**1st Draft**

**Background Paper of Vision 2041: “Empowerment of Children, Women and Youth to Strengthen Social Inclusion and support Shared Prosperity”**

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**Section 1: Introduction & Background**

For the last few decades or so, Bangladesh has attained moderately high GDP growth with impressive progress in a number of socio-economic indicators. The country expects to graduate out of the LDC status by 2021 and aspires to reach the upper middle income status by 2030. After successful experiences of accomplishing a number of Millennium Development Goals, the country now aims at progressing towards attaining the Sustainable Development Goals, targeting towards elimination of poverty, reducing inequality and empowering the less privileged groups of people. The cornerstone of such an inclusive development strategy is a robust one of job creation through employment intensive growth which will absorb the army of additional workers that will enter the labour force due to the demographic transition of the country.

In this context, utilizing the potential of different demographic groups can be the key towards

moving into higher growth trajectory and for social inclusion of different segments of population. In this regard, the composition, trend and characteristics of youth population is of further importance due to their direct contribution to the labour market. It is also important to incorporate child welfare at every stage of development planning to ensure a steady flow of healthy workforce in the future. Moreover, the patriarchal social structure of Bangladesh often puts women in a disadvantaged state in terms of many socio-economic indicators. Therefore, policies need to be considered through a gender lens and increasing access to women and improving their participation in the different sectors of the economy will not only empower women but also will contribute towards the growth process of the economy.

Youths, women and children together not only constitute the largest segment of Bangladesh population, but also have significant contribution in the economic development of the country. Yet according to both anecdotal as well as empirical evidences, children and women are arguably the most vulnerable groups in terms of different socio-economic indicators, e.g. income, education, employment, asset holding etc. These groups are therefore more likely to have low levels of education and skills and a higher incidence of poverty. Such factors have deprived these groups from effectively participating in economic and social activities resulting in weak integration to mainstream economic activities. The youth population are also characterized by low level of education and skill and as a consequence are often found to suffer from unemployment or are engaged in low paying, low productive jobs.

Under such a context, the government has put increased emphasis on policies focusing on the empowerment of these vulnerable groups. Success was seen with these policies with the conditions improving in many indicators. However, challenges still remain in a number of areas in mainstreaming these groups in different economic activities. Innovative methods and strategies need to be identified to harness the potential of these groups and utilizing the demographic dividend.

This study attempts to utilize nationally representative data to understand the existing status of youths, women and children and to explore ways to promote greater social inclusion and economic empowerment of these groups. **Section 2** uses the HIES data of several rounds to understand the current scenario of the stated groups in lieu of different indicators of vulnerability e.g. poverty, employability, level of education etc. **Section 3** offers a brief discussion of relevant national policies that are in place in connection to the betterment of children, youth and women. **Section 4** offers simple projection of a number of variables related to the status as well as empowerment of children, women and youth using the existing data. In addition, this section also utilizes time series data to analyze the long run relationship between youth population and economic growth. **Section 5** first identifies the key challenges faced by these demographic groups and based on analyses of previous chapters and experiences of other countries, and then proposes a number of recommendations for greater social inclusion and empowerment of these groups.

**Section 2: An Overview of Current Status of Children, Youth and Women[[2]](#footnote-2)**

Children, Youth and Women are specific demographic groups those on one hand can have important implications towards economic growth and development and on the other are often argued to be at a vulnerable state in terms of socio-economic position. In the context of Bangladesh, these groups are often deprived of access to basic necessities and left out of the mainstream economic activities. One important point to note in this regard is, children, women or even youths are often found to be at a ‘vulnerable’ state due to their economic position, e.g. children, youths, or women of poor households can mostly be termed as ‘vulnerable’ from an economic point of view. However, even if the households where they belong are not poor in general term, they might fall victim of poverty in case of any economic/environmental/ethnic/social shocks which can lead them into a poor state.

From a methodological point of view, in addition to the above mentioned shortcomings of measuring vulnerability status, it is also not that straight forward to determine ‘vulnerability’ as well as poverty of any particular member of a household as in most of the surveys it is typical to have information about economic status of a household rather than that of an individual. Therefore, household level poverty and vulnerability need not be synonymous to individual level poverty and vulnerability. In order to get insights of vulnerability and poverty of any specific group, we often have to rely on household level information, while keeping in mind the shortcomings. In this section, analysis of vulnerability of youths, women and children has mostly been carried out on the basis of household level data.

***2.1 Analysis of Poverty:***

This section attempts to measure the status of poverty of children, women and youth using the data from different rounds of the HIES (Household Income and Expenditure Survey) conducted by BBS (Bangladesh Bureau of Statistics). Here, assessment of poverty has been conducted on the basis of traditional measures of poverty such as the Head-Count Ratio (HCR), Poverty Gap (PG), and Squared Poverty Gap (SPG). The basic methods of calculating poverty have been outlined in Annex A.

2.1.1 Household Level Poverty over the Years:

Bangladesh has arguably made impressive progress in terms of sustainably reducing poverty and such progress can be seen both at rural as well as urban level. Household Income and Expenditure Survey (HIES) of different years reveal that the country has significantly reduced both Extreme Poverty (as measured by lower poverty line) and Moderate Poverty (as measured by upper poverty line). The Head Count Ratio of 2015 for moderate poverty shows that it has reduced from 48.9 in 2000 to . …..Similar achievement can also be observed in case of extreme poverty as the country has been able to reduce it to…. in 2015 from as high as 34.3 in 2000 (Table 2.1).

One of the major limitations of head count rates is that it gives the percentage value of poverty incidences and only indicates whether a household is poor or not, based on a simplistic *line*. But a household which is very close to poverty line is not the same as a household who is at a relatively greater distance from the poverty line. So we also need to know the severity/depth of poverty or the *distance* of the poor households from the poverty line-known as poverty gap. Trend of Poverty Gap reflects progress in terms of poverty reduction effort (Table 2.2). In addition to Poverty Gap, another widely used poverty estimate is Squared poverty gap (SPG), which measures the severity of poverty and a substantial decrease in SPG also indicates improvements in the severity of poverty. Table 2.2 shows the SPG for 2000, 2005, 2010, and 2015 which indicates that the value of SPG for national, rural and urban levels has decreased and hence improvement has been registered in case of severity of poverty too.

However, despite of such progresses, as reflected in HIES 2015 there are still …..million people below the poverty line (upper poverty line). The 7th Five Year Plan aims at reducing poverty to 18.6% and extreme poverty to 8.9% by 2020 and according to the targets of SDGs, the target is to eliminate poverty by 2030. A number of strategies related to Social Safety Net programs along with creation of employment opportunities have already been taken into account to attain these targets. Despite such attempts, the targets are still quite challenging given the existing scenario.

**Table 2.1: Head Count Rates of Incidence of Poverty (CBN Method), 2000 to 2015**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | HIES |  2010 | 2005 | 2000 | 2015 |
| Upper povertyline | National | 31.5 | 40.0 | 48.9 |  |
| Rural | 35.2 | 43.8 | 52.3 |  |
| Urban | 21.3 | 28.4 | 35.2 |  |
| Lower poverty line | National | 17.6 | 25.1 | 34.3 |  |
| Rural | 21.1 | 28.6 | 37.9 |  |
| Urban  | 7.7 | 14.6 | 20.0 |  |

Source: HIES different years and author’s calculation.

**Table 2.2: Trend of Poverty Gap & Upper Poverty Gap (Upper poverty line)**

|  |  |  |
| --- | --- | --- |
|  | Poverty Gap | Squared Poverty Gap |
| Year  | 2015 | 2010 | 2005 | 2000 | 2015 | 2010 | 2005 | 2000 |
|  National |  | 2.0 | 2.9 | 4.6 |  | 6.5 | 9.0 | 12.8 |
|  Rural |  | 2.2 | 3.1 | 4.9 |  | 7.4 | 9.8 | 13.7 |
|  Urban |  | 1.3 | 2.1 | 3.3 |  | 4.3 | 6.5 | 9.0 |

Note: HIES 2000 and 2005; using poverty lines estimated with HIES (2005) and deflated to adjust for inflation during 2000-05. Narayan, A., Yoshida, N. and Zaman, H., 2007. Trends and patterns of poverty in Bangladesh in recent years. Washington, DC: World Bank.

A detailed analysis of head count poverty over different household characteristics reveals a number of interesting findings. For example, from Table 2.3 it can be seen that the annual decrease in poverty over the years (2000 through 2010) for female headed households was higher than that of male headed household at the national level. The findings were same for both at rural as well as at urban level. The progress in rural areas can be due to the fact that a lot of women are now engaging themselves in various income-generating programs like that of micro-credit or due to remittance earning.[[3]](#footnote-3) In urban area, it is quite plausible that, due to income earning opportunities at ready made garments sector or in other industries, many women headed households were able to get outside of poverty trap. In the context of Bangladesh, this reduction of poverty of woman headed households is quite a unique phenomenon, since in many other countries it has been found that women headed households are more vulnerable to poverty than their male-headed counterparts.

##

**Table 2.3: Incidence of Poverty by Sex of Household Head**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Sexof Householdhead | 2000 | 2005 | 2010 | Rate of Decrease: 2000-2010(%) |
| National | Male | 49.0 | 40.8 | 32.1 | 3.4 |
| Female | 47.2 | 29.5 | 26.6 | 4.4 |
| Rural | Male | 52.5 | 44.9 | 35.9 | 3.2 |
| Female | 50.6 | 31.0 | 29.3 | 4.2 |
| Urban | Male | 35.1 | 28.7 | 21.7 | 3.8 |
| Female | 37.1 | 24.4 | 17.5 | 5.3 |

Source: HIES different years; Narayan, A., Yoshida, N. and Zaman, H., 2007. Trends and patterns of poverty in Bangladesh in recent years. Washington, DC: World Bank.

 **Table 2.4: Division Wise Poverty Status (as % of population of that division): HIES 2010**

|  |  |  |  |
| --- | --- | --- | --- |
| **Division** | **Ultra poor** | **Moderate****poor** | **Non poor** |
| Barisal | 26.61 | 15.48 | 57.91 |
| Chittagong | 18.83 | 16.30 | 64.86 |
| Dhaka | 18.18 | 18.21 | 63.61 |
| Khulna | 13.23 | 15.50 | 71.28 |
| Rajshahi | 13.80 | 15.18 | 71.02 |
| Rangpur | 22.62 | 13.61 | 63.77 |
| Sylhet | 8.78 | 4.34 | 86.88 |

Source: HIES different years.

In the context of Bangladesh, there is disparity across different regions in terms of poverty, due related to a variety of factors, some of which are simple economic, some are social, whereas some can be environmental. As shown in Table 2.4, Barisal hosts the largest proportion of poor households and as high as 42% of households of Barisal division are found to live below poverty line. Poor network of the inhabitants to the capital city, vulnerable lifestyle near coastal areas, natural disasters etc. are argued to have restricted economic opportunities of households. The district of Rangpur and Dhaka have sizable proportion of poor households too and as for Rangpur, slow pace of industrialization, seasonal unemployment, drought etc. can be considered as the prime reasons for higher rate of poverty. Sylhet and Khulna divisions, on the other hand have lowest proportion of poor. High rates of internal as well as international migration and remittance flow as well as greater degree of industrialization and connectivity to the capital as well as larger cities can be considered as the reasons behind.

2.1.2 Poverty of Youths:[[4]](#footnote-4)

As HIES does not have information for calculating poverty at individual level, in this analysis household level poverty has been used as a proxy for poverty of youths. According to HIES 2010, education of youths appear to have an important role on poverty as it can be seen that proportion of both poor male and female youths having ‘no education’ are higher than other educational level (Table 2.5). In addition, HCR of ultra poor shows that, with zero education, primary education, or secondary education, there is greater proportion of females than males. Besides, among the ultra poor, the proportion of youths with higher secondary and tertiary education is the smallest, emphasizing again the significance of education of youths in household poverty.

**Table 2.5: Youth by Level of Education (as % of Total Youth): HIES 2010**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Ultra poor** | **Moderate Poor** | **Non poor** |
|  | Male (%) | Female (%) | Male (%) | Female (%) | Male (%) | Female (%) |
| No education | 3.52 | 5.39 | 2.71 | 3.54 | 6.88 | 8.57 |
| Primary | 1.58 | 1.84 | 1.57 | 1.50 | 5.77 | 6.14 |
| Secondary | 1.51 | 1.93 | 2.07 | 3.05 | 12.92 | 17.15 |
| Higher secondary | 0.13 | 0.11 | 0.40 | 0.28 | 5.35 | 4.41 |
| Tertiary | 0 | 0 | 0.07 | 0.006 | 0.87 | 0.60 |

Source: HIES 2010 and author’s calculations.

2.1.3 Poverty of Women:

According to Table 2.6, in comparison to men, women having no education have slightly higher probability to be poor. However, the difference in poverty level between men and women across different education clusters reveal no conclusive or strong finding. However, this analysis has to be interpreted with much caution because both anecdotal as well as empirical evidences suggest that, in patriarchal South Asian societies women are often neglected and discriminated at households in terms of even basic necessities.[[5]](#footnote-5) Therefore, unless we have data on intra- household consumption, we can come to any conclusion about poverty of individual women.

**Table 2.6: Poverty by Level of Education of Male and Female: HIES 2010**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Ultra-poor** | **Moderate-Poor** | **Non-poor** |
|  | Male (%) | Female (%) | Male (%) | Female (%) | Male (%) | Female (%) |
| No education | 5.78 | 6.26 | 4.42 | 4.58 | 13.43 | 15.52 |
| Primary | 1.66 | 1.62 | 1.57 | 1.47 | 6.71 | 6.56 |
| Secondary | 0.96 | 1.05 | 1.44 | 1.46 | 9.68 | 9.83 |
| Higher- secondary | 0.06 | 0.03 | 0.18 | 0.09 | 2.96 | 1.75 |
| Tertiary | 0.0017 | 0 | 0.027 | 0.0017 | 0.63 | 0.24 |

Source: HIES 2010 and author’s calculations.

