Socioeconomic Development in Bangladesh: Issues and Challenges

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Abstract

Although Bangladesh was termed as the 'test case' or 'international basket case' due to its miserably low levels of socioeconomic development indicators during the post-independence period after 1971, at its golden jubilee in 2021, Bangladesh has proved such doubts mostly incorrect due to its major successes in economic indicators since the 1990s. The resultant outcome of economic development has been reflected in social development indicators. Despite such achievements in socio-economic development indicators, the article draws attention to the fact that the reduction in inequality in social and economic dimensions measured in terms of health, education, women empowerment, ownership of land, income, and societal opportunities carry onto pose daunting obstacles for Bangladesh—notably the high level of rich-poor and urban–rural disparities. Therefore, the Bangladesh government would require an inclusive action plan and effective implementation of those plans to sustain per capita GDP growth, empower marginalized segments of the population, ensure equity and equality and reduce inequalities in social and economic development indicators.

Keywords: Social Development, Economic Development, Socioeconomic Development, Health Development, Education Development, Bangladesh

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Introduction

Historical evidence shows that most of the gains in social and economic development indicators took place in the early 1990s (Mahmud, 2008), and inclusive socioeconomic development gained salience in 1996 when the government reformed socioeconomic policies by highlighting advancement in agriculture and by devising social safety measures for the most destitute segments of the population (Rahman, 2021). More importantly, Bangladesh performed outstandingly in the UNDP Human Development Index (HDI) in the 1990s and ranked among the top-performing countries. In the 2000s, Bangladesh was on target to achieve most of the indicators in the Millennium Development Goals (World Bank, 2005). Moreover, Bangladesh witnessed a 'big jump' in most of its social development indicators in the 2010s, and such improvements obviously outpaced the per capita GDP growth (i.e., economic development). This implies that Bangladesh has become an over-performer in the social achievement benchmark relative to other neighboring countries (Ahluwalia & Hussain, 2004; World Bank, 2005; Mahmud, 2008).

Despite such commendable signs of progress in social and economic development indicators, nearly 18.7 and 5.6 per cent of the population in 2022 still live lower than the national upper and lower poverty line respectively (HIES, 2022). More specifically, the rate of decline in poverty measured in terms of the percentage points shows that overall poverty reduction has slowed in the 2010s compared to the 2000s - overall poverty reduced by 1.7 percentage points per year in the 2000s. In contrast, it was 1.2 percentage points in the subsequent six years of the 2010s.[4] In addition, the poor quality of public service delivery (e.g. social protection and social safety net programs) is also a resulting outcome of poor record in governance and clientelist practice (Afsar, 2010; Rahman et al., 2021; Siddiquee et al., 2022). Moreover, ensuring sustainable growth may not guarantee equity and equality in social development indicators, implying that even if a country achieves robust and sustainable growth, a large proportion of marginalized people may be left behind due to their initial endowments and structural constraints (Rahman et al., 2021) and inequality in economic and social development indicators may rise in some cases.

Moreover, the recent fallouts of the COVID-19 pandemic pose additional challenges faced by marginalized segments of the population, who are hit hardest. Therefore, it is imperative to secure the rights concerning to the social welfare and economic advancement of deprived and distressed communities

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[4] HIES 2000, 2005, 2010, 2016 & 2022 were used to calculate the percentage points.

and reduce inequality arising from exogenous shocks and structural handicaps as well. Reduction in inequality in social and economic dimensions measured in terms of health, education, women empowerment, ownership of land, income, and social opportunities continue to pose daunting challenges for Bangladesh—notably the high level of rich-poor and urban–rural disparities (Islam et al., 2020).

In efforts to reduce social and economic disparities by the government of Bangladesh, the contribution of growth alone is clearly inadequate, and thus, the government of Bangladesh opts for a catch-all growth strategy with fairness and justness. Digitization, despite being an instrument of inclusiveness, may further accelerate inequality if the disadvantaged and marginalized people cannot avail themselves of the opportunities of digitizing e-commerce, mobile financial services, f-commerce, internet banking, and agent banking. Aside from these, the government has started using mobile financial services and agent banking services as a part of financial inclusiveness to transfer the social security allowances. Moreover, fintech thrives service deliveries of small businesses, and heath-techs contribute to health services inclusiveness. Such a development process often favors the affluent and influential ones and, thus, generates inequity across different social and economic stratum (Khan et al., 2011). They have shown that out of 49 factors used in measuring disparities, inequity between the rich and the poor increases and decreases for 16 and 22 factors, respectively. Therefore, there exists evidence of the unequal distribution of wealth between the rich and the poor. The statistic of the Bangladesh Bureau of Statistics (BBS, 2016) showed that the richest 10% hold 38% of the national income, affecting overall progress in social and economic development in many ways.

The primary goal is to analyze the trend of these socioeconomic indicators throughout the country's journey from its beginning, providing a subtle perception of the complex socioeconomic fabric of Bangladesh. By doing so, the paper aims to offer some comprehensive and pragmatic policy recommendations. Thus, the paper, while addressing the multifaceted issues and challenges, particularly in the area of health, education, poverty and inequality, also suggests some policy frameworks which would help gear towards fostering inclusive development, ensure an impartial resource distribution, and address the multifaceted challenges that act as hurdles on Bangladesh's path toward sustained and accomplished socioeconomic growth. In addition, the objective is to contribute insights that can guide policymakers, researchers, and stakeholders in formulating programs and policies that effectively address the root sources of inequality, fostering a more just and balanced course for Bangladesh's socioeconomic future.

2. Data and Methods of Analysis

This study uses the Qualitative Interpretative Meta-Synthesis (QIMS), which is a non-linear synthesizing process of merging themes of the related studies and results in a holistic understanding of a single topic after collecting cross-published national and international journals, books, reports, documents and data (Schuman, 2016; Ruiz & Praetorius, 2016; Islam, 2017; Reza et al., 2019). Estimates for the socioeconomic development indicators are summarized from the estimates developed by the UN Inter-agency Group (UNICEF, WHO, World Bank, UN DESA Population Division) and World Data Atlas. For this purpose, secondary data and relevant literature on the subject matter of our interest have been collected and reviewed based on a thematic approach for the purpose of data analysis including health and education development in Bangladesh, poverty, inequality between rural and urban areas, income distribution, inequality within gender, and access to social development indicators which are appropriate for this study. In addition, a trend analysis using the graphical approach is used in this study as a methodology to gather and analyze the behavior of socioeconomic development indicators of Bangladesh based on recorded data from past.

Based on literature discussed in the introduction section and the data and methods discussed above, this paper ventures to carefully explore the socioeconomic development landscape of Bangladesh, focusing on the persistent challenges that baffle the efforts to mitigate inequalities across crucial dimensions such as health, education, income distribution, and societal opportunities. Despite the remarkable strides made in overall socioeconomic indicators, the paper aims to delve into the enduring impediments, notably the formidable disparities between the affluent and the underprivileged and the urban-rural divide, which continues to impede the nation's progress. The major focuses of the analysis include critical analyses of the secondary data collected on specific themes, identification of challenges persisting in the socioeconomic development indicators considered for the study and policy suggestions for further harnessing socioeconomic development in Bangladesh respectively.

