

**ERADICATING POVERTY AND MINIMIZING INEQUALITY
FOR ENSURING SHARED PROSPERITY IN BANGLADESH**

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I. Introduction

The proposed new twenty-year Perspective Plan (2021-2041) of Bangladesh envisions that the country will achieve the status of an Upper-Middle-Income country by 2031 and, more ambitiously, of a High-Income country by 2041. As befitting such high ambitions, the Plan also proposes to make Bangladesh a practically poverty-free country by the end of the plan period. It is envisioned that extreme poverty will be completely eliminated by 2031 and moderate poverty would come down to the negligible level of no more than 5 percent by 2041.

The overall goal of the Plan is to achieve shared prosperity for all. It is recognised that in order to achieve this goal, actions will have to be taken to step up the rate of growth on the one hand, and to ensure on the other that the benefits of growth reach the poorer part of the society to a sufficient degree so that the vision of a poverty-free society can be realised within the proposed time frame. To ensure that a large part of the benefit of growth reaches the poor is an immensely challenging task, however, as the normal state of affairs in the course of development is that it is the richer segments of the population that are better placed to appropriate most of the benefits. In order to offset this normal tendency, strategic actions will have to be taken on multiple fronts – to make sure that the growth process brings about pro-poor structural transformations, to render the distribution of income more equal, and to provide an adequate system of social protection for the most vulnerable segment of the population. This paper discusses the challenges that would be involved in all these fronts and suggest some broad strategic actions that would help meet these challenges successfully.

Section II undertakes an analytical review of past experience, especially experience of the most recent past, in the arenas of poverty, inequality and social protection. Building on the insights offered by this analysis, section III then discusses the challenges for the future and offers suggestions as to how to meet those challenges. The major policy conclusions are then summarised in section IV.

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II. Analysis of Recent Experience: Poverty, Inequality and Social Protection

In this section, we present an in-depth analysis of past experience in three inter-related dimensions – poverty, inequality and social protection. While looking at the past experience, the analysis focuses especially on very recent experience by drawing upon, among other sources, the unpublished data of the recently concluded *Household Income and Expenditure Survey* of 2016.

II.1 Poverty

Progress in Poverty Reduction

Bangladesh has made great strides in reducing the level of poverty over the last three decades, and especially since the turn of the present century. During the 1990s, the rate of poverty had declined relatively slowly – from 56.7 percent in 1991/92 to 48.9 percent in 2000. The following decade witnessed a sharp acceleration in the pace of poverty reduction, when national poverty declined more than twice as fast as in the 1990s – falling to 31.5 percent by 2010. It has continued to fall since then – reaching 24.2 percent by 2016, but the pace of reduction has slowed somewhat (Table 1). Whereas the decade of 2000s witnessed a reduction of 1.7 percentage points per year, in the subsequent six years the rate of decline was down to 1.2 percentage points per year.

Table 1
Trend of Poverty: 1991-92 to 2016
(Head-count ratio; percentage)

	1991-92	1995-96	2000	2005	2010	2016
Overall Poverty						
National	56.7	50.1	48.9	40.0	31.5	24.2
Urban	42.8	27.8	35.2	28.4	21.3	18.6
Rural	58.8	54.5	52.3	43.8	35.2	26.4
Extreme Poverty						
National	41.1	35.2	34.3	25.1	17.6	12.8
Urban	24.0	13.7	19.9	14.6	7.7	7.4
Rural	43.8	39.5	37.9	28.6	21.1	14.8

Notes and Sources: The figures from 1991-92 to 2010 are from BBS, *Household Income and Expenditure Survey* (HIES), 2010, Table 6.1. The figures for 2016 were calculated by the author from raw data of HIES, 2016.

The pattern is quite similar for extreme poverty. After falling at a relatively slow rate in the 1990s, it fell sharply in the decade of the 2000s, when it was almost halved – from 34.3 percent in 2000 to 17.6 percent in 2010. Since then, the pace of reduction has slowed, and by 2016 extreme poverty stood at 12.8 percent (Table 1).