2.1.4 Poverty of Children:

As discussed, one of the shortcomings of household level poverty estimates as in HIES is, it does not offer information for poverty at individual level. From HIES poverty measures, it is therefore not possible to infer about poverty of any particular demographic group of a household e.g. woman, youth or child. However, as for the children, household level poverty can be considered as a good approximation of child poverty so information of household poverty can be utilized as an alternative. From Table 2.7, we can say that ultra poor children are mostly found in rural areas-around 7% of total children are ultra poor and rural based. According to our estimates, poverty as a whole (both ultra poverty and moderate poverty) is more prevalent in rural areas than in urban areas.

**Table 2.7: Poverty of Children as Percentage of Total Children**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Rural** | **Urban** | **Municipal** |
|  | Boy (%) | Girl (%) | Boy (%) | Girl (%) | Boy (%) | Girl (%) |
| Ultra-poor | 6.96 | 6.96 | 0.51 | 0.46 | 2.99 | 2.77 |
| Moderate-poor | 4.89 | 4.73 | 1.03 | 0.81 | 2.65 | 2.45 |
| Non-poor | 22.28 | 20.55 | 2.66 | 2.59 | 7.54 | 7.04 |
| Source: HIES 2010; \*No of total children are 23,751, Children: 0-18 years. |

***2.2 Vulnerability and Socio-Economic Position through Labour Market Status:[[6]](#footnote-6)***

There is no denying the fact that, economic position of an individual in the society is shaped by his/her labour market status. The labour force participation rate (LFPR) has been around 55% over the last few years with a stable LFPR of around 80% for males but a steady increase in female labour force participation rate- from a mere 23.9% in 1990 LFPR has increased to 33.5% in 2013. Concern still remains in terms of quality of employment and associated (low) earnings and informality of job. Besides, despite of increasing FLFPR, a vast majority of women are outside of the labour market and among those who are employed, almost half are engaged in unpaid activities without much scope of social or economic empowerment. Informality of jobs without job security, retirement benefit or security in terms of health and safety often makes an individual’s economic position highly unstable and vulnerable too and according to Labour Force Survey (LFS) 2013, as high as 87% of the labour force was engaged in informal sector. In addition, ‘decent’ work is still not seen in most of the cases and according to a research only 10% of the wage employed and 9% of the self employed are in decent jobs (Raihan et al. 2016).

2.2.1 Youth Labour Force:[[7]](#footnote-7)

As discussed, Bangladesh is now enjoying a phase of demographic transition and hosts a large pool of population within the working age group. According to LFS 2013, youths within the age range of 15 to 29 years, constitutes a significant part of the total labour force (Table 2.8). This vast number of youths can be converted into ‘dividend’, provided they are of high quality, endowed with skill and education. However as high as 12% of youths are found to have no education with only around 5-6% possess tertiary education. As for training is concerned only around 7% have found to have received any training. Therefore, significant effort should be given to improve the *quality* of youth population as defined by education and training (Table 2.9). Another important indicators of skill level is that of knowledge of ICT and as shown in Table 2.9 only 8.2% of youth population reported to have internet connection at home whereas only 17% claimed to have ever used internet. A vast majority of youths are therefore outside of ICT access, with no or low level of education and without any training experience, resulting in a large pool of youths being unemployed, under employed or not in employment, education or training (NEET).

**Table 2.8: Trend of Labour Market Profile of Youth Population (15-29 years)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **2005** | **2010** | **2013** |
| % of Youth in Population | 17.04 | 26.39 | 28.24 |
| % of Youth in Total Labour Force | 35.96 | 36.86 | 37.05 |

Source: Compilation from Labour Force Survey, Bangladesh.

**Table 2.9: Key Features of Youth Population**

|  |  |  |
| --- | --- | --- |
| **Key Features** | **As Percentage of Youth Population (15-29)** | **As Percentage of Total Population** |
| Male | 47.63 | 49.60 |
| Female | 52.37 | 50.40 |
| Married | 97.50 | 90.50 |
| Rural Dweller | 52.85 | 53.78 |
| Average Age | 21.78 | 27.77 |
| Received any Training | 7.12 | 4.46 |
| Ever Used Internet | 16.98 | 9.27 |
| Have Internet in HH | 8.24 | 7.29 |
| Ever Used Computer | 13.67 | 7.46 |
| Can Read and Write | 81.30 | 56.21 |
| Currently Studying | 28.63 | 29.24 |
| No Education | 11.92 | 22.20 |
| Primary (class I-V) | 19.51 | 29.03 |
| Secondary (class VI-X) | 40.78 | 30.17 |
| Higher Secondary (class XI, XII) | 21.83 | 12.20 |
| Tertiary Education | 5.74 | 5.39 |
| Other Education | 0.23 | 1.02 |
| Ever Drop Out | 47.31 | 30.45 |

Source: LFS 2013

In terms of labour market participation, around 40% of youth females and 66% of youth males are found to be in the labour force. In terms of quality of employment of youths, as high as 22.5% of those who are unpaid family workers (Table 2.10). Engagement in unpaid occupation is strongly prevalent among females and as high as …% of employed youth females are found to be in unpaid jobs. Such unpaid jobs as family workers cannot be considered as main-stream economic activities and as for females, these jobs do not contribute to their economic or social empowerment.

**Table 2.10:** **Labour Market Status of Youth Population (15-29 years): 2013**

|  |  |  |  |
| --- | --- | --- | --- |
| **% of Youth Population** | **Male** | **Female** | **All** |
| In Labour Force | 66.23 | 39.59 | 52.28 |
| Unemployed | 5.12 | 4.97 | 5.04 |
| Employed | 61.10 | 34.62 | 47.23 |
|  Paid | 81.98 | 46.27 | 67.82 |
|  Unpaid | 10.28 | 41.18 | 22.54 |
| Not in Labour Force | 33.77 | 60.41 | 47.72 |

Source: LFS 2013

In Annex B, with the help of LFS 2013, labour market experience of male and female youths (15-29 years), particularly those of (i) participation and (ii) earnings have been analyzed.[[8]](#footnote-8) Our estimates pointed out the importance of education and training in labour market participation of youths: for example, in comparison to an otherwise similar youth without any education, a youth with a primary degree have higher probability to join the labour force. The result is however not consistent across other stages of education. Annex B (Column 2 & Column 6) also shows that a female youth with training have as high as 43 percent higher probability to participate in labour market than an otherwise similar female youth without training where the corresponding probability for a youth male is around 2 percent. As it is often argued that, it is not participation in the labour force per se, rather the quality of work that matters for growth and productivity, probit estimates of participation in paid activities as opposed to non paid reveal that, training has significant and positive impact in paid engagement of youths where the contribution appeared to be stronger for youth females (Column 3 & Column 7). As for education, for paid participation, although the estimates for youth males are not quite clear, for youth females, our estimates provide evidence of importance of education in increasing participation probability in paid work. As for females, being married reduces probability of participating in paid jobs whereas having children less than five years of age also affects participation decision in a negative manner. In Column 4 & Column 8 of Annex B, simple Ordinary Least Square models and in Column 5 & Column 9, Heckman model for correcting sample selection bias have been run and the findings reflect positive and significant returns to education along with returns to training. The role of ICT has also been reflected in the analysis and having computer is found to have positive and significant impact of earning of youths. In case of training, the return to training has been found to be higher for female youths than their male counterparts. This analysis therefore, further justifies the importance of greater investment in training and skill development programmes for youth population.

2.2.2 Female Labour Force:

Over time, although there has been rapid rise in female labour market participation over the years, the rate is still far below that of males-according to Labour Force Survey 2013, male LFPR was 81.7% where the corresponding figure for females was 33.5%. In terms of quality of employment, only around 4% women above 15 years of age are found to be in wage employment with another 12.2% in self employment activities. The remaining 83.8% of working age women are either outside the labour force, or are unemployed or are engaged in unpaid family work-neither of these can be considered ‘empowering’ for them. Therefore, despite of rise in labour market participation of women, in case of social inclusion and economic empowerment, a large number of women are still outside of main stream economic activities.

**Table 2.11: Labour Market Status of Working Age Population**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **2010** | **2013** | **2010** | **2013** |
|  | Male | Female |
| Self Employed | 37.49 | 34.00 | 8.51 | 12.23 |
| Wage Employed | 35.85 | 40.77 | 5.76 | 3.97 |
| Unpaid | 5.79 | 3.78 | 19.09 | 13.35 |
| Unemployed | 2.06 | 2.77 | 1.27 | 3.24 |
| Not in labour Force | 18.82 | 18.69 | 65.37 | 67.21 |

Source: LFS various years

In terms of education level, Table 2.12 shows that although at primary level, there is no gender gap, at higher levels females are found to be increasingly lagging behind their male counterparts. As a consequence, the representation of females in relatively high paying jobs is quite low--less than 1% females are engaged in ‘professional, scientific and technical’ occupation, i.e. occupations attached with stable and relatively high salary with essential institutional arrangements (Table 2.13). In ‘administrative’ jobs or in ‘public service’ similar scenario of low representation of females can also been seen. Women’s representation on the other hand, was found to be highest in ‘agriculture, forestry and fishery’ and as high as 47% women are engaged in this sector, where the jobs are mostly informal, unstable, low paid without any contractual arrangement.

**Table 2.12: Education Level of the Labour Force (in %): 2013**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Male** | **Female** | **All** |
| No education | 16.21 | 18.25 | 16.81 |
| Primary Education (I-V ) | 25.15 | 30.35 | 26.68 |
| Secondary Education (VI-X) | 32.03 | 29.97 | 31.42 |
| Higher Secondary (XI, XII) | 15.57 | 13.90 | 15.08 |
| Tertiary | 10.66 | 7.18 | 9.63 |
| Other | 0.39 | 0.35 | 0.38 |

Source: Labour Force Survey 2013

**Table 2.13: Employment of Females by Industry and Occupational Category (2013)**

|  |  |
| --- | --- |
| **Major Industry** | **% of Employed Female** |
| Agriculture, forestry and fishing | 47 |
| Manufacturing | 20.67 |
| Wholesale and retail trade, repair  | 5.14 |
| Accommodation and food service activities | 1.08 |
| Education | 6.14 |
| Human health and social work activities | 2.85 |
| Other service activities | 4.34 |
| Activities of households as employers, | 7.61 |
| **Status in employment** |  |
| Paid employee (waged/salaried worker) | 35.38 |
| Employer, self employed | 13.43 |
| Unpaid/contributing Family Worker | 45.17 |
| Day labour (agriculture/non agriculture) | Na |
| Domestic Worker | Na |
| Others | 6.01 |
| **Occupation** |  |
| Managers | 0.77 |
| Professionals | 7.88 |
| Technicians and Associate Professionals | 1.9 |
| Clerical Support Workers | 1.62 |
| Service and Sales Workers | 10.73 |
| Skilled Agricultural, Forestry and Fish | 39.38 |
| Craft and Related Trades Workers | 22.4 |
| Plant and Machine Operators | 2.87 |
| Elementary Occupations | 12.42 |

Source: LFS various years. na=not available; Mahmud & Bidisha (2016)

2.2.3 Child/Working Children in the Labour Force: According to the 18th International Conference of Labour Statisticians and Bangladesh Labour Act 2006 and 2013, working children includes both child labour and non child labour where the latter group includes those of 12 to 17 years age and are engaged in non-hazardous/light work up to 42 hours each week. On the other hand, child labour is defined when any 5 to 11 years old works for any period of time in non-hazardous job. Based on such definition, hazardous child labour can be termed as those between 5 to 17 years working for more than 42 hours per week in non-hazardous job or are involved (Child Labour Survey 2013). Based on such definition, within 3.45 million working children, there are around 1.7 million child labour in the country, with 0.95 million male child labour and 0.75 million female child labour. Of that 1.7 million, 1.28 million are found to be involved in hazardous job. As shown in Table 2.14 majority of working children are involved in Agriculture sector, followed by Manufacturing, whereas a small percentage are involved in Construction, Wholesale and Retail Trade and in Transportation and Storage. In terms of types of occupation, the highest concentration is found in Crafts and Related Trades (Table 2.15).

**Table 2.14: Distribution of Working Children by Sector (total 3.45 million)**

|  |  |
| --- | --- |
| **Sector** | **Million** |
| Agriculture, Forestry, Fishing | 1.27 |
| Manufacturing | 0.94 |
| Construction | 0.16 |
| Wholesale and Retail Trade | 0.42 |
| Transportation & Storage | 0.15 |

Source: Child Labour Survey, 2013

**Table 2.15: Distribution of Working Children by Leading Occupation (Total 3.45 million)**

|  |  |
| --- | --- |
| **Occupation** | **Million** |
| Elementary Occupations | 0.62 |
| Plant and Machine Operators | 0.16 |
| Craft and Related Trades | 1.01 |
| Skilled Occupations | 0.95 |
| Service and Sales Workers | 0.60 |

Source: Child Labour Survey, 2013

# *2.3 Estimation of Vulnerability:*

In this analysis, we attempted to understand vulnerability of households while distinguishing the traditional measure of *ex post* poverty from *ex ante* poverty. Vulnerability to poverty can be viewed as ex ante expectation of poverty which is, in other words, the probability that the consumption of a household will lie below the predetermined poverty line in near future (for example, the calorie intake of a person of a household will lie below 2,121 kilo calorie per day). Because of the presence of shocks, risks, uncertainty and many other unforeseen events, it is not very unlikely that some of the households or groups of people may fall below the poverty line even if they can currently be termed as non poor. Similarly, although not very likely but it is also feasible that some will be able to find themselves out of poverty. Thus it is possible to identify those groups who are highly likely to fall below the poverty line in near future even if the *ex post* measure of poverty suggests that they are currently above the poverty line.