3. Review Findings: Results and Discussion

3.1 Health Development: Government, donor organizations, private sectors, and NGOs comprise the pluralistic health system of Bangladesh, and over the 50 years from the time of its independence in 1971, Bangladesh has made significant and visible successes in crucial indicators including life expectancy, immunization coverage, under-five mortality, infant mortality, neonatal mortality, total fertility rate (TFR) and life expectancy among others. This section highlights the key achievements of Bangladesh in health development.

Infant Mortality[1]: The infant mortality estimates, which shows the likeliness of death between birth and the age of one per 1000 live births, have shown significant improvement over the 50 years (Figure 1). During this time period, infant mortality reduced annually by 1.7% on average. In 2021, infant mortality stands at 23.7 per 1,000 live births, which is relatively lower compared to India (27.7 in 2022) and Pakistan (58.0 in 2021).
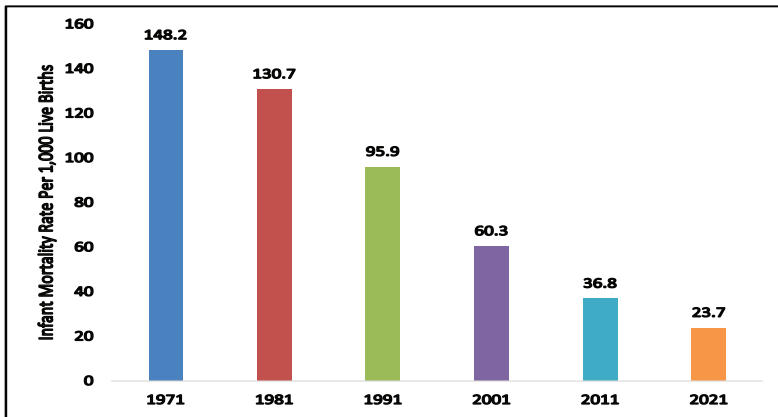

Figure 1: Infant mortality in Bangladesh during 1971 to 2021

Source: World Bank

Neonatal Mortality Rate[2]: Figure 2 reports that in 2020, the neonatal mortality rate declines to 17.5 per 1,000 live births, whereas it was 93.5 in 1971, implying a faster decline in neonatal mortality in Bangladesh. The implication of such a reduction in neonatal mortality is that Bangladesh would be able to attain the proposed SDG target of neonatal mortality, which is 12 deaths per 1,000 live births. Nevertheless, promoting and fostering the health system would accord to a more significant reduction in neonatal mortality.
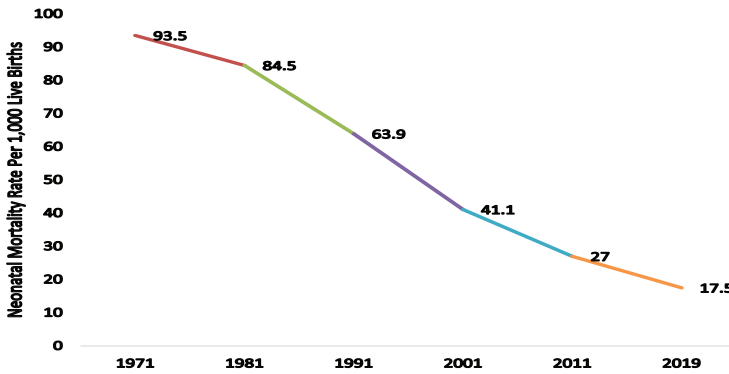
Figure 2: Neonatal mortality in Bangladesh from 1971 to 2019

Source: World Data Atlas

Under-five Mortality Rate[3]: The under-five mortality rate was found to be 221.9 in 1971, and it reached 30.8 in 2019, recommending that Bangladesh has made significant progress in lowering under-five mortality, which declined, on average, by 1.8%. Moreover, Bangladesh has made faster progress in reducing under-5 mortality compared to India (35.7 deaths in 2020) and Pakistan (65.2 deaths in 2020).
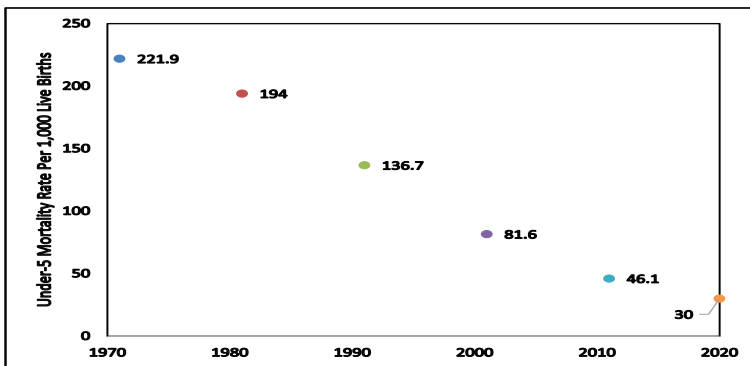
Figure 3: Under-five mortality in Bangladesh during 1971 to 2020

Source: World Bank

Maternal Mortality Ratio[4]: Maternal mortality in respect to the number of live births from a singular pregnancy or a single live birth captures the risk associated with it. Maternal deaths per 100,000 live births are collected from UNICEF and reported in Figure 4, which demonstrates that in spite of the advancement over the five decades, Bangladesh is a laggard among countries in South Asia (e.g., India (145 in 2017) and Pakistan (140 in 2017). Furthermore, Bangladesh would

experience an acute obstacle in reaching the global SDG target of bringing down the maternal mortality ratio to fewer than 70 per 100,000 live births if the present maternal mortality reduction rate (i.e., 3.5% annually) were to hold until 2030.
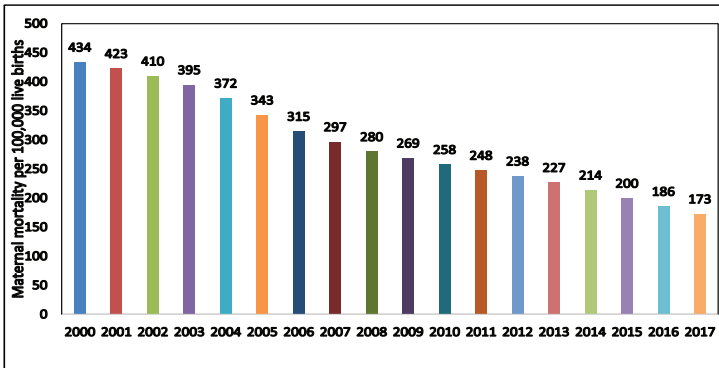

Figure 4: Maternal mortality in Bangladesh from 1971 to 2017

Source: UNICEF

Life Expectancy at Birth: In Bangladesh, life expectancy at birth rose from 47 years in 1971 to 73 years in 2019, growing annually at an average rate of 1.2% (Figure 5). In 1971, at birth life expectancy in India was 48 years and in Pakistan it was 53 years, and it rose to 70 and 67 years, respectively, in 2021. As a result, Bangladesh displays a remarkably higher annual rate of improvement in life expectancy relative to the estimates of those of India and Pakistan.
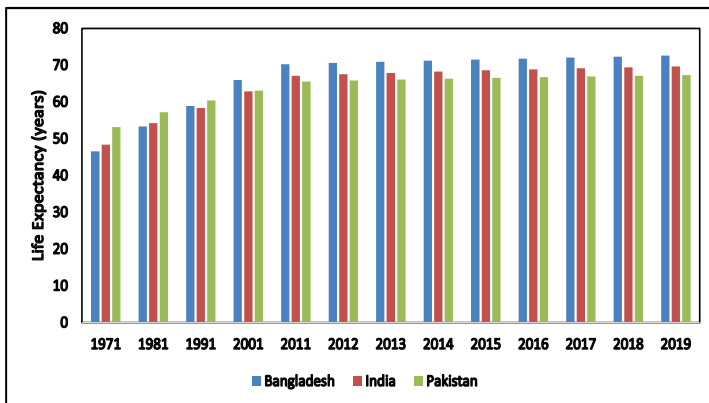