The slowdown in the pace of poverty reduction appears to have affected urban areas much more than rural areas. Urban poverty declined by only 2.7 percentage points during the period 2010-2016, whereas rural poverty declined by 8.8 percentage points. The case of extreme poverty is even more startling – it was almost at a standstill in urban Bangladesh during 2010-2016 at around 7.5 percent, while rural Bangladesh saw it decline from 21.1 percent to 14.8 percent during the same period (Table 1).

Two sets of issues need to be addressed in this context: (a) what are the main reasons for the recent slowdown in the rate of poverty reduction, and (b) what factors have mainly contributed to continued progress in poverty reduction in recent years, albeit at a slower rate than before? These questions are taken up below, followed by a discussion of the regional pattern of poverty in Bangladesh. All three of these issues have implications for the prospects and challenges for the pace of further reduction of poverty in the coming decades (which are discussed in section III).

Explaining the Slowdown in Poverty Reduction

To some extent, the slowdown in the pace of poverty reduction could merely be a consequence of the fact that when poverty comes down to relatively low levels, it becomes increasingly more difficult to reduce it further. That there is some merit in this argument can be seen by looking at the trend of extreme poverty, whose level in 2000 (34.3 percent) was comparable to the level of overall poverty in 2010 (31.5 percent). Between 2000 and 2005, extreme poverty declined by 1.8 percentage points per year; but in the next five years, it fell more slowly – by 1.5 percentage points per year; and in the next six years, it fell even more slowly – by 0.8 percentage point per year. It should not be altogether surprising, therefore, that the pace of reduction in overall poverty has begun to slow down since 2010; evidently, what was already happening to extreme poverty since 2000, has begun to happen to overall poverty as well since 2010 as the latter has come down to relatively low levels.

It is, however, worth investigating whether there are other – structural – forces at work, which might also be contributing to the recent slowdown in poverty reduction because, if this were so, it could have significant implications for what can or should be done at the policy level to strengthen the pace of poverty reduction in the coming decades.

It is noteworthy that the pace of poverty reduction has slowed down after 2010 even as the growth of GDP has accelerated – the annual average growth rate has gone up from 5.6 percent during 2000-2010 to 6.4 percent during 2011-2016. Setting aside the possibility of irreconcilable imperfections in data, this disjunction between the pace of poverty reduction and the pace of GDP growth may in principle be explained in a couple of mutually non-exclusive ways. The first one has to do with the growth of consumption. Since poverty is measured with reference to consumption rather than income, what matters for the pace of poverty reduction is the growth of consumption and not the growth of income *per se*. Although the growth paths of income and consumption are closely related, a divergence between the two can occur due to

change in the savings behaviour of the population. If the propensity to save goes up sharply, then it's possible that even when GDP growth accelerates the growth of consumption may not, and may even decelerate, in which case the pace of poverty reduction may well decline. As it happens, the savings rate has indeed risen to some extent – from around 27 percent of GDP during the decade of the 2000s to about 30 percent during 2010-2016. By this rise was by no means enough to prevent a slight acceleration in the growth of consumption following the acceleration in the growth of GDP.¹ Therefore, rising propensity to save cannot by itself explain the slowing rate of poverty reduction.

A second possible line of enquiry is the link between inequality and poverty. Even when growth accelerates, poverty reduction can slow down if distribution becomes more unequal. As we shall discuss below, income inequality has indeed been on a rising trend. However, since poverty is measured in terms of consumption rather than income, the relevant inequality here is consumption inequality, which, as we shall see below, has remained remarkably constant over time, at least as measured by the standard index of Gini coefficient. A simple inequality-based explanation does not, therefore, work.

This does not mean that distributional changes have no explanatory power at all; it's just that we must look beyond simple aggregative measures of inequality, and investigate the structure of inequality more closely. What matters for poverty reduction is what happens to the bottom end of the distribution; if an inequality-increasing change at the bottom end is combined with an inequality-reducing change elsewhere in the distribution, the aggregate index of inequality may well remain unchanged even though the poor might be adversely affected. It is, therefore, necessary to examine structural changes in the economy that might have consequences for distribution at the bottom end of the scale. Pursuing this line of enquiry, we offer below a couple of inter-related explanations – the first in terms of rural-to-urban migration and the other in terms of real wages of unskilled workers.