It is therefore important, especially in the context of policy formulation to understand about those *vulnerable* population, e.g. those who are not currently below the poverty line but are expected to fall below the poverty line in near future. In the absence of nationally representative panel data set, as an alternative, in this analysis, a methodology applied by Chaudhuri (2003), Chaudhuri et al. (2002) and Suryahadi and Sumarto (2003) was followed. This method was implemented by Azam et.al. (2009) in the context of Bangladesh with HIES 2005 data set where they constructed an index for measuring vulnerability. For detailed analysis of methodology see Annex C.

2.3.1: Vulnerability Analysis: As mentioned in Haughton and Khandker (2005), for a household (or individuals) according to the index of vulnerability, if the probability of vulnerability is greater than or equal to 0.50 then it can be considered as highly vulnerable to poverty. Households with probability less than 0.50 but greater than or equal to the headcount poverty rate (which is 0.17 using the lower poverty line as in HIES, 2010) have lower probability of being poor in the next year, hence they can be regarded as “low/moderately vulnerable” to poverty. Finally, if this probability is less than 0.17, they can be treated as “not vulnerable” to poverty. Based on the above mentioned methodology, using the lower poverty line for ultra poor (which is 0.17 according to HIES, 2010), the estimated results show that only 5% people are highly vulnerable to poverty, whereas 39% can be termed as moderately vulnerable, and 56% are not vulnerable (Table 2.16). In addition, although 17% people were found to be poor using the lower poverty line, around 44% were considered to be vulnerable, of which 5% were highly vulnerable to poverty and the other 39% were low vulnerable. In other words, vulnerability (as defined here) can be considered as more widespread than poverty and a substantial proportion of the population are at the risk of falling into poverty, even if they are not currently poor.

**Table 2.16: Vulnerability of Households (as the Proportion of total population)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Degree of****Vulnerability** | **Criterion** | **Ultra poor** | **Moderate poor** | **Non poor** | **Ultra poor+moderatepoor+non poor** |
| Highly vulnerable | vhat≥0.50 | 0.03 | 0.01 | 0.01 | 0.05 |
| Moderately vulnerable | 0.17<=v-hat<0.50 | 0.11 | 0.10 | 0.19 | 0.39 |
| Not vulnerable | v-hat<0.17 | 0.03 | 0.05 | 0.47 | 0.56 |
| All groups | 0.17 | 0.16 | 0.67 | 1 |

Source: HIES 2010 and author’s calculation.

A clearer picture can be depicted through Table 2.17 where the percentage of people who are vulnerable to poverty to the pool of poor people has been calculated. 16.04% of ultra poor people were found to be highly vulnerable to poverty, that is, they are highly likely to remain poor in the next year. This proportion is relatively lower among those who are moderately poor or non poor as only 7.92% of moderate poor and 1.62% of non poor are highly vulnerable to poverty. One noteworthy feature is that, 20% of ultra poor group are likely to bounce back in the next period the status of ultra poor as they can be termed as ‘not vulnerable’. The analysis of vulnerability and longer term socio-economic status should therefore be conducted while considering not only present status of poverty but also the probability of being poor in future.

**Table 2.17: Percentage of Vulnerable People in Different Poor Groups**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Degree of****Vulnerability** | **Criterion** | **% of****ultra poor** | **% of****moderate****poor** | **% of****non poor** |
| Highly vulnerable | vhat≥0.50 | 16.04 | 7.92 | 1.62 |
| Moderately vulnerable | 0.17<=v-hat <0.50 | 63.51 | 54.32 | 28.37 |
| Not vulnerable | v-hat<0.17 | 20.44 | 37.74 | 70.00 |
| Total | 100 | 100 | 100 |

Source: HIES 2010 and author’s calculation.

It is widely accepted that in some parts of the country, poverty is much wide spread and prominent than in other parts. Similar scenario can be found for vulnerability too- due to a wide variety of socio-economic reasons, people in some parts of the country are found to be more vulnerable to any economic or environmental shocks. Given the geographical location of the country, a significant proportion of people are found to be at a vulnerable state and as shown in Table 2.18 Cox’s Bazar district is found to be the most vulnerable as 37.17% of the total surveyed people are highly vulnerable to poverty and 43.13% people are moderately vulnerable.[[9]](#footnote-9)In addition, as high as 75% people in Bhola, Patuakhali and 71% people in Pirojpur are found to be vulnerable to poverty. All of these four districts are known to suffer from natural calamities and are not strongly connected to larger cities, which has constrained their economic opportunities and made them susceptible to any shocks. On the other hand, Jessore district is found to have the lowest percentage (28.31%) of people vulnerable to poverty where as Feni and Noakhali also hosts lesser proportion of vulnerable people. In comparison to the national average of 5% high vulnerability (Table 2.16), most of the districts as outlined in Table 2.18 are found to be more vulnerable, indicating a strong association of vulnerability with environmental calamities. The children, youths and women of these *vulnerable* areas are expected to be more vulnerable as well and therefore requires special attention in terms of relevant policies and strategies.

**Table 2.18: Vulnerability in Different Environmentally Vulnerable Districts (as % of Districts’ Population)**

|  |  |  |  |
| --- | --- | --- | --- |
| **District** | **Highly Vulnerable** | **Moderately Vulnerable** | **Not Vulnerable** |
| Borguna | 18.45 | 43.92 | 37.63 |
| Bhola | 8.99 | 64.16 | 26.85 |
| Barisal | 11.21 | 55.18 | 33.62 |
| Jhalokati | 14.16 | 41.50 | 44.33 |
| Patuakhali | 12.20 | 63.99 | 23.82 |
| Pirojpur | 12.62 | 57.81 | 29.57 |
| Chittagong | 0.78 | 39.36 | 59.87 |
| Lakshmipur | 6.25 | 47.77 | 45.98 |
| Noakhali | 2.78 | 29.28 | 67.94 |
| Gopalganj | 2.94 | 32.04 | 65.02 |
| Madaripur | 7.06 | 37.98 | 54.96 |
| Bagerhat | 0.86 | 41.52 | 57.61 |
| Jessore | 2.51 | 25.80 | 71.69 |
| Khulna | 3.21 | 46.48 | 50.30 |
| Narail | 1.09 | 37.48 | 61.43 |
| Satkhira | 3.16 | 45.82 | 51.01 |
| Feni | 1.05 | 28.68 | 70.26 |
| Cox's bazar | 37.17 | 43.13 | 19.69 |
| Chandpur | 0.78 | 39.36 | 59.87 |
| Shariatpur | 1.94 | 45.86 | 52.20 |

 Source: HIES 2010 and author’s calculation.

2.3.2 Vulnerability of Youths[[10]](#footnote-10): Table 2.19 reveals that around 42.92% of total youth are found to be vulnerable to poverty whereas 31.28% youths are found to be poor, either ultra poor and moderate poor. Although 68.71% of the total youth are non poor, among them a significant percentage are found to be vulnerable to poverty-20.71% of the total youth are vulnerable to poverty. In addition, though 15.23% youths are moderate poor, among them 5.6% of total youth (who are moderately poor) are found not to be vulnerable.

Table 2.20 shows similar findings from a different angel. Although 78.39% ultra poor youths are vulnerable to poverty, 21.61% ultra poor youths may hope to bail out from ultra poverty in the next period as they are found not to be vulnerable. On the other hand, 30.13% (28.46% moderately vulnerable and 1.67% high vulnerable) of the non-poor youth are found to be vulnerable to poverty.

**Table 2.19: Vulnerability of Youths (% of vulnerable youth to the total number of youth)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Degree of****Vulnerability** | **Criterion** | **Ultra poor** | **Moderate Poor** | **Non poor** | **Ultra poor+moderate poor+non poor** |
| Highly vulnerable | vhat≥0.50 | 2.43 | 1.18 | 1.15 | 4.76 |
| Moderately vulnerable | 0.17<=v-hat<0.50 | 10.15 | 8.46 | 19.56 | 38.16 |
| Not vulnerable | v-hat<0.17 | 3.47 | 5.60 | 48.01 | 57.08 |
| All groups | 16.05 | 15.23 | 68.71 | 100 |

 Source: HIES 2010 and author’s calculation.

 **Table 2.20: Vulnerability of Youths (% of vulnerable youth in different poor groups)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Degree of****Vulnerability** | **Criterion** | **% of****Total Ultra poor** | **% of****Total Moderate****poor** | **% of****Total Non****poor** |
| Highly vulnerable | vhat≥0.50 | 15.15 | 7.76 | 1.67 |
| Moderately vulnerable | 0.17<=v-hat<0.50 | 63.24 | 55.50 | 28.46 |
| Not vulnerable | v-hat<0.17 | 21.61 | 36.73 | 69.87 |
| Total | 100 | 100 | 100 |

 Source: HIES 2010 and author’s calculation.

2.3.2 Vulnerability of Woman: Table 2.21 shows that the total number of women constitutes of 18% ultra poor, 15% moderate poor and nearly 68% of non poor. Among the ultra poor women, about 14% (2.8+11.3) are likely to remain vulnerable in the following year where the corresponding percentage for the moderate poor women is much lower- 9% only (1.25+8.24). Vulnerability index however reveals that, around 20% of women who are found to be ‘non poor’ during current period, can fall in the poverty trap in the next period (can become vulnerable). As a whole, among the total population of women, around 33% are found to be poor (ultra poor and moderate poor) whereas 44% are in a vulnerable state-who are not poor at the present state but are likely to fall into poverty trap.

**Table 2.21: Vulnerability of Women**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Degree of****Vulnerability** | **Criterion** | **Ultra poor** | **Moderate poor** | **Non poor** | **Ultra poor+moderatepoor+non poor** |
| Highly vulnerable | vhat≥0.50 | 2.802439 | 1.251471 | 1.130246 | 5.15 |
| Moderately vulnerable | 0.17<=v-hat<0.50 | 11.28463 | 8.243306 | 19.10365 | 38.62 |
| Not vulnerable | v-hat<0.17 | 3.665276 | 5.565658 | 46.95333 | 56.23 |
| All groups | 17.75234 | 15.06043 | 67.18722 | 100 |

 Source: HIES 2010 and author’s calculation.

2.3.3 Vulnerability of Children: From the vulnerability index of children, 20.8% children are found to be ultra poor, 16.6% moderately poor and 62.6% non poor. Besides, nearly 50% children are found to be vulnerable to poverty, of them 6.6% are found to be highly vulnerable and 43.2% are moderately vulnerable. Table 2.22 further highlights that, among the non poor children, although 41% are found not to be vulnerable in next period, 22% (20.7+1.3) children can fall into poverty trap i.e. can become ‘vulnerable’.

**Table 2.22: Vulnerability of Children (as % of total children)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Degree of****Vulnerability** | **Criterion** | **Ultra poor** | **Moderate poor** | **Non poor** | **Ultra poor+moderatepoor+non poor** |
| Highly vulnerable | vhat≥0.50 | 3.7 | 1.6 | 1.3 | 6.6 |
| Moderately vulnerable | 0.17<=v-hat<0.50 | 13.2 | 9.3 | 20.7 | 43.2 |
| Not vulnerable | v-hat<0.17 | 3.9 | 5.7 | 40.9 | 50.5 |
|  All groups | 20.8 | 16.6 | 62.6 | 100 |

 Source: HIES 2010 and author’s calculation.

The analysis of vulnerability index therefore reveals that, simple poverty analysis per se is often not sufficient to understand the socio-economic position of an individual. A non poor person at the current period, can fall below the poverty line in the next period and vice versa. Given that the position of children and women are even more vulnerable than an adult/male, social inclusion of these demographic groups requires analyzing a number of indicators for them, including mere poverty, labour market status and also the *likelihood* of being poverty in near future.

**Section 3: A Review of Past and Present Policies in Terms of their Effectiveness**

With a view to attaining sustained economic growth with social inclusion of vulnerable and relatively disadvantaged groups, the GoB has incorporated a number of policies and strategies in its development plans. The importance of integrating women in the development programs has already been acknowledged through gender budgeting along with other gender sensitive policies and strategies in development plans. The Government’s approach towards establishing gender equality has undergone a drastic transformation since the independence of the country. On the other hand, with a favourable position in demographic transition, Bangladesh is argued to enjoy a window of opportunity to consolidate its commendable economic growth performance by enacting policies to effectively utilize its youth and child population. To this end, the government has increasingly been working towards implementing policies tailoring to the needs of different demographic groups as well as those who are in a relatively vulnerable position in terms of access to different economic resources.

***3.1 Existing Government Policies for Children, Youth and Women:***

3.1.1 Government Policies towards Youth Development:[[11]](#footnote-11)

There is no denying the fact that, with a view to attaining the goal of the 7th Five Year Plan of 8% growth rate, the contribution of youth population cannot be over emphasized (Mahmud & Bidisha, 2016). In order to utilize the potential of demographic transition, it is crucial to have supportive government policies for the youths. Such policies should be targeted towards enhancing the quality of youth labor force through appropriate training and education. The 7FYP in this regard has given special emphasis on youth development policies in line with the Vision 2021 of the government. The Vision aims at establishing a proper balance between economic progress and human development (GoB, 2009). In this context, policies have been enacted focusing on skill development of the youth through vocational training to create quality employment for the youths.

Youth development as an agenda has also been considered as crucial policy issue in the context of Sustainable Development Goals (SDGs). In order to promote youth development, a number of supportive policies and strategies have also been formulated, including that of National Skills Development Policy. The Skills Development Policy 2011 for Bangladesh is a major initiative to improve the skill component of the labour force of the country where the policy also extends and complements other major government policies such as the Education Policy, 2009; the Non-Formal Education Policy, 2006; the National Training Policy, 2008; the NSDC Action Plan, 2008 etc. along with the National Youth Policy, 2017. The National Youth Policy, 2017 outlines the strategies and policies for engaging the youths for achieving Vision 2021 and SDGs. In addition, National Education Policy has also incorporated strategies and policies for education and skill development of youths with special emphasis to improve the skill in ICT (Ministry of Education, 2010).