Figure 5: Life expectancy from 1971 to 2019

Source: WHO

Adolescent Birth Rate[5]: The adolescent birth rates of Bangladesh, India and Pakistan, reported in Figure 6, show that Bangladesh

has a relatively higher adolescent birth rate compared to India and Pakistan since around 2001. This is a concern for the government of Bangladesh as the country realizes that early childbirth among adolescent women causes risks and lifts the probability of maternal mortality relative to women who commence childbearing at the age of 20 and above.
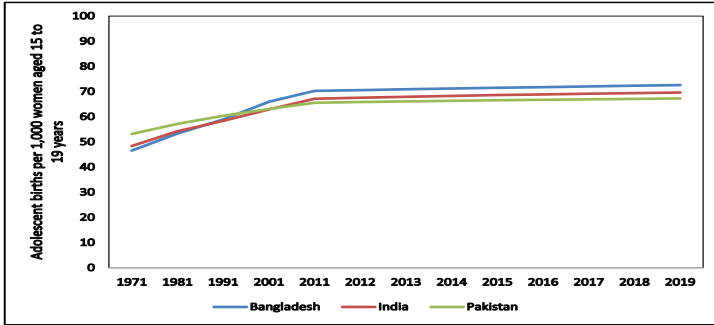
Figure 6: Adolescent births per 1,000 women aged 15 to 19 years

Source: World Bank

Undernourishment: Undernourishment indicates the proportion of the population whose food intake continually falls below the crucial and necessary dietary energy level, and it is measured as a percentage of the population. Figure 7 reports the prevalence of undernourishment in Bangladesh (9.7%), which is relatively low compared to India (15.3%) and Pakistan (12.9%), respectively, in 2019.
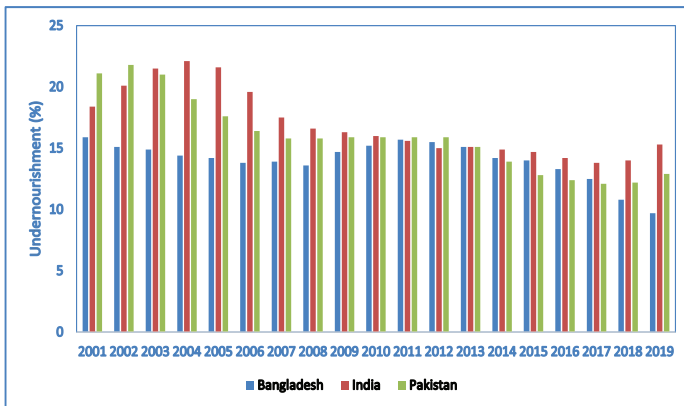
Figure 7: Comparative scenario of the prevalence of undernourishment

Source: World Bank

3.2 Development in Education Sector: Bangladesh has undoubtedly made significant improvements in all sub-sectors of education, including primary, secondary, college, madrasa, technical and vocational, and university. Of such remarkable successes, the increase in the number of educational institutions and the participation of girls at all levels are the two key successes in the education sector of Bangladesh. Despite such progress, ensuring equitable educational quality and equitable learning opportunities for all levels poses a serious challenge to Bangladesh.

Gender Parity Index (GPI)[6]: This study uses the GPI to evaluate the comparative access to education of males and females at both primary and secondary schools together in Bangladesh. The value of GPI in Bangladesh was 0.50 in 1973; thus, it favored males as it was less than one. This result was reversed in 2007, and the GPI reached a value greater than one for the first time in the history of Bangladesh, though primary education was made compulsory in 1990. The highest value of GPI is evident in 2020 (1.15). Girls in Bangladesh have outpaced the boys in terms of gross enrolment at primary and secondary schools. Pakistan is a laggard in this regard as the value of GPI is still less than one, which favors males (Figure 8 for details).
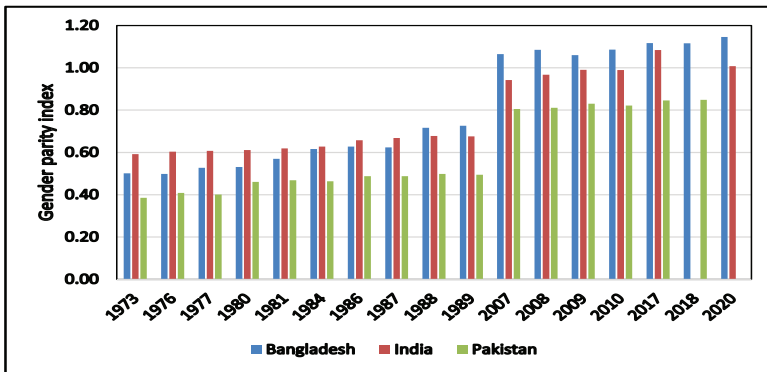
Figure 8: Gender Parity Index (GPI) at primary and secondary schools (gross)

Source: UNESCO

Youth Literacy Rate[7]: The term 'literacy' refers to 'numeracy' (i.e., the ability to make simple arithmetic calculations). Bangladesh has had tremendous success in improving the youth literacy rate, which increased to 94.5% in 2019 compared to 35.7% in 1980. Youth literacy in Bangladesh is well above Pakistan (72.7% in 2018) and marginally higher than India (91.7% in 2017).

Table 1: Youth Literacy: A Comparative Scenario

Year	Bangladesh (%)	India (%)	Pakistan (%)
1980	35.7	53.8	34.8
1990	44.7	61.9	-
2000	63.6	76.4	-
2006	61.9	-	66.3
2010	78.0	86.1	70.8
2011	77.8	-	72.6
2012	85.5	-	71.6
2013	85.6	-	72.8
2014	87.9	-	-
2015	92.2	-	-
2016	93.0	-	74.5
2017	93.3	91.7	72.0
2018	94.9	-	72.7
2019	94.5	-	-

Source: UNESCO

Pupil-Teacher Ratio at Primary and Secondary[8]: A comparative scenario of pupil per teacher at primary and secondary for Bangladesh, India and Pakistan from 1971 to 2018 is reported in Table A1, which indicates that the mean figure for primary schools in Bangladesh stood at 43 students per teacher in 1971, reaching a minimum of 30.1 students per teacher in 2018 and peaking at a maximum of 63 students per teacher in 1990. It also reveals that the pupil-teacher ratio is better for Bangladesh compared to India and Pakistan. The world estimate in this regard was 24.1 in 2018. However, the results are reversed as we compare the estimates of Bangladesh with India and Pakistan for the pupil per teacher at secondary schools. The pupil pre teacher in Bangladesh secondary schools stood at 35.1 in 2018, whereas it was 28.5 and 20.4 for India and Pakistan, respectively (See Annex Table A1).