To begin with the explanation based on rural-to-urban migration, we may start by noting a couple of apparently paradoxical sets of statistics. First, recent years have witnessed a rather disconcerting slowdown in agricultural growth. During the decade of the 2000s, agriculture grew at an annual average rate of about 4 percent; in the second half of the decade growth was even faster – nearly 5 percent. But during the period 2010-2016, the growth rate slowed down to just 2.6 percent per year, which was almost half of what was achieved in the preceding five years (Appendix Table A.1). Second, the recent slowdown in the pace of poverty reduction is much more of an urban phenomenon than a rural one. In the case of rural poverty, the slowdown was marginal; during 2010-2016, rural poverty declined by 1.5 percentage points per year, which was only slightly less than the 1.7 percentage point reduction per year achieved in the preceding decade. By contrast, urban poverty declined by a paltry 0.45 percentage point

¹ According to BBS statistics, the average annual growth rate of consumption was 4.9 percent during the 2000s and 5.3 percent during 2010-2016 (BBS, 2014, 2016).

per year during 2010-2016, which was way below the 1.4 percentage point reduction per year experienced in the preceding decade (Table 1).

We thus have the apparently paradoxical phenomenon that while agricultural growth has suffered a serious setback in the period since 2010 compared to the preceding decade, it is urban rather than rural poverty that has borne the brunt of slowdown in the pace of poverty reduction. Since agricultural performance affects the rural people most directly, one should have expected the opposite to have happened. We shall argue that rural-to-migration is the key to resolving this paradox. To put it simply, massive outmigration of rural poor to the urban centres is responsible for the fact that slowdown in the pace of poverty reduction is evident much more in urban areas than in rural areas.

Although reliable figures on the rate of migration is hard to come by, the employment data given by the *Labour Force Surveys* clearly indicate that a massive upturn in the rate of migration must have occurred around 2010. Table 2 provides a breakdown of total employment into rural and urban employment for a number of years since 1999-00. It may be seen that after growing relatively rapidly up to 2010, rural employment growth has slowed down drastically since then. In the five-year period from 2010 to 2015, rural employment grew by only 1.3 million, in comparison with 5.5 million in the preceding 5-year period (2005-2010) and 5.9 million in the five-year period before that (1999/00-2005). By contrast, the trend of urban employment is entirely the opposite. After growing relatively slowly up to 2010, urban employment has suddenly exploded since then. During 2010-2015, urban employment grew by 4.2 million, as against only 1.2 million during 2005-2010 and 2.5 million during 1999/00-2005. Another way of looking at this contrast is to note that whereas 75 percent of the increase in employment during 1999/00-2010 occurred in rural areas, the picture was completely reversed in the post-2010 period, when 76 percent of the incremental employment occurred in urban areas. These figures clearly suggest the occurrence a significant structural break at the beginning of the present decade, which opened the floodgate of rural-to-urban migration on a massive scale.

Table 2
Trend of Employment: 1999-00 to 2015
(million)

	1999-00	2005	2010	2015
National	39.0	47.4	54.1	59.5
Rural	30.3	36.2	41.7	43.0
Urban	8.7	11.2	12.4	16.6

Source: BBS, *Labour Force Survey* (LFS), various years.

The *Labour Force Surveys* do not tell us which segment of the rural population mostly took part in this mass exodus, but data from successive *Household Income and Household Surveys* (HIES) confirm what common sense suggests – that the migrants belonged mostly to the bottom rung of the population. Using HIES data, Table 3 presents the distribution of rural population in various size-groups of land ownership – from 2000 to 2016. The most remarkable statistics in this table is the trend in the share of landless people in rural population: after hovering between 46 and 51 percent from 2000 to 2010, their share in total population suddenly plummeted to 32.3 percent in 2016. Obviously, a huge chunk of the landless people has simply disappeared from the rural scene since 2010. And, as can be seen from Appendix Table A.2, it is this segment of population that has historically experienced the highest incidence of poverty in rural Bangladesh. Clearly, it is the poorest among the rural people who have mostly joined the mass exodus that has been going on from rural to urban areas since around 2010.