3.1.1.1 Targets and Strategies for Youth Development in 7FYP:

As suggested in the 7FYP, there exists a number of challenges in case of youth development-one of those is that of youth unemployment. Given that, with the existing training, infrastructure and financial facilities there is not enough jobs as wage employed to cater the demands of huge number of unemployed youths, creating adequate decent jobs for youths is the key challenge in youth development (GoB, 2015b). Under the 7th Plan, it has been targeted that 19,25,150 youths will be trained up and out of them 5,96,000 youths will be involved in self-employment activities. In addition, 75,000 youths will be trained up for temporary employment under National Service Programme. Besides, to strengthen the institutional capacity and infrastructure for youth development, seven divisional offices with infrastructures for Youth Training Centres will be established.

3.1.1.2 Existing Scenario of Youths:

As mentioned, technical and vocational training plays an important role in reducing youth unemployment and some progress has been achieved throughout the years. From 2001 to 2010, youth employment has risen by more than 47%. In particular, the highest unemployment rate was found among youths, those within the age range of 15-17 and 18-24 years (more than 10%), followed by those aged 25-29 years (6.7%) (QLFS, 2015-16, BBS). In the context of tackling youth unemployment through job creation, there exist a number of practical challenges. For example, a large segment of youth with school education is not inclined to be engaged in agricultural sector jobs and therefore, job creation should emphasize on non-farm sector such as labour intensive industries including processing of food and other agricultural products, textiles, garments, etc. In the wake of intensifying climate change and rapid urbanization, rural-urban migration has argued to have put pressure on urban labour market and unplanned urbanization is posing serious threat to urban utlility services, infrastructure, environment and labour market, indicating the need to shift the policy focus towards sustainable cities and creating job opportunities in rural and peri-urban areas. Youth development strategies therefore should incorporate a wide range of issues and challenges (GoB, 2015b).

3.1.1.3 Strategies & Policies in Relation to Youth Development:

In the context of youth development, the 7FYP has particularly emphasized on expanding Technical and Vocational Education Training (TVET) system in the country. In addition to traditional TVET program included in SSC, HSC and Diploma courses, the Directorate of Technical Education (DTE) and the Bangladesh Technical Education Board (BTEB) target to strengthen technical and vocational education within formal certification through a number of public and private institutions e.g. courses at polytechnics, vocational training institutes etc. (GoB, 2015b). TVET has got particular emphasis through National Education Policy 2010 and National Skills Development policy 2011 (NSDP) along with the TVET Reform Project (2008-2015). Steps have already been taken to establish 21 Polytechnic Institutes, 389 technical schools and colleges at upazila level and 100 technical schools in rural areas emphasizing on rural based trades and technologies (GoB, 2015b).

Although there is a separate ministry for youths (Ministry of Youth and Sports), youth development can thought to be integrated under a number of ministries and therefore while considering public investment for youth development, we should consider it in a holistic manner while taking into account development programs in relevant ministries as well. Especially, Ministry of Education, Ministry of Primary & Mass Education along with the Ministry of Labour & Employment and Ministry of Expatriates Welfare and Overseas Employment have a wide range of programmes designed particularly for enhancing the quality of youths and to get them involved in productive employment. Table 3.1 highlights development expenditure under 7FYP in these relevant ministries.

**Table 3.1: Ministry wise Proposed Resource Allocation in the 7FYP for Relevant Ministries (Development Expenditure): TK Billon in Constant FY16 Prices**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Key Ministries** | FY16 | FY17 | FY18 | FY19 | FY20 |
| Primary and Mass Education | 55.4 | 82.0 | 93.0 | 103.6 | 116.2 |
| Education | 42.0 | 56.2 | 63.4 | 70.8 | 79.2 |
| Science & Technology | 13.0 | 22.5 | 36.0 | 40.0 | 44.8 |
| ICT | 10.7 | 12.9 | 14.5 | 16.1 | 181 |
| Youth & Sports | 3.3 | 4.6 | 4.9 | 5.4 | 6.1 |
| **Other Relevant Ministries** |  |  |  |  |  |
| Labour & Employment | 2.1 | 3.4 | 5.2 | 7.2 | 9.6 |
| Expatriates Welfare & Overseas Employment | 2.5 | 5.1 | 6.1 | 7.2 | 8.2 |
| Health & Family Welfare | 53.3 | 64.0 | 72.2 | 81.6 | 92.8 |
| Ministry of Cultural Affairs | 1.3 | 1.3 | 1.4 | 1.6 | 1.8 |
| Ministry of Religious Affairs | 2.5 | 2.5 | 2.9 | 3.2 | 3.6 |

 Source: 7FYP, GoB

3.1.2 Policies in Relation to Women Empowerment:

3.1.2.1 Existing Scenario:

Bangladesh is argued to stand out well on gender equality among the developing countries. Especially, among the South Asian countries, it has made impressive progress in a number of gender related indicators. The country continues to perform well in a number of areas, e.g. in achieving gender parity in education. Despite being a patriarchal country, Bangladesh has also made progress in providing the regulatory framework for protection of women’s rights and privileges. In this context, the most important step has been to ratify the National Women Development Policy (NWDP) in 2011. With increased enrolment of girls/women at different stages of education, we observe increased number of women entering the labor force and gaining financial empowerment.

Notwithstanding such progresses on gender agenda, given the patriarchal structure of the society, there are still a number of challenges ahead in mainstreaming women in economic, social as well as in political spheres. According to the GGR, Bangladesh ranks low on this ranking due to a number of factors including those of continued low female labour force participation, wage discrimination against women, inadequate representation of women in senior civil service positions and inadequate female managerial jobs in the private sector. In the context of social empowerment, despite of a number of laws for securing women’s position in the household as well as in the society, the implementation is quite weak. To implement these strategic objectives, GoB plans to increase access to human development opportunities and productive resources while promoting positive social norms. Steps have been taken to establish a conducive legal and regulatory environment with improved institutional capacity, accountability and oversight with increased participation and decision making. Greater social inclusion of women requires reducing such gender gaps.

The GoB has also taken a number of steps to reduce gender gaps at different spheres. For example, the 7FYP has aimed at raising female to male ratio in tertiary education from current 70% to 100% and the ratio of literate female to male for age group 20-24 to 100% from the current 86%. Steps will also be taken to encourage female enrolment in technical and vocational education (GoB, 2015b).

3.1.2.2 Progress in the Area of Gender Budgeting

For the implementation of National Women Development Policy, gender responsive budgeting is imperative for the government to track its financial resources. The Gender Budget Report prepared by the Finance Division is a tool for measuring the impact of gender focused budgeting and has helped to divert national priorities and interventions in the right direction and manages resources to gender focused programs in different sectors. The gender budget report has also ensured accountability and transparency of government’s initiatives for women’s advancement. In the area of gender budgeting, the Government of Bangladesh has made three important developments which are: (i) gender budgeting; (ii) gender analysis in MTBF process and (iii) gender analysis through RCGP model.

Gender Budget report of the GoB explains the policies and strategies for the advancement of women and activities of various ministries/divisions that have implications on women’s development. It also contains KPIs connected with female welfare attained, major achievement for uplifting women’s rights, allocation for women development etc. Gender budgeting was initially introduced in FY2009-10 and in the first year such analysis was done for four ministries. Gender budget report of 2015-16 fiscal year contains analysis of women’s advancement of 40 Ministries/Divisions. As shown in Table 3.2, around one-fourth of total budgetary allocation can be considered to allocated for woman and over the years, in most cases we observe a slight increase in that percentage.

**Table 3.2: Gender Budgeting**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Fiscal Year**  | **Total Budget****(crore taka)** | **Allocation for women development****(crore taka)** | **Allocation for women compared to total budget (%)** | **Allocation for women compared to GDP (%)** | **Ministries/ Divisions** |
| 2009-10  | 110523 | 27248 | 24.65 | 3.95 | 4 |
| 2010-11  | 130011 | 34221 | 26.32 | 4.36 | 10 |
| 2011-12  | 161213 | 42154 | 26.15 | 4.61 | 20 |
| 2012-13  | 189231 | 54302 | 28.68 | 5.23 | 25 |
| 2013-14  | 216222 | 59756 | 27.64 | 5.06 | 40 |
| 2014-15  | 239668 | 64087 | 26.74 | 4.23 | 40 |
| 2015-16  | 264565 | 71872 | 27.17 | 4.16 | 40 |
| 2016-17  | 340604 | 92765 | 27.25 | 4.73 | 40 |

Source: Ministry of Finance (2017)

In addition, the GoB has adopted Medium Term Budget Framework (MTBF) in preparing the national budget. Under MTBF a budget is to be prepared within a medium-term context and includes estimates and projections of revenues, financing and expenditures for the next fiscal year and also for two subsequent years. Gender issues are embedded in the MTBF process. To assess the impact of activities of a ministry on women’s socio-economic betterment, a set of 14 standards including access to health care, education, employment, training, social safety, empowerment, access to law and justice etc. are incorporated. The Finance Division of the GoB has also developed the Recurrent, Capital, Gender and Poverty (RCGP) Model or database where all expenditure items are disaggregated to understand the allocation that goes for the betterment of women. Here, the gender and poverty proportioned percentage data for both revenue and development budget is estimated separately from a standard logic incorporated in the database.

3.1.3 Government Policies towards Child Development:

3.1.3.1 Existing Scenario

There is no denying the fact that, in order to exploit demographic dividend and to ensure consistent long run growth performance, right set of policies for securing the welfare of children is essential. To this end, the GoB has worked consciously towards securing child welfare and progress has particularly been made in the area of child protection. In this connection, there has been the adoption of Children Act of 2013, which provides legal instruments to protect children with regards to a wide range of potential exploitation and abuse including those of child marriage, child labour etc. However, implementation and enforcement of Children Act 2013 is the key challenge ahead. In addition, child focused budget has been introduced and implemented as a pilot within the Ministry of Women and Children Affairs, which is argued to be an important step in relation to public expenditure management towards the welfare of children.

Regarding child health, available evidence suggests that there has been further progress in reducing rates of infant and under-5 mortality as well as in decreasing maternal mortality. Reduction in total fertility rate and population growth rate are also broadly on track. Bangladesh has already attained the MDG 4 target in reducing child mortality rate. Its under 5 mortality rate has dropped to 46 per 1,000 live births in 2014 from 144 per 1,000 live births in 1990, which is a 68% reduction against the target of 66% (GoB, 2015b). However, despite notable progress in reducing under nutrition in recent years, the overall state of malnutrition among children and women still remains a challenge. Prevalence of underweight children under 5 years of age has declined from 66% in 1990 to 33% in 2014. Stunting, a reflection of cumulative effect of chronic under nutrition is the most common form of malnutrition and between 2004 and 2011, although stunting has been reduced by 1.7% annually, out of every 5 children under 5 years of age, 2 are found to be stunted. Another indicator of nutritional deficit is the proportion of children who are wasted and it is estimated that 15.7% of children under the age of 5 are wasted, and there has not been any improvement in this indicator in the last decade.

3.1.3.2 Existing Policies in Relation to Child Welfare

The vision regarding children’s advancement and rights is that all children in Bangladesh, irrespective of gender and socio-economic background should be ensured access to essential services, including social security, health care, nutrition and education, and to be able to enjoy protection from all forms of violence, abuse and exploitation, and to reach their full potential and to realize their rights.

In the context of child health, the programme areas include arrangements for safe child birth, eradication of polio, elimination of measles and neonatal tetanus, improvement of nutrition and strengthening school health programme (GoB, 2015b). In order to achieve these targets, the GoB has taken a number of initiatives in connection to maximizing efficiency and cost-effectiveness of health expenditure and to improve governance of health sector activities. The specific actions in this regard include (i) to aware primary and secondary students about critical child health and reproductive health issues, (ii) encouraging healthy practices and worm infestation, (iii) supplying iron and folic acid tablets to school girls etc.

With a view to incorporating the welfare of the children of poor and economically deprived families, a number of particular initiatives have also been included under National Social Safety and Security (NSSS) program of the government. The strategy advocates a number of core programmes for children, including those of child grant for the children up to age 4 of poor and vulnerable families and school stipend for all primary and secondary school going children belonging to the poor and vulnerable households. In addition, NSSS also aims at providing the children with disability benefit, along with school meals programme, orphans programme and legal provision to provide financial support to abandoned children (GoB, 2015a).

In case of education, significant progress has been made in increasing equitable access, reducing dropout, improvement in completion of primary education, and implementation of a number of quality enhancement measures in primary education. Access to primary education has increased steadily over the past decade. In this context, the contribution of government primary schools, which accounted for 85% of primary school children, played the most important role, which was complemented by Ebtedayee madrasas, and non-formal primary schools managed by NGOs. Net and gross enrolment rates therefore has increased in recent years- in 2014 the GER and NER were 108.4% and 97.7% respectively. Gender parity has also achieved at primary level with Gender Parity Index being 1.03 for GER and 1.02 for NER in 2013. Distribution of free textbooks and provision of stipends (100 taka for one child and 125 Taka for more than one child in school per family) along with the school feeding programme for 34 lakh students is believed to have encouraged primary school attendance.

Under the 7th Plan, measures have been taken to ensure right to protection from abuse, exploitation and violence for all children, particularly those who are vulnerable. A widespread social awareness campaign and community mobilization on protection issues will be undertaken to foster positive attitudes towards children, particularly girls, and to aware the parents and decision makers on the need to protect children.

