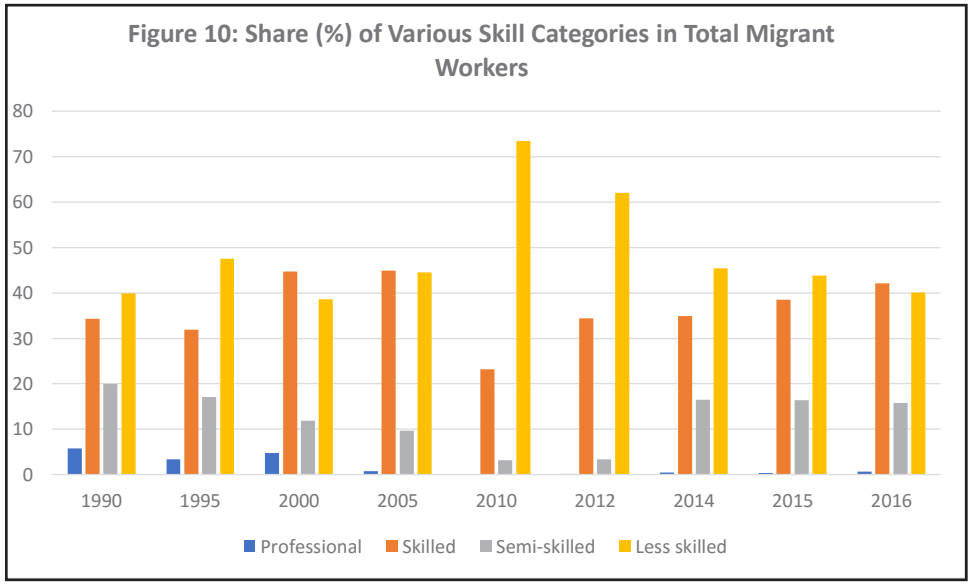
Source: MoEWOE (2015)

19 This is based on the assumption that occupations classified as "operator", "machine operator", and "sewing operator" represent work in the garment industry.

20 A number questions may be raised about the titles of "occupations" used in this table. For example, the differences between "labourer" and "worker", "house worker" and "domestic worker", "labour" and "female labour", "operator" and machine operator" are not clear.

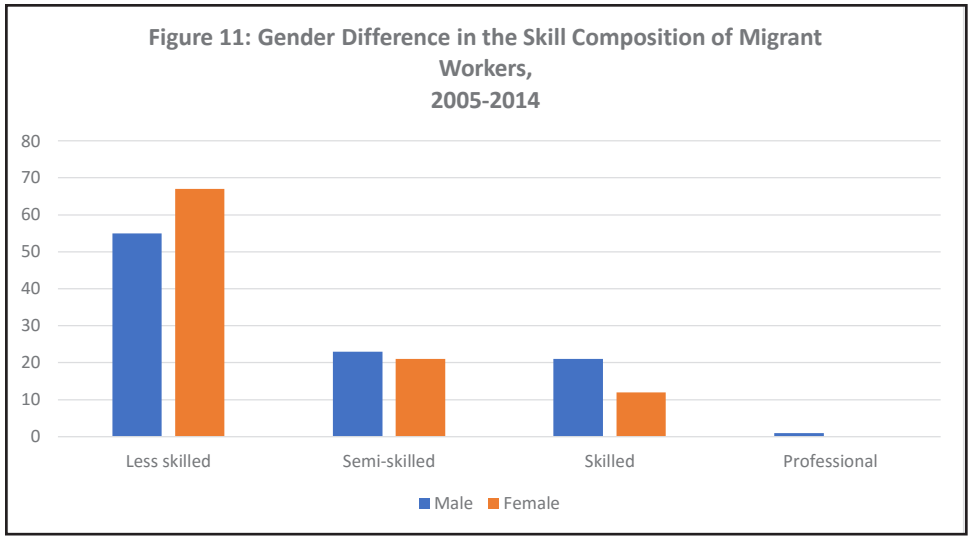
Two categories called "labourer" and "worker" account for nearly 60 per cent of male migrant workers. Although it is difficult to interpret these two categories, one can perhaps surmise these to represent unskilled (or less skilled, in official terminology) workers. It is also clear that male workers either work as general purpose worker where not much skill is required, some of them also work in the construction sector. The categories "waiter" and "private service" also do not appear in the case of women workers.

The skill composition of migrant workers is important from the point of view of the kind of jobs that they would be doing, the incomes they would earn and hence the amount of remittance that they would be able to send. Data presented in Figure 10 indicate an improvement in the situation. Several points may be noted from Figure 10. First, "less skilled" (a term presumably used officially for unskilled workers) workers constitute a very high proportion of migrant workers. Of course, this proportion has declined considerably since 2010, but in 2016, 40 per cent of overseas employment was accounted for by this category. On the other hand, the share of skilled workers has registered some increase in recent years. As for semi-skilled, there was a sharp increase after 2012, but has declined in recent years. The share of professionals is negligible.



Source: Constructed by using data from BMET.

Data on the skill composition of women migrant workers before 2005 are not available. Data available for the period 2005-2014 show that the proportion of unskilled workers is higher for women compared to men. A look at more detailed data show that more than 60 per cent of women migrant workers go as domestic and household workers.



Source: MEW&OE (2015).

5.2. Future Prospects of Overseas Employment of Workers from Bangladesh

As Bangladesh depends on overseas employment both for providing employment to a large part of its labor force and for earning much needed foreign exchange, how many workers can find employment overseas every year is a question of great importance. But this is a question that does not have a simple answer. Linear extrapolations of past trends may not provide a reliable basis for answering this question because the flow of workers going abroad depends on a variety of factors that often do not behave in a predictable and orderly fashion. Hence, for making projections of future prospects, forecasts based on past trends will have to be combined with available information about possible departure from such trends. In order to do so, flow of workers to different countries and factors influencing them would need to be examined carefully.

Examples of departures from past trends are provided by the sharp increase in the number of migrant workers in 2007 and 2008 and the sharp decline thereafter. In terms of country composition, the sharp changes that need to be taken into account are declines in numbers going to countries like Saudi Arabia, UAE, and Malaysia. The factors behind such changes will have to be understood in order to be able to make realistic adjustments to forecasts based on past trends.

For making projections of future overseas employment, the past trend could be a useful guide although there are limitations as mentioned above, and additional factors that need to be taken into account will be considered presently.

A few points may be noted before looking at the projections. First, the main purpose of the present study is to outline strategies for employment over a long period of time (nearly 25 years). Projections for such a long period can anyway be risky because of unforeseen factors. Second, in a fast-growing developing economy like Bangladesh, the domestic labour market is likely to undergo significant changes over such a long period, and the

supply side of the labour market may change considerably – thus producing a very different situation regarding aspirants for overseas employment. Of course, international migration for employment takes place even between matured economies; and working age people from Bangladesh may still be available for overseas jobs if there is sufficient incentive in terms of differences in remuneration and other factors. But the composition of job-seekers for overseas employment is likely to be different at that stage.

Considering the two factors mentioned above and the likelihood of Bangladesh exhausting its surplus labour by about 2030 (more on this will be said in section 6 below), the present study makes projections of overseas employment for the period 2018 to 2030. One important basis of the projections is the trend line fitted to the time series for 1990 to 2016 as shown in Figure 12.

However, it may be seen from Figure 12 that there were unusual increases in the number of people finding jobs abroad in 2007 and 2008. The trend line that is affected by this bump will naturally have a higher slope than if there were no such bumps. In order to avoid the effect of that bump, a different trend line and an associated regression equation were fitted by excluding the figures for those two years. That trend line has a slightly smaller slope, and the fit is also better (as is indicated by the estimated R-squared). The two equations are as follows:

1. Y = 20,249 X + 76,973
   (R-squared = 0.5705)

2. Y = 19,313 X + 69,927
   (R-squared = 0.7454)

The projected figures for overseas employment based on the above two trend lines are:

Equations	2020	2025	2030
1	684,443	785,688	886,933
2	649,317	745,882	842,447

The above figures imply that if the past trend continues without too much of change, overseas employment could be of this order. For example, by 2025, around 800,000 workers from Bangladesh could be employed overseas. By 2030, the figure could be around 900,000.

But it is important to stress that the projections made above are only indicative and should not be taken literally. In order to understand the reason for this, one simply has to look at the trend in employment of Bangladeshi migrant workers in major destination countries like Saudi Arabia, UAE, Kuwait, and Malaysia. The notable aspects that deserve attention in this respect include the following:

Saudi Arabia

- Sharp increase in employment of Bangladeshi workers in 2007 and decline in the following year;
- Sharp decline in the number employed in subsequent years;
- A reversal in the declining trend since 2011, but the number remained small compared to "normal";

UAE

- Sharp increase in the flow of workers in 2007 and 2008 and decline thereafter
- Sharp decline since 2013

Kuwait

- Almost closed for Bangladeshi workers after 2007
- Some resumption in recruitment in 2014, but the number is very small compared to pre-2007 numbers.

Malaysia

- Sharp increase in numbers recruited in 2006 and 2007 and sharp decline thereafter
- Almost negligible as a source of employment during 2010-2012
- Recruitment resumed in 2013, but numbers remain very small

Oman, Qatar, and Bahrain

- These countries, especially Oman and Qatar, have emerged as major destinations for overseas employment of Bangladeshi workers. Currently, they, along with Singapore, Jordan and Lebanon, are the major sources of such employment.

Table 25: Overseas Employment of Bangladeshi Workers to Major Destination Countries

Year	KSA	UAE	Kuwait	Oman	Qatar	Bahrain	Malay-sia	Singa-pore
2000	144,618	34,034	594	5,258	1,433	4,637	17,237	11,095
2001	137,248	16,252	5,341	4,561	223	4,371	4,921	9,615
2002	163,269	25,462	15,769	3,854	552	5,421	85	6,856
2003	162,131	37,346	26,722	4,029	94	7,482	28	5,304
2004	139,031	47,012	41,108	4,435	1,268	9,194	224	6,948
2005	80,425	61,976	47,029	4,827	2,114	10,716	2,911	9,651
2006	109,513	130,204	35,775	8,082	7,691	16,355	20,469	20,139
2007	204,112	226,392	4,212	17,478	15,130	16,433	273,201	38,324
2008	132,124	419,355	319	52,896	25,548	13,182	131,762	56,581
2009	14,666	258,348	10	41,704	11,672	28,426	12,402	39,581
2010	7,069	203,308	48	42,641	12,085	21,824	919	39,053
2011	15,039	282,739	29	135,265	13,111	13,996	742	48,667
2012	21,232	215,452	2	170,326	28,801	21,777	804	58,657
2013	12,664	14,241	6	134,028	57,584	25,155	3,853	60,057
2014	10,657	24,232	3094	105,748	87,575	23,378	5,134	54,750

Source: BMET

The changing scenario in terms of destinations of overseas employment outlined above points out the complexity involved in making an assessment of the prospects of overseas employment in future. The first point that needs to be noted is that the demand for workers in a potential source of employment is not the only determinant of the actual number of people that may be able to find jobs in that country. A variety of factors, especially the nature of bilateral relations, the reputation of workers from a particular country (which in turn has to be interpreted not simply in terms of workers' skill and efficiency but also in terms of overall track record from the perspective of the destination country), governance of the process of recruitment and deployment of workers, and such factors play an important role in this regard. The importance of such factors is illustrated by the almost complete closure, for some years, of the doors of countries like Saudi Arabia, Kuwait and Malaysia for workers from Bangladesh. All these countries need expatriate workers and have continued to recruit from various other countries [21].

21 For example, in Saudi Arabia, the number of labour permits granted more than doubled between 2005 and 2011, and during that period, almost 2.5 million jobs were available to foreign labourers. That happened despite a worsening of the employment situation of nationals and a systematic campaign by the government to employ more nationals (Bel-Air, 2014; Fayad, et al., 2012). From the side of labour sending countries, it may be noted that employment of workers from Nepal continued to increase in both Malaysia and Saudi Arabia during 2008 to 2014. To Malaysia, the number rose from 29,320 to 206,719, and to Saudi Arabia, the increase was from 45,044 to 75,026 (GON, 2014). In 2013, the number of Pakistani workers going to Saudi Arabia and UAE were 270,502 and 273,234 respectively (ILO, 2015). These numbers should serve to indicate that the prospects for employment of foreign workers in Malaysia, Saudi Arabia and UAE continue to remain.

Second, given the strong incentives to emigrate, the existence of kinship and other networks in many countries with need for expatriate workers and of recruitment agencies with good experience, a pro-active and facilitating attitude of the government can help workers tap the potential for overseas employment. That large numbers of people were able to tap job markets in countries like Oman, Qatar, Bahrain and relatively smaller markets in other countries is an indicator of this possibility. Considering this kind of a scenario, it does not seem unrealistic for the number of overseas employment to be around 800,000 by 2025 and 900,000 by 2030. On the other hand, if the labour markets in Saudi Arabia, Kuwait and Malaysia can be accessed again, and those in Oman, Bahrain, Qatar and Singapore continue to remain, the number could be even higher.

A number of points may be raised with regard to the flow of migrant workers, their skill composition and the development and employment implications of the use of remittances sent by them. First, the number that can find jobs abroad during a given period is often beyond the control of the sending country. To that extent, it is difficult to make projections of employment and formulate an employment policy based on this as a source of employment. Second, there are different aspects to the skill composition of migrant workers. On the one hand, migration of more skilled workers would imply higher salaries for them and hence higher amount of remittances per worker (although there is no automaticity in the latter consequence). So, this may be desirable from the point of view of maximizing the remittance flow to the country which, in turn, is likely to be beneficial for the country from a macroeconomic point of view. On the other hand, production of skilled workers involves a cost, and in a country like Bangladesh, much of that cost is usually borne by the government in the form of subsidized training facilities in the public sector. In analyzing the benefits and costs of international migration, one would have to weigh these various aspects.

As for the development and employment implications of international migration, several points are worth noting [22]. First, to the extent the migrant workers come from poorer (or at least low income) households, income from remittances makes an important contribution to poverty reduction. It must be added, however, that migration may not be taking place from the poorest of the households (because of the cost associated with the process); and to that extent, the poverty reducing effect may not percolate down to the poorest of the poor. Indeed, it may lead to some increase in inequality in the distribution of income, at least among the lower income groups.

Second, apart from the direct employment effect of migration, there may be indirect effects through the increased consumption of remittance receiving households as well as investment by them in productive economic activities. In this context, it may be worth noting a few findings from the survey of the use of remittance conducted in 2013 conducted by the Bangladesh Bureau of Statistics. First, a high percentage (43 per cent) of the remittance receiving households were found to be non-savers. And that implies that much of the remittance income is actually spent. Second, only 25 per cent of the households reported some investment. Third, over 80 per cent of the "investors" reported investing in real estate. Only about 12 per cent reported investment in some economic activity, e.g., in own business or for purchase of farm equipment. Looking at the distribution of the

22 The points summarized below are based on survey of the use of remittance carried out by the Bangladesh Bureau of Statistics (BBS, 2014).

amounts invested, the share of real estate is found to be even higher – nearly 90 per cent during the year prior to the survey. It is thus clear that remittance receiving households make very little direct investment in productive activities.

The conclusion that follows from the brief summary of the results of the survey of remittance use presented above is that apart from the direct employment associated with international migration of workers and the multiplier effect on the economy of the increased consumption and its employment implication, the potential for a positive employment effect through the investment route has remained limited.

5.3. Challenges: Overseas Employment

Overseas employment involves international migration of prospective workers, and is a complex phenomenon due to a variety of reasons. On the one hand, there is the issue of numbers, i.e., to ensure that a certain number of job-seekers get employed overseas. And that, in turn, would involve finding opportunities for employment and tapping them for prospective job-seekers, as well as managing the process of migration smoothly. On the other hand, in addition to mere numbers, there is the issue of education level and skill composition of workers, the cost that individuals have to bear, the conditions in which they work abroad, etc. Some of these issues are closely linked to the rights of migrant workers, the abuses they often suffer from and the governance of the entire process – both from the side of sending and receiving countries. The major challenges are briefly discussed below.