Table 3
Distribution of Population by Land Ownership: 2000-2016
(percent)

Land ownership category	2000	2005	2010	2016
Landless (<0.05 acre)	48.0	45.8	50.9	32.3
Functionally landless (0.05-0.5 acre)	13.0	15.9	15.9	42.1
Marginal (0.5-1.5 acre)	17.5	18.8	18.0	16.4
Small (1.5-2.5 acre)	9.2	8.8	6.8	4.9
Large/medium (> 2.5 ac)	12.4	10.7	8.4	4.2
All	100.0	100.0	100.0	100.0

Notes and Sources: The figures from 2000 to 2010 are from World Bank (2013a), Table 2.2. The figures for 2016 were calculated by the author from raw data of HIES, 2016.

This exodus of rural poor into urban centres has implications for the pace of poverty reduction, which can be best understood in terms of the well-known Harris-Todaro effect. The essence of the argument is that because of various push and pull factors rural poor may be tempted to migrate to urban areas attracted by better prospects of earning a livelihood there, but when too many of them do so, a large number of them will fail to improve their condition, resulting in an outcome where the average condition may not improve and may even deteriorate. Another way of making the point is that a better *ex ante* probability of earning a livelihood in urban areas may result in a worse *ex post* prospect of doing so, if migration occurs on a massive scale. What is essentially at work here is the fallacy of composition – what is good for an individual may not be good for a collection of individuals, especially if the collection happens to be very large.

In the present context, both push and pull factors would seem to have been at work. The precipitous slowdown in the rate of agricultural growth would have exerted a strong push effect, forcing the rural poor to seek their livelihood elsewhere. At the same time, the perceived

probability of doing better in urban areas may also have acted as a pull factor. The perception would have been based on historical experience – the fact that not only was urban poverty considerably lower than rural poverty over the years, it also declined slightly faster than rural poverty until 2010.² However, once migration started on a massive scale, the perception based on historical trend did not translate into reality for many a migrant – they unwittingly fell victim to the fallacy of composition.

As a result, when the rural poor migrated to urban areas, many of them simply swelled the ranks of the urban poor. The problem was aggravated by the fact that urban poverty lines are considerably higher than rural poverty lines due to higher cost of living. HIES 2016 shows that on the average urban poverty lines are about 21 per cent higher than rural poverty lines. Therefore, unless money income increased by at least 21 per cent, a poor migrant would remain poor, and even someone who was marginally non-poor in rural areas could become an urban poor upon migration. This explains why urban poverty has fallen so slowly after 2010. In fact, as noted earlier, extreme poverty has not fallen at all in urban areas – it remained stuck at around 7.5 percent.

A second, related, factor contributing to the recent slowdown in the pace of poverty reduction is the behaviour of real wages of unskilled workers. The trend of real wages appears to have undergone a startling reversal since around 2010. Throughout the decade of the 2000s, the trend of real wages was mostly upward; but after about 2010 it began to fall; by 2015-16, it had gone back to the levels of the mid-2000s (Figure 1).³