3.1.3.3 Public Expenditure for Child Welfare:

With a view to understand the child focus component of public expenditure and to design appropriate policies for taking care of welfare of the children, the government has initiated Child Budget for 13 ministries in FY17 and FY18 budget. As shown in Table 3.2 around 40% of budget allocated in these ministries can be termed as child focused. Therefore, the statistics of child budget suggests a child-friendly public expenditure pattern of those ministries. However, just like gender budget, child budgeting exercise is also argued to be mostly a statistical description of data and in many cases the methodology of ascertaining child-focus component is not the true reflection of the actual picture. A more sophisticated and detailed methodology for a better analysis of budgetary allocation of all the ministries should be the next step in this regard.

**Table 3.2: Child Focused Budget in the Ministry of Women and Children Affairs (Billion Tk)**

|  |  |  |
| --- | --- | --- |
| Description | 2017-18 | Revised 2016-17 |
| MoWCA Budget |  | 25.76 | 21.73 |
|  | Non-Development | 23.18 | 20.16 |
|  | Development | 2.58 | 1.57 |
| Child focused Budget in MoWCA |  | 9.24 | 8.31 |
|  | Non-Development | 8.63 | 7.49 |
|  | Development | 0.61 | 0.82 |
| Total Govt Budget |  | 4,003 | 3,172 |
|  | GDP | 22,236 | 19,561 |
|  | Total government budget as % of GDP | 18.00 | 16.21 |
|  | MoWCA Budget as % of GDP | 0.12 | 0.11 |
|  | MoWCA budget as % of total budget | 0.64 | 0.69 |
|  | Child-focused MoWCA budget as % of GDP | 0.04 | 0.04 |
|  | Child-focused MoWCA budget as % of ministry budget | 0.23 | 0.26 |
|  | Child-focused budget as % of Ministry Budget | 35.87 | 38.24 |

Source: Ministry of Finance, 2017

**Section 4: Projecting Future Scenario of Youths, Women and Children**

Given the importance of children, youth and women in economic development, it is crucial to make prediction about relevant indicators crucial for empowerment of these demographic groups for designing future policies and strategies. The perspective plan as discussed has set a number of targets for different socio-economic indicators e.g. growth rate, labour market participation rate, poverty rate etc. for attaining the overall development goals. In this section, an attempt has been made to make simple projection of a number of key indicators of social inclusion and empowerment of the stated groups.[[12]](#footnote-12)

***4.1 Projection of Different Indicators of Youth’s, Women’s and Children’s Empowerment:***

4.1.1 Projection of Labour Market Status of Youths:

There is no denying the fact that, socio-economic status of an individual is closely linked to earnings potential of that individual. In this connection, labour market participation, employment, earnings etc. can considered to be important indicators. In order to design effective policies for economic betterment of children, women and youths, in this sub-section, a quantitative exercise based on a theoretical model as outlined by ADB (2016) has been conducted.

According to ADB (2016), employment at a future time *t* can be expressed in the following manner:

Et=E0 (1+re)t

where Et is total employment in the final year of projection period, E0 is employment in the base year, re is annual rate of growth of employment during the projection period and it is assumed that if η is elasticity of employment with respect to output and rg is growth of output then the following relationship holds:

re = η rg

The crucial parameter in this model is, employment elasticity of output. Under different assumptions of η (following ADB, 2016 and while estimating a simple ordinary least square model), a number of projections can be obtained.

In Table 4.1, based on the methodology as proposed by ADB (2016), under different growth scenario (average GDP growth) and with different assumptions of employment elasticity, youth (both male as well as female) labour force participation rate (s) for terminal years, e.g. 2020, 2030 and 2041 have been shown. Here, from an estimated value of employment elasticity obtained from a simple ordinary least square model, participation projection(s) have been made.[[13]](#footnote-13) With a high growth scenario (average GDP growth of 9%), based on the projection, youth male’s labour force participation rate in 2041 should reach around 83%. This number though not very high, is quite plausible given the expected rise in enrolment in education over time. Besides, male labour force participation, even for developed countries, tend to be within the range of 80 to 90%. The projected youth female labour force participation rate, on the other hand shows a significant increase over time and is projected to reach 49.6% in 2041. Given the existing low participation rate of youths in education, with high economic growth (average GDP growth being 9%), it is expected that there will be greater investment in education of females and more gender friendly working condition, leading to a substantial rise in female’s labour market participation. Given that labour force participation rate is closely related to educational attainment (Annex B), as a policy tool, educational expenditure of the government can proved to be crucial. In this connection, in Table 4.2 the corresponding level of educational expenditure of government (education expenditure as percentage of GDP) for attaining the desired participation rate(s) is shown.[[14]](#footnote-14)

 **Table 4.1: Projected Youth LFPR (%)**

|  |  |
| --- | --- |
| **Targeted Average GDP Growth** | **Projected Participation Rate for Youth Male and Youth Female (%)** |
| Youth Male | Youth Female |
| If elasticity is 0.0510 | If elasticity is 0.0925 |
| *2020* | *2030* | *2041* | *2020* | *2030* | *2041* |
| 5.57 | 74.21 | 76.33 | 78.72 | 40.36 | 42.47 | 44.92 |
| 6.5 | 74.59 | 77.10 | 79.95 | 40.73 | 43.25 | 46.19 |
| 7 | 74.78 | 77.49 | 80.59 | 40.92 | 43.65 | 46.86 |
| 7.5 | 74.97 | 77.88 | 81.22 | 41.11 | 44.05 | 47.53 |
| 8 | 75.16 | 78.28 | 81.86 | 41.30 | 44.46 | 48.21 |
| 9 | 75.54 | 79.08 | **83.16** | 41.68 | 45.28 | **49.60** |

Source: Author’s calculation, LFS various years.

 **Table 4.2: Projected Government Expenditure (for projected youth LFPR) (% of GDP)**

|  |  |
| --- | --- |
| **Targeted Average GDP Growth** | **Projected Government Expenditure (as % of GDP)** |
| Youth Male | Youth Female |
| If elasticity is 0.0510 | If elasticity is 0.0925 |
| *2020* | *2030* | *2041* | *2020* | *2030* | *2041* |
| 5.57 | 1.903 | 1.762 | 1.603 | 1.940 | 1.960 | 1.983 |
| 6.5 | 1.878 | 1.711 | 1.521 | 1.944 | 1.967 | 1.994 |
| 7 | 1.865 | 1.685 | 1.480 | 1.946 | 1.971 | 2.000 |
| 7.5 | 1.852 | 1.659 | 1.437 | 1.948 | 1.975 | 2.006 |
| 8 | 1.840 | 1.633 | 1.395 | 1.949 | 1.979 | 2.013 |
| 9 | 1.815 | 1.580 | **1.308** | 1.952 | 1.986 | **2.026** |

Source: Author’s calculation, LFS various years.

4.1.2 Projection of Labour Market Status of Women:

In Table 4.3, female labour force participation rate (s) for terminal years, e.g. 2020, 2030 and 2041 have been shown. Here, following ADB (2016) for two different values of employment elasticity (0.44 and 0.47) and an estimated value obtained from a simple ordinary least square model, participation projection has been made.[[15]](#footnote-15) Although depending on the future course of the economy in terms of labour absorption rate, the chosen rate should be considered, the participation rates based on the OLS based elasticity appears to be more reasonable than the rates based on other two scenarios. Based on such assumption, for attaining 9% GDP growth on average, FLFPR should be 37% in 2020, 40% in 2030 and 43% in 2041.

With an employment elasticity of 0.08, the corresponding government expenditure is found to be around 2% of GDP and this rate remains almost similar from 2020 to 2041-the terminal years of projection (Table 4.4). Though this allocation is quite low while considering the development needs of the country, given average GDP growth of 9%, in absolute term the allocation might suffice the purpose of required FLFP.

Given the significance of education in female’s participation in the labour market (Annex B) based on similar methodology, the corresponding tertiary enrolment rate for females for years 2020, 2030 and 2041 have also been calculated.[[16]](#footnote-16) The enrolment rates with elasticity of 0.44 and 0.47 (ADB, 2016) reveals similar results but with estimated OLS model of 0.08, the results are quite low (Table 4.5). The results should therefore be interpreted with caution.[[17]](#footnote-17)

**Table 4.3: Projection of Female Labour Force Participation Rate (%)**

|  |  |  |
| --- | --- | --- |
| **Year** | **Targeted Average GDP growth** | **Projected FLFPR(%) using different values of Employment Elasticity with respect to Output** |
| Employment elasticity of female is 0.44 | Employment elasticity of female is 0.47 | Employment elasticity of female is 0.08(OLS) |
| 2020 | 5.57 | 40.13 | 40.46 | 36.38 |
| 6.5 | 40.99 | 41.38 | 36.52 |
| 7 | 41.43 | 41.85 | 36.59 |
| 7.5 | 41.87 | 42.33 | 36.66 |
| 8 | 42.32 | 42.82 | 36.73 |
| 9 | 43.23 | 43.79 | 36.88 |
| 2030 | 5.57 | 51.01 | 52.26 | 37.99 |
| 6.5 | 54.34 | 55.91 | 38.43 |
| 7 | 56.11 | 57.85 | 38.66 |
| 7.5 | 57.94 | 59.86 | 38.89 |
| 8 | 59.82 | 61.93 | 39.11 |
| 9 | 63.74 | 66.27 | 39.58 |
| 2041 | 5.57 | 66.40 | 69.25 | 39.84 |
| 6.5 | 74.11 | 77.85 | 40.65 |
| 7 | 78.34 | 82.60 | 41.07 |
| 7.5 | 82.81 | 87.62 | 41.49 |
| 8 | 87.51 | 92.95 | 41.91 |
| 9 | 97.72 | 104.53 | **42.77** |

Source: Author’s calculation, LFS various years.

**Table 4.4: Projected Government Education Expenditure (for targeted female LFP) (% of GDP)**

|  |  |  |
| --- | --- | --- |
| **Year** | **Average Targeted GDP growth** | **Projected Government Expenditure in Education (% of GDP)** |
| Employment elasticity of female is 0.44 | Employment elasticity of female is 0.47 | Employment elasticity of female is 0.08(OLS) |
| 2020 | 5.57 | 2.00 | 2.00 | 1.95 |
| 6.5 | 2.01 | 2.01 | 1.95 |
| 7 | 2.01 | 2.02 | 1.95 |
| 7.5 | 2.02 | 2.03 | 1.95 |
| 8 | 2.03 | 2.03 | 1.96 |
| 9 | 2.00 | 2.00 | 1.95 |
| 2030 | 5.57 | 2.13 | 2.15 | 1.97 |
| 6.5 | 2.18 | 2.19 | 1.98 |
| 7 | 2.20 | 2.22 | 1.98 |
| 7.5 | 2.22 | 2.24 | 1.98 |
| 8 | 2.24 | 2.27 | 1.99 |
| 9 | 2.29 | 2.32 | 1.99 |
| 2041 | 5.57 | 2.33 | 2.36 | 1.99 |
| 6.5 | 2.42 | 2.47 | 2.00 |
| 7 | 2.47 | 2.53 | 2.01 |
| 7.5 | 2.53 | 2.59 | 2.01 |
| 8 | 2.59 | 2.66 | 2.02 |
| 9 | 2.72 | 2.80 | **2.03** |

Source: Author’s calculation, LFS various years.

**Table 4.5: Projected Tertiary Enrolment Rate (for targeted Female LFPR( (%)**

|  |  |  |
| --- | --- | --- |
| **Year** | **Targeted Average GDP growth**  | **Female Enrollment Rate in Tertiary Education (%)** |
| Employment elasticity of female is 0.44 | Employment elasticity of female is 0.47 | Employment elasticity of female is 0.08 (OLS) |
| 2020 | 5.57 | 9.03 | 9.10 | 8.11 |
| 6.5 | 9.23 | 9.33 | 8.15 |
| 7 | 9.34 | 9.44 | 8.16 |
| 7.5 | 9.45 | 9.56 | 8.18 |
| 8 | 9.56 | 9.68 | 8.20 |
| 9 | 9.78 | 9.92 | 8.23 |
| 2030 | 5.57 | 11.67 | 11.98 | 8.50 |
| 6.5 | 12.49 | 12.87 | 8.61 |
| 7 | 12.92 | 13.34 | 8.67 |
| 7.5 | 13.36 | 13.83 | 8.72 |
| 8 | 13.82 | 14.33 | 8.78 |
| 9 | 14.77 | 15.39 | 8.89 |
| 2041 | 5.57 | 15.42 | 16.11 | 8.95 |
| 6.5 | 17.30 | 18.21 | 9.15 |
| 7 | 18.33 | 19.36 | 9.25 |
| 7.5 | 19.42 | 20.59 | 9.35 |
| 8 | 20.56 | 21.88 | 9.46 |
| 9 | 23.05 | 24.71 | **9.67** |

 Source: Author’s calculation, LFS various years.

4.1.3 Projection of Labour Market Status of Children:

In case of children, there is no denying the fact that, over time with higher growth and socio-economic development, there will be improvement in the condition of children and will be reduction in the participation of children in the labour market. Reducing child labour by 2025 being one of the targets of SDGs (Goal 8) too. With 9% GDP growth on average, by 2041, it is projected that the country would be able to reduce labour force participation of children to 2.7%.

**Table 4.6: Projection of Child Labour Force Participation Rate (Elasticity of -0.82)**

|  |  |
| --- | --- |
| **Average Targeted GDP growth**  | **Child Labour Force Participation Rate (%)** |
| *2020* | *2030* | *2041* |
| 5.57 | 4.308832 | 3.906216 | 1.53824 |
| 6.5 | 3.972878 | 3.537264 | 3.537264 |
| 7 | 3.811427 | 3.362374 | 3.362374 |
| 7.5 | 3.655836 | 3.195381 | 3.195381 |
| 8 | 3.505916 | 3.035962 | 3.035962 |
| 9 | 3.222369 | 2.738615 | **2.738615** |

Source: Author’s calculation, LFS various years.