Numbers

Labour markets in countries receiving migrant workers are diverse and demand conditions can vary from time to time [23]. For Bangladesh, the major destination countries include those in the Middle East, and Malaysia and Singapore. The sectors demanding expatriate workers in those countries range from agriculture (e.g., Malaysia, Oman) to manufacturing (e.g. garments in Jordan), construction (Saudi Arabia, Qatar, Singapore, etc.), and care for the elderly (e.g., Korea, lebanon, etc.). The economies of the countries in the Middle East are mainly dependent on oil, and hence their economic cycles are also dependent on the oil market. But some economies can be influenced by transitory factors (e.g., the soccer world cup of 2022 in Qatar), and demand for labour can be strongly influenced by such factors. For countries seeking to place workers in jobs overseas, it would be important to understand and monitor labour markets in prospective destination countries. Moreover, it needs to be noted that economies undergo changes, and with that changes the type of skills that the labour market would demand. For example, Saudi Arabia is moving from construction of infrastructure to manufacturing. Liekwise, once the current phase of construction is over in Qatar, the economy of that country is likely to require more workers in maintenance. Thus the skill composition of workers needed is likely to undergo changes. It would be essential for the sending countries to monitor such changes closely and adjust their own supply of labour accordingly.

The second important challenge is with regard to the skill composition of overseas employment. One view in this regard is that workers with higher level skills earn more

23 Some information and analysis can be found in Jayaprakash (not dated); Kanapathy (2014); Kolb (2014); and Weston (2014).

and hence are likely to send more remittances to the country. Hence from the point of view of remittances per worker, it might appear desirable to promote employment of skilled workers rather than unskilled workers. However, several points need to be noted in this regard.

Skill composition

First, in the major destination countries for migrant workers, there is demand for a broad range of skill categories – with high level technicians for manufacturing and professionals in service sectors at one end and workers in construction and maintenance that require very little skills on the other. Second, the kind of occupations for which workers from a particular country is demanded in a destination country seems to depend on a variety of factors in addition to the simple availability of the required skills. The following conclusion from an ILO study may be worth noting in this regard:

> "In sum, the main determinants for low-skilled labour from South Asian countries appear to be price (wages), availability, general health and physique, perhaps connections, recruiter catchment area and such criteria as perceptions about the attitudes and behaviour as well as experiences of certain nationalities. Their education and skill levels as well as their occupations prior to migration have a subordinate role" (ILO, 2015, p. 11).

In a situation described above, it may not be easy for Bangladesh (or for any other country) to attain a "desired" skill/occupational composition of its migrant workers simply through supply side interventions like provision of skills training. Efforts would be needed on several fronts. First, action would be required to break the perceptions that exist in the destination countries associating certain occupations with specific countries. While upgrading of skills training (to bring it in line with international standards) is an essential first step, creating awareness amongst potential employers about the supply of skills from Bangladesh (for example, through promotional work by missions in major destination countries), showcasing skills training facilities to prospective employers and such other market creation/penetration measures may be useful in changing the stereotypes about perceptions. Bilateral negotiations and agreements could be a useful instrument for pursuing the goal of promoting Bangladesh as a potential supplier of skilled workers and for applying the strategy mentioned above [24].

It may also be noted that although skilled workers are expected to receive higher salaries and hence to send higher amount of remittances per worker, there is no automaticity in the second part of the hypothesis. Moreover, production of skilled workers involves a cost, and in a country like Bangladesh, much of that cost is usually borne by the government in the form of subsidized training facilities in the public sector. In analyzing the benefits and costs of international migration, one would have to weigh these various aspects.

Rights and welfare of migrant workers

The process of migration for work is beset with abuses and exploitation that include high costs and fees, attachment to a stipulated employer (which goes against the principle of

24 Philippines is a good example of how this can be done.

freedom to choose employment), divergence between contractual obligations and real conditions at work (especially payment of wages that are lower than stipulated in the contracts), and so on. Particularly vulnerable are workers with low education and low skills and women workers. For the latter, especially for those who work as domestic help, in addition to abuses suffered by migrant workers in general, an additional risk is sexual harassment [25]. An ILO report (ILO, 2010) sums up the situation in these words:

> "While international migration can be a positive experience for migrant workers, many suffer poor working and living conditions, including low wages, unsafe working environments, a virtual absence of social protection, denial of freedom of association and workers' rights, discrimination and xenophobia. Migrant integration policies in many destination countries leave much to be desired. Despite a demonstrated demand for workers, numerous immigration barriers persist in destination countries. As a result, an increasing proportion of migrants are now migrating through irregular channels, which has understandably been a cause of concern for the international community. As large numbers of workers – particularly young people – migrate to more developed countries where legal avenues for immigration are limited, many fall prey to criminal syndicates of smugglers and traffickers in human beings, leading to gross violations of human rights. Despite international standards to protect migrants, their rights as workers are too often undermined, especially if their status is irregular". (ILO, 2010, p.2).

A study on Bangladesh summed up the situation as follows:

> "… institutional arrangements to ensure rights at work for the Bangladeshi migrant workers are poor. Neither Bangladesh, nor the labour receiving countries has ratified the international instruments on the rights of migrant workers. Successive Bangladesh governments have found it difficult to sign memoranda of understanding with the receiving countries. Meanwhile, the enactment of various laws at the national level since 1976, has failed to reduce the exploitation of potential migrants even in accessing work." (Siddiqui, 2005, p.18)

Since the time of the above study (2005), a number of steps have been taken up by the Government of Bangladesh to protect the rights and welfare of migrant workers (see below); and yet, there are challenges that remain.

While abuses suffered by migrant workers are regularly reported in media, it is difficult to get concrete data, except on costs involved in migration and fees charged by agents. On other aspects, apart from media reports and anecdotal evidence, there is not much by way of concrete data. For example, some data are available on the number of complaints received from migrant workers, but the breakdown of such complaints by their nature is not available. One study (Wickramasekara, 2014) reports that In Bangladesh, out of a total of 3116 complaints received during 2009-2013, only about 55 per cent were settled [26].

25 A number of studies cover these issues. See, for example, Siddiqui (2005, 2010), Kumari and Shamim (undated), etc.

26 This number is much smaller compared to the number in Sri Lanka, for example, where during1994-2011, the number was 157, 239. The percentage of complaints settled was much higher (81 per cent) in that country.

High costs incurred by migrant workers is a major issue in many countries, but Bangladesh is at the top in this respect. In 2008, the actual cost per migrant going to the Middle East was between US$ 2991 and US$ 3263 compared to the next highest figures of US$ 1181 to US$ 1737 in India. The cost was the lowest in Sri Lanka where it was less than $ 800. Similar figures are reported for migrant workers going to Malaysia and Singapore (Wickramasekara, 2014). In relation to GDP per capita, the cost in Bangladesh was 4.5 times while in the Philippines and Sri Lanka the figures were only 0.5 and 0.25 respectively (i.e., half and one fourth of GDP per capita). Such sharp differences in the cost of migration to similar destination countries imply differences in the effectiveness of administration of migration. It may be interesting to note in this respect that nearly 60 per cent of the cost in Bangladesh is accounted for by the so-called intermediaries, 18 per cent by "helpers", and another 10 per cent represents "agency fee". Although under different nomenclatures, the above figures show that 88 per cent of the cost is accounted for by "facilitators" of the process of migration. It is thus clear that a prospective migrant worker from Bangladesh has to pay large sums to recruiting agents and other intermediaries at various stages – and the payments per worker are the highest in the region.

There are international conventions/standards that are aimed at protecting the rights of migrant workers. Examples are various ILO and UN Conventions on migrant workers and the ILO's Multilateral Framework on Labour Migration [27]. Unfortunately, however, many of the destination countries have not ratified any such instrument (ILO, 2014 b, Tables 1 and 2). It is thus difficult to obtain any assessment of the situation regarding the rights of migrant workers from such countries. In fact, absence of ratification itself is an indicator of the poor situation in this respect. The following observations may nevertheless be made about the situation.

- In many instances, a prospective migrant worker does not receive formal contracts (especially in a language that is understandable to him/her) before their departure although this is a basic element in the guidelines (Guideline 13.3) of the ILO's Multilateral Framework on Labour Migration (MFLM) adopted in 2006. Moreover, it is quite common to substitute the contract offered prior to departure with one that is inferior in terms of wages and other conditions of work.
- Several international instruments (e.g., ILO's MFLM and Conventions C181 and C189) specify that no fee should be levied on workers; and yet, charging of fees from prospective workers is a common practice (not just in Bangladesh but in other sending countries as well).
- Both Conventions 181 and 189 provide for negotiation of bilateral agreements to prevent abuses and fraudulent practices in recruitment and placement. But such issues are often left out of bilateral agreements.
- Guideline 13.2 of the ILO's MFLM stipulates that recruitment and placement of workers respect their fundamental rights; and yet, given the system of tying of workers to a specified employer, confiscation of passport upon arrival in destination countries, and the requirement of exit permit, many workers find themselves in situations of forced labour.

27 For a list and detailed description of such conventions and agreements, see Global Migration Group (2008) and ILO (2010).

The Government of Bangladesh has undertaken a number of initiatives to address the challenges in the administration of migration for employment abroad; they include [28]:

- District Employment and Manpower Offices (DEMOs) can now provide migration related information to prospective migrant workers and their families;
- BMET arranges to provide pre-departure orientation to migrant workers before they travel abroad;
- The government, in collaboration with NGOs and other stakeholders, is making efforts to raise mass awareness on safe migration procedures through dissemination of relevant information;
- BMET has a Wage Earners' Welfare Board that is mandated to provide various services to migrant workers that include pre-departure briefing, scholarship for workers' children, repatriation cost of deceased migrant worker, and grant for deceased workers' families;
- Bangladesh has bilateral agreements with Kuwait and Qatar and MOUs with Hong Kong, Iraq, Jordan, Republic of Korea, Libya, Malaysia, Maldives, Oman, and UAE.
- Probashi Kalyan Bank (Expatriate Welfare Bank) has been set up with the objective of providing credit for meeting the costs of migration, helping smooth transfer of remittances at low cost, and encourage investment in productive sectors;
- In 2011, the government ratified the International Convention on the protection of the rights of all migrant workers and their families;
- The Overseas Employment and Migrant Welfare Act 2013 was passed by the parliament of Bangladesh in 2013. The Act has provisions for providing protection to migrant workers against possible abuses. Rules are being formulated for the implementation of the Act.

Challenges: a summing up

- A much better understanding and monitoring of markets would be needed, and the overseas employment strategy will have to be geared accordingly.
- Once the surplus labour available in the country is exhausted and workers with low education and skills will no longer be available (or availability will decline sharply), the strategy will have to change in a substantial way. Preparations for such changes will have to start during the next five to ten years.
- The perception in receiving countries about Bangladesh as a supplier of only low skilled workers will have to be changed.
- Preventing abuses of migrant workers at both the sending and receiving ends, guaranteeing their rights and ensuring their welfare remain major challenges.
- High cost of migration is a serious problem. More disconcerting is that much of the excess cost does not reflect the true expenses of travel and related costs. Payments to intermediaries represent a large part of the total costs of migration. This needs to change, and the cost needs to be aligned more closely to actual costs.

28 See ADB-ILO (2016), Chapter 4 for some examples of good practices from Asian countries.

6. The Employment and Labour Market Situation: A Summing Up

The overview of the employment and labour market situation in Bangladesh provided in sections 2 through 5 above shows a mix of good and bad news. On the supply side, the good news starts from the decline in labour force growth witnessed in recent years. While this is good from the point of view of numbers in that the challenge of finding jobs for new entrants to the labour force in quantitative terms is likely to be less onerous in future, one also has to note that the potential benefit from labour force growth (in terms of so-called demographic dividend) is not going to last for a very long period.
Another piece of good news from the supply side is the improvement in the level of education of the labour force. This is evidenced from the decline on the proportion with no education and increase in the proportion with primary and secondary education.

Third, there has been a gradual increase in female labour force participation rate. Although the trend was disrupted in 2013, data from the labour force survey of 2015-16 shows that it is rising again. If the overall trend continues, this can be positive factor for future economic growth of the country.

The fourth good news – this one from the demand side – is a rise in the growth of employment in manufacturing between 2010 and 2013. Although this came at the cost of falling labour productivity, it created an expectation that labour intensive industrialization could serve as a mechanism for absorbing surplus labour in the country.

Fifth, there was a substantial increase in the number of workers finding overseas employment. Although the external demand for workers is subject to fluctuations in changes in economic and other conditions in the destination markets, increase in overseas employment helps relieve the pressure on the domestic labour market (and also contributes to the foreign exchange earnings of the country). In addition to the rise in numbers, there was a gradual increase in the share of skilled workers in the total number of overseas employment – thus indicating the possibility of a change in the skill composition of such jobs.

Sixth, there was a rise in the real wages of workers – till about 2010-11. And it is interesting that the rise was more pronounced for the agriculture sector. The rise in real wages coupled with a rise in the growth of manufacturing employment created an impression that surplus labour may have been exhausted. However, data from various sources including the labour survey of 2015-16, the website of BGMEA, and data on wages and prices from the Bureau of Statistics (and Ministry of Finance) show that the good news on employment and real wages did not last long – an issue that will be addressed presently.

The disappointing news on employment starts from the fact that the overall elasticity of employment with respect to output (i.e., GDP) has been declining over time. One might, of course, argue that that this is natural in a developing economy and should be indicative of improvement in labour productivity. Indeed, growth of employment relative to output growth should leave room for improvement labour productivity. However, one needs to worry when there is a trade-off between growth in productivity and employment [29], and the latter is insufficient to absorb surplus labour at a sufficiently fast pace. The sharp decline

29 The countries of East and South East Asia, e.g., Republic of Korea, Malaysia and Taiwan-China, were able to avoid such a trade-off and to combine high rates of economic growth with growth of employment and improvement in labour productivity.

in overall employment elasticity and a decline in manufacturing employment observed after 2013 give rise to such worry. Moreover, since this has been happening at a time when output growth has been high, one wonders whether the country has been going through a period of jobless growth.

Apart from slow growth of employment, a particular cause of concern is high rate of unemployment among the youth. While this represents a waste from the point of utilization of an important factor of production, it is also worrisome from a social point of view. What is also noteworthy is that education is not helping the youth in finding jobs – as is indicated by the direct relationship between education and unemployment. This is an area that requires particular attention.

Another point of concern – especially from the point of view of the relationship between economic growth, employment and poverty and inequality - is the stagnation (if not a decline) in real wages of workers. Although real wages increased for a few years after 2008, the trend did not continue. If growth in money wage rates and consumer prices are any indicators, there appears to have been a decline in real wages in recent years. Policy makers need to worry about it, especially if real wages are looked at as a means of reducing poverty and improving income distribution.

Part 2: Looking at the Future: Projections of Employment

7. Employment Projection and Prospects

In an economy like that of Bangladesh where unemployment is low but many people somehow manage to eke out a living, jobs required may not provide a true indicator of the real challenge in the area of employment. In addition to numbers, it would be important to look at the type of employment (in terms of sectors, skill requirement, etc.) that needs to be created. An attempt is being made here to present some numbers as an indicator of the basic quantitative aspect of the employment challenge. But the numbers presented also take into account the possibility making a dent on the situation regarding unemployment and underemployment. In that sense, the qualitative aspect of employment is also addressed to some extent.

7.1. Methodology applied

It would be in order to note a few basic aspects of the projection being presented. First, although the present exercise is being done within the framework of the Perspective Plan (PP) for the period 2021 to 2041, the terminal year for the projections is taken as 2030 (which is also the terminal year for the for SDGs that include attaining full and productive employment). The period up to 2030 is also the first phase of the PP period during which surplus labour is expected to be exhausted in the economy. Once that critical turning point is attained, the challenge of employment will be somewhat different.

Second, to get a picture of the supply side, projection of labour force has to be made by using a realistic figure for its growth rate. But given the volatility observed in the past figures that emerge from different rounds of the labour force surveys (ref. section 2), it is difficult to settle for a figure with confidence. For example, the rate of growth of labour

force during different inter-survey periods varies from 1.15 per cent per annum during 2013 to 2015-16 to 3.45 per cent during 2005-06 to 2010. Moreover, there is no clear trend in the observed growth rates. Given the situation, one way is to look at a reasonably long-term period and use the growth figure observed for that period for purposes of projections. For example, the annual growth of labour force during 2002-03 to 2015-16 was 2.28 per cent. In the absence of any other more reliable figures, the present study uses this for making projections of labour force growth up to 2030 [30].

Third, an aggregate projection model is used (elaborated further below), which involves the use of elasticity of employment with respect to output and projected GDP growth. As for the former, several points need to be noted. First, since 2005-06, there has been a gradual decline in the elasticity of employment with respect to output – thus indicating a decline in the ability of the economy to generate employment. Moreover, this decline was quite sharp during the period of 2013 to 2015-16; the estimated employment elasticity for that period was only 0.1765 compared to 0.3887 for 2010 to 2013. Although it is natural for a developing economy like that of Bangladesh to undergo some technological change that might result in a decline in the employment elasticity of output, such a sharp decline within a short period seems to be an aberration of the observed trend and appears to represent a period of "jobless growth". So, the use of the elasticity figure for 2013 to 2015-16 in a projection exercise is likely to yield misleading results. It would, therefore, be useful to make alternative projections using more realistic parameters. One possibility is to use the estimated elasticity for a longer period. In that regard, one candidate is the estimate for the period 2005-06 to 2015-16, which is 0.27. The other possibility is to use a figure that is close to the observed figure for the period 2010-2013 (which was 0.3887). The projection exercise uses all the three alternatives.

As for projected GDP growth, the Planning Commission's Perspective Plan projection ranges from 8 per cent in 2020 to 9 per cent in 2031 (Planning Commission, 2017). For purposes of the employment projections, the following rates of GDP growth are used: 7.5 per cent for 2015-16 to 2020, 8 per cent during 2020 to 2025 and 8.5 during 2025 to 2030. One set of employment projections is made by using these figures. However, the present study argues that it is not only the rate of growth but also the pattern of growth that influences the employment outcome of an economy. In order to demonstrate this, two alternative growth scenarios (represented by GDP growth of 8 and 7.5 per cent per annum) will be used in conjunction with an employment elasticity figure of 0.35, which is slightly lower than the observed figure for 2010 to 2013 but higher than the figure for 2013 to 2015-16.

The model used for projections is presented below

$$Et = E0\,(1 + re)t \qquad (1)$$

where

Et represents total employment in the terminal year of the projection period,

E0 represents total employment in the base year, and

re represents the annual rate of growth of employment during the projection period.

30 The figure used in the Planning Commission's Perspective Plan Growth Framework is higher than this. Although not mentioned explicitly, it seems to be in the order of 2.36 per cent. The labour force surveys of 2013 and 2015-16 imply an annual growth of 1.15 per cent per annum which appears to be unrealistically low.

$re = \eta rg$ (2)

where

η represents elasticity of employment with respect to output, and

rg represents growth of output

$\eta = re \div rg$ (3)

7.2. Results of projections

Labour force

Applying the growth rate of 2.28 per cent per annum (the observed growth of labour force during 2002-03 to 2015-16), one gets a projected labour force of 85.2 million for 2030. This gives one an additional labour force of 23.1 million during 2016-30 or about 1.65 million per year.

To the new labour force, one has to add the backlog of unemployment (2.6 million in 2015-16) that exists and for whom employment needs to be found. Allowing for some unemployment to remain, one could assume that the target should be to absorb about half of those by 2030. That would mean an additional 93,000 has to be added to the yearly target for employment.

Given the fact that international migration of workers is an important source of employment for the labour force of Bangladesh, it would be appropriate to take that into account in estimating the number of jobs that would be required in the domestic labour market. Given the recent as well as long terms trends in the outflow of workers, it may be realistic to assume that about 500,000 people would find employment abroad every year.

Thus, taking into account the addition to labour force, the need to absorb some of the unemployed, and the possibility of international migration for employment, it would be appropriate to take 1.22 million per year as the minimum quantitative target for employment during the period up to 2030.

In order to make a real dent on underemployment and the number of working poor, the number of additional employment per year will have to be substantially higher than the 1.22 million mentioned above so that the available surplus labour can gradually move to new jobs with higher productivity. A question that may be asked in this regard is: what level of economic growth would be required for the economy to be able to absorb its surplus labour by 2030?

In order to address the question of absorbing surplus labour mentioned above, one would first need an estimate of that and then make projections of employment needed to absorb that. In the absence of a national estimate of surplus labour based on some rigorous methodology, an attempt is made here to provide an illustrative estimate of surplus labour and GDP growth required to absorb that by 2030.

One approach (albeit rather crude) would be to apply the current rate of underemployment in agriculture (25 per cent [31]) to the employed labour force in that sector (25.2 million) and arrive at an estimate of surplus labour in that sector. This gives one a figure 6.3 million.

31 In 2013, it was 28 per cent.

Assuming the rate of underemployment to be 10 per cent for the rest of the rural labour force (19.6 million) as well as for the urban labour force (16.5 million), one gets 1.96 million and 1.65 million respectively. So, the total number of surplus labour would work out to be 9.91 million [32]. If this surplus labour is to be absorbed in 14 years, the number of additional jobs that would be required per year works out to be a little over 700,000.

Hence for a period of 14 years, the number of additional jobs required would be: (i) 17.08 million to absorb the new additions to the labour force (at the rate of 1.22 million per year as explained earlier), and (ii) 9.91 million as contribution to absorbing the existing surplus labour. Thus, a total of 26.99 million jobs would be required over this period – which implies 1.93 million annually.

The estimation described above is presented at a glance in Box 1.

Box 1: Estimation of Jobs Required Per Year

1. Projected labour force in 2030 (using labour force growth of 2.28% per annum which is the growth rate during 2002-03 to 2015-16): 85.15 million
2. Addition to labour force during 2015-16 to 2029-30: (85.15 – 62.1) = 23.1 million (or 1.65 million per year)
3. Backlog of unemployed in 2015-16: 2.6 million
4. If half of the backlog of unemployed is to be employed by 2030, additional job requirement per year would be 93,000
5. Likely number to get employment abroad per year: 500,000
6. New jobs required per year without taking into account "surplus labour": 1.65+0.093-0.50 = 1.22 (million)
7. Surplus labour (2013):
   - (i) Agriculture total labour force: 25.2 million
   - (ii) Time-related underemployment in the sector (25% of 25.2 million): 6.30 million
   - (iii) Rural non-agricultural labour force: 19.6 million
   - (iv) Surplus labour in the non-agricultural sector (10%): 1.96 million
   - (v) Surplus labour in urban areas (10% of urban employment): 1.65 million
   - (vi) Total surplus labour (total of ii, iv, and v): 9.91 million
   - (vii) If the surplus labour is to be absorbed in 14 years, annual additional employment required would be 707,857.
8. Total number of jobs required annually during 2016-2030 (taking into account "surplus labour": 1.22 +0.71 = 1.93 million
9. If the growth of labour force is assumed to be 1.53 per cent per annum, one gets a projected labour force of 77.98 million for 2030. And taking into account the various considerations mentioned above, the required employment per year works out to 1.84 million.

Employment

Two sets of employment projections have been made. The first set (shown in Table 26) uses the Perspective Plan GDP growth projections mentioned above (ranging from 7.5% during 2015-16 to 8.5% during 2025-30) and three alternative estimates of employment elasticity, viz. 0.1765, 0.27 and 0.35 (explained above). The second set uses lower GDP growth rates

32 Another way of estimating surplus labour could be to use the idea of working poor. Given the facts that open unemployment rate is only 4 per cent of the labour force and the incidence of poverty is about 23 per cent of the population, it is clear that a large proportion of those who are employed are poor despite being employed. Clearly, their income needs to increase either through improvement in productivity and returns within their existing work or move to new work with higher productivity and returns. Applying the same percentage of poverty to the employed labour force (62.1 million), one gets 14.3 million as an estimate of working poor. Clearly this is much higher than the estimate obtained by using the underemployment rate, and it may not be realistic to use this for purposes of estimating surplus labour in the economy.

– 8 per cent and 7.5 per cent per annum and an employment elasticity of 0.35 (Table 27). The latter is done in order to demonstrate what can be achieved by combining high growth and a pattern of growth than has been experienced before the 2013-16 period of jobless growth. Several points emerge from the projections.

First, if the pattern of jobless growth continues (as indicated by the low employment elasticity of 0.1765), even a high GDP growth of 8.5 per cent per annum will not be adequate to absorb the new addition to the labour force, not to speak of absorbing surplus labour. In order for the latter to happen, either GDP growth has to be higher than that or the pattern of growth has to be more employment intensive – at least similar to what was attained up to 2013 [33].

Second, if the elasticity of employment remains in the range of what was experienced till 2013 (i.e., around 0.35), GDP growth of 8 per cent per annum would be adequate for generating the required employment as indicated in Box 1 above. For that to happen, manufacturing industries, especially of labour intensive variety, will have to act as the engine of growth.

Table 26: Employment Projections under Alternative Assumptions about Employment Elasticity (With GDP growth forecast for the Perspective Plan: 8% p.a. between 2020 and 2025 and 8.5% p.a. between 2025 and 2030)

	Alternative assumptions regarding employment elasticity		
	0.1765	**0.27**	**0.35**
Total employment in 2030 (million)	72.46	80.34	84.87
Additional employment (2015-16 to 2029-30) (million)	12.96	20.84	25.37
Additional employment per year			
(million)	0.926	1.49	1.81

Note: For the period of 2015-16 to 2020, GDP growth is assumed to be 7.5% p.a.

Source: Author's estimates based on the methodology described in the text.

Alternative scenario with higher employment intensity of growth

If one looks at the experience till about 2013, it can be seen that the elasticity of employment observed for the major sectors (except services) during 2005-10 appears to be quite high. For manufacturing, high employment elasticity continued till 2013. Although any further increase in employment intensity for those sectors may not be desirable, at least from the point of view of productivity, the overall elasticity of employment with respect to GDP growth could be higher if the more employment intensive sectors grow at higher rates than at present. For example, the manufacturing sector is seen to have higher employment

33 It may be noted that the projections made in the ADB-ILO employment diagnostic study (ADB-ILO, 2016), uses higher estimates of employment elasticity and lower GDP growth projections. But the basic conclusion was similar to the conclusions of the present exercise, viz., high GDP growth alone would not be sufficient for absorbing the new addition to the labour force and the available surplus labour. Unless the pattern of growth remains employment intensive (with employment elasticity of around 0.35 to 0.45) for some more time, even with very high GDP growth, the economy will not be able to attain the goal of full and productive employment in the foreseeable future.

elasticity compared to agriculture and services. Hence, if manufacturing grows at much higher rate than those sectors, it is not impossible to think of a situation where the overall employment elasticity could be higher than observed in recent years (i.e., after 2013). For example, 8 per cent GDP growth could be consistent with say, 14-15 per cent growth of manufacturing. Although the sector in Bangladesh has not attained such high growth, it is not impossible [34]. With growth in that range (i.e., eight per cent) and no decline in the employment intensity of growth in the sector, employment in the sector could increase at 9-10 per cent per annum. The overall employment elasticity with respect to GDP could also be higher than observed. In order to illustrate the likely scenario with such growth in the manufacturing sector, an alternative set of projections have been made by using an overall employment elasticity of 0.35. The results are presented in Table 27.

Table 27: Employment Projections under Alternative Scenarios of the Pattern of Growth (with GDP growth of 8% per annum and employment elasticity of 0.35)

	GDP Growth (8%)	GDP Growth (7.5%)
Total employment in 2029-30 (million)	87.58	85.52
Additional employment (2015-16 to 2029-30) (million)	28.08	26.02
Additional employment per year (million)	2.01	1.86

Source: Author's estimates based on the methodology described in the text.

What is worth noting from the figures in Table 27 is that even with a GDP growth of 8 per cent, growth of employment can exceed what is required if the weight of manufacturing in that growth increases. In fact, if manufacturing grows at the rate of 14-15 per cent per year and if labour intensive industries like garments, shoes, furniture, electronics, leather products, etc. feature in that growth, it is possible for employment in manufacturing to grow at 9-10 per cent per annum. That would imply an additional employment in the sector of approximately 600,000 per year. Such growth in the manufacturing sector will have linkage effects with other sectors, especially transport and service sectors. Hence, the employment outcome could be substantially better than what has been attained so far if a different pattern of growth (with substantially higher growth of the manufacturing sector) could be achieved. It would, therefore, be advisable to develop policy based on projections reported in Table 27.

The alternative projections in Table 27 indicate that with a GDP growth of 7.5 per cent per annum, projected employment would fall short of the requirement even with an employment elasticity of 0.35. Hence, the growth target should be set at a minimum of 8 per cent.

34 For example, in Republic of Korea and Malaysia, manufacturing output grew at such (or even higher) rates for a long period of time. In the past (for example during 1990-91 to 2012-13), the growth of manufacturing output has been rather unstable (ADB-ILO (2016). It did exceed double-digit figure in 2006-07 but then declined sharply. Even after recovery in 2010-11, growth plateaued out at below 10 per cent per annum. From the point of overall growth of the economy as well as of employment, a sustained high growth of manufacturing output is essential.

The employment challenge after 2030

As mentioned already, the year 2030 is expected to be an important turning point for Bangladesh economy in at least two respects. While that is the terminal year for attaining the SDGs that include the target of full and productive employment, surplus labour available in the economy should also be exhausted by then. Once that happens, the challenge would be one faced by a mature economy, viz., to create adequate employment for the new additions to the labour force. What would that mean in quantitative terms?

First, by 2030, growth of labour force in the country should decline substantially. Figures in Table 28 have been worked out by using data presented in the population and labour force projections made by the Bangladesh Bureau of Statistics (BBS, 2015) [35]. These figures

Table 28: Projections of Population and Labour Force, 2031 and 2041

Year	Projected population (15-64 years, in thousand)	Projected labour force participation rate	Estimated Labour Force (in thousand)	Growth of labour force (% per annum)
2016	102,791	0.621	63,833	
2031	132,369	0.655	86,702	2.06
2041	144,051	0.654	94,209	0.83

Source: Estimated from data available in BBS (2015).

indicate that between 2031 and 2041, labour force will increase by 7.51 million - i.e., 751,000 per year). If one assumes that there will be no surplus labour and underemployment in the economy at that time and overseas employment will remain an important source of employment, the number of additional jobs required annually will be around half a million per year. For example, if 300,000 people find employment abroad (which is substantially lower than the current average), the domestic economy will need to generate some 500,000 jobs per year. It is of course possible that once poverty is eradicated completely, the number of people seeking unskilled jobs abroad will decline substantially. If the country focuses more on migration of skilled workers, the number may decline considerably. And the number of domestic jobs required will increase correspondingly.

The above, however, appears to be too rosy a picture compared to the challenge of the pre-2030 period. One major reason for the difference is the sharp decline in the population of 15-64 years age-group during 2031-2041 period which resulted in a sharp decline in the growth of labour force from 2.06 per cent per annum during 2016-2031 to 0.83 per cent per annum during the following ten years. It is possible to think of an alternative scenario assuming a higher growth of labour force. If one assumes a labour force growth of 1.5 per cent annum for that period, and uses 85.2 million as the base figure for 2030 (which was our projection above), one gets an estimate of 100.36 million for 2041. That would imply an annual addition of 1.38 million from 2030 to 2041. Assuming overseas employment of about 400,000 per year, this indicates an annual job requirement of about one million.

If a GDP growth of 9 per cent per annum can be attained (as projected by the Planning

35 Growth of labour force is going to decline both because of a decline in population growth and increase in enrolment in education. While enrolment ratio at the primary level is already 100 per cent, there is substantial scope for increase in enrolment at secondary and tertiary levels.

Commission's macroeconomic projections), and employment elasticity does not drop below 0.2, the economy would be able to generate around 1.7 million jobs annually (against a requirement of about one million). If that happens, the economy will face a labour shortage. In reality, even when the economy matures, employment elasticity may remain well above 0.2 (say, in the range of 0.3) [36]. In that case, the labour market is likely to become even tighter. These figures indicate that it may be possible to maintain full employment with a GDP growth of around 8 per cent per annum [37].

The employment challenge in a maturing economy: going beyond numbers

As the economy matures, it will need to address challenges that go beyond numbers mentioned above. While the issue will be discussed in details in section 9, some of the major challenges are mentioned below.

- On the supply side, alongside a decline in the growth of labour force, its composition will change. The phase of demographic dividend will come to an end at some point [38], and the population will start to age. That, in turn, will be associated with a change in the age distribution of the labour force towards higher age groups [39]. If the economy wants to benefit from its labour force, strategies will be needed for keeping that segment of the labour force active and working.
- As the economy keeps growing, its sector composition will change, and with that will change the labour requirement – in terms of quantity as well as the educational and skill composition of the workforce. The comparative advantage will change from labour intensive goods to more capital and skill intensive ones. That will create new challenges for institutions responsible for education and skill training.
- The challenge of employment will become more complex. In addition to numbers, the qualitative aspect will need attention. That, in turn, should include social protection of workers against old age, ill health, and unemployment; safe and healthy work environment; and respect for basic workers' rights.
- A major challenge will be to address the issue of informality and precariousness associated with such employment. If employment in the formal sector does not grow at sufficiently high rate, strategies will be needed to gradually upgrade the quality of employment in the informal sector with respect to social protection, conditions of works and rights at work.
- There are challenges with respect to specific groups like women, youth and those with disabilities of different types. The nature of these challenges is also likely to

36 For example, during the period 1984 to 1998, developed countries as a group demonstrated an employment elasticity of 0.38. See Islam and Islam (2015), chapter 2.

37 It is unlikely for a mature economy to be able to maintain GDP growth of 9 per cent or over. So, it would be realistic to think of a strategy for maintaining full employment with a lower rate of GDP growth.

38 It is difficult to project exactly when the phase of demographic dividend will come to an end. It will depend not only on the change in the age distribution of the population but also on the rate which enrolment in education increases. According to the population projections of BBS (BBS, 2015), the proportion of population aged 15-64 years will keep rising till 2041 and then start falling. Labour force participation rate is also projected to start falling from 2041. But that may happen earlier if enrolment in education increases at rates higher than assumed in the projections.

39 The proportion of population aged 55-64 years (i.e., the upper age brackets of the working age population) is projected to almost double from 5.55 per cent in 2016 to 10.92 per cent in 2041 (BBS, 2015). The latter implies that labour force has already started to age.

change as the economy matures. For example, at the current stage of development, the challenge regarding women's employment is twofold: to raise the labour force participation rate and to improve their conditions in the labour market. At some stage, participation rates may not rise further, but the other challenge may remain. As for the youth, the experience of developed countries shows that the challenge remains even at higher level of development.

Technological change, automation and implications for employment in Bangladesh

If one looks at the history of evolution of human society, one would note that technological progress has been a continuous process, and such progress has been associated with automation of various degrees and kinds. That, in turn, had significant implications for employment and the world of work. Given the long-term perspective within which the present exercise is being undertaken, it would be necessary to take this into account and see how the employment situation in the country may be influenced by technological changes that are likely to take place.

The world is currently witnessing the fourth industrial revolution, the basic characteristics of which include the use of robots, artificial intelligence, nano technology, and biotechnology. A common perception in that respect is that this is going to threaten employment of human beings. Even in Bangladesh, where the economy is still characterized by the existence of surplus labour, robots are making inroads. And if one takes a long term perspective of several decades from now, one could imagine the following scenarios: (i) in factories producing textiles, garments, shoes, etc., instead of human beings, robots are performing major tasks, (ii) instead of the numerous retail stores of different types, there are only huge stores where robots arrange merchandise on shelves, customers pick up their needed items and go out through automated check-out points, (iii) online retailers have replaced most of the retail stores and their warehouses are run primarily by robots, and so on.

If the above scenario becomes a reality even before millions of underemployed workers find good jobs characterized by high productivity and incomes, there will be serious problems of mass unemployment and underemployment. And it would be logical for policymakers to take steps to prevent such a scenario. But how realistic would it be to paint such a scenario for the future – even if one considers a period of several decades?

This question is not new to human society; it dates back to the early 19th century when the so-called Luddites (in Britain) had attacked weaving machines because they were thought to be causing destruction of jobs in textile factories. And the question has resurfaced in the wake of several reports published this year (2017) by influential institutions including renowned private companies like McKinsey (2017), PWC (2017), and international agencies like the United Nations (UN-DESA, 2017) and the World Bank (Raja and Christiaensien, 2017). In the context of the Fourth Industrial Revolution currently under way, these reports analyse activities and occupations that are "automatable" and develop scenarios of job losses if such automation does indeed take place. While most of these reports focus mainly on developed countries, the analysis is not limited to them [40]. As if to repeat the attack of Luddites to destroy weaving machines, measures like taxing robots are being proposed in developed countries [41].

40 For example, the McKinsey report divides the countries covered by it into three categories: (i) advanced economies, (ii) emerging economies with ageing populations, and (iii) emerging economies with younger populations. The countries in the last category includes India, but Bangladesh is not included.
41 No other than Bill Gates has proposed this.

If the concern can be so serious in developed countries, for a country like Bangladesh, a development of the kind mentioned above can really spell doom. Shouldn't policy discourse take a serious view of it? However, before starting with a pessimistic and doomsday scenario, it is necessary to take a careful look at what one is talking about. In doing so, one should also distinguish between prospects that are likely to be faced by countries at different stages of development. At the risk of saying the obvious, the concern cannot be the same in USA, UK, China, Viet Nam and Bangladesh.

What Does the History of Automation Tell Us?

It may be useful to refresh our memory with the history of technological progress vis-à-vis employment, and a few facts may be worth recounting in that regard. First, automation during the first industrial revolution was associated with an increase in jobs – not decline. Between the early 19th and early 20th century, the number of textile jobs increased (Bessen, 2017). Second, although jobs were lost in the steel and textile industries in countries like UK and USA during the 20th century, it's important to understand whether that was due to automation or globalization leading to these industries moving offshore. Third, the spread of IT in recent decades has been associated with a rise in employment (Bessen, 2017). Except during economic downturns, the US economy has not faced a problem of shortage of jobs. Fourth, even in recent years, automation has not been associated with a decline in overall employment. The example of Amazon is often cited in this context where there has been a sharp increase in the number of robots used, but hiring of workers has also continued (Kessler 2017). Fifth, if one takes a longer term view, one would see that fears of mass unemployment have, by and large, been proven unfounded. Employment-population ratio has increased during the twentieth century (UN-DESA, 2017) [42].

So, what happens when technological progress takes place and activities and occupations are automated? As Acemoglu and Restrepo (2016) has pointed out, there can be two types of technological changes: "automating technology" that can replace labour, and "labour augmenting technology" that can, by creating new tasks, create new jobs. For example, automation may be associated with new jobs in the spheres of supervision, repair and maintenance. The net impact on employment would depend on the relative strength and magnitude of the two effects [43].

Yes, the first and immediate impact may be the loss of jobs as machines may indeed replace some human jobs. But in addition to this immediate impact, technological progress leads to changes that may have a positive effect on employment. For example, one positive impact is often a rise in productivity leading to a decline in prices and a rise in the demand for products. That, in turn, leads to growth of output and employment.

Second, technology replaces certain tasks rather than complete occupations. Of course, new jobs that are created are likely to require different types and levels of education and skills compared to the jobs that may have been lost. We shall get back to this issue in a moment.

42 For some highlights of the potential for automation in different sectors and countries, see Islam (2017).
43 In a subsequent paper, the same authors showed that in USA, the impact of the use of robots during 1990 to 2007 has been negative.

Third, automation, by raising the productivity of workers, creates a necessary condition for wage increases. Moreover, by reducing the drudgery of manual jobs, machines may lead to improvement in the quality of jobs.

What is also important to note is that only in a small proportion of occupations, jobs are completely automated. Machines often work together with human beings – thus creating positive complementarity and raising productivity.

Of course, there would be winners and losers as automation creates differentiation in the labour markets with implications for relative wages and incomes. While some jobs will be lost, new job opportunities will be created in sectors (e. g., services) and occupations that are difficult to automate. So, it is difficult to predict whether the net impact on employment will be positive or negative. The nature of jobs is likely to change with greater demand for workers with higher levels of education and skills, thus creating conditions for accelerated wage increases in certain jobs. And that can unleash forces for a rise in inequality in income.

Regarding individual workers, it is the less educated who are likely to be more affected and those with higher and more specialized education who are likely to gain. Public policy will have an important role to play in ensuring that the potential gains from automation are shared more widely and the brunt of the negative effects can be minimized.

Possible Scenario for Bangladesh and Policy Implications

What kind of scenario can be expected for Bangladesh if one takes a long-term perspective like the middle of this century? How likely is it that a dooms-day scenario would become a reality? In addressing this question, it might be useful to refer to the so-called "flying geese model" of development where one lead goose is followed by a few more flying in formation, and comparative advantage in the production and export of labour-intensive industrial goods shifts from one group of countries to another. In the original version of the model, Japan was the lead goose who was followed by countries like South Korea, Taiwan, and Singapore in the second tier and with Malaysia, Indonesia and Thailand completing the formation. That model could be extended to include China in the second tier and countries like Viet Nam and Bangladesh following the third tier countries.

The flying geese model mentioned above seems to have been reflected in the development pattern that unfolded in Asia and can be expected to characterize the sequence in which countries at different levels of development progress in their journey towards higher level of development. A moot question in the context of the debate on the impact of automation on employment in a country like Bangladesh is whether the flying geese formation will be broken by the latest technological development. Can countries like China and Malaysia, for example, prevent their loss of comparative advantage in certain product lines by resorting to automation? If that happens, are countries like Bangladesh and Viet Nam going to follow suit and adopt automation on a large scale in order to match the competitiveness of the geese flying ahead of them?

The Mckinsey report mentioned above does mention the possibility that emerging economies with younger population may have to worry about generating new jobs in an age of automation, and points out the possibility that automation could upend some prevailing models of development. This is because low-cost labour may lose some of its edge as an essential development tool for such economies.

While predicting the future is a tricky business, it may be worth noting a few points. First, even for developed countries, reports like the ones mentioned above express considerable degree of uncertainty. For example, the time frame in the McKinsey report is 2055; and it concedes that the kind of automation it is looking at could happen a decade earlier or a decade later than predicted by them. In fact, automation depends on a variety of factors – technical, economic and social; and it is difficult to predict how the relevant factors will unfold in a particular country. But the past experience and the present situation of a country can provide useful insights.

A number of questions would be important. How feasible would automation be in the various sectors of the economy – present as well as those that are likely to grow? If technically feasible, would it be economically viable – especially in the context of the relative prices of the important factors of production? How would the acquisition of new technology be financed? What proportion of enterprises would have access to necessary finance?

Considering factors and questions mentioned above, it is possible to identify opportunities that a country like Bangladesh could have as well as concerns, threats, and challenges it could face. They are outlined in Table 1.

Table 1: Impact of Automation on Employment: Opportunities, Concerns and Challenges for Bangladesh

Opportunities	Dangers/Concerns	Challenges
• When surplus unskilled labour is exhausted, selective automation can help overcome the constraint created by shortage of labour. • New jobs, e.g., in supervision, repairs and maintenance, can be associated with automation.	• Ill-conceived policies like artificially lowering prices of machines through fiscal measures may lead to premature automation and thus to job losses even before surplus labour is exhausted.	• Designing appropriate macroeconomic policies taking due account of the country's economic and labour market situation. • Designing policies to ensure that automation does not lead to exclusion of certain enterprises.
• New technology, by raising overall productivity and efficiency, may make it possible to lower prices of products. That could result in a rise in demand and hence in output and employment. • Increase in labour productivity can create a necessary condition for a rise in wages, which in turn could augment demand, output and employment. • Automation can reduce drudgery of work in certain lines. • Automation can bring about positive change in the structure of the economy towards sectors and activities characterized by higher productivity and incomes.	• By reducing costs, automation may give competitive edge to countries at higher levels of development – thus jeopardising the export-led development efforts of Bangladesh. • Competition in the international market may tempt the government to adopt such policies mentioned above. • Competition may also lead enterprises who are capable of adopting automation to go for it – resulting in adverse effect on employment. • While demand for skilled workers increases, unskilled workers may face problems. This may lead to faster increases in wages of workers in the former category and accentuate the trend of rising income inequality.	• Designing policies for education and skill development in a way that the country can adjust smoothly to new technologies.

What could be said by way of conclusion? Although it is difficult to say anything firmly about a distant future, it would not be unrealistic to conclude that the concern about large scale job losses arising out of automation is probably overblown. A good deal will depend on how policies are geared and the process is managed. A few points would be relevant in that context.

- Public policy, especially fiscal and trade policies and legal and regulatory measures can be used to steer the pace and direction of automation in such a way that its net benefits exceed costs associated with it. It would be particularly important to prevent premature automation and when appropriate, create an incentive structure to facilitate selective automation so that gains can be made in raising productivity [44].
- Automation will of course be associated with changes in the type of jobs that the economy will have, and hence the education and skill development system of the country will face the challenge of adjusting to the changes. While the overall level of education of the workforce has to be raised, attention will need to be given to ensure that the type of education and skills imparted by the education system can meet the requirements of a knowledge economy.

There is a danger that the change in the nature of jobs and the education and skills that will be required for them will accentuate the degree of economic inequality. This is because automation will benefit workers with higher level skills with creativity and problem-solving ability. Access to higher education and skills needed in a knowledge economy is already skewed in favour of the upper income groups. When access to the labour market and returns associated with different types of jobs will depend more and more on education and skills, inequality in the distribution of incomes is naturally going to rise. In order to prevent that possibility, the system of education and skill training will have to be more inclusive and broad-based.

Part 3: Strategies and Policies for Employment

8. An Overview of Employment Strategies and Policies

In describing the Government's efforts to boost employment growth, it may be useful to put them in two categories: (i) employment strategies that are pursued as part of the overall development strategy, and (ii) policies covering both demand and supply sides of the labour market that are undertaken from time to time.

8.1. Employment strategies

The Sixth Five Year Plan (2011-2015) of the country laid emphasis on inclusive growth for poverty reduction; and productive employment was regarded as a means towards attaining that goal. Given the existence of surplus labour in the country, the Plan rightly envisaged a strategy for structural transformation of the economy through export-oriented industrialization with high growth of labour intensive industries. In addition, overseas employment was also mentioned as an important element of the strategy. Specific strategies suggested by the Sixth Plan for achieving the goals of Employment generation include:

44 An example of such fiscal incentive is the provision of subsidy on the cost of combine harvester in Bangladesh. According to newspaper reports (Bonik Barta, 26 November 2017, https://bonikbarta.net/bangla/fbs/2017-11-26/139505/#.WhuMLZSdfgM.gmail), there is, currently, a hefty subsidy of 50 to 60 per cent on this capital equipment that is intended to assist farmers in overcoming bottlenecks created by a "shortage" of workers during the harvesting season. There are at least two questions surrounding this issue. First, seasonal tightening of the labour market in monsoon-dependent agriculture is not an entirely new phenomenon, although the shortage of workers during peak seasons may have become more prominent as the economy has grown. Second, if the price of labour has risen to such an extent that a substitution of labour by capital is economically justifiable, the market should provide that signal. By introducing a subsidy on capital equipment, the relative price of capital and labour is being distorted and an artificial incentive for mechanization is being created.

- Encouraging higher female participation in labour force and enabling them to undertake gainful jobs and to stay in the labour market;
- Increasing the employment responsiveness of growth in manufacturing to absorb more labour;
- Raising the productivity of labour;
- Raising total factor productivity through technological change brought through direct foreign investment, R&D investment and development of IT.

In quantitative terms, the Plan projected the creation of additional employment to the tune 1.9 million annually by the end of the Plan period (i.e., fiscal 2015). If overseas employment of about half a million per year is added to that, the total would exceed the number entering the labour force annually. Thus, in addition to absorbing the new additions to the labour force, it would be possible to make a dent into existing underemployment.

The Seventh Five Year Plan (2016-2020) included employment as one of the elements (alongside GDP growth and poverty reduction) in its "three major themes". The growth strategy of the Plan envisages that "all the additional labour force will be gainfully employed, including much of the underemployed". Referring to the employment strategy of the Sixth Plan, the Seventh Plan declares: "it will continue this emphasis on structural transformation of the production and employment structures … " (P. 53).

It is well-known that the ready-made garment industry of the country has played a major role in whatever structural transformation has taken place in the economy and in creating new employment outside the traditional sectors. Government policies (that included opportunities for creating back-to-back LCs, special bonded warehouse system, cash incentives, etc.) have made important contributions to the sustained growth of the industry over time. However, in order to attain further transformation of the economy and create jobs of the order mentioned in the Sixth and Seventh Plans, a full-blown process of labour-intensive industrialization is needed. The Seventh Plan does talk about the need for this and points out the kind of policy reforms that are required. However, the extent to which they are being implemented in reality remains a question.

8.2. Policies to boost employment and strengthen the supply side

Direct interventions aimed at creating employment and generating incomes, especially for the poor, include micro-credit programmes and programmes for wage employment. The latter includes programmes based on food and cash, e.g., the Vulnerable Group Development Programme, Test Relief (TR), Food for Work (FFW), Work for Money (WFM), and Employment Generation Programme for the Poor (EGPP). In addition to such direct programmes, there are a number of overall policies that have been adopted by the government from time to time that include (i) the National Labour Policy 2012, (ii) the National Youth Policy 2011, and (iii) National Skills Development Policy.

Micro-credit

Micro-credit programmes are run by NGOs as well as by various government ministries/ departments. Table 29 presents data on the number of borrowers covered by the major NGOs as well as by Grameen Bank. Of course, one has to be careful while interpreting this data. For example, it is not clear whether these figures represent the cumulative figures of

the number of beneficiaries covered by the respective agencies up to now or the number being covered in the year of reference (2015-16). This question becomes important when one goes beyond the figures of individual agencies to the total and looks at that from the perspective of the country as a whole. Consider the following.

The total number of beneficiaries covered by the figures of Table 29 is nearly 30 million which represents nearly 19 per cent of the country's population of 159 million. One has to add to this the number covered by various government ministries and the programmes of various commercial banks. On the other hand, the proportion of the poor in total population has been projected at 23 per cent for 2015-16. If one compares these two sets of figures, it would appear that almost all those who are below the poverty line are covered by micro-credit programmes.

Table 29: Coverage of Micro-credit Programmes, 2015-16

Programme	Total number of borrowers	Number of women borrowers	Percentage of women borrowers
PKSF	9,388,953	8,587,528	91.46
BRAC	5,478,037	4,741,310	86.55
ASA	7,428	6,808,233	91.65
Caritas	29,217	18,421	63.05
SHAKTI Foundation	496,049	479,680	96.70
BURO	1,356,572	n.a.	-
SSS	546,126	537,041	98.34
Grameen Bank	8,853,961	8,548,060	96.55

Source: Ministry of Finance: Bangladesh Economic Review, 2015-16

Although a good deal of research has been carried out on micro-credit and its impact, especially on poverty, there has not been much focus on the impact of the programmes on employment. Available research (e.g., Osmani, et al., 2010; Osmani, et al., 2015; Farooki and Badruddoja, 2012) indicates that such credit can help expansion of self-employment in agriculture, and employment in livestock, poultry and non-farm activities. And that happens through both opportunities for new employment and more work-time in existing employment [45].

Programmes for generating wage employment

Bangladesh has a long history of programmes for creating wage employment through infrastructure construction in rural areas where the major focus is job creation for the poor, especially during lean seasons of agriculture. Although such programmes are primarily regarded as a means of providing safety nets for the poor, they can be linked to the development of rural infrastructure through careful selection, planning and implementation of schemes. In the early days of the programme, these programmes were financed mainly through food aid received by the country, and thus they came to be known as food for works (FFW) programme. However, over time the programme evolved and branched out in different directions, including one (viz., Vulnerable Group Development Programme) that is targeted at poor women [46]. The mode of wage payment has also changed considerably,

45 For further details, see Islam (2015), Chapter 8 (in Bengali).
46 It may be noted that the Vulnerable Group Feeding Programme is an unconditional cash transfer programme and is not meant for job creation.

and many of the programmes are financed through cash. Table 30 presents some basic data on allocations (both in terms of work-months and cash) made for such programmes in recent years.

Table 30: Budgetary Allocations for Employment-Based Social Safety Net Programmes

Programmes	2013-14		2016-17	
	Man-month (lakh)	Cash (in crore Taka)	Man-month (lakh)	Cash (in crore Taka)
VGD	91.33	836.77	120	1,191.85
Test Relief	18.75	1,282.35	0	0
Food for Work	10.08	615.19	0	0
Cash for Work	8.67	428.63	19.21	1,435.47
Employment Generation Programme for the Poor	7.72	1,400	8.27	1,650.00

Source: Same as for Table 29.

It can be seen from the above table that instead of food based "Test relief" and FFW programmes, employment programmes now are based on cash allocations. A couple of points may be noted about the coverage of employment programmes. The first point is about quantity. For 2016-17, the allocation under the Employment Generation Programme for the Poor was for 8.27 lakh man-months. On the other hand, the website of the Ministry of Food and Disaster Relief shows that in 2016-17, this programme covered 914,870 persons. From these two figures, it would appear that the programme provided about a month's work to each of its beneficiaries during that year.

The second point is about the change that has taken place over time. According to data provided by the Ministry of Food and Disaster Relief (and reported in Islam, et al., 2011), TR and FFW created employment to the tune of 66.67 million and 62.50 million man-days respectively in 2009-10 – thus giving a total of 129.17 million man-days. On the other hand, Table 30 shows that total allocation for three employment programmes, viz., FFW, WFM and EGPP in 2016-17 amounts to 27.48 lakh work-months. Assuming 25 work-days per month, the latter works out to a total of 68.7 million man-days. It would thus appear that the quantity of employment generated under the employment programmes has declined over time. It is difficult to say whether this is due to a deliberate policy of the government to de-emphasize the importance of such programmes. It is also possible that given the decline in the incidence of poverty in the country, the need for wage employment of the type created by these programmes has declined. However, in the absence of any clear statement by the government on this issue, it is not possible to answer this question.

Ekti Bari Ekti Khamar (One House, One Farm)

This programme is being implemented by the Rural Development and Cooperative Division of the government. It works through a village development association formed in one village in each of the wards of 4,503 unions in all 64 districts and 485 upazillas of Bangladesh. Up to 2015, 2.4 million households have been covered by the project. Major objectives of the project are to convert every house of the targeted villages into an effective farm, establish 5 demonstration farms with credit facilities and ensure maximum utilization of rural assets including non-resident land owners' land. The project also supplies cows, poultry, tin for houses, tree plants and seeds of various vegetables according to the need of the people and works towards establishing families as the main centre of economic activities through village organizations.

For the capital formation of the rural poor people, the project has initiated micro-savings programme and is encouraging the poor by providing a matching bonus equal to the amount deposited. Over and above, the project is providing revolving funds for income generating activities of the beneficiaries. Under this project, there are other ongoing initiatives like food processing and marketing and utilization of lands of non-resident land owners. The assets and incentive funds are generating employment for labour force, especially the female labour force in these families.

National Labour Policy 2012

This is a policy that was adopted by the government through an official gazette notification (dated 28 May 2012). From the stated goal, it is not clear whether the goal of the policy is to promote employment or to improve conditions in places of work and ensure rights of workers (or both) [47]. However, the "objectives" that are listed include employment generation and skill development as the first item [48]. The listed means of attaining the objectives include: (i) encouraging the establishment of rural industries, (ii) Creation and maintenance of a data-base relating to job-seekers and job opportunities, and (iii) enhancing opportunities for apprenticeship.

While the effort to focus on employment and labour market is laudable, a few observations about the framework and content of the "policy" may be in order. The first important question concerns the appropriate framework for an employment policy. As will be argued in the next section, employment is linked to growth of output (although the relationship is not automatic and invariant), and hence policies for employment will have to be dovetailed into overall economic policies. That, in turn, would require attention to the pattern of growth including the sector and sub-sector composition. Putting employment generation through the lens of a particular sector (e.g., industries in rural areas) or of any particular channel (e.g., overseas employment) without considering the overall framework may not be the most appropriate way of addressing the challenge.

Second, the official Gazette states that the government will take appropriate steps for the implementation of the policy and the Ministry of Labour will play a major role in that respect. On the other hand, a look at the chapters of the various issues of the Bangladesh Economic Review that deal with employment (along with prices and wages) would show that there has been very little by way of an overall framework for employment policy and measures needed to boost employment through a combined application of economic and labour market policies.

Skills Development Policy (SDP), 2013

The goal of this policy is to establish, maintain and improve a more coordinated education and training system with a view to providing skills for enhancing employability of the labour force. It mentions lifelong learning, skills for those entering the labour force as well as for the unemployed, and specific groups like the youth, women, people with disabilities, migrants, indigenous people and ethnic minorities. It talks about training for those in small and medium sized enterprises, the informal sector and the self-employed, for the domestic as well as well as the overseas market, and aims at more effective planning, coordination and monitoring of skill development activities by different ministries, donors, industry and public and private providers.

47 Translated from Bengali, the stated goal is: To ensure productive, discrimination free, exploitation free, decent, safe and healthy work place through creating investment friendly environment for all active citizens as well as to establish worker's right and dignity of labour.

48 The NLP 2012 is very broad in coverage and includes – in addition to employment - various aspects of decent work (e.g., conditions in places of work, workers' rights and safety nets for workers) as well as discrimination.

The SDP policy appears to be quite ambitious in expressing the goal of delivering nationally and internationally recognized qualifications that meet the needs of learners and employers. So, in terms of stated goals and objectives, the policy seems to have got the basic elements right. However, in the absence of any systematic study of how the policy is being implemented and how effective it has been up to now, it is difficult to say anything substantial on its performance and effectiveness. Some degree of activity is, of course, noticeable in the area of skills development. For example, there are some innovations to address the issue of lack of interaction between skill providers and employers – which is often blamed for the limitations of skills imparted. The setting up of Industry Skills Councils and Centres of Excellence in a few sectors is an example of such innovations. But they are limited in coverage, and many are donor-driven. It is important to assess the impact of such innovations and the case for their replication. Likewise, progress has been made in the ongoing efforts at applying the National Technical and Vocational Qualifications Framework and the Quality Assurance System. But their effectiveness needs to be evaluated.

9. Towards an Employment Strategy

9.1. The context and framework

The period covered by the present study includes at least two critical periods of transition for the economy of Bangladesh. The first would be the so-called "Lewis turning point" where surplus labour in the traditional segments of the economy will be exhausted and labour shortage will emerge. In terms of time frame, this could be taken to be the period up to 2030 which is the terminal year for attaining the SDG targets.

The second transition could be conceptualized in terms of the economy moving from middle income to the higher income status. The paths of both output and employment growth for that period will need to charted carefully. Once surplus labour is exhausted (say, by 2030), the economy will no longer have the possibility of reaping the benefits of comparative advantage based on low labour costs. Gains in factor productivity (of both labour and capital) will have to be the basis of competitiveness. And in order to attain such gains, the qualitative aspects of labour – in terms of education and skills – will have to be given due attention. Given the long gestation gap involved in getting returns from education and training, the economy will have to gear itself to meet the challenge of shifting comparative advantage to skill and knowledge well before surplus labour is fully exhausted. Hence, alongside strategies for meeting the goal of full employment (SDG 8), strategies for meeting the second stage challenge will have to be put in place.

During both the stages mentioned above, strategies will be needed for creating labour demand through the expansion of economic activities as well as for meeting such demand by gearing the education and training system to the requirements of the labour market. It will also be important to institute a system of mediation in the labour market for matching jobs and job-seekers. The latter will become more and more complex as the economy develops, and the system will also have to undergo necessary sophistication in order to be able to meet the emerging challenge.

It needs to be noted at this stage that demand for labour is not limited by the domestic market. For Bangladesh, overseas employment is an important source of jobs; and an

exercise on employment strategy has to devote attention to that element. But in that respect also, changes are likely to take place over the period to be covered by the present study.

While developing a long-term employment strategy for any country can be a challenging task, it is more so for a developing country like Bangladesh which is going to experience phases of transition during the period. As mentioned above, Bangladesh is expected to attain the Lewis turning point of exhausting surplus labour and move into a regime of tight labour market which is characteristic of typical developed countries. Hence an employment strategy has to reflect this transition. During the phase of continued surplus labour, a major focus has to be on structural transformation and high growth of employment in sectors characterized by higher labour productivity. During the subsequent phase, employment growth will remain important so that open unemployment does not start increasing. Moreover, since economic growth in a mature economy is almost certainly going to be lower than in the earlier phase of development, it would be important to ensure that growth does not become jobless - a phenomenon experienced by many developed countries at different times.

Secondly, the labour market of Bangladesh is characterized by a very high proportion of employment in the informal sector and the informal economy. Although the type and quality of jobs in this part of the economy vary considerably, such jobs are typically characterized by low productivity and earnings and absence of any social protection. And these are characteristics that are inconsistent with a developed country status. Hence a strategy has to be developed vis-à-vis the informal segment of the economy.

Third, and an issue related to the above is that of quality of jobs in terms not only of productivity and returns/income, but also in terms of access to social protection, the environment in which work is carried out, and the ability of workers to express their voice in their places of work.

Fourth, from the point of view of the supply side of the labour market, attention will have to be given to education and skill characteristics of the workforce. In that context, it would be necessary to think of requirements of the labour market at different stages of development. At the current stage of development of the country, primary and secondary education may be adequate for most jobs that are being generated in the economy. However, once the country moves from the stage of comparative advantage based on abundant labour available at low cost to one based on skills and productivity, it will be necessary to ensure the supply of higher level human capital rather than workers with cognitive skills alone. Hence, the strategy for developing human capital will have to be based on the changing requirements of an economy which will experience critical transformation.

Fifth, at a higher level of development (i.e., when the labour market will have crossed the Lewis turning point), the nature of the employment challenge is going to change. While matching of available jobs with those seeking jobs will become more important, a large part of unemployment will be due to churning in the labour market (what is typically known as “frictional unemployment”). In such a situation, institutional arrangement for employment services will become more important than at present.

9.2. Structural transformation and growth of productive employment

Structural transformation: from agriculture to non-agriculture

The pattern and direction of structural transformation attained by the economy of Bangladesh during the past couple of decades not only has to continue but has to yield faster rate of transformation in the structure of employment. How can that be attained? The path that is familiar is characterized by high rate of economic growth driven – at least during the early phase - by high rate of growth of labour intensive manufacturing industries. The experience of the countries of east and south-east Asia that have been successful in productively absorbing their surplus labour (e.g., Republic of Korea, Taiwan, and Malaysia) shows that this kind of growth path can lead to employment growth in manufacturing to the order of 8-9 per cent per annum. And if that happens on a sustained basis for a decade or so, surplus labour who are underemployed in the traditional sectors can find productive employment in the formal manufacturing industries. During the early years of economic growth in the countries mentioned above, growth of manufacturing output has been 1.6 to 2 times that of overall GDP growth. And that has helped these countries overcome the problem of underemployment and a large informal sector – problems that continue to persist in Bangladesh (and in several other countries of south Asia, especially India) despite sustained high growth. The basic difference is that labour-intensive manufacturing has not played the role of the driver of growth in a manner that has happened in the successful countries of east and south-east Asia.

Bangladesh has already attained GDP growth of over seven per cent per annum during 2014-2016. This needs to be raised to over eight per cent, and the growth of manufacturing industries has to be of the order of 14-15 per cent per annum with an employment elasticity of 0.7 or so[49]. In that kind of a scenario, employment in manufacturing will grow at a rate of 9 to 10 per cent per annum. The sector will have to draw labour from the pool of underemployed labour in the traditional sectors like agriculture and low-productivity non-farm activities. If the jobs are sufficiently attractive, they may be able to encourage more women to enter the labour force and those women who are currently in unpaid family work to move to the formal manufacturing sector. This process should lower (and eventually eliminate) underemployment in the traditional sectors of the economy and also raise the share of the formal sector in total employment.

The question is how the process of growth envisaged above can be engendered. Bangladesh has already seen the beginning of the process of such growth where the RMG industry has been the driver. This needs to be made more broad-based, with a few other labour-intensive industries like footwear (both leather and non-leather), electronic, and furniture joining the process.

During the run-up to the Lewis turning point, construction sector can play a good supporting role in the employment strategy. As infrastructure is critical for a growing economy, construction can play the role of catalyst. Until labour becomes scarce, labour-based technologies can be used effectively in large parts of the activities within the sector, e.g., peripheral roads, ancillary activities in large-scale projects, irrigation, etc.

49 Employment elasticity of that magnitude should leave scope for a decent growth of labour productivity as well.

The service sector has the potential to grow and absorb labour at higher rates. In fact, the standard pattern of structural transformation in growing economies shows that at some point of economic development, the share of manufacturing employment stops growing and then starts declining. At what point it will plateau out in Bangladesh is difficult to predict. However, if premature de-industrialization can be avoided, the share could go up to 25 to 30 per cent, as was in the case of Korea and Taiwan 50. The service sector will continue its growth, albeit with changes in character. During the phase of labour absorption and move towards the Lewis turning point, much of the service sector employment may be in the informal sector. But simultaneously with such activities (e.g., in transport, retail trade, hotels and restaurants, etc.), formal service sector should also grow, and eventually, the components that are now in the informal sector should gradually transform themselves into formal sector employment (more on this below).

Structural transformation within agriculture

In a growing and maturing economy like that of Bangladesh, structural transformation does not have to remain limited to a change in structure between agriculture and non-agriculture; transformation within agriculture can also be important. In fact, a degree of transformation within agriculture has already been taking place, although it may not get fully reflected in the available data. The transformation that has already been taking place and should gather more pace include the following: (i) from food grain to vegetables and fruits, and (ii) growth of fishery, poultry and livestock. While the employment implications of such transformation need to be studied carefully 51, it is quite possible that employment in some such sub-sectors (e.g., growing of fruits and vegetables, poultry, etc.) may be more suitable to the new (and young) entrants to the labour force with some level of education. Hence, such transformation would be useful from the point of employment of the youth.

9.3. Employment in the informal economy

Despite respectable economic growth attained on a sustained basis for nearly two decades, the economy of Bangladesh is characterized by a stubborn persistence of informal sector employment at a very high level. The simple reason is that while employment has grown, much of that growth has taken place in the informal segments of the economy. Moreover, employment in some of the formal segments is being generated with an informal character (viz., without any social protection against ill health, old age, unemployment and accidents at the place of work). In such a situation, the only way the share of the informal sector can decline substantially is through a successful pursuit of the kind of employment strategy that has been outline above. Even in such an optimistic scenario, the share of employment in the informal economy is likely to remain quite high during the country's journey towards becoming a developed economy. As that would be an anathema to the average income of the country, a strategy for dealing with this phenomenon has to be formulated right from now.

There are three aspects that need attention: (i) productivity, wages and earnings, (ii) obstacles and barriers faced by the informal sector enterprises, and (iii) conditions of work

50 In Korea and Taiwan, the share of manufacturing employment had risen to 23 and 32 per cent respectively before it started to decline.

51 Implication of the shift away from food grains for food security also needs to be looked into.

and social protection [52]. During the phase of labour absorption towards the Lewis turning point, more emphasis will have to be given to the first two issues, though the third should not be neglected altogether. However, as the economy attains the upper middle-income status, the quality of jobs with respect to conditions in which work is carried out and social protection of workers will have to reach a level that is commensurate with its income status. But in order to reach there, steps will need to be taken now. Given the unorthodox nature of the challenge, the response will also have to be innovative [53]. Even though both employers and workers will have to be involved in any effort to deal with the issue, the basic initiative has to come from the government.

9.4. Employment of women and the youth

Women [54]

Although women's participation in the labour force has increased in recent years, their share in the total labour force of the country remains well below a third. In order to reap the potential benefit from full participation of women, their labour force participation rate has to go up substantially from the current 35 per cent. In addition to this quantitative dimension, there are other aspects that need serious attention. First, the type of jobs in which they are engaged will need to change; from being contributing family worker, they need to be more in paid employment and in self-employment on their own. Second, within paid employment, aspects that would need attention include the status at the place of work, wages and salaries, and opportunities for mobility.

Raising women's participation in the labour market would need a combination of measures ranging from promoting the growth of sectors that are more amenable to their employment (e.g., labour intensive industries like garments, shoes, electronics, etc.) to removing barriers to their employment and establishing infrastructure to facilitate their employment.

In addition to activities that are women-friendly, there are variables that influence female participation in the labour force; they include education, fertility rate, affirmative action and direct intervention, and other measures like maternity leave.

- As female participation in labour force is seen to be related positively to education, spread of education among women would be a good policy.
- Likewise, making family planning services more easily available would be helpful.
- The existing policy of reservation of a certain proportion of jobs in the public sector has been useful in increasing women's participation in the sector. The case for raising the quota may be looked at.
- The implementation of the existing provision for maternity leave needs careful examination.

52 For a detailed discussion of these issues, see Islam (2015) (in Bengali).
53 A good example of an innovative initiative to improve the quality of informal sector jobs through social protection is India's Unorganized Workers' Social Security Bill adopted by the country's parliament in 2008. Under the Act, provision was made to bring 340 million workers (out of a total labour force of 458 million) under the cover of pension, and basic health, life and disability insurance as well as group accident insurance within a span of five years. While passing of this Act has not been easy and implementation has faced obstacles, useful lessons can be learnt from the thinking and effort that have gone behind it.
54 For a detailed analysis of women's employment and policies needed to address the key issues, see ADB-ILO (2016).

Apart from women's participation in the labour force, their status at the place of work is another major concern. Issues that are relevant in that area include the nature of employment and their vulnerability, differences in wages, working conditions and opportunities for advancement. Some of these may be addressed through legislation and better implementation of laws while others require action on a broader front. Differences in wages and working conditions belong to the first category, and appropriate legal framework for overcoming discrimination in workplace is important. But the problem of vulnerability of employment and opportunities for advancement in one's career are areas where action of different types would be needed. The issue of vulnerability is linked to the availability of good jobs for women in large numbers, and that in turn is related to further growth and diversification of the economy and growth of sectors where women can find good jobs. Of course, policies aimed at growth and diversification of the economy will have to be accompanied by policies for raising the levels of education and skills of women so that they can access better quality jobs. In addition to raising the level of general education, larger number of women need to be put into the TVET system.

Promoting opportunities for women to advance in their careers is a complex and challenging issue faced not only by developing countries like Bangladesh but also by developed countries. In Bangladesh, the issue becomes more challenging because in addition to factors like education and managerial ability, there is an attitudinal factor reflected in the reluctance to accept women in higher positions. While the latter may not be amenable to policy intervention and it may be a while before the society and employers undergo a change in attitude, it would be desirable to gear policy towards empowering women for higher level positions including managerial ones.

Youth

Unemployment of the youth is a problem that affects developed and developing countries alike, and a good deal of research and policy oriented work has gone into it. A variety of measures aimed at addressing the issue have been tried in different countries. Based on available evidence and analysis [55], the following strategic direction may be provided.

First, overall economic growth and the rate of employment growth are key to tackling the challenge of youth unemployment. Evidence shows that youth unemployment has an inverse relationship with economic growth and a direct relationship with overall unemployment rate. So, the basic precondition for tackling this challenge is to attain a high rate of economic growth that is associated with high rate of employment growth. The decline in employment growth that has been seen in recent years will need to be reversed.

Second, even with high rates of economic and employment growth, the youth may continue to face challenges in getting access to employment for a variety of reasons, e.g., lack of previous experience, a mismatch between the qualifications sought and attained, etc. One way of smoothening school-to-work transition is apprenticeship during and immediately after the end of one's education [56]. The critical question in this regard is how to encourage

55 There is a large body of literature on the subject. A synthetic analysis can be found in Islam and Islam (2015).
56 The experience of developed countries shows that this can make substantial difference in the rates of youth unemployment. For example, the rates in countries with good apprenticeship systems, e.g., Austria, Denmark, Germany and Switzerland, are much lower than other countries like France, Italy and Spain.

enterprises to adopt such a system. In developed countries, various modalities including subsidy on the number of apprentices employed have been tried. As such measures may not be realistic for a developed country like Bangladesh, some degree of innovation (for example, tax credit to enterprises that would train and employ the youth) may be helpful. Moreover, when the country attains the upper middle-income status and moves towards the high-income level, standard measures may also become more relevant.

Third, entrepreneurship development offers a route out of unemployment for the youth, although it is not without its problems. It has been tried in many countries, including Bangladesh, and there are useful lessons that could be learnt from such experience. The possibility of success with this route may be greater when the services are offered in a package containing training, access to credit and assistance in business development and in linking with markets.

Fourth, a special employment programme for the youth with low levels of education (e.g., primary and secondary) could be conceived along the lines of public works programme. However, instead of physical infrastructure like construction of roads, etc., the programme could be built around works for repair and maintenance of public institutions (e.g., educational institutions, health facilities, etc.), and service for the community (e.g., care and help for the aged).

Fifth, it is common to see the problem of general unemployment and youth unemployment in particular through the supply side and offer training as the solution. The perception is that the youth remain unemployed because of a lack of education and/or skills, and hence the solution must be to provide more of these. However, the fact that unemployment rates are higher for those with higher levels of education should dispel this simplistic notion. On the other hand, in developed countries, there is an inverse relationship between education and youth unemployment – thus implying that education helps in reducing youth unemployment. Moreover, during the Great Recession of 2008-09, it was found that the youth with higher levels of education were less affected by retrenchment and unemployment. Hence the issue cannot be looked at simply in quantitative terms.

It is important for training providers to understand the requirements of the labour market and gear their programmes accordingly. Anticipation of skill needs and changes therein, and adapting training to the requirements is a major challenging in fast changing economic environments. In order to address this challenge effectively, it would be necessary for all stakeholder – the government and other training providers, employers and workers – to work together. There are some encouraging efforts in the form of the Centres of Excellence and Industry Skills Centres. But their coverage is still low and remain primarily donor-driven. There should be regular assessment of such initiatives, based on which the case for their replication and scaling up could be considered.

Sixth, assistance to job-seekers in their search for jobs and to employers in their search for the right job-seeker can play an important role in mitigating youth unemployment. This is done through employment services (or more popularly known as employment exchange). In an economy where the formal sector is small in size and informal mechanisms and newspaper advertisements constitute the major means of job search, employment exchanges may not have much to do. However, although the size of the formal sector is

still small in Bangladesh, its economic structure is increasingly becoming complex. As the economy continues to grow and transform itself, the task of matching jobs with job-seekers will also become more challenging. In such a situation, employment services will have an important role to play. Hence, the institutional framework for providing this service needs strengthening.

Many of the measures outlined above (e.g., transfer payments to boost youth employment, special employment porgrammes, entrepreneurship development, skill training, and employment services) belong to the category of what is known as "active labour market policies" (ALMPs) [57]. Empirical evidence shows that countries with more effective ALMPs fare better in addressing the challenge of unemployment (Auer, et al., 2008). Many of the elements of ALMPs are already in operation in Bangladesh. It may, however, be useful to bring them within a framework and strengthen the institutional mechanism for implementing them. Moreover, if priority is attached to youth employment, there could be a programme of ALMPs targeted at the youth.

9.5. Maintaining economic growth with employment in a matured economy

As already mentioned in section 7, when the economy moves to upper middle income level and surplus labour is exhausted, the basic employment challenge will be to create adequate jobs for the new entrants to the labour force. However, in addition to job creation, attention will have to be given to several aspects of the labour market.

First, the nature of unemployment will increasingly be of frictional and cyclical variety; and measures will have to be geared to addressing them. For both, ALMPs (mentioned above) will become increasingly more relevant.

Second, cyclical movements in the economy can be caused both by domestic and external factors. If deficiency in domestic demand causes an economic downturn, measures will have to be adopted to boost that. On the external front, as the economy gets more integrated into the global economy, it will also be more exposed to fluctuations in the main engines of global growth. Hence, it will be essential to be more pro-active in terms of responding to changes in the global economic changes.

Third, overseas employment may continue to remain an important feature of the economy, especially from the point of view remittances as a source of foreign exchange. However, the country should no longer remain a sender of unskilled workers. It should graduate into markets for skilled workers and technicians, and rather than trying to maximize numbers, the focus should be on sending workers with a minimum level of education and skills. For that to happen, a clear strategy would be needed with focus on finding niche markets for specific types of skills and possible destination markets for such skills.

Fourth, as the economy becomes more knowledge and skill oriented, improvements will have to be brought about in the quality of labour as a factor of production; and from that point of view the strategy for developing human capital (see below) will become more relevant.

57 ALMP may be formally defined as policies that facilitate labour market integration through purposive and selective interventions to create demand for labour, enhance employability of the workforce through training and re-training, and contribute to matching supply and demand. The measures include employment creation programmes like public works, promotion of self-employment, subsidies for providing incentives to employ special categories of workers (e.g., the youth, long-term unemployed), training and re-training, job search assistance and employment services.

Fifth, much more attention will have to be devoted to qualitative aspects of employment including social protection, conditions in which work is carried out and rights of workers. When the country aspires to graduate to the stage of upper middle income, social protection, especially against old age, ill health, and unemployment can no longer be regarded as luxuries. At least a beginning should be made with insurance against old age and lack of work for workers in the formal sector. For the informal part of the economy, protection against ill health and income support for the old could be the beginning.

As decent work has been accepted as one of the SDGs and the terminal year for attaining the goal is 2030, a beginning has to be made as soon as possible [58]. And by the time economy the attains the status of high income, full and productive employment and decent work for all on a sustained basis has to become a reality.

9.6 Strategy for developing human capital

Labour is an important factor of production, but it is not homogeneous; workers with different levels of education and training contribute to economic growth in different ways. The requirement of manpower with different levels of education and skills changes with the level of development. First, at the early stage of economic development of a country, basic education may be adequate for many of the jobs that open up in segments of the economy registering high growth (e.g., manufacturing, construction and services). However, as an economy attains higher levels of development and the composition of the sectors changes, the requirements of education and skills are also likely to change. On the side of general education, there would be a growing need for people with post-primary education, and at a later stage, post-secondary education. On the side of skills, requirements evolve from basic cognitive skills to ones with ability to think and create. A country's education and skill development system must undertake reforms to gear itself to meeting such changing requirements. Experience shows that there may be a tendency to simply expand higher education or vocational education without due regard to the type of education and skills for which demand is expanding. The result would be unemployment of the educated (as is already the case). A careful examination of the factors responsible for such a situation may show that that is more due to the expansion of education and training that is not required rather than due to the inadequacy of education itself.

Better educated and trained people have a greater probability of being employed because education and training can raise qualifications and make labour force more productive. This should be reflected in a lower rate of unemployment for those with higher levels of education. But such a positive relationship between education and employment may hold better in situations where the labour market as a whole seeks educated people, and sectors that are larger and grow at higher rates seek more educated workers. This may not be the case in Bangladesh at this time where the labour market is segmented and the educated can find jobs only in certain segments of the economy.

Since the economy of Bangladesh is still characterized by elements of dualism (i.e., a large traditional segment consisting of agriculture and allied activities continues to coexist

58 Examples of unemployment insurance in developing countries can be found from countries like Indonesia and Thailand. As for the informal economy, mention has already been made of India's legislation for protecting workers in the unorganized sector.

with a small modern sector), educated workers are likely to find jobs only (or mostly) in the modern sector which is still small. The latter does not yet seem to be large enough to be able to absorb all those who enter the labour force with various levels of education. Likewise, construction, traditional crafts and other informal sector activities also may not require formally educated and trained worker. As the economy grows, the modern sector is also likely to grow in size, thus raising demand for a more educated and skilled workforce.

If economic growth continues at the current rate (over 7 per cent per annum) and the rate can be accelerated, its modern sectors should expand at a faster rate, which in turn should lead to increased demand for educated and skilled labour. In such a situation, education and skill training would be important to facilitate mobility of workers from the traditional to the modern segments of the economy.

Given the current situation in Bangladesh described above and future growth prospects (as well as potentials), what kind of targets can/should the country set for itself in the area of human capital for the next decade and a half? Some indicative figures are presented in Table 31. Before looking at these figures, it may be useful to note a few points. First, the figures in this table are not projections based on any quantitative model. They are simply based on a review of international experiences of countries that have gone through a process of economic development that Bangladesh is going through now and would like to see unfold in the future. More specifically, the question that have been used as a basis for the figures is whether Bangladesh can aim at attaining a level in 2030 that a country like Korea or Malaysia, for example, had a few years ago. This, combined with what South Korea and Taiwan looked like at comparable levels of development should not be too unrealistic as a goal and as a basis for some planning and policy making for Bangladesh. The "targets" mentioned in Table 31 are thus merely "indicative", and should be treated as just suggestions.

Second, although human capital represents the supply side of the growth equation and is an important factor, investment in education and skill development has to be in line with the rate and pattern of economic growth. It is in that respect that one has to look at the question very carefully. Whether it would be realistic for Bangladesh to aim at a different trajectory of human capital development would depend critically on what rate and pattern of economic growth unfolds. By a "different trajectory", we mean a greater focus on secondary and tertiary education (without of course ignoring the importance of primary education, especially of raising quality at that level) as well as on vocational and technical education. If the rate of economic growth continues to hover around seven per cent per annum and the pattern of growth does not change much, business as usual in human capital development may be good enough. It may be noted that for almost two decades, growth in the manufacturing sector has been almost entirely driven by ready-made garments and the rest of the economy remains focused on food grains and services. The sectors with growth potential identified by the Sixth and Seventh Five Year Plans of Bangladesh (2011-2015 and 2016-2020) also include the familiar ones like RMG, leather and leather products, agro-processing, ship building, ICT, etc. However, if the economy changes gear with the growth trajectory shifting to over eight per cent per annum and the composition of the manufacturing and service sectors changes considerably, then the strategy for human capital development will also have to change accordingly, and the figures of Table 31 may start looking relevant.

Table 31: Bangladesh: Some Indicative Targets in Education and Skill Development for 2030

	Baseline (2015)	Possible target for 2030	Possible target for 2041
Percentage of labour force with			
No formal education	33	10	0
Primary	26	20	5
Secondary (including higher secondary)	36	50	35
Tertiary	5	12	20
Technical/vocational education	0.2	10	30
Enrolment in education at			
Primary level	109	100	100
Secondary level	58	66*	100
Tertiary level	13	36*	50
Enrolment in vocational/technical education as percentage of secondary enrolment	3	12**	30

Notes: * These are levels prevailing in Malaysia in 2011. ** This is the level prevailing in Rep of Korea in 2008.

Sources: Enrolment data are from BANBEIS website. Data on education of the employed persons are from LFS reported earlier in the present paper.

But a simplistic supply side approach would not be adequate. That education and training by themselves may not provide the solution is almost a banal remark. One simply has to recall (from section 4) that the relationship between education and unemployment has been found positive, implying that the quantitative approach of providing more education and training cannot be the solution to the issue of human resource development. In this regard, it would be worth noting a few points:

- In defining the level of skills of workers, employers consider certificates obtained from formal institutions of the technical and vocational education system (TVET) as only one - and not even the major - amongst several criteria. Duration of on-the-job training, duration of overall work experience, an assessment of tasks that can be performed by a worker are considered to be more important.
- Many employers consider the quality of training offered by formal institutions as "inadequate" or not relevant for their needs.
- Not surprisingly, many with qualifications from vocational training institutions remain unemployed.
- Hence, mere expansion of training capacity cannot be the solution to skill gaps that may exist. In fact, a good deal of the existing capacity remains unutilized. It would be essential to reform the training system by taking into account the factors that are responsible for the situation mentioned above. The poor performance of graduates of the TVET system is mainly due to the absence of linkage between the system and the labour market, outdated and often theoretical nature of the course curricula, outdated mode of teaching, etc.

Issues of quality and relevance to the labour market may be raised about general education as well. Hence, rather than talking generally about raising the level of education of the labour force, it is important to look at ways and means of providing not only more education but also education that is useful for the world of work. On all these matters (viz. quantity and quality of employment and human capital), a long-term approach should be taken, and successive Five-Year Plans should be regarded as vehicles for pursuing the goals that the nation might set for itself.

9.7. Towards an integrated strategy for employment

The experience of Bangladesh (and many other countries) suggests that although high rate of economic growth is a necessary condition for attaining high rate of growth of productive employment, it is not sufficient. Similar rates of economic growth may be associated with different rates of employment growth (or even lack of the latter); much depends on the pattern of growth. Appropriate policies would be needed to attain not only the required rate of economic growth but also to ensure that its pattern is of the needed kind.

When the rate of employment growth falls short of what is required to ensure full employment, measures specifically aimed at employment generation may be needed. This would be the case when the degree of unemployment or underemployment is high or the economy goes through a period of downturn. Such special measures may be needed even when the economy has reached a higher level of development (as was seen during various economic crises, e.g., the Great Recession of 2008-09, the Asian economic crisis of 1998).

As for overseas employment, it may remain important – not least as a means of earning necessary foreign exchange. But when the country reaches a higher level of development, it should move away from being a supplier of unskilled and semi-skilled workers to a source of skilled workers with specific qualifications (e.g., service sector and maintenance workers). In order to make that transition, it will be necessary to define goals and appropriate strategies and pursue them in a concerted manner.

Furthermore, measures are needed to strengthen the supply side of the labour market through improving education and training. The level and type of education and training demanded by the labour market would vary with the level of development of the country. The system has to adjust itself accordingly. Moreover, an institutional machinery is needed to facilitate the matching of job-seekers with the jobs that are available.

Considering all the above, it would be essential to have an integrated employment strategy combining necessary economic and labour market policies. The starting off point for such a policy has to be macroeconomic policies which would have to look beyond their conventional function of maintaining macroeconomy stability and give due consideration to what happens on the employment front. Coordinated application of monetary, fiscal, trade, exchange rate, and industrial policies is required to attain high rates of economic and employment growth.

Monetary policy has to aim not only at maintaining price stability, but also to attain the desired level of employment growth. This dual mandate of monetary policy, viz., price stability and employment, would be critical especially when the economy moves to a higher level of development.

Fiscal policy has to be pro-growth, pro-employment and counter-cyclical. A coordinated application of fiscal and monetary policies would be especially important when the economy hits a downturn – something that cannot be ruled out in a market oriented economy.

In Bangladesh, fiscal measures have played an important role in providing incentives to specific industries. Rather than such ad hoc measures, the entire incentive structure needs to be geared towards attaining a genuinely export-oriented process of industrialization. And that means an incentive structure that would not discriminate between imports and exports and also between different industries. It has long been pointed out and argued that industry-specific ad hoc measures may have succeeded in promoting one or two export-oriented industries, but this kind of discriminatory support cannot engender a real process of export-oriented growth through growth of a range of labour-intensive industries (Khan, 2015, ADB-ILO, 2016). For the latter, it is essential for the incentive structure to be neutral between exports and imports and for export-oriented sectors to receive ex ante, non-arbitrary and time-bound support. It is, therefore, time that trade, exchange rate and fiscal policies be looked at in an integrated manner to produce a policy regime that would be appropriate for the country.

Analysis of the supply side of the labour market, especially of education and skills of the workforce, shows that despite considerable improvements in the field of education and ongoing efforts in the area of skill development and vocational training, there is considerable scope for further improvements. As for general education, a sizeable proportion of the employed population is still without any education. At the other end, a very small proportion has tertiary level of education. Furthermore, the enrolment ratio in technical and vocational education remains very low. There is also the issue of quality and relevance to labour market needs for all levels of education and training.

On top of all the above, the economy will have to adjust itself to technological progress and new technologies. As the global society embraces the fourth industrial revolution, Bangladesh will also have to take steps to ensure that it does not miss the benefits of technological progress. The education and training system will have to gear itself towards meeting the challenges of a knowledge- and technology-based economy.

In addition to skill training, other elements of active labour market policies, e.g., special programmes for job creation, job search assistance, and employment service will have to be put in place. An institutional framework for planning and implementing such policies will be required. So, the overall challenge appears to be quite formidable and the agenda of action can be quite long.

References

Acemoglu, Daron and Pascual Restrepo (2016): "The Race Between Machine and Men: Implications of Technology for Factor Share and Employment". NBER Working Paper No. 22252. Cambridge.

--- and --- (2017): "Robots and Jobs: Evidence from US Labour Markets". NBER Working Paper No. 23285, Cambridge.

Asian Development Bank and International Labour Organization (2016): Bangladesh Looking Beyond Garments Employment Diagnostic Study. ADB and ILO, Manila and Geneva.

Bangladesh Bank (2015): "Quarterly Report on RMG January-March 2015". Dhaka

Bangladesh Bureau of Statistics (2014): Report on Survey on the Use of Remittance (SUR) 2013. BBS, Dhaka.

---: Labour Force Survey, various years.

--- (2015): Population Projection of Bangladesh Dynamics and Trends 2011-2061. BBS, Dhaka.

Bel-Air, Françoise De (2014): "Demography, Migration and Labour Market in Saudi Arabia". Explanatory Note No. 1/2014. Gulf Labour Market and Migration (GLMM). http://gulfmigration.eu

Bessen, James (2017): "Bill Gates Is Wrong That Robots and Automation Are Killing Jobs". Fortune, February 25, 2017.

Byron, Rejaul Karim (2015): "Dependence on others for livelihood declines". The Daily Star, July 15, 2015.

Centre for Development and Employment Research (CDER) (2017): "Bangladesh Employment and Labour Market Watch 2017". CDER, Dhaka.

Centre for Policy Dialogue (CPD) (2011): "Labour and Social Trends Report". Report prepared for International Labour Organization. Dhaka.

European Commission (2015): "Bangladesh Sustainability Compact Technical Status Report", 24 April 2015. www.trade.ec.europa.eu/doclib/docs/2015/april/tradoc_153390.pdf

Fayad, Ghada, Mehdi Raissi, Tobias Rasmussen and Niklas Westelius (2012): "Saudi Arabia: Selected Issues". IMF Country Report No. 12/272. IMF, Washington, D.C.

Global Migration Group (2008): International Migration and Human Rights Challenges and Opportunities on the Threshold of the 60th Anniversary of the Universal Declaration of Human Rights.

GON (2014): Labour Migration for Employment: A Status Report for Nepal 2013/2014. Ministry of Labour and Employment, Government of Nepal, Kathmandu.

ILO (2010): International labour migration: A rights-based approach. ILO, Geneva.

International Labour Office (2013 a): Decent Work Country Profile Bangladesh. ILO, Geneva.

--- (2013 b): "Statistics of work, employment and labour underutilization", Report II of the 19th

International Conference of Labour Statisticians. 2-11 October 2013, ILO, Geneva.

--- (2014 a): Fair migration: Setting an ILO agenda. Report of the Director General, Report 1 B, 103rd Session, International Labour Conference, ILO, Geneva

REPORT OF THE DIRECTOR-GENERAL

--- (2014 b): Promoting Cooperation for Safe Migration and Decent Work. ILO, Dhaka.

--- (2014 c): Skilling the Workforce: Labour Migration and Skills Recognition and Certification in Bangladesh. ILO, Dhaka.

--- (2014 d): Gender and Migration from Bangladesh. ILO, Dhaka.

--- (2014 e): In the Corridors of Remittance: Cost and Use of Remittances in Bangladesh. ILO, Dhaka.

--- (2015): Labour Market Trends Analysis and Labour Migration from South Asia to Gulf Cooperation Council Countries, India and Malaysia. ILO, Kathmandu.

International Institute of Labour Studies (IILS) (2013): Bangladesh: Seeking better employment conditions for better socioeconomic outcomes, Studies on Growth with Equity, 18 Nov. (Geneva, IILS).

Islam, Rizwanul (2009): "What Kind of Economic Growth is Bangladesh Attaining?" in Quazi Shahabuddin and Rushidan Islam Rahman (eds.): Development Experience and Emerging Challenges Bangladesh. BIDS and UPL, Dhaka.

--- (2010): "Pattern of Economic Growth and its Implication for Employment" in Lopamudra Banerjee, Anirban Dasgupta and Rizwanul Islam (eds.): Development, Equity and Poverty: Essays in Honour of Azizur Rahman Khan. Macmillan and UNDP, Delhi and New York.

--- (2014a): "Expanding Employment Opportunities: Policy Challenges for the Post-2015 Development Agenda. Paper presented at the International Symposium on Human Development in Global South: Emerging Perspectives in the Era of Post-Millennium Development Goals organized by the Institute of Human Development, Delhi and held in New Delhi on 28-29 April 2014.

--- (2014b): « The Employment Challenge Faced by Bangladesh : How Far is the Lewis Turning Point ? » The Indian Journal of Labour Economics, Vol. 57, No.2.

--- (২০১৫): উন্নয়ন ভাবনায় কর্মসংস্থান ও শ্রমবাজার । ইউনিভার্সিটি প্রেস লিমিটেড, ঢাকা ।

--- (2017): "Is Automation Going to Destroy Jobs of Human Beings?" Policy Note, Centre for Development and Employment Research, Dhaka.

--- and Iyanatul Islam (2015): Employment and Inclusive Development. Routledge, London.

--- and Rushidan Islam Rahman (2017): "Bangladesh Employment and Labour Market Watch First Edition". Centre for Development and Employment Research (CDER), Dhaka.

Jayaprakash, Aakash (not dated): "Assessing Labor Market Trends in Qatar". SDC, GIZ, ILO study.

Kanapathy, Vijayakumari (2014): Labour Market Trends Analysis for Labour Migrants from South

Asia to Selected Gulf Cooperation Council (GCC) Countries, India and Malaysia". SDC, GIZ, ILO study.

Kessler, Sarah (2017): "The optimist's guide to the robot apocalypse". Quartz, March 9, 2017. https://qz.com/904285/the-optimists-guide-to-the-robot-apocalypse/ (accessed on 31.10.2017)

Kolb, Joachim (014): "Country of Destination Report United Arab Emirates". SDC, GIZ, ILO study.

Kumari; R. and I. Shamim. 2010. "Gender Dimensions of International Migration from Bangladesh and India: Socio-Economic Impact on Families Left Behind". http://www.saneinetwork.net/Files/10_07___Ranjana_Kumari.pdf

Lewis, W.A. (1954): "Economic Development with Unlimited Supplies of Labour", Manchester School, Vol.22.

McKinsey Global Institute (2017): A Future That Works: Automation, Employment and Productivity. www.mckinsey.com/mgi (accessed on 31.10.2017)

MoEWOE (2015): Contribution to the Seventh Five Year Plan (2016-2020). Ministry of Expatriates' Welfare and Overseas Employment, Dhaka.

Osmani, S.R., Md. Abdul Latif, Binayak Sen, Rushidan Islam Rahman, Meherun Ahmed, Tareq Ferdous Khan and Rizwana Islam (2011): "Dynamics of Poverty in Rural Bangladesh: Report of the Benchmark Survey". Institute of Microfinance, Dhaka.

Osmani, S.R. Meherun Ahmed, Muhammad A. Latif and Binayak Sen (2015): Poverty and Vulnerability in Rural Bangladesh. The University Press Limited, Dhaka, Bangladesh.

Planning Commission, Government of Bangladesh (2011): Bangladesh Sixth Five Year Plan FY 2011-FY2015: Accelerating Growth and Reducing Poverty. Part 1: Strategic Directions and Policy Framework. Planning Commission, Dhaka.

--- (2015): Bangladesh Seventh Five Year Plan FY2016-FY2020 Accelerating Growth, Empowering Every Citizen. Part 1 Strategic Directions and Policy Framework. (Final Draft received September 2015). Planning Commission, Government of the People's Republic of Bangladesh, Dhaka.

--- (2017): "Policy Note: Macroeconomic Framework for the Perspective Plan of Bangladesh (2021-2041): Growth Outlook up to 2041". Planning Commission, Dhaka, July 2017.

Price waterhouse Coopers (PwC) (2017): UK Economic Outlook March 2017. www.pwc.com/uk (accessed on 2.11.2017)

Rahman, Rushidan Islam (2012): Bangladesher Arthaneeti O Unnayan: Swadhinotar Por 40 Bachhar (in Bengali). Sahitya Prakash, Dhaka.

--- (2016): Bangladesh: Growth, Employment and Social Change. University Press Limited, Dhaka, 2016..

--- and Rizwanul Islam (2013): "Female labour force participation in Bangladesh: trends, drivers and barriers". ILO Asia-Pacific Working Paper Series, ILO, Bangkok.

Raja, Siddhartha and Luc Christaensen (2017): "The Future of Work Requires More, Not Less

Technology in Developing Countries". Jobs Notes, Issue No. 2. World Bank, Washington D.C.

Ranis, Gustav and J. Fei ((1961): "A Theory of Economic Development". American Economic Review, Vol.51.

Ratha, D. et al. (2015): "Migration and Remittances: Recent Developments and Outlook", Migration and Development Brief 24, The World Bank.

Sen, Binayak and Mahbubur Rahman (2015): "Earnings Inequality, Returns to Education and Demand for Schooling: Addressing Human Capital for Accelerated Growth in the Seventh Five Year Plan of Bangladesh". Background paper for the Seventh Plan of Bangladesh. Planning Commission, Government of Bangladesh, Dhaka.

Sen, Amartya (1975): Employment, Technology and Development. Clarendon Press, Oxford.

Siddiqui, Tasneem (2005): "International labour migration from Bangladesh: A decent work perspective". Working Paper No 66, Policy Integration Department, ILO, Geneva.

--- (2010): "Recruitment Cost in Bangladesh: Challenges of Governing Migration in the Countries of Origin". Working Paper Series no. 25, RMMRU, Dhaka.

Toufique, Kazi Ali (2014): "Labour market transition of young women and men in Bangladesh". Work4Youth Publication Series No. 13, ILO, Geneva.

UN-DESA (2017): "The impact of the technological revolution on labour markets and income distribution". Frontier Issues, 31 July 2017, United Nations, New York.

Weston, Casey (2014): "Labor Market Trends Study Country of Destination Report: Kingdom of Saudi Arabia". SDC, GIZ, ILO study, May 31, 2014.

Wickramasekara, Piyasiri (2014): "Regulation of the Recruitment Process and Reduction of Migration Costs: Comparative Analysis of South Asia", in ILO (2004 b).

World Bank (2012: Bangladesh: Towards Accelerated, Inclusive and Sustainable Growth—Opportunities and Challenges (In Two Volumes) Volume II: Main Report (Report No. 67991). Washington, D.C.

List of Notable Publications by General Economics Division (GED) Bangladesh Planning Commission since 2009

1.	Policy Study on Financing Growth and Poverty Reduction: Policy Challenges and Options in Bangladesh (May 2009)
2.	Policy Study on Responding to the Millennium Development Challenge Through Private Sectors Involvement in Bangladesh (May 2009)
3.	Policy Study on The Probable Impacts of Climate Change on Poverty and Economic Growth and the Options of Coping with Adverse Effect of Climate Change in Bangladesh (May 2009)
4.	Steps Towards Change: National Strategy for Accelerated Poverty Reduction II (Revised) FY 2009 -11 (December 2009)
5.	Millennium Development Goals: Bangladesh Progress Report-2009 (2009)
6.	Millennium Development Goals: Needs Assessment and Costing 2009-2015 Bangladesh (July 2009)
7.	এমডিজি কর্ম-পরিকল্পনা (৫১ টি উপজেলা) (জানুয়ারি-জুন ২০১০)
8.	MDG Action Plan (51 Upazillas) (January 2011)
9.	MDG Financing Strategy for Bangladesh (April 2011)
10.	SAARC Development Goals: Bangladesh Progress Report-2011 (August 2011)
11.	Background Papers of the Sixth Five Year Plan (Volume 1-4) (September 2011)
12.	6th Five Year Plan (FY 2011-FY 2015) (December 2011)
13.	Millennium Development Goals: Bangladesh Progress Report-2011 (February 2012)
14.	Perspective Plan of Bangladesh 2010-2021: Making Vision 2021 a Reality (April 2012)
15.	Public Expenditure for Climate Change: Bangladesh Climate Public Expenditure and Institutional Review (October 2012)
16.	Development of Results Framework for Private Sectors Development in Bangladesh (2012)
17.	ষষ্ঠ পঞ্চবার্ষিক পরিকল্পনা (২০১১-১৫) বাংলা অনুবাদ (অক্টোবর ২০১২)
18.	Climate Fiscal Framework (October 2012)
19.	Public Expenditure for Climate Change: Bangladesh CPEIR 2012
20.	First Implementation Review of the Sixth Five year Plan -2012 (January 2013)
21.	বাংলাদেশের প্রথম প্রেক্ষিত পরিকল্পনা ২০১০-২০২১ রূপকল্প ২০২১ বাস্তবে রূপায়ণ (ফেব্রুয়ারি ২০১৩)
22.	National Sustainable Development Strategy (2010-2021) (May 2013)
23.	জাতীয় টেকসই উন্নয়ন কৌশলপত্র (২০১০-২০২১) [মূল ইংরেজি থেকে বাংলায় অনুদিত] (মে ২০১৩)
24.	Millennium Development Goals: Bangladesh Progress Report-2012 (June 2013)
25	Post 2015 Development Agenda: Bangladesh Proposal to UN (June 2013)

26.	National Policy Dialogue on Population Dynamics, Demographic Dividend, Ageing Population & Capacity Building of GED [UNFPA Supported GED Project Output1] (December 2013)
27.	Capacity Building Strategy for Climate Mainstreaming: A Strategy for Public Sector Planning Professionals (2013)
28.	Revealing Changes: An Impact Assessment of Training on Poverty-Environment Climate-Disaster Nexus (January 2014)
29.	Towards Resilient Development: Scope for Mainstreaming Poverty, Environment, Climate Change and Disaster in Development Projects (January 2014)
30.	An Indicator Framework for Inclusive and Resilient Development (January 2014)
31.	Manual of Instructions for Preparation of Development Project Proposal/Performa Part-1 & Part 2 (March 2014)
32.	SAARC Development Goals: Bangladesh Progress Report-2013 (June 2014)
33.	The Mid Term-Implementation Review of the Sixth Five Year Plan 2014 (July 2014)
34.	Millennium Development Goals: Bangladesh Progress Report 2013 (August 2014)
35.	Population Management Issues: Monograph-2 (March 2015)
36.	GED Policy Papers and Manuals (Volume 1-4) (June 2015)
37.	National Social Security Strategy (NSSS) of Bangladesh (July 2015)
38.	MDGs to Sustainable Development Transforming our World: SDG Agenda for Global Action (2015-2030)- A Brief for Bangladesh Delegation UNGA 70th Session, 2015 (September 2015)
39.	7th Five Year Plan (205/16-2019/20) (December 2015)
40.	সপ্তম পঞ্চবার্ষিক পরিকল্পনা ২০১৫/১৬-২০১৯/২০ (জুন ইংরেজি থেকে বাংলা অনূদিত) (অক্টোবর ২০১৬)
41.	জাতীয় সামাজিক নিরাপত্তা কৌশলপত্র (অক্টোবর ২০১৬)
42.	Population Management Issues: Monograph-3 (March 2016)
43.	Bangladesh ICPD 1994-2014 Country Report (March 2016)
44.	Policy Coherence: Mainstreaming SDGs into National Plan and Implementation (Prepared for Bangladesh Delegation to 71st UNGA session, 2016) (September 2016)
45.	Millennium Development Goals: End- period Stocktaking and Final Evaluation Report (2000-2015) (September 2016)
46.	A Handbook on Mapping of Ministries by Targets in the implementation of SDGs aligning with 7th Five Year Plan (2016-20) (September 2016)
47.	Data Gap Analysis for Sustainable Development Goals (SDGs): Bangladesh Perspective (January 2017)
48.	Environment and Climate Change Policy Gap Analysis in Haor Areas (February 2017)

49.	Integration of Sustainable Development Goals into the 7th Five Year Plan (February 2017)
50.	Banking ATLAS (February 2017)
51.	টেকসই উন্নয়ন অভীষ্ট, লক্ষ্যমাত্রা ও সূচকসমূহ (মূল ইংরেজি থেকে বাংলায় অনুদিত) (এপ্রিল ২০১৭)
52.	EXPLORING THE EVIDENCE : Background Research Papers for Preparing the National Social Security Strategy of Bangladesh (June 2017)
53.	Bangladesh Voluntary National Review (VNR) 2017 : Eradicating poverty and promoting prosperity in a changing world, (June 2017)
54.	SDGs Financing Strategy: Bangladesh Perspective (June 2017)
55.	A Training Handbook on Implementation of the 7th Five Year Plan (June 2017)
56.	7th Five Year Plan (FY 2015/16-FY 2019/20): Background Papers Volume 01: Macro Economic Management & Poverty Issues (June 2017)
57.	7th Five Year Plan (FY 2015/16-FY 2019/20): Background Papers Volume 02: Socio-Economic Issues (June 2017)
58.	7th Five Year Plan (FY 2015/16-FY 2019/20): Background Papers Volume 03: Infrastructure, Manufacturing & Service Sector (June 2017)
59.	7th Five Year Plan (FY 2015/16-FY 2019/20): Background Papers Volume 04: Agriculture, Water & Climate Change (June 2017)
60.	7th Five Year Plan (FY 2015/16-FY 2019/20): Background Papers Volume 05: Governance, Gender & Urban Development (June 2017)
61.	Education Sector Strategy and Actions for Implementation of the 7th Five Year Plan (FY2016-20)
62.	GED Policy Study: Effective Use of Human Resources for Inclusive Economic Growth and Income Distribution-An Application of National Transfer Accounts (February 2018)
63.	Monitoring and Evaluation Framework of Sustainable Development Goals (SDGs): Bangladesh Perspective (March 2018)
64.	National Action Plan of Ministries/Divisions by Targets for the implementation of Sustainable Development Goals (June 2018)
65.	Bangladesh Delta Plan 2100: Baseline Studies: Volume 1: Water Resources Management (June 2018)
66.	Bangladesh Delta Plan 2100: Baseline Studies: Volume 2: Disaster and Environmental Management (June 2018)
67.	Bangladesh Delta Plan 2100: Baseline Studies: Volume 3: Land use and Infrastructure Development (June 2018)
68.	Bangladesh Delta Plan 2100: Baseline Studies: Volume 4: Agriculture, Food Security and Nutrition (June 2018)
69.	Bangladesh Delta Plan 2100: Baseline Studies: Volume 5: Socio-economic Aspects of the Bangladesh (June 2018)

70.	Bangladesh Delta Plan 2100: Baseline Studies: Volume 6: Governance and Institutional Development(June 2018)
71.	Journey with SDGs, Bangladesh is Marching Forward (Prepared for 73rd UNGA Session 2018) (September 2018)
72.	এসডিজি অভিযাত্রা: এগিয়ে যাচ্ছে বাংলাদেশ (জাতিসংঘ সাধারণ পরিষদের ৭৩তম অধিবেশনের জন্য প্রণীত) (সেপ্টেম্বর ২০১৮)
73.	Bangladesh Delta Plan 2100 (Bangladesh in the 21st Century) Volume 1: Strategy (October 2018)
74.	Bangladesh Delta Plan 2100 (Bangladesh in the 21st Century) Volume 2: Investment Plan (October 2018)
75.	বাংলাদেশ ব-দ্বীপ পরিকল্পনা ২১০০: একুশ শতকের বাংলাদেশ (সংক্ষিপ্ত বাংলা সংস্করণ) (অক্টোবর ২০১৮)
76.	Bangladesh Delta Plan 2100: Bangladesh in the 21st Century (Abridged Version) (October 2018)
77.	Synthesis Report on First National Conference on SDGs Implementation (November 2018)
78.	Sustainable Development Goals: Bangladesh First Progress Report 2018 (December 2018)
79.	টেকসই উন্নয়ন অভীষ্টঃ বাংলাদেশ অগ্রগতি প্রতিবেদন ২০১৮ (ইংরেজি থেকে অনূদিত) (এপ্রিল ২০১৯)
80.	Study on Employment, Productivity and Sectoral Investment in Bangladesh (May 2019)
81.	Implementation Review of the Sixth Five Year Plan (FY 2011-FY 2015) and its Attainments (May 2019)
82.	Mid-term Implementation Review of the Seventh Five Year Plan (FY 2016-FY 2020) May 2019
83	Background Studies for the Second Perspective Plan of Bangladesh (2021-2041) Volume-1 June 2019
84.	Background Studies for the Second Perspective Plan of Bangladesh (2021-2041) Volume-2 June 2019
85.	Empowering people: ensuring inclusiveness and equality For Bangladesh Delegation to HIGH-LEVEL POLITICAL FORUM 2019 (July, 2019)
86.	Implementation Review of the perspective plan 2010-2021 (September 2019)
87.	Bangladesh Moving Ahead with SDGs (Prepared for Bangladesh Delegation to 74th UNGA session 2019) (September 2019)
88.	টেকসই উন্নয়ন অভীষ্ট অর্জনে এগিয়ে যাচ্ছে বাংলাদেশ (জাতিসংঘ সাধারণ পরিষদের ৭৪তম অধিবেশনে বাংলাদেশ প্রতিনিধিগণের জন্য প্রণীত) (সেপ্টেম্বর ২০১৯)
89.	Prospects and Opportunities of International Cooperation in Attaining SDG Targets in Bangladesh (Global Partnership in Attainment of the SDGs) (September 2019)

General Economics Division (GED)
Bangladesh Planning Commission
Ministry of Planning
Government of the People's Republic of Bangladesh