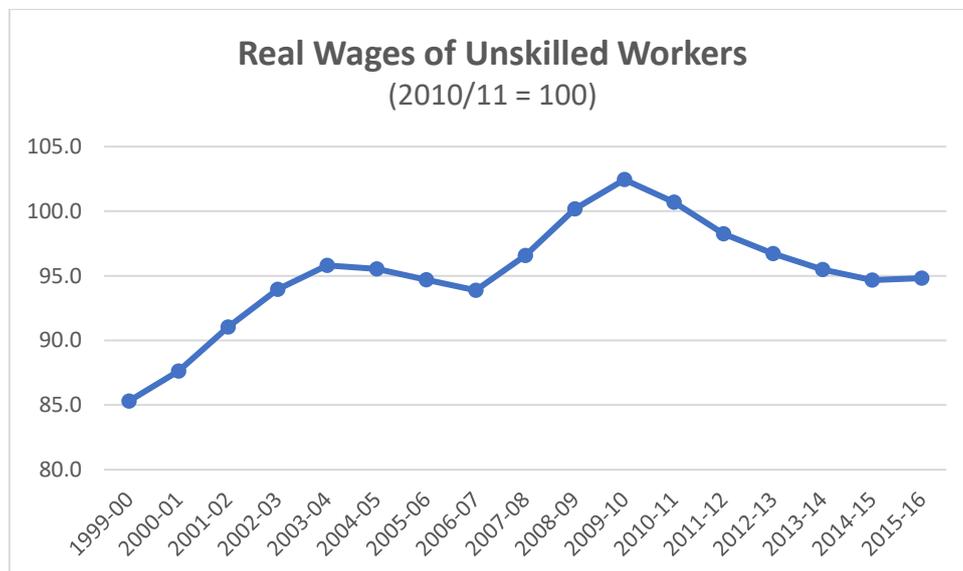
The reason for this reversal of real wage growth may lie at least partly in the sharp upturn in the rate of rural-to-urban migration discussed earlier. As the urban labour force was swelled by an unprecedented proportion due to massive migration that has been occurring since around 2010, the supply of unskilled urban workers has increased at a much faster rate than ever before, outstripping any increase in the demand for labour, and thereby depressing urban real wages. And as urban wages have fallen, it might have had a depressing effect on rural wages as well through the migration linkage, thus leading to the decline in real wages of

² In the two decades from 1991/92 to 2010, urban poverty was nearly halved whereas rural poverty fell by about 40 percent (Table 1).

³ For the time series on nominal wages, CPI and real wages, see Appendix Table A.2. A couple of remarks are in order on the data on wages used in this paper. First, BBS has been issuing a new series of nominal wages since 2010-11 after a complete overhaul of its database, which was designed to improve the coverage of wages in various occupations (BBS 2015a). Figure 1 uses the new series for the period since 2010-11 and combines it with the old series for the preceding years, while recognizing that the two series are not fully compatible. Some publications of BBS continue to update the old series beyond 2010-11, and it should be noted that if one were to use this updated series one would not find any fall in real wages. However, since the new series is based on a much superior database and is recognized by BBS as its official series on money wages, we have chosen the new series rather than the updated old series for the period since 2010-11; for the earlier years there is no choice but to use the old series. Second, real wages have been derived by deflating money wages with the national CPI. This is not ideal; a more relevant deflator would be the cost of living index for workers, but no such index exists for recent years. As an alternative, one could use the food portion of the CPI, which might be a closer approximation of the workers' cost of living index than the overall CPI, but we have checked that the use of food CPI does not alter the major conclusions, including that of the decline of real wages since 2010-11.

unskilled workers at the national level. Under the circumstances, a slowdown in the pace of poverty reduction was inevitable.

Figure 1



Source: Appendix Table A.3

Factors Contributing to Poverty Reduction since 2010

It has been argued above that a large number of rural poor are simply shifting their residence to urban areas without ceasing to be poor, and that the real wage of poor unskilled workers has been falling at the national level since around 2010. This begs the question of exactly how is it then that poverty has gone down significantly since 2010, albeit more slowly than before? The short answer to this question is structural change. Significant structural changes have been occurring in production and occupation, and people have been moving from less remunerative occupations to more remunerative ones. This structural shift has been the chief driver of poverty reduction since 2010, but, as we shall see, education is also playing an important role here.

Let us begin by noting the incidence of poverty by occupational pattern of workers. Table 4 shows the incidence of poverty in 2016 among four broad occupational groups – day labourers, self-employed workers, salaried workers and employers; and each of these categories is further divided into two broad sectors of activity – agriculture and non-agriculture. As expected, day labourers have the highest level of poverty (34.1 percent); in fact, they are the only ones whose poverty rate is above average (23.4 percent), and that too by a considerable margin. Self-employed and salaried workers have much lower poverty rates of 18.8 percent and 15.2 percent respectively.