4.1.4 Projection of Different Health Indicators of Children:

Given the high prevalence of child mortality and high malnutrition rate, child welfare can greatly be enhanced by reducing child mortality and improving different indicators of malnutrition e.g. rates of stunting, wasting, underweight. Such improvements are expected to be influenced by different economic factors and policy tools e.g. higher rate of GDP growth, higher health expenditure, greater number of skilled health stuffs etc. Based on a simplistic ordinary least square model, it can be inferred that, for eliminating stunting (the key indicators of malnutrition), around 9.5% GDP growth is required whereas the required health expenditure (as % of GDP) is projected to be 5.5% and around 82% births are needed to be attended by skilled professionals. Similar projections for zero infant mortality are 8%, 5.4% and 58% respectively and for under-5 mortality, the required GDP is 9%, health expenditure is 2.7% and the percentage of births attended by skilled professionals is projected to be around 50% (Table 4.7).

 **Table 4.7 : Projected Policy Tools, Economic Factors for Child Welfare**[[18]](#footnote-18)

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicators of Child Welfare** | **Necessary GDP growth rate (%)** | **Necessary total health expenditure (% of GDP)** | **Required % of Births attended by skilled health stuff** |
| Zero stunting  | 9.49 | 5.47 | 81.65 |
| Zero infant mortality | 8.04 | 5.37 | 58.21 |
| Zero under-5 mortality  | 9.23 | 2.74 | 49.74 |

Source: Author’s Calculation.

***4.2 Demographic Dividend and Economic Growth- A Case of Youth Population:[[19]](#footnote-19)***

It has been widely accepted that the composition of labor force of a country can play a major role in its development and growth effort. Having greater proportion of working age population (15 to 64 years) which consists of youth population (15 to 29 years)[[20]](#footnote-20) is argued to contribute positively by generating higher output and accumulating greater savings and thereby expected to have positive contribution towards economic growth-this plausible positive impact of the proportional increase of working age population on economic growth is commonly referred as demographic dividend (demographic dividend can be defined as the accelerated economic growth that may result from a decline in a country’s mortality and fertility and the subsequent change in the age structure of the population).This expected growth enhancing effect of youth population however critically depends on the *quality* of youth population in terms of education, health and skill level. Based on such characteristics of population, the implications of rising trend of youth population on the growth prospects of a country can however be quite diverse.

From an initial high fertility-high mortality structure during 70’s, Bangladesh with advancement in health care facilities and expansion of family planning program has succeeded to reduce its total fertility rate (TFR) close to the replacement level and over the course of time has also been able to reduce mortality rate substantially. This structural change in population has resulted in an eventual reduction in the proportion of dependent population (children and older age population) and a corresponding increase in working age population: from 45.33% in 1991, the percentage of population belonging to 0 to 14 years has come down to 31.59 % in 2011 and such a change has resulted in a shift towards increase in the proportion of working age population (15 to 64 years) from 54.66% to 68.41% in the corresponding period (Population and Housing Census, various years). This demographic transition has been reflected in its youth population and according to the Labour Force Survey 2013 (BBS, 2013), within the age group of 15 to 29 years, there was around 43.4 million people so the youth population consisted of around 28% of total population of the country. However, despite required shift in demographic composition, there is argument in terms of essential supporting policy instrument and public investment in education and health services and as a consequence the resulting ‘dividend’ is argued not to be attained at its fullest.

In this sub-section, an attempt has been made to understand the effect of demographic transition to economic growth while investigating the relationship between the share of youth in total population (RYP) to GDP growth (GDPG). While analyzing the time series data of Bangladesh from 1972 to 2014 and separately for different decades (1972-80; 1981-90; 1991-00; 2001-10; 2011-14) it can be inferred that, though in short run the relationship between these variables is not that clear, there is a significantly positive correlation between an increase in the share of youth in total population and economic growth of the country (Table 4.8).

**Table 4.8: Summary Statistics of Key Variables**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **GDPG** | **RYP** | **Correlation****(P – Value)** |
| Period | Mean | Std.Deviation | Mean | Std.Deviation |
| 1972-80 | 1.764 | 7.070 | 23.388 | 0.437 | -0.477(0.193) |
| 1981-90 | 4.021 | 1.549 | 26.984 | 1.453 | -0.292(0.411) |
| 1991-00 | 4.680 | 0.624 | 29.024 | 0.139 | 0.443(0.198) |
| 2001-10 | 5.578 | 0.994 | 29.472 | 0.129 | 0.708\*(0.021) |
| 2011-14 | 6.265 | 0.264 | 28.977 | 0.169 | 0.840(0.160) |
| 1972-2017 | 4.273 | 3.538 | 27.469 | 2.423 | 0.336\*(0.027) |

Source: Author’s calculations (Bidisha & Abdullah, 2017)

However, in order to estimate long run relationship among a number of variables, the most conventional econometric tool is that of cointegration analysis and in this context, based on a standard growth model with relevant variables and while applying Johansen Cointegration analysis it can be deduced that in the long run, RYP has a significant positive impact on per capita GDP growth (Table 4.9). Among other key macro variables, the long run impact of trade-GDP ratio (GDPSTRADE), public spending in education as percentage of GDP (GDPSPSE) have found to be significant with expected sign. Most importantly the impact of GDPSPSE was found to be more than others implying the importance of investment in human capital on economic growth.

**Table 4.9: Cointegrating Equation: Long Run Coefficients**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *GDPG* | *RYP* | *GDPSGFCF* | *GDPSPSE* | *GDPSTRADE* | *SGER* | *Constant* |
| 1.000 | -0.431\*\* | 0.784\* | -1.648\*\* | -0.338\* | -0.087 | 6.387 |
|  | 0.193 | 0.201 | 0.614 | 0.068 | 0.045 | - |

Source: Author’s calculations (Bidisha & Abdullah, 20017)

The evidence of positive and significant long run impact of youth population on economic growth of the country provides indication in favour of the possibility of attaining demographic dividend for the country. In this connection, it should however be kept in mind that, integrating and utilizing the youth population in the growth process of the country requires increased investment in education and skill development programmes and also careful planning and strategizing in favour of it. Given that a significant percentage of youth work force of Bangladesh possesses no education with a very small percentage holds university degree, it is of paramount importance for upgrading the education level of the youth. In terms of technical and vocational training, similar scenario can be found, which requires similar policy focus as well.

***4.3 Projecting Future Skill Demand for Youth Development:****[[21]](#footnote-21)*

Given the crucial contribution of youth population to growth, emphasis should be given in enhancing their quality through education and skill training. As discussed in Section 2, youth population of the country on one hand have lesser representation in TVE and on the other have low rate of enrolment in tertiary education-both acting as constraints for them to get absorbed in the labour market and also to move upwards in occupational ladder.

Tertiary education having significant contribution towards returns to earnings of youth’s (Annex B), in this section, with the help of time series data from 1971 to 2014 (World Development Indicator, Health Nutrition and Population Statistics of the World Bank), an attempt has been made to examine the long run equilibrium relationship between enrolment in tertiary level of education and economic growth. The significance and magnitude of such impact can be utilized to determine the desired level of enrolment in education in the context of Bangladesh. Here, we considered real GDP growth (RGDPG) as the dependent variable with Gross Enrolment in Tertiary Education (GERT); Growth of Gross Fixed capital formation (GGFCF); Growth of 15 to 64 years of Population (GP1564) as explanatory variables. After checking the order of integration, we performed Johansen Cointegration Test and estimated the long run relationship (for detailed method, see Bidisha et al., 2016). Our analysis reveals that, in case of Bangladesh, there exists a positive long run relationship between tertiary enrolment and GDP growth, which emphasizes the importance of increased policy focus on expanding tertiary education. Based on the result of Table 4.11, the long run growth equation can be seen as:

$$RGDPG=0.924(GERT)-0.038(GERTSQ)+0.073(GGFCF)+0.092(GP1564)$$

In order to find the growth maximizing level of GERT, we have modified the initial growth equation and applied the conditions of optimization:

First Order Condition:

$$\frac{∂RGDPG}{∂GERT}=0.924-0.038(GERT)=0$$

Second Order Condition:

$$\frac{∂^{2}RGDPG}{∂GERT^{2}}=-0.038<0$$

Solving this two condition yields that the **growth maximizing level of tertiary level of education is that of 24.32%:**

$$Growth Maximizing Level of GERT= \frac{0.924}{0.038}=24.315$$

**Table 4.10: Long run equation**

|  |  |  |  |
| --- | --- | --- | --- |
| *RGDPG* | *GERT* | *GGFCF* | *GP1564* |
| 1.000 | -0.3214\* | -0.122\* | -0.603\* |
|  | (0.042) | (0.032) | (0.121) |

Note: \* indicates 1% level of significance.

**Table 4.11: Long Run Equation (Growth Maximizing Level of GERT)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *RGDPG* | *GERT* | *GERTSQ* | *GGFCF* | *GP1564* |
| 1.000 | -0.924\* | 0.038\* | -0.073\* | -0.092 |
|  | (0.180) | (0.012) | (0.029) | (0.192) |

Note: \* indicates 1% level of significance

**Section 5: Key Challenges & Proposed Recommendations**

***5.1 Challenges:***

**5.1.1 Key Challenges for Social Inclusion of Youths**

As discussed in Section 2 the key concern in the context of youth population is related to the *quality* of youths particularly in terms of education, skill and training. Challenges also remain in youth female’s access to higher education, participation in labour market etc. In terms of skill and training, a mis-match is argued to have constrained youths’ employability and earnings capacity (Bidisha et al. 2016). Some of the areas of concern in this context are as follows:

* Low Budgetary Allocation in Education: One of the key challenges for quality enhancement of youths is low participation in higher education. As discussed in Section 4.3, for maximizing growth, the required tertiary enrolment rate should be much higher than the current rate. In this connection, one primary concern is that of insufficient funding (Annex D, Table 1) as it is one of the lowest even in South Asia (Annex D, Figure 1). In FY18, the budgetary allocation (development and non development expenditure) of education and technology stood at only 16.3% of total budget.
* Gender and Regional Disparity: Although the country has succeeded in reducing and in some cases even eliminating gender gap at primary and secondary level, the scenario is not that optimistic in case of higher education. This gap although narrower, prevails across youth labour force too (see Section 2). In terms of mere literacy, concern remains too as Bangladesh’s performance is rather poor in comparison to even her neighbours (Annex D, Figure 2).
* Quality of Education: The importance of quality of education has repeatedly been emphasized in the 7th Plan. The existing curriculum and examination system at primary and secondary level often argued not to be in favour of the development of cognitive and analytical skill of pupils (7FYP, 2015) (Annex D, Table 2).[[22]](#footnote-22) There is also concern regarding lack of coordination between university/degree education and actual demand for labour. This often results in high unemployment in one hand and skill wastage on the other. In addition, a widely cited challenge in terms of higher education system of Bangladesh is unbalanced curriculum across universities, particularly those of private and public and lack of quality control in terms of teaching and curriculum (7FYP, 2015).
* Low Level of Investment in TVET Programme: Although the requirement of skilled manpower is around 2 million, the existing facility can provide training of only 5,00,000, indicating even greater requirement of investment in expanding physical capacities (7FYP, 2015). At the moment, as envisaged in the 7th Plan, the allocated resource in the ADP is not sufficient for meeting the growing demand for skill development for attaining targeted economic growth.
* Lack of Accreditation System to Absorb Youths in Overseas Labour Market: Given that migrant workers are mostly young, youth development policies should incorporate their needs with highest priority. One of the key problems of young migrants is the inability to transfer their skills obtained at home to overseas labour market and in this regard, to equip them with relevant transferrable skill is the challenge (ADB, 2016).
* General and Reproductive Health of Youths: An important yet neglected area in case of youth development is health of youth population. Given the scarcity of trained professionals, another challenge is the lack of trained professionals (Annex D, Table 3). In this regard, one area is that of general health whereas other is reproductive health of females. For example, the rate of four prenatal visits is only 31% in Bangladesh, where the South Asian average is 42% (Annex D, Table 4). Besides, given high incidence of child marriage and early pregnancy in the context of Bangladesh, the later issue is of crucial importance for labour productivity of youth population.

**5.1.2 Key Challenges for Women’s Social Inclusion and Empowerment:**

Bangladesh has made significant progress in terms of labour market participation of women and from as low as around 8% in the mid 1980s it has increased to 35.6% in 2015, which is quite impressive in comparison to other South Asian countries.[[23]](#footnote-23) However, in comparison to the participation rate of males, that of females is still quite low with concentration in low paid jobs. In case of education, as discussed in Section 2, gender gap still persists at tertiary level as well as in technical education. Besides, patriarchal and conservative social structure and lack of safety often argue to act as impediments towards women’s social inclusion. The key challenges in this context can be outlined as below:

* Low Participation at Tertiary & Technical and Vocational Education: The participation of women at tertiary level of education, both at higher education as well as technical and vocational education is still quite low (Annex D, Figure 3). In case of participation of women in TVET, often social stigma and patriarchal mindset act as prime obstacles. As for participation at tertiary level of education, one important challenge is related to drop out rate and it is not only economic but primarily those of social factors that act behind this drop out. In this context, one important factor is that of child marriage.
* Low Level of Participation in the Labour Market: According to the (Quarterly) Labour Force Survey 2015, only 35.6% women are in the labour force. Economic empowerment of women is however critically conditional upon their increased labour market participation and bringing the women in the labour market is definitely a key challenge to confront.
* Concentration in Unpaid and Low Paid Jobs: As high as 13% of working age females of Bangladesh are found to be engaged as unpaid family workers (Annex D, Table 5). Despite of being in the labor force such an involvement is not contributing towards their empowerment or economic inclusion and the challenge is to bring them into mainstream economic activities. Besides, those women who are engaged in paid work are also found mainly in low paid and low productive jobs.
* Child Marriage & Early Pregnancy: It is widely accepted that in South Asian countries, the prevalence of child marriage and subsequent early pregnancy are key obstacle for social inclusion of women (Annex D,Table 6). In Bangladesh, as high as 52% girls get married under 18 years of age which can considered as a prime cause for high dropout rate of girls from higher level of education.
* Lack of Security & Increased Violence against Women: There has been increased concern over women’s safety and security and such issues have arguably obstructed women’s empowerment and social inclusion. In Bangladesh, as high as 27.8% of women are found to be victims of physical violence by non-partner, whereas for partners almost half of the women (49.6%) reported to have experienced physical violence with another 27.3% experienced sexual violence (BBS, 2016).