3.3 Discussion on Development in Health and Education: If we analyze the reasons behind the success of all these health indicators, we can identify some significant issues. Over time, in these 50 years, various achievements are closely related to these parameters. Progress in the education sector is assumed to be correlated with the improvement of health status. As more people are literate and aware, they are more careful about their food intake, safe drinking water, availing healthcare services during illness, avoiding traditional rural

treatment, and realizing the need for facility-based delivery. These have also been possible for the success of the field-level workers. The psychology of educated people is also very different from those who are not. They are more conscious and informed. The growth and general prosperity also made it possible to access more and better medical care and better food as the per capita income increased significantly in Bangladesh. This, in turn, reduced maternal mortality, neonatal mortality, infant mortality, under-five mortality, and increased life expectancy at birth.

Bangladesh achieved remarkable success in the education sector, too. Human resource development (HRD) has been one of the primary goals of Bangladesh's government. For this purpose, various plans and programs have been undertaken at different times. Education for all, mandatory primary education, food for education, and universal female secondary stipend programs are some prominent programs adopted by the government that encouraged and changed rural parents' attitudes towards sending their children to school. Special incentive programs targeting females helped reduce the gender disparity in favor of females. The overall rise in income level, which has come along with the growth and development of the nation, also contributed to a higher level of education, as access to education is now easier.

Policy Suggestions for Health and Education Sector: The population's health significantly impacts on a nation's standard of life, development and growth. Being a priority, policy designing in this sector needs major heed, and the government requires special effort in the following fields: a) To provide safe drinking water along with nutritious and healthy food with proper sanitation, which will ensure improvement of the health status of the poorer segment of the population. b) To make the primary healthcare system more efficient and more effective. c) To monitor the health complexes at grassroots levels for the healthcare worker's presence and activities and for delivering optimal services. d) Allocate adequate funds for the healthcare sector for research, capacity building, purchasing modern equipment and other healthcare services. e) To train and educate field-level workers to deliver better outcomes. f) Increase the number of community clinics and collaborate with NGOs and other development partners. g) Create special units in all Upazila levels to provide special antenatal and neonatal care. h) Increase awareness and educate people, especially women and the heads of households, about skilled birth attendance and facility-based delivery to avoid maternal mortality.

The following policies can be adopted by the government based on the above findings for further development in education. a) Increase the awareness and education of parents. b) Encourage parents to send their children, especially male children, to school at least till secondary level instead of engaging them in income-earning activities or early work. c) Improve training facilities for teachers, d) More incentive programs for the education of underprivileged children, e) Increase allocation for education in the national budget. f) Monitor and extend help at the community level to improve the quality of education g) Provide help to build or upgrade the existing educational institutional infrastructure. h) Work in coordination with NGOs and other agencies to improve the educational sector.

3.4   Poverty   Reduction   Bangladesh: The   analysis   has searched   into   the   pattern   in   which   poverty   has   declined   in Bangladesh,   with   a   special   focus   from   the   year   2000   onwards. According to the HIES of 2016, the poverty reduction rate has slowed down since 2010, although this rate is in decline in the country. Therefore, it is of great importance to draw the attention of the policymakers with a view to understanding the underlying reasons behind the slowed down in poverty reduction in Bangladesh. Moreover, the connection between poverty and inequality has also been addressed.

Poverty Reduction in Bangladesh: Exploring the speed and form of poverty at both the national and extreme level scenarios are of great importance for policy implications. Since the beginning of the 21st century, Bangladesh has made a great stride in poverty reduction. During the 2000s, Bangladesh experienced a significant increase in the rate of alleviating poverty compared to the 1990s. This implies that the poverty rate had fallen comparatively sharply - from 48.9 per cent in 2000 to 31.5 per cent in 2010, whereas during the 1990s, the rate of poverty had declined to 48.9 per cent in 2000 from 56.7 per cent in 1992. Table 2 summarizes Bangladesh's poverty trend using the head-count poverty ratio from 2000 to 2016. From 2010 to 2016, the rate of poverty experienced a comparatively gradual decrease, dropping from 31.5 percent in 2010 to 24.3 percent in 2016 (Table 2). The same pattern is also evident in extreme poverty reduction in Bangladesh. Extreme poverty reduced to 17.6 and 12.9 per cent in 2010 and 2016, respectively, from 34.3 per cent in 2000. This implies that Bangladesh has witnessed a slowdown in extreme poverty reduction during the period of 2010 to 2016 compared to 2000 to 2010.

Table 2: Poverty trend in Bangladesh: 2000 to 2016 (Head-count ratio; percentage)

Poverty	2000	2005	2010	2016
National poverty	48.9	40.0	31.5	24.3
National extreme poverty	34.3	25.1	17.6	12.9

Source: Compiled from HIES data sources

Urban Poverty Reduction in Bangladesh: The pace and pattern of urban poverty reduction has been explored here. Bangladesh in the 2000s achieved a strident acceleration in the pace of urban poverty reduction compared to the subsequent six years of 2010s. Therefore, the rate of urban poverty reduction was relatively very sharp in the 2000s - from 35.2 per cent in 2000 to 21.3 per cent in 2010, whereas it declined to 18.6 per cent in 2016 from 21.3 per cent in 2010, clarifying that during the subsequent six years of 2010s, the poverty rate had declined comparatively slowly. In the case of urban extreme poverty reduction, this study finds that urban extreme poverty reduced to 7.7 and 7.4 per cent in 2010 and 2016, respectively, from 19.8 per cent in 2000. Therefore, Bangladesh witnessed a sharp urban extreme poverty reduction in the 2000s compared to the subsequent six years of 2010s. Moreover, urban extreme poverty reduction in Bangladesh has become virtually stagnant in recent years.

The urban poverty rate decline measured in terms of the percentage points shows that the speed of reduction in poverty in urban areas has impeded in the 2010s compared to the 2000s. Urban poverty was reduced by 1.4 percentage points per year in the 2000s, whereas it was 0.5 percentage points in the subsequent six years of 2010s[8]. The pace of urban poverty reduction has been one-third in the 2010s compared to the 2000s - from 1.4 percentage points per year in the 2000s to 0.5 percentage points per year in the following six years of 2010s. This scenario gets worse in the case of urban extreme poverty reduction in the 2010s compared to the 2000s - from 1.4 percentage points per year in the 2000s to 0.1 percentage points annually for the next six years from 2010.

Rural Poverty Reduction in Bangladesh: The pattern and pace of rural poverty reduction shows that Bangladesh in the 2000s achieved a faster acceleration in rural poverty reduction compared to the 2010s. Rural poverty reduced to 35.2 per cent in 2010 from 52.3 per cent in 2000, whereas rural poverty declined to 26.4 per cent in 2016 from 35.2 per cent in 2010. Similarly, rural extreme poverty reduced to 21.1 and 14.8 per cent in 2010 and 2016, respectively, from 37.9 per cent in 2000. Therefore, the rate of poverty reduction in rural areas

during the subsequent six years of the 2010s was marginally slower than that of the 2000s.