Table 4
Poverty of Workers by Occupation and Sector: 2016
 (percent)

Occupation	Poverty Rate		
	Overall	Agriculture	Non-Agriculture
Day labourer	34.1	38.7	30.2
Self-employed	18.8	20.4	17.1
Salaried workers	15.2	25.8	14.9
Employers	8.5	11.0	6.0
All	23.4	29.7	20.2

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

There is a clear divide between agriculture and non-agriculture as well. Taking all the occupation categories together, the rate of poverty was 29.7 percent among agricultural workforce in 2016, and 20.2 percent among non-agricultural workforce. Indeed, for each category of occupation, poverty was lower in non-agriculture than in agriculture. Thus, considering the combined occupation-cum-sector categories, the two categories of workers who enjoyed the lowest levels of poverty in 2016 (leaving aside the employers) were non-agricultural self-employed workers (17.1 percent) and salaried workers (15.2 percent).

As it happens, these are also the two categories of workers that enjoyed the fastest rates of poverty reduction during 2010-2016 among all the groups. Indeed, as can be seen from Table 5, the slowdown in the rate of poverty reduction that we noted earlier does not apply to these two groups at all. The slowdown happened entirely on account of self-employed workers in agriculture and day labourers (in both sectors). By contrast, the salaried workers and self-employed workers in non-agriculture, who had experienced very slow rate of poverty reduction during 2005-2010, saw their poverty falling much faster during 2010-2016. Between 2005 and 2010, poverty among both these groups had fallen by only 2 percentage points, whereas between 2010 and 2016 it declined by as much as 7 percentage points.

These figures suggest that a structural shift in occupational pattern can have important implications for poverty reduction. In particular, a shift from day labour (and to lesser extent, from self-employment in agriculture) to either non-agricultural self-employment or salaried work should result in a reduction of overall poverty. Such a shift has indeed happened since 2010, as many self-employed workers in agriculture as well as day labourers in both sectors have moved increasingly into either self-employment or salaried work in the non-agricultural sector – i.e., into occupations that not only have the lowest levels of poverty but have also enjoyed the fastest rates of poverty reduction. This occupational shift has been the most important proximate reason behind poverty reduction since 2010.

Table 5
Trend of Poverty of Workers by Occupational Status: 2000-2016
(percent)

Occupation	2000	2005	2010	2016
Self-employed in agriculture	45.0	36.0	23.0	20.4
Self-employed in non-agriculture	37.0	26.0	24.0	17.1
Day labourer	67.0	57.0	39.0	34.1
Salaried worker	27.0	24.0	22.0	15.2
All	48.9	40	31.5	23.4

Notes and Sources: The figures from 2000 to 2010 are from World Bank (2013a), Figure 2.19. The figures for 2016 were calculated by the author from raw data of HIES, 2016.

The occupational shift has itself resulted from significant changes in the structure of production in the national economy. The slight acceleration in GDP growth that has occurred after 2010 has been driven by the non-agricultural sectors – industry, construction and services – nullifying the effect of deceleration in agricultural growth (Appendix Table A.1). The most striking has been the acceleration in industrial production; the average annual growth of industrial production has jumped from 6.9 percent in the decade of the 2000s to 9.0 percent during 2010-2016. Faster growth in the non-agricultural sector has opened up many new opportunities for both salaried work and self-employment, thereby enabling the shift in occupational pattern noted above, and helping to bring poverty down.

In conjunction with structural change, the spread of education has also played an important role. While structural change in production has contributed to poverty reduction by creating opportunities for more remunerative employment, the spread of education in the last few decades has also helped by enabling the workforce to take advantage of those opportunities. Education has contributed to poverty reduction in two complementary ways – by enabling workers to move from less remunerative occupations to more remunerative ones (the between-group effect), and by enabling them to earn more within each occupational group (the within group effect).