**5.1.3 Key Challenges for Social Inclusion of Children:**

* Infant and Child Mortality: Although the country has made impressive progress over the years in reducing both infant and child mortality rate, the rates are still quite high while considering the targets set by the SDGs and also in comparison to East Asian countries (Annex D, Figure 4).[[24]](#footnote-24) One of the key challenges in this regard is therefore to improve health service delivery particularly to rural based children and to those at hard to reach areas.

* Malnutrition among Children: The country has challenging targets of nutritional outcomes of children. For example, in case of stunting, although the rate has reduced from 71% in 1986 to 41% in 2011, there is more than 6 million children classified as stunted (PC, 2015). In addition, around 2.4 million children under 5 years of age are found to be wasted and 600,000 children suffer from severe acute malnutrition. Challenges also remain in dealing with different micronutrient related deficiency.

* Child Labour and Safety at Work: Between 5 to 17 years of age there is approximately 3.45 million working children and among them 1.75 million are those who are not classified as child labour whereas 1.70 million can be classified as child labour (BBS, 2013). Of the 1.70 million, 1.28 million are found to be engaged in hazardous work. It is not only mere engagement at work but also the type of work which is a matter of serious concern. For example, around 16.84% children are reported to be exposed of dust, fume, noise or vibration at work place with 17% reported to have experienced verbal abuse and 2.5% sexual abuse. Challenges therefore prevails in providing supportive environment with effective implementation of laws to stop child labour and to provide safety at work (BBS, 2016).

* Child Marriage: There is no denying the fact that, child marriage and early age pregnancy are acting as key obstacles towards empowerment of women and Bangladesh is lagging behind in comparison to many other countries in dealing child marriage. It is argued to be one of the key impediments towards continuation of education towards higher level, reproductive as well as general health along with participation in labour market and due to poor implementation of relevant laws, the situation is not improving as expected.

***5.2 Recommendations:***

**5.2.1 Recommendations for Youths:**

In order to utilize the fruits of demographic transition, government strategies and policies on one hand should emphasize on enhancing the quality of youths and on the other aims at providing them gainful employment opportunities. Based on the challenges of youths’ empowerment as outlined in section 5.1.1, a number of recommendations can be proposed:

Allocation of Greater Amount of Resources for Education and Skill Development: With a view to achieving 9.9% growth by the end of 2041 and to attain the SDGs, the most crucial policy step would be to increase allocation in human resource development significantly. The government can also consider other innovative and cost minimizing strategies e.g. two shifts in technical institutes and degree level colleges, GO-NGO partnerships etc. (Bidisha 2016).

* Inequality in terms of Gender and Region: One of the major challenges of youth employment, especially that of females is to increase participation of female students in TVET institutes. In addition, some of the regions of the country with weaker network to bigger cities often do not have access to TVET facilities. Strategies such as, specialized programs concentrating on non-formal, low-tech vocational training, gender sensitive curriculum, gender sensitive infrastructural support for working women etc. can turn out to be important solution in such cases (Bidisha et al. 2016). Given relatively higher return to training for youth females (as opposed to youth males), under the TVET, it is important to substantially increase female quotas to vocational institutes. Besides, it is crucial to recognize the constraints faced by young women in particular and to consider effective solutions for those. In this regard, establishing girls hostel, introducing residential facility in TVE institutes etc. can proved to be useful. Given the lack of flexibility and mobility of women, a significant percentage of women tend to work as family workers (Raihan, Bidisha and Jahan, 2016). Especially in rural areas, in order to encourage them to switch to paid work (e.g. home/village based self employment activities) TVE policies should focus on skill training related to home based work involving less capital and localized techniques (Bidisha et al. 2016; Bidisha 2016).
* Emphasizing on Quality of Education: It is needless to mention that quality assessment is fundamental in education and skill development programmes and in this context monitoring of quality is important at all stages of educational programmes.

A proper coordination and consistency across the modes of teaching, curricula, text books etc. (e.g. across public school, private school, NGO run schools, Madrassa etc.) is essential to bring about equity in terms of human resource development and to improve quality of education.

In order to improve quality of education especially at tertiary level, it is crucial to invest in skill training and to expand the scope of research for the teachers. In this regard, strategies should be targeted, on one hand towards training of primary teachers and on the other to expand the research facilities at higher educational institutes where lack of funding is often argued to be a serious concern for quality development of higher education.

* Creating Employment Opportunities: The key policy focus for creating employment opportunities for the growing number of youths, should be to fill the gap in supply and demand both in the context of tertiary as well as technical and vocational education. As suggested in our analysis, youths with training tend to have higher earning than those without training- young women with training have 11% higher earning where the corresponding figure is 14% for young men, emphasizing the importance of training for youths (Annex B). In case of TVE institutes, assessing demand for any skill development programme, particularly at local is crucial. In the absence of formal Job Centres, the local level government bodies can play the leading role for absorbing the local youths in relevant jobs. For resolving rural unemployment and seasonal unemployment problems, such entities can take initiative to engage the local youths in different non-farm activities (Bidisha et al. 2016). In order to provide the youths with gainful employment, it is crucial to consider about innovative job opportunities in sectors like those of, ICT and electronics, ship building, frozen foods, solar energy etc. In addition, it is essential to modify the curriculum at higher educational institutes.

Studies (Bidisha et al. 2016) have found that, in major economic zones there is mis-match of skill so it is more important to build skills in major economic zones than to create new jobs. Due to such disproportionately distributed economic opportunities across different regions of the country, there is a felt need for decentralized labor market policies (e.g. district or at least region specific policies) to create balanced economic opportunities across the country.

* Emphasizing on General and Reproductive Health of Youths: One of the key strategies would definitely be to allocate greater amount of budget for the development of health sector, particularly for youth female’s reproductive health. In addition, special emphasis should be given in the context of service delivery of hard to reach areas, those with disability along with maternal and health care service delivery and also in case of lack of trained health professionals especially in remote areas.
	+ 1. **Recommendations for Women:**
* Raising Participation at Tertiary & Technical and Vocational Education: In order to reduce gender gap in the job market, especially at the upper stages of occupational ladder, steps should be taken to increase participation of girls at tertiary level of education by a significant margin (Bidisha 2016). In addition to the conventional strategies of infrastructural development, a holistic approach incorporating residential facilities, transportation facilities along with much bigger agenda like preventing child marriage and early pregnancy should be considered with greater emphasis.
* Promoting Gender Friendly Strategies for Increasing Participation in the Labour Market: As revealed in Annex B, having children younger than 5 years of age reduces participation probability of women (also see Mahmud & Bidisha, 2016). Given such domestic responsibilities of women, an important policy tool could be that of providing support in establishing day care centers at the workplace and to formalize and implement the provision of six months maternity leave and to introduce innovative strategies like flexible working hour and part time jobs (Bidisha 2016). Such strategies are expected not only to raise labour force participation rate of women per se, but are also expected to bring more women into *main stream* paid jobs from unpaid and low paid activities.
* Lack of Security & Increased Violence against Women: In order to provide secured and violence free environment for women, more holistic approach is required. A number of strategies like those of one stop crisis centre, helpline number and awareness raising campaigns should be strengthened and the coverage should be expanded. In addition, stronger collaboration between government and NGOs is extremely crucial to stop violence against women. The importance of effective and efficient legal and criminal justice system is definitely pre-requisite for ensuring a safe environment for women both at home and outside. In this context, the most important consideration is however to ensure effective implementation of such laws.

**5.2.3 Recommendations for Children:**

* Strategy for reducing Infant and Child Mortality and for Dealing with Malnutrition among Children: Under the 7FYP, the government has already taken a number of strategies to reduce infant and child mortality and to improve nutrition of the children (see Section 3.1.3.2). Expanding the coverage and magnitude of such strategies, e.g. ensuring safe child birth, eradication of different life threatening diseases, provision of different nutritional supplements etc. is of prime importance in this context.
* Eliminating Child Labour and Ensuring Safety at Work: With a view to achieve the SDG-Goal 8 of eliminating child labour by 2025, it is of upmost importance to adhere strict monitoring of the use of child labour at different works and to take necessary steps to work for the elimination of child labour. In this regard, special attention should be given for the safety and security of domestic workers, along with prohibition of the use of child labour in hazardous work.

* Preventing Child Marriage and Early Pregnancy of Adolescent Mothers: As discussed in Section 5.1.2, Bangladesh has a very high rate of child marriage which often leads to early pregnancy and as a consequence high maternal mortality and infant and child mortality. For the prevention of child marriage, greater emphasis should be given in raising awareness and effective GO-NGO collaboration. Strengthening local administration and increasing awareness at rural level is critical. However, the most crucial challenge is to ensure stricter implementation of existing laws and especially at the local level the government should emphasize about it.

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 **ANNEX A: Methodology of Poverty Analysis**

To measure poverty in this study, the Cost of Basic Needs (CBN) approach has been used. All the tables and figures, generated or adapted are calculated using the definitions of food poverty line, non food poverty line provided by HIES. Conventionally, the poor households are those households whose total expenditures on food and nonfood combined are equal to or less than the food poverty line (ref).However since the main goal of this study is to assess the poverty of children, women and youth, the poverty at household level are of little interest. So, we need to calculate the poverty rates at the individual level, that is, we need to check if each of the individuals can cross the poverty lines. To do so, we first calculated the per capita consumption of each individual in the households. Then, if it is below the pre-specified lower poverty line, he/she is considered to be ultra poor. If per capita consumption is greater than the lower poverty line but less than or equal to upper poverty line, the individual is said to be moderately poor. The rest of the individuals who are above the upper poverty line are considered to be non poor. The incidence of poverty by headcount rates for the children, females and youth are calculated using HIES, 2010. SPGI (Square Poverty Gap Index) is a good approach to measure the intensity of poverty. SPGI was also measured using the following formula:

$$SPGI=1/n\sum\_{j=1}^{q}\{(z-yj)/z\}²$$

Where, $n$ = total number of population,

$q$ = total number of poor,

$z$ = poverty line, $y$j= Per capita consumption

**ANNEX B: Estimation Results of Labour Market Participation and Earnings of Youths[[25]](#footnote-25)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column1 | Column2 | Column3 | Column4 | Column5 | Column 6 | Column 7 | Column 8 | Column 9 |
|  | FEMALE | MALE |
| **Model** | **Probit(marginal effect)** | **Probit(marginal effect)** | **OLS** | **Heckman** | **Probit(marginal effect)** | **Probit(marginal effect)** | **OLS** | **Heckman** |
| Dependent Variable | Labour Force Participation | Participation in Paid | Ln(Earning) | Ln(Earning) | Labour Force Participation | Participation in Paid | Ln(Earning) | Ln(Earning) |
| Age | -0.001(0.001) | -0.003\*(0.001) | 0.003\*\*(0.001) | -0.006\*\*\*(0.002) | -0.001\*\*\*(0.001) | 0.013\*\*\*(0.001) | -0.001(0.001) | 0.008\*\*\*(0.003) |
| Received Training | 0.426\*\*\*(0.013) | 0.254\*\*\*(0.022) | 0.107\*\*\*(0.018) | 0.160\*\*\*(0.032) | 0.016\*\*\*(0.002) | 0.044\*\*\*(0.007) | 0.135\*\*\*(0.012) | 0.147\*\*\*(0.018) |
| Primary Education | 0.114\*\*\*(0.015) | 0.014(0.021) | 0.201\*\*\*(0.028) | 0.203\*\*\*(0.030) | 0.023\*\*\*(0.004) | -0.001(0.011) | 0.097\*\*\*(0.013) | 0.094\*\*\*(0.018) |
| Secondary Education | -0.154\*\*\*(0.014) | 0.192\*\*\*(0.021) | 0.224\*\*\*(0.027) | 0.244\*\*\*(0.035) | -0.001 | -0.039\*\*(0.013) | 0.125\*\*\*(0.013) | 0.114\*\*\*(0.019) |
| Higher Sec Education | -0.177\*\*\*(0.015) | 0.136\*\*\*(0.027) | 0.290\*\*\*(0.029) | 0.301\*\*\*(0.036) | -0.002(0.005) | -0.036\*\*(0.018) | 0.205\*\*\*(0.017) | 0.185\*\*\*(0.024) |
| Tertiary Education | -0.068\*\*(0.029) | 0.108\*\*(0.045) | 0.182\*\*\*(0.038) | 0.199\*\*\*(0.049) | 0.010\*\*\*(0.004) | -0.015(0.020) | 0.275\*\*\*(0.021) | 0.282\*\*\*(0.028) |
| Other Education | -0.173\*\*(0.086) | 0.526\*\*\*(0.062) | 0.003(0.105) | 0.062(0.120) |  | -0.093(0.077) | 0.072(0.075) | -0.059(0.091) |
| Rural | 0.075\*\*\*(0.009) | -0.127\*\*\*(0.013) | -0.056\*\*\*(0.012) | -0.091\*\*\*(0.022) | -0.016\*\*\*(0.003) | -0.008(0.006) | -0.045\*\*\*(0.008) |  |
| Whether HH have land | -0.056\*\*\*(0.009) | 0.100\*\*\*(0.013) |  |  | -0.006\*\*(0.003) | -0.031\*\*\*(0.006) |  |  |
| No of Children under 5 | -0.012\*\*(0.005) | -0.033\*\*\*(0.008) |  |  |  |  |  |  |
| Married | -0.156\*\*\*(0.026) | -0.183\*\*\*(0.034) |  |  | 0.033\*(0.013) | 0.065\*\*\*(0.026) |  |  |
| Family Size | -0.002(0.001) | -0.001(0.002) |  |  | -0.001\*\*(0.000) | -0.011\*\*\*(0.001) |  |  |
| HH Income (excluding the female) | 2.88e-08\*\*\*(0.000) | -6.76e-09(0.000) |  |  |  |  |  |  |
| Whether Use Net | 0.046\*\*(0.018) | 0.027(0.028) | 0.073\*\*\*(0.021) | 0.087\*\*\*(0.027) | -0.013(0.008) | -0.029\*(0.015) | -0.014(0.015) | -0.028(0.022) |
| Whether Have Computer | 0.029(0.023) | 0.021(0.036) | 0.018(0.214) | -0.001(0.033) | -0.026\*\*(0.011) | 0.015(0.012) | 0.065\*\*\*(0.016) | 0.047\*\*(0.023) |
| Constant |  |  | 9.055\*\*\*(0.048) | 9.218\*\*\*(0.084) |  |  | 9.158\*\*\*(0.026) | 9.118\*\*\*(0.077) |
| Lambda |  |  |  | 0.092(0.063) |  |  |  | .118\*\*(0.060) |
| No. of Observation | 15329 | 6979 | 2851 | 1963 | 7179 | 6815 | 5281 | 2689 |