The rate of rural poverty reduction measured in terms of the percentage points shows that the pace of rural poverty reduction has decelerated in the 2010s compared to the 2000s. Rural poverty was reduced by 1.7 percentage points per year in the decade of 2000s, and it was marginally lower (i.e., 0.2 percentage points) in the subsequent six years of 2010s[9]. For the same period of the subsequent six years of the 2010s, findings show that the rate of rural extreme poverty reduction is much slower compared to the rural poverty reduction (i.e., rural poverty reduced by 1.5 percentage points and rural extreme poverty reduced by 1.1 percentage points) though both rural poverty and rural extreme poverty reduced by 1.7 percentage points in the 2000s.

Therefore, the overall slowdown in the speed of poverty reduction from 2010 to 2016 appears to have more impact on urban regions than rural ones. This requires policymakers to focus more on poverty, especially extreme poverty reduction in the urban areas of Bangladesh.

3.5 Inequality in Bangladesh: The outstanding rate of economic expansion has been evident in Bangladesh's economy in recent decades. GDP has grown slightly over an average of 6.8 per cent per year during the period of 2010 to 2019. In spite of achieving such high growth rates, the poverty reduction rate was relatively slow during the period of 2010 to 2016 compared to the period of 2000 to 2010. This implies the indication of more unequal income distribution in Bangladesh in the past few years. Therefore, Bangladesh's growth and poverty reduction pace is not the same. There might be a reason that unequal household consumption growth in Bangladesh may contribute to the slower pace of poverty alleviation in Bangladesh. Therefore, the distribution of income or consumption is an important indicator used to investigate the distribution layout of the percentage household income share. Evaluate the distribution pattern of the household income or consumption percentage share among the different groups in the country. It measures the extent of household income or consumption concentration by the higher household income or consumption group. The Gini coefficient is a widely used indicator to measure the extent of household income or consumption concentration. Zero Gini coefficient implies 'perfect equality' whereas the value of one for Gini implies 'maximum inequality' among different values. This study explores the income and consumption inequality dynamics in Bangladesh.

The trend of Income Inequality in Bangladesh [10]: The national values of the Gini coefficient from the official statistics of BBS are reported in Figure 9,

which shows an upward long-term trend since 1973. Inequality rose from 1973 to 1981 and remained effectively unchanged throughout the 1980s. It has gone up again from the 1980s to the 1990s, after remaining nearly still all through the 2000s, it has started to increase once more from the point onward. The national estimate of the Gini coefficient for Bangladesh has increased from 0.46 in 2010 to 0.48 in 2016, which is worrisome for development. The Gini coefficient for per capita income from 2000 to 2016 yields akin results with those obtained for household income.
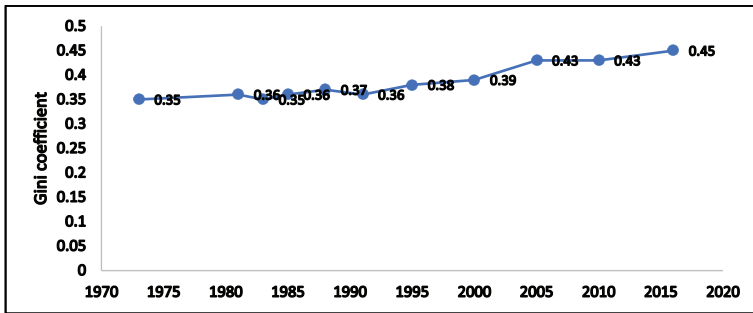
Figure 9: Trend of income inequality in Bangladesh

Source: Compiled from different HES and HIES

Trend of Income Inequality in Rural and Urban: The Gini coefficient of income reported in Figure 10 reveals that both rural and urban areas have witnessed an upward long-term trend since 1973, implying rising inequality since then. Nevertheless, the rise has been remarkably steep in urban localities, with Gini coefficient increasing from 0.38 in 1973 to 0.50 in 2016. The values of the Gini coefficient were higher in urban areas throughout the period of 1973 to 2016 compared to rural areas, indicating that income inequality is higher in urban areas compared to in rural areas.

During the period of 2000s, the Gini coefficient has risen up from 0.39 in 2000 to 0.45 in 2016 in the rural whereas it has increased to 0.45 in 2016 from 0.43 in 2010. The values of Gini, both in rural and urban have taken an upward trend since 2010.
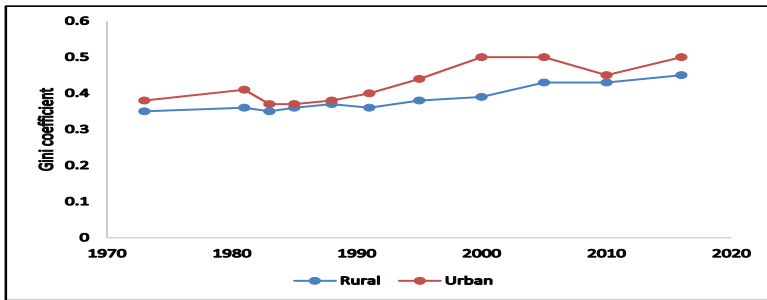
Figure 10: Trend of income inequality in urban and rural

Source: Compiled from different HES and HIES

Income Inequality (Richest 10% vs. Poorest 40%): This study uses a different perspective (i.e., Palma Ratio) from the Gini coefficient to examine income inequality. The Palma ratio demonstrated in Table 3 holds a sharp and well-defined implication about the optimal method of evaluating income inequality in Bangladesh. Given that the mid-range of the distribution remains comparatively steady, the emphasis should be on the extremes of the distribution, where most of the changes occur, rather than depending solely on the Gini coefficient. In addition, this study estimates the change that occurred between the two periods (i.e., 2000 to 2010 and 2010 to 2016). It shows that the bottom 40 per cent's income share has gradually declined over time. However, the pace of decline in the income shares of the bottom 40 per cent is much higher during the period of 2010 to 2016 compared to the period of 2000 to 2010. In the case of the income share of the top 10 per cent, the pace of decline is found to be negative during the period of 2000 to 2010, and it became the opposite during the period of 2010 to 2016, implying an increased income share of the top 10 per cent. Though income shares of the bottom 40 per cent and top 10 per cent have declined, the pace of decline in income share was found to be higher for the top 10 per cent. This contributed to lowering the Palma ratio in 2010. But during the period of 2010 to 2016, the income shares of the top 10 per cent has increased significantly, whereas it has decreased for its counterpart. Moreover, it is noted from the historical perspective that the Palma ratio for Bangladesh has consistently increased to 2.93 in 2016 from 1.68 in 1964, and during the same time period, it has increased more in rural (i.e., 2.51 in 2016 from 1.38 in 1964) compared to the urban (i.e., 2.96 in 2016 from 2.00 in 1964). This clarifies that the rise in the share of the top 10 per cent has occurred at the cost of a decline in the share of the bottom 40 per cent.

Table 3: The Palma Ratio

	2000	2005	2010	2016
Income shares of bottom 40 percent	15.83	14.36	14.32	13.01
Income shares of top 10 percent	38.01	37.64	35.85	38.16
Palma Ratio	**2.40**	**2.62**	**2.50**	**2.93**

Source: Compiled from different HIES

Table 4 shows the increasing trend of Palma ratio for rural Bangladesh since 2005. This implies a relatively better-off position in the upper10 per cent of the populace compared to the bottom 40 per cent in rural. From a macro perspective, Bangladesh's growth is increasingly concentrated in the hands of the wealthiest top 10 per cent of the population. Therefore, the top 10 per cent enhanced their income share between 2010 and 2016 in the rural. However, the Palma ratio declined to 2.48 in 2010 from 3.09 in 2005 in urban Bangladesh, implying a relatively better position in the rural compared to the urban. However, it has been increasing since 2010, and income concentration has been much higher in the urban areas. The Palma ratio increased to 3.11 in 2016 from 2.48 in 2010.

Table 4: The Palma Ratio: Rural vs. urban

Year	Rural	Urban	Gap in Palma Ratio (urban-rural)
2005	2.14	3.09	0.95
2010	2.16	2.48	0.32
2016	2.51	3.11	0.60

Source: Compiled from different HIES

3.6 Consumption Inequality in Bangladesh: As inequality is linked with poverty, poverty reduction can slow down in the presence of unequal distribution even when growth accelerates. As we have already explored the increased income inequality over time, we now attempt to explore the inequality in consumption, as assessed through the Gini coefficient. As an official statistic, BBS estimates poverty by considering consumption rather than income, making consumption inequality the most pertinent measurement of inequality in Bangladesh (Table 5) if the case is to explore poverty reduction. Consumption inequality has remained remarkably constant in the rural during the period of 2000 to 2010 over time. However, it increased significantly to 0.300 in 2016 from 0.275 in 2010, at least

as evaluated using the conventional Gini coefficient. Therefore, more than a plain explanation based on inequality is required. Consumption inequality has declined slowly in the urban from 2000 to 2016. Therefore, if a change that increases inequality in rural areas is combined with a situation that leaves the status of inequality in urban areas unchanged, the overall inequality index may stay unchanged or can slightly increase, even if the rural areas are negatively affected. This also contributes to reducing the gap in Gini measured by the difference between urban and rural. This signifies the importance of exploring structural changes in Bangladesh's economy for an in-depth understanding of the implications for the distribution among those at the bottom segment of the range compared to the top end. The widely recognized approach used to measure inequality in this regard is the 'Palma Ratio' defined as the division of the share of gross national income (GNI) held by wealthiest 10% of the population by the share held by the least affluent 40%.

Table 5: Gini coefficient of consumption: Rural vs. urban

Year	National	Rural	Urban	Gap in Gini (Urban -Rural)
2000	0.307	0.271	0.368	0.10
2005	0.310	0.278	0.353	0.08
2010	0.320	0.275	0.338	0.06
2016	0.324	0.300	0.330	0.03

Source: Osmani (2019)

The emphasis on the consumption growth of the lowest 40 per cent of the population in comparison to the entire populace shows that consumption growth has reduced for the bottom 40 per cent over three time periods: 2000-2005, 2005-2010 and 2010-2016. However, the consumption growth of the overall population has increased to 1.6 per cent during 2010-2016 from 1.4 per cent during 2005-2010; thus, it gives rise to inequality in consumption (Table 6).

Table 6: Consumption growth: bottom 40 per cent vs. overall

	2000-2005	2005-2010	2010-2016
Bottom 40 percent	2.3	1.8	1.2
Overall	2.3	1.4	1.6

Source: World Bank (2019)

3.7 Income Inequality and Per Capita Income in Bangladesh: As per Simon Kuznets, both economic growth and income inequality should occur together at the early stage of development. Table 7 shows that both per capita income and the GINI coefficient have been increasing over time (i.e., 1973 to 2016). Therefore, growth is accelerating income inequality in Bangladesh. This implies that Bangladesh is still in the initial phases of its development, as per Kuznets.

Table 7: Income inequality and per capita income

Year	National income Gini	Per capita income (in Thousand BDT)
1973	0.36	9.9
1981	0.39	10.3
1983	0.36	10.8
1985	0.38	11.1
1988	0.38	11.7
1991	0.39	12.4
1995	0.43	13.9
2000	0.45	16.6
2005	0.47	20.5
2010	0.46	27.1
2016	0.48	36.8

Source: Compiled from different HES and HIES

3.8 Regional Dimension of Poverty in Bangladesh: As shown by the headcount ratio (HCR) across the eight divisions, the regional aspect of poverty discloses that the Rangpur division stands distinctly with the highest HCR, reaching 47.2 per cent when considering the upper poverty line in 2016. This is followed by Mymensingh (32.8 per cent), Rajshahi (28.9 per cent) and Khulna (27.5 per cent), respectively. The lowest incidence of poverty is evident in Dhaka (16.0 per cent). Similarly, the regional dimension of the incidence of extreme poverty using the lower poverty line for the eight administrative divisions indicates that the Rangpur division holds the highest HCR, estimated at 30.5 per cent. This is followed by Mymensingh (17.6 per cent), Barisal (14.5 per cent) and Rajshahi (14.2 per cent) in their respective order. Dhaka division records the lowest prevalence of extreme poverty at 7.2 per cent.

Moreover, a distinct disparity exists in the reduction of poverty between the Eastern and Western regions of Bangladesh. East comprises Chittagong,

Dhaka, Mymensingh and Sylhet divisions, whereas West consists of the divisions of Barisal, Khulna, Rajshahi and Rangpur divisions. Over the course of history, the Western region has persistently experienced lower economic advancement compared to the Eastern in terms of economic prosperity, resulting in the Western region experiencing the highest poverty rate. This holds true regardless of using the upper or lower poverty lines in measuring poverty and extreme poverty, respectively (Table 8).

Table 8: Regional dimension of poverty and extreme poverty in 2016

Region	Using the upper poverty line	Using a lower poverty line
West	34.6	19.1
East	20.5	10.4
Gap (East-West)	**-14.1**	**-8.7**
All	**24.2**	**12.8**

Source: Author's compilation and computation from HIES (2016)

Now, let us investigate the disparity in the segment of households engaged in agriculture between the Eastern and Western regions. A more significant percentage of households in the Western region are associated with agricultural activities compared to the Eastern region. This gap remains significant and keeps going at a high level. Additionally, the reduction rate in dependence on agricultural livelihoods is slower from 2010 to 2016, with a decline of 1.8 percentage points annually, contrary to a more considerable decline of 3 percentage points per year during the same period of time. Moreover, it is significant to note that poverty incidence is remarkably higher in the agricultural sector when compared to the industry and services sectors. Consequently, it leads to a higher rate of poverty in the Western region compared to the Eastern region.

Table 9: Share of households in agriculture and changes over time

Year	Share of households (%)		
	East	**West**	**Gap (East - West)**
2010	28.2	47.9	-19.7
2016	23.2	42.7	19.5

Source: WB (2019)

Landlessness and Day Labour: This time, we explore who migrates to urban from rural. It is evident from the literature that people belonging to the bottom rung of the population usually migrate. Osmani (2018) shows that rural landless people have greatly migrated to urban areas after 2010 compared to 2000-2010. It is evident that the proportion of individuals without land ownership (<0.05 acre) within the rural populace was 50.9 per cent in 2010, whereas it declined dramatically to 32.3 per cent in 2016 (Figure 11). The poverty literature in Bangladesh establishes that there are extremely poor living in rural Bangladesh. Such extreme poor migrate to urban with the expectation of a better livelihood. But, too much supply may not create opportunities for better livelihoods for many of them (i.e., the fallacy of composition). Urban areas in Bangladesh are not an exception to this case. Moreover, the slackening in agricultural growth rate in the past years is a strong push factor in this regard.
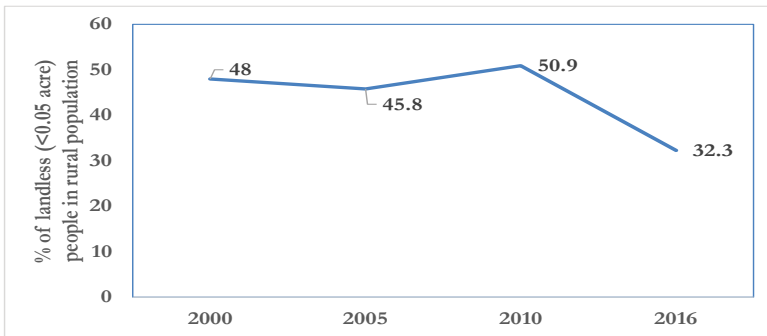

Figure 11: Share of landless people in rural Bangladesh

Source: Compiled from different HIES

The highest level of incidence of poverty is evident among day laborers (34.1 per cent) in 2016, and this is followed by self-employed workers (18.8 per cent). Disaggregated estimates of the incidence of poverty show that 38.7 per cent of agricultural day laborers are poor, whereas 30.2 per cent of non-agricultural day laborers (i.e., a distinct separation between agriculture and non-agricultural sector). Similar estimates show that 20.4 per cent of agricultural self-employed were poor in 2016, whereas 17.1 per cent of self-employed in non-agriculture. Now, this study looks into the trends of reductions in the incidence of poverty for these groups, considering the period from 2000 to 2016. Self-employed workers in non-agriculture enjoyed the highest reduction in the incidence of poverty (around 5 per cent per year) during the period of 2011-2016, and the least reduction in poverty is evident for day labor (2.1 per cent per annum) as well as self-employed in agriculture. Therefore, the recent slowdown in the

rate of alleviating poverty is the resultant outcome of the slowdown in the rate of poverty reductions among day laborers and self-employed workers in agriculture.

Table 10: Incidence of poverty and poverty reduction: 2000-2016

Categories	Incidence of poverty (%)			
	2000	2005	2010	2016
Day labor	67.0	57.0	39.0	34.1
Self-employed in agriculture	45.0	36.0	23.0	20.0
Self-employed in non-agriculture	37.0	26.0	24.0	17.0

Source: Osmani (2018)

The occupational distribution of workers by education shows that the highest share of the workforce with no education (53.9 per cent) is found for day labour, which is a less remunerative occupation. This is followed by primary education (42.1 per cent) and secondary education (25.3 per cent) respectively. This suggests that the share of day labour declines with the level of education. A similar pattern is also evident for those who work for themselves in the field of agriculture. But such kind of relationship does not hold for self-employed workers in non-agriculture. However, the reverse pattern is established for salaried workers and employers, implying that the share of salaried workers increases with education. The findings imply that workers with more education prefer to join more remunerative jobs, which, in turn, help them escape poverty. While exploring the link between the incidence of poverty with different education levels of the various groups of workers, day laborers, and self-operator workers in (the agriculture and non-agricultural sectors), this study finds the inverse relationship between the prevalence of poverty and the level of education irrespective of the occupations considered for a study.

Now, it is important to investigate the regional disparity (east-west) in relation to the prevalence of daily wage labor and self-employed workers in Bangladesh. In 2016, about 38.3 per cent were day laborers, while the Eastern region constituted 32 percent, the Western region accounted for 45.9 percent. This suggests that the West has a significantly greater prevalence of day labor than the East. A similar pattern is evident for self-employed workers. However, contrast is found in the case of salaried workers. The share of salaried workers in the West is 19.3 per cent, whereas it is almost double (i.e., 37 per cent) in the East (Table 11).

Table 11: Pattern of occupations in 2016

Region	Day labor	Self-employed	Salaried workers
West	45.9	34.2	19.3
East	32.0	30.0	37.0
Overall	**38.3**	**30.6**	**30.2**

Source: Osmani (2018)

Access to services and land ownership: Progress is also made in the access to tube well water, piped water and electricity. However, progress in terms of households owning cultivable land reversed after 2005. In addition, progress in access to hygiene sanitation is modest. Therefore, there is room for improvement in the access to proper sanitation and cultivable land.

Table 12: Trend of access to services and land ownership (%)

Health	2000	2005	2010	2016
% of households with tubewell water	51.5	57.8	57.7	59.1
% of households with piped water	6.8	7.6	10.6	12.0
% of households with electricity	31.2	44.2	55.2	76.0
% of households owning cultivable land	41.4	45.4	41.0	32.3

Source: Compiled from different HIES

3.9 Discussion on Poverty and Inequality: Success in poverty alleviation has many causes at the backdrop. Numerous programs by the government helped to reduce poverty. Although Bangladesh has experienced a steady growth rate in recent times, the primary beneficiaries of this development is the higher-income group, which contributed to more income and wealth inequality in the recent time. Moreover, regional disparity in income and consumption is evident in this study and thus, it contributes to the imbalanced development across the regions in terms of poverty reduction, employment generation and access to services. Faster poverty reduction in the east may be related to less dependency on agriculture, prevalence of more salaried workers and less day laborers, more access to services and land ownership. The converse is true for the slower growth in the western region. All other spatial inequalities must be addressed with respective merits, correctly and accurately identifying the challenges and solving those with utmost priority to reduce the disparity and poverty as well.

Policy Suggestions for Poverty and Inequality Indicators: Poverty, development, and growth are interrelated concepts that play a central role in sculpting and forming a nation's socio-economic landscape; moreover, inequality deepens poverty. So, poverty alleviation with equity and justice is essential for all-inclusive growth and development. For that agenda, the government can follow these recommendations, among many others: a) Deepening and widening of social protection interventions. b) Consideration of geographical disparity while allocating the resources. c) More expenditure programs for lower-income groups in healthcare, education and skill development. d) Efficiently and effectively use the demographic dividend of our population to combat poverty. e) Promote the SME sector to raise the income level of the lower-income group. f) More programs to generate employment and g) Rehabilitation programs for disaster-affected marginalized people and urban slum dwellers.

4. Conclusion

In recent times, Bangladesh has witnessed a 'big jump' in most of its social development indicators and such social improvements obviously outpaced the per capita GDP growth (i.e., economic development). Despite such commendable progress in social and economic development indicators, nearly about 24.3 and 12.9 per cent of the population in 2016 still live below the national upper and lower poverty line, respectively. Moreover, a large proportion of marginalized people may be left behind due to their initial endowments and structural constraints, and inequality in economic and social development indicators may rise in some cases. Moreover, the recent fallouts of the COVID-19 pandemic might pose additional challenges faced by marginalized segments of the population, who are hit hardest. Therefore, it is imperative to secure the socioeconomic rights of the marginalized population facing heightened vulnerabilities and reduce inequality arising from exogenous shocks and structural handicaps as well. Reduction in inequality in social and economic dimensions measured in terms of health, education, woman empowerment, possession of land, income and social openings and freedoms continue to pose daunting challenges for Bangladesh—notably the high level of rich-poor and urban–rural disparities. In efforts to reduce social and economic disparities by the government of Bangladesh, the contribution of growth alone is clearly inadequate, and thus, the government of Bangladesh should opt for all-round and comprehensive growth strategies with fair and evenhanded treatment to all.

References

Afsar, R. (2010). Poverty, inequality and the challenges of pro-poor governance in Bangladesh. *Journal of South Asian Development*, *5*(2), 187-219.

Ahluwalia, I. J., & Mahmud, W. (2004). Economic transformation and social development in Bangladesh. *Economic and Political Weekly*, 4009-4011.

Chowdhury, M. H. (2017). *Democratization in South Asia: lessons from American institutions*. Routledge.

HIES (2000, 2005, 2010, 2016 & 2022). Household Income and Expenditure Survey. Bangladesh Bureau of Statistics.

Islam, M. R. (2017). Non-governmental organizations and community development in Bangladesh. *International Social Work*, *60*(2), 479-493.

Islam, M. R., Khan, N. A., Fahrudin, A. & Islam, A. M. (2020). Poverty and Social Inequality: Bangladesh Experience. *Building Sustainable Communities: Civil Society Response in South Asia*, 425-451. Palgrave Macmillan, Singapore.

Khan, M. M. H., Krämer, A., Khandoker, A., Prüfer-Krämer, L., & Islam, A. (2011). Trends in sociodemographic and health-related indicators in Bangladesh, 1993-2007: will inequities persist?. *Bulletin of the World Health Organization*, *89*, 583-593.

Mahmud, W. (2008). Social development in Bangladesh: pathways, surprises and challenges. *Indian Journal of Human Development*, *2*(1), 79-92.

Osmani, S. R. (2018). Aspects of the Poverty Scenario in Bangladesh During 2010-2016. *The Bangladesh Development Studies*, *41*(3), 1-34.

Rahman, A. (2021). *Bangladesh at Fifty: Amazing Macroeconomic Transformation. Bangladesh across 50 Years,* Volume 1. Global Governance Studies, Independent University, Bangladesh.

Rahman, M., Khan, T. I., Kamal, M., & Nawar, N. (2021). Delivering SDGs at the Local Level: Efficiency of Social Protection Programmes in Bangladesh. Centre for Policy Dialogue and Oxfam in Bangladesh.

Reza, M. M., Subramaniam, T., & Islam, M. R. (2019). Economic and social well-being of Asian labour migrants: A literature review. *Social Indicators Research*, *141*, 1245-1264.

Ruiz, E., & Praetorius, R. T. (2016). Deciphering the lived experience of Latinos with diabetes and depression: A qualitative interpretive meta-synthesis. *Social work in public health*, 31(2), 70–82.

Schuman, D. (2016). Veterans' experiences using complementary and alternative medicine for posttraumatic stress: A qualitative interpretive meta-synthesis.

Social Work in Public Health, 31(2), 83–97.

Siddiquee, M. S. H., Faruk, A., & Matin, I. (2022). Social Protection During COVID Times: Research For Building Forward Better. Scoping Paper Under COVID-19 Learning, Evidence and Research (CLEAR) for Bangladesh, IDS, University of Sussex.

World Bank (2005). *Attaining the Millennium Development Goals in Bangladesh*, February 2005.

World Bank (2019). Bangladesh Poverty Assessment: Facing old and new frontiers in poverty reduction. Washington DC.

Annex

Table A1: Average number of students per teacher at primary and secondary schools in Bangladesh, India and Pakistan

Year	Primary			Secondary		
	Bangladesh	India	Pakistan	Bangladesh	India	Pakistan
1971	43.0	41.5	41.5	-	21.9	19.8
1972	47.0	41.6	39.0	-	21.5	19.8
1973	50.0	42.5	41.3	24.1	21.2	-
1974	51.6	42.5	41.6	-	-	-
1975	50.7	41.9	40.4	-	21.6	19.4
1976	50.3	42.1	40.2	-	-	18.1
1977	47.2	-	41.5	-	-	18.2
1978	44.2	-	37.3	-	-	17.0
1979	43.9	42.9	37.5	22.3	-	16.7
1980	53.6	-	37.0	23.8	-	17.4
1981	55.3	-	36.5	-	-	17.5
1983	51.4	-	35.0	26.0	-	17.2
1984	47.0	-	36.2	-	-	-16.9
1985	47.0	-	38.1	27.7	-	18.1
1986	47.8	-	39.3	28.9	-	-
1987	48.1	-	40.3	29.1	-	18.0
1988	57.9	-	40.6	26.8	-	-
1989	60.4	-	40.7	26.1	-	19.9

1990	63.0	-	41.1	27.4	-	19.5
1998	-	-	-	36.3	-	-
1999	-	40.0	-	37.4	33.6	-
2000	-	40.0	33.0	38.4	33.6	-
2001	-	40.1	34.7	37.5	33.4	-
2002	-	40.7	35.0	34.4	32.3	-
2003	-	41.3	34.8	31.1	32.3	24.2
2004	-	-	37.5	27.4	32.7	26.2
2005	47.0	-	38.3	23.9	-	23.3
2006	47.5	-	39.0	25.0	-	-
2007	44.8	-	40.0	25.2	-	-
2008	43.7	-	40.7	27.1	-	-
2009	45.8	-	39.7	28.2	25.1	-
2010	43.0	-	40.5	28.3	25.3	-
2011	-	35.2	39.8	30.6	25.9	-
2012	-	-	41.4	32.2	-	23.3
2013	-	32.3	42.5	35.2	30.8	22.3
2016	-	35.2	47.6	36.2	28.5	21.4
2017	30.1	32.7	44.8	34.0	27.4	19.4
2018	30.1	-	44.1	35.1	28.5	20.4

Source: UNESCO Institute for Statistics (http://uis.unesco.org/). Data as of February 2020.

Notes:

[] Infant mortality rate is the number of male infants dying before reaching one year of age, per 1,000 male live births in a given year.

[2] The term neonatal refers to the first 28 days of life which is the most vulnerable time for a child's survival.

[3] Refers to the probability of death before the age of 5, per 1,000 live births.

[4] For a given year, the maternal mortality ratio (MMR) is explained as the number of maternal deaths per100,000 live births.

[5] The yearly incidence of births to women between age 15 and 19 years per

1,000 women of that age range is referred to as the adolescent birth rate or age-specific fertility rate.

[6] The UNESCO defines Gender Parity Index for gross enrollment ratio in primary and secondary education as the proportion of girls to boys enrolled in public and private schools at both primary and secondary levels.

[7] As defined by UNESCO Youth Literacy Rate is the proportion of individuals aged 15-24 who can read, comprehend, and write a brief, uncomplicated statement about their daily life.

[8] The pupil-teacher ratio in primary and secondary schools is the mean number of students per teacher in each respective educational level [9] 2010s implies 2010 to 2016.

[10] Gini coefficient, a long-established and widely used indicator of income inequality, condenses the total income distribution of a country into a single value ranging from 0 to 1. A higher Gini value indicates a more pronounced degree of income inequality.