The evidence for the between-group effect can be seen from Table 6, which shows how workers with different levels of education are distributed among broad occupation groups. For relatively less remunerative occupations such as day labour and self-employment in agriculture, the proportion of workforce with different educational achievements is seen to fall systematically with the level of education. For example, among workers with no education 54 percent work as day labour, but among those with primary education 42 percent do so, and if they have secondary education the figure drops to as low as 25 percent. By contrast, for the highly remunerative occupation of salaried work, the opposite pattern prevails – the proportion of workforce rises systematically with the level of education. Thus, among workers with no education only 15 percent get salaried work, with primary education the proportion rises to 25

percent, with secondary education it rises further to 39 percent. In the case of the other remunerative occupation – non-agricultural self-employment – the relationship is an inverted U-shaped one, the proportion initially rises with higher level of education and then falls (presumably because those with the highest levels of education prefer to go for salaried work). These figures suggest that more education increases the probability that a worker would be able to join more remunerative occupations and thus to reduce the level of poverty.

Table 6
Occupational Distribution of Workers at Different Levels of Education: 2016
(percent)

Education	Occupation					All
	Day labour	Self-employed agriculture	Self-employed non-agric	Salaried worker	Employer	
No Education	53.9	17.7	12.2	15.0	1.0	100.0
Primary	42.1	16.3	14.9	25.4	1.0	100.0
Secondary	25.3	14.7	19.4	38.6	1.2	100.0
Higher Secondary	7.0	11.2	16.3	63.4	1.5	100.0
Graduate and above	1.7	5.1	12.3	78.4	2.1	100.0
<i>All</i>	<i>38.3</i>	<i>15.6</i>	<i>15.1</i>	<i>29.5</i>	<i>1.2</i>	<i>100.0</i>

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey* (HIES), 2016.

The existence of within-group effect can be seen from Table 7. Within each occupational group, better education is found to be associated with lower poverty, and this is true even of the relatively low-remunerative occupations such as day labour and self-employment in agriculture. For example, among workers who work as day labour, those with no education has a poverty rate of 37 percent, while those with higher secondary education have a poverty rate of only 22 percent.

Thus, the spread of education has helped reduce poverty not only by facilitating the occupational shift from less remunerative occupations to more remunerative ones, but also by reducing the probability of being poor within each occupational group.

Regional Dimension of Poverty

Historically, the western region of Bangladesh has lagged behind the eastern region in terms of economic development, as reflected, for example, in consistently higher levels of poverty in the western divisions. The latest evidence shows that the divide still exists and indeed remains quite stark. The rate of poverty in the western region was as high as 34.6 percent in 2016, as compared with 20.5 percent in the East. The contrast in the incidence of extreme

poverty is even more severe – the West had almost twice the proportion of extreme poor than the East (Table 8).

Table 7
Poverty Rates of Workers by Occupation at Different Levels of Education: 2016
(headcount index; percent)

Education	Occupation					All
	Day labour	Self-employed agriculture	Self-employed non-agric	Salaried worker	Employer	
No Education	53.9	17.7	12.2	15.0	1.0	100.0
Primary	42.1	16.3	14.9	25.4	1.0	100.0
Secondary	25.3	14.7	19.4	38.6	1.2	100.0
Higher Secondary	7.0	11.2	16.3	63.4	1.5	100.0
Graduate and above	1.7	5.1	12.3	78.4	2.1	100.0
<i>All</i>	38.3	15.6	15.1	29.5	1.2	100.0

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey* (HIES), 2016.

Table 8
Regional Dimension of Poverty: 2016
(headcount index; percent)

Division	Poor	Extreme Poor
<i>West</i>	34.6	19.1
Barisal	26.4	14.4
Khulna	27.5	12.4
Rajshahi (old)	37.5	21.9
Rajshahi (new)	28.9	14.2
Rangpur	47.3	30.6
<i>East</i>	20.5	10.4
Chittagong	18.3	8.6
Dhaka	19.6	9.4
Sylhet	16.2	11.5
<i>All</i>	24.2	12.8

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey* (HIES), 2016.

In the past, the West not only had higher levels of poverty but also experienced slower rates of poverty reduction, which led to widening of the East-West divide over the years. The historical pattern seemed to have begun to change, however, towards the second half of last decade, with poverty coming down faster in the West compared to the East during the period from 2005 to 2010. This had generated a lot of optimism all around that perhaps the age-old East-West divide was finally going to close. Many analysts attributed this shift at least in part to the longer-term impact of Jamuna bridge that had revolutionised the West's communication with the major urban conurbations and industrial centres in Dhaka and Chittagong in the eastern region of the country (World Bank, 2013a).

More recent evidence suggests, however, that optimism on this score may have been premature. The trend seems to have reversed and reverted back to the older pattern. During the period from 2010 to 2016, the pace of poverty reduction was slower in the West compared to the East, thus accentuating rather than closing the East-West divide (Table 9).

Table 9
Trend of Regional of Poverty: 2000-2016
(headcount index; percent)

Division	2000	2005	2010	2016
<i>West</i>				
Barisal	53.1	52.0	39.4	26.4
Khulna	45.1	45.7	32.1	27.5
Rajshahi (old)	56.7	51.2	35.7	37.5
Rajshahi (new)	n.a.	n.a.	29.8	28.9
Rangpur	n.a.	n.a.	42.3	47.3
<i>East</i>				
Chittagong	45.7	34.0	26.2	18.3
Dhaka	46.7	32.0	30.5	19.6
Sylhet	42.4	33.8	28.1	16.2
<i>All</i>	48.9	40.0	31.5	24.2

Notes and Sources: The figures from 2000 to 2010 are from World Bank (2013), Figure 20.2. The figures for 2016 were calculated by the author from raw data of HIES, 2016.

The situation in Rangpur, the division with the highest rate of poverty in the country, has in fact become worse, with the rate of poverty going up from 42.3 percent in 2010 to 47.3 percent in 2016. Rangpur had historically been not only the poorest part of Bangladesh, but had also suffered from much higher levels of seasonal poverty (during lean agricultural season) than any other part of the country. There is some evidence from other sources that the extent of seasonal poverty has gone down significantly in Rangpur in recent years (e.g., Khandker and Mahmud, 2012). However, the evidence presented in Table 9 shows that there has been no such improvement in the level of endemic poverty; on the contrary, Rangpur now holds the

dubious distinction of being the only division in the country not to have shared the recent trend of poverty reduction.

The situation in Rajshahi is not much better – the level of poverty has remained virtually unchanged there (at around 29-30 percent). Khulna has been able to enjoy some reduction in poverty, but at a slower rate than any of the eastern divisions. The only bright spot in the West is Barisal, which has in fact outperformed all the divisions, including those in the East. The annual rate of poverty reduction during 2010-2016 was 2.2 percentage points in Barisal, the next best being 2.0 percentage points in Sylhet, followed by 1.8 percentage points in Dhaka.⁴

The exceptional nature of Barisal’s performance notwithstanding, the fact remains that the relative deprivation of the West as a whole has become endemic. The problem, to a large extent, is structural – in the sense that the West suffers from relative dearth of opportunities for gainful employment stemming from the structure of production prevailing there and its workforce is also less capable of taking advantage of the opportunities that do exist. This is reflected in the contrast between the East and the West in the occupational structure of their respective workforce. As can be seen from Table 10, day labourers figure much more prominently in the workforce of the western divisions as compared to the East. Thus, in 2016, as many as 46 percent of the workforce of the western divisions were day labourers as against 32 percent in the East. By contrast, the proportion of salaried workers in the West (19 percent) was almost half of that of the East (37 percent).

Table 10
Occupational Pattern Across Regions: 2016
(percentage of workers)

Division	Day labour	Self-employed	Salaried worker	Employer	All
West	45.9	34.2	19.3	0.6	100.0
Barisal	34.3	33.5	30.7	1.6	100.0
Khulna	46.0	37.8	15.6	0.6	100.0
Rajshahi (old)	50.4	32.4	16.8	0.5	100.0
Rajshahi (new)	49.4	32.6	17.5	0.5	100.0
Rangpur	51.6	32.1	16.0	0.4	100.0
East	32.0	30.0	37.0	1.0	100.0
Chittagong	35.3	28.4	35.4	0.8	100.0
Dhaka	27.4	26.6	44.9	1.1	100.0
Sylhet	44.4	35.5	19.1	1.0	100.0
All	38.3	30.6	30.2	0.9	100.0

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

⁴ Possible reasons for the exceptional performance of