**ANNEX C: Methodology of Vulnerability Analysis**

 Following Haughton and Khandker (2005), if a household is denoted as h. then at time period t, the vulnerability

to poverty, denoted as $v\_{h,t}$, is the probability that the consumption level of the household will fall below the poverty line in the next period, $t+1$:

$ v\_{h,t}=pr(lnC\_{h,t+1} ln z $)…………………………………………………(1)

where $C\_{h,t+1 }$ is the consumption of a household in the following period and z is the pre-specified poverty line.One must face a practical problem in this case, that is, ch,t+1 cannot directly be observed, it is just the expected per capita consumption level of household in the next period. However, it can be estimated by the following model given the determinants of consumption which is nothing but predicting the consumption of next period:

$C\_{h,t}$=$C(X\_{h},β\_{t},α\_{h}$,$e\_{h,t}$)………………………………………………………(2)

where, $X\_{h}$is a vector of observable household characteristics such as the age of head of the household, education level of the household head, size of household members etc.$ β\_{t}$is the vector of parameters,

$α\_{h}$ captures any unobserved time-invariant household effects, such as the abilities of household members,$ e\_{h,t}$ is the error term that measures idiosyncratic factors. The shock to one household is completely independent of the shock to other household. The variance of this error could vary substantially from one household to the next.

Given that we estimate the relationship given by (2) including the variance of expected consumption, vulnerability can be measured as:

$v\_{h,t}=pr(C\_{h,t+1=}C(X\_{h},β\_{t+1},α\_{h},e\_{h,t+1}<z|X\_{h},β\_{t},α\_{h}$,$e\_{h,t}$)………………….(3)

Following Chaudhuri, Jalan, and Suryahadi (2002), a simplified version as shown in (4 ) can be estimated with data from a single cross-section (HIES,2010 for example, in the present analysis):

$ lnC\_{h=}X\_{h}.b+e\_{h}$……………………………………………( 4)

where,$ e\_{h}$~ N(0, $X\_{h}$θ)……………………………………………...(5 )

In short, first, we need to regress the log of per capita consumption on a set of independent variables as described above in order to get the estimated coefficients of equation (4). The next step is to square the residuals from this estimated equation and to regress this square of the residuals on the same variables as in step 1 to get the coefficient $θ$-hat.Once this is obtained, it is then possible to get the estimated variance,$X\_{h}$θ, which will be used to measure the idiosyncratic variance for each household. Finally, assuming that the independent variables that explain the variation of poverty (household size, education of household head, total land holding, residence, age of the household, hygienic condition of the household and so on) do not change from one year to the next, it is possible to get the value of expected log consumption as predicted by equation (4) and the standard deviation of the log of consumption (from equation (5)). Using these, the following measure of vulnerability to poverty for each household can be constructed:

$ v\_{h,t}=pr(X\_{h})=ϕ(ln z- X\_{h}.b/ square root of X\_{h}$θ^)………………………………………..(6 )

where ϕ is the cumulative density function of the standard normal distribution.

As mentioned in Haughton and Khandker (2005), the choice of the line separating those who are vulnerable to poverty from those who are not can be calculated in the following manner:

Households (or individuals) with probability greater than or equal to 0.50 can be considered as highly vulnerable to poverty. Households with probability less than 0.50 but greater than or equal to the headcount poverty rate(which is 0.17 using the lower poverty line as in HIES,2010) have lower probability of being poor in the next year, hence they are regarded as “low vulnerable” to poverty. Finally, if this probability is less than 0.17, they can be treated as “not vulnerable” to poverty. However, as pointed by Haughton and Khandker (2005), the last category should not be taken literally, because there is positive probability that a household would fall in poverty in the next year (or over the next few years).

**ANNEX D: Cross Country Comparison of Different Indicators**

**Table 1: Education Expenditure (2014/15)**

|  |  |  |
| --- | --- | --- |
| **Level** | **Total Expenditure (in Million Tk)** | **Per Student Expenditure (Tk)** |
| Primary | 136765.27 | 7173 |
| Junior Secondary | 47511.12 | 5761 |
| Upper Secondary | 56753.27 | 9155 |
| Post Secondary, Non Tertiary | 5526.76 | 19603 |
| Tertiary | 45705.66 | 16035 |
| Total (MoE) | 155496.80 |  |
| Total (MoE+MoPME) | 292262.07 |  |

 Source: BANBEIS

**Figure 1: Government Expenditure on Education (2010-2014): % of GDP**



Source: UNDP, 2016

**Figure 2: Female Youth’s Literacy Rate (aged 15-24): 2009-2014**



Source: UNICEF, 2016

**Table 2: Indicator of Quality of Educational Pupil-Teacher Ratio (Primary): 2010-15**

|  |  |
| --- | --- |
| **Country** | **No of Pupil Per Teacher (Primary)** |
| India | 32 |
| Bangladesh | 40 |
| Nepal | 23 |
| Pakistan | 47 |
| Sri Lanka | 24 |
| Bhutan | 27 |
| Indonesia | 17 |
| Malaysia | 11 |
| Singapore | NA |
| South Korea | 17 |
| Thailand | 15 |
| South Asian Countries | 33 |
| Least Developed Countries | 41 |

Source: UNDP, 2016

**Figure 2: Tertiary Enrollment Rate of Females (2014)**



**Table 3: Number of Physicians (per 1000 people): 2001-2014**

|  |  |
| --- | --- |
| **Country** | **No. of Physicians** |
| Bangladesh | 3.6 |
| India | 7.0 |
| Nepal | 2.1 |
| Pakistan | 8.3 |
| Bhutan | 2.6 |
| Sri Lanka | 6.8 |
| Malaysia | 12.0 |
| Indonesia | 2.0 |
| Thailand | 3.9 |
| South Asian Countries | 6.8 |
| Least Developed Countries  | 1.8 |

Source: UNDP, 2016.

**Table 4: Antenatal Care: 2010-2015**

|  |  |
| --- | --- |
| **Country** | **% of At Least Four Visits** |
| Bangladesh | 31 |
| India | 45 |
| Nepal | 60 |
| Pakistan | 37 |
| Bhutan | 85 |
| Sri Lanka | 93 |
| Indonesia | 84 |
| Thailand | 93 |
| South Asian Countries | 42 |
| Least Developed Countries  | 42 |

Source: UNICEF, 2016.

**Table 5: Labour Market Status of Working Age Population (2013)**

|  |  |  |
| --- | --- | --- |
|  **Labour Market Status** | **Male** | **Female** |
| Self Employed | 34.00 | 12.23 |
| Wage Employed | 40.77 | 3.97 |
| Unpaid | 3.78 | 13.35 |
| Unemployed | 2.77 | 3.24 |
| Not in labour Force | 18.69 | 67.21 |

 Source: Labour Force Survey 2013.

**Figure 3: Tertiary Enrollment Rate of Females (2014)**



**Table 6: Child Marriage Across South Asian Countries: 2008-2014**

|  |  |
| --- | --- |
| **Country** | **Girls Married by Age of 18 (%)** |
| Bangladesh | 52 |
| India | 47 |
| Nepal | 37 |
| Pakistan | 21 |
| Bhutan | 26 |
| Sri Lanka | 12 |
| Indonesia | 14 |
| South Asian Countries | NA |
| Least Developed Countries  | 41 |

Source: UNICEF, 2016

**Figure 4: Infant Mortality Rate : 2015 (per 1000 live births)**



Source: UNDP, 2016

**Expected Additions in the 2nd Draft:**

1. **In the 2nd draft significant change is expected to take place in Section 2. In absence of latest household level data set-HIES 2015, in this section we performed a restricted analysis with older HIES data. We will update the chapter with HIES data and all the analysis of poverty and vulnerability will be updated accordingly.**
2. **In Section 3, a new section will be added where with the help of HIES 2015 (which is currently unavailable), impact analysis (propensity score matching) of participation in social safety net programme will be conducted.**
1. The author acknowledges research assistance from Mr. Biplob Hossain, Mr. Tanveer Mahmud and Mr. Mahir Rahman of Department of Economics, University of Dhaka. [↑](#footnote-ref-1)
2. There exist different definitions of defining youth and children. In the study, we defined Children as those who are 0-18 years old. In case of poverty and vulnerability estimate, we consider Youth as the group of people who are 18 to 35 years old. [↑](#footnote-ref-2)
3. Many of the remittance recipient households are found to be women headed where women are in charge of the family in absence of men. [↑](#footnote-ref-3)
4. For this exercise youth is defined as ‘the portion of the population who are aged in between 18 and 35 years’. [↑](#footnote-ref-4)
5. See Khondker et al. (2006). [↑](#footnote-ref-5)
6. For having consistency with Labour Force Survey of BBS, in this section, youths have been defined as those within the age range of 15 to 29 years. [↑](#footnote-ref-6)
7. For this exercise youth is defined as ‘the portion of the population who are aged in between 15 and 29 years’. [↑](#footnote-ref-7)
8. For detailed discussion and results, see Bidisha, S. H. (2016). This part is taken from that source. [↑](#footnote-ref-8)
9. Table 2.20 contains percentage of people vulnerable and non vulnerable as a percentage of total people surveyed from that district. The 20 districts listed comprise the coastal region of the country. Basically, there are 19 districts considered as coastal districts (PDO-ICZMP, 2003) but we have included Khulna district, since it is also in the coastal region. [↑](#footnote-ref-9)
10. For this exercise youth is defined as ‘the portion of the population who are aged in between 18 and 35 years’. [↑](#footnote-ref-10)
11. Given that the core policy tool of the GoB is its five year plans, in this analysis the discussion on youth development policies has been based on the 7th Five Year Plan of the GoB. [↑](#footnote-ref-11)
12. Due to absence of time series data, this section mostly relies on simple forecasting exercise. [↑](#footnote-ref-12)
13. The OLS model is : lny= β­0+β1x+u, Where, y= Employment rate of youth(male/ female)

x= Per capita GDP [↑](#footnote-ref-13)
14. Method: Firstly, a regression was run: Y= β­0+β1X+ U, Here, Y= Female/ Youth (male/female) labor force participation rate and X= Government expenditure as percentage of GDP

Secondly, from this regression we obtained the value of β0, β1 , then we solved for X, X= (Y-β0)/β1 [↑](#footnote-ref-14)
15. The OLS model is : lny= β­0+β1x+u, Where, y= Employment rate of women, x= Per capita GDP [↑](#footnote-ref-15)
16. To obtain the required education expenditure for different levels of desired economic growth in 2020, 2030 and 2041, a simple OLS regression was carried out where youth labor force participation rate was a dependent variable and female tertiary enrolment was independent variable. Using the coefficient estimate obtained from this regression, the required levels of government expenditure was calculated for the different values of projected female labor force participation rates. [↑](#footnote-ref-16)
17. For tertiary enrolment rate of youths, see Section 4.3. [↑](#footnote-ref-17)
18. All of the projected values of this table have been obtained from the estimates of two variable simple OLS model. [↑](#footnote-ref-18)
19. This section is replicated from Bidisha, S.H. and Abdullah, S.M. (2017) “Youth Population and Economic Growth in Bangladesh: A Macroeconomic Analysis”, Thinking Aloud, vol 3, issue 11. [↑](#footnote-ref-19)
20. There have been different definitions of ‘youth’, for example, 15 to 24 is defined as ‘youth’ by the UN, 15-29 has been used as a definition by Bangladesh Bureau of Statistics in their survey whereas the Government of Bangladesh defines 18 to 35 years as the reference category for youths. [↑](#footnote-ref-20)
21. This section is replicated from Bidisha et al. (2016). [↑](#footnote-ref-21)
22. Pupil-Teacher ratio at primary level is considered as one of the indicators of educational quality and in comparison to South Asian as well as East Asian countries, it is found to be quite high for Bangladesh. [↑](#footnote-ref-22)
23. According to the statistics of UNDP, labour force participation rates of females in South Asian countries in 2015 are: Sri Lanka 30.2%, India 26.8%, Pakistan 24.3%, Bangladesh 43.1% (UNDP, 2016). [↑](#footnote-ref-23)
24. The country has attained MDG 4 in relation to child mortality. [↑](#footnote-ref-24)
25. This table has been taken from Bidisha (2016). [↑](#footnote-ref-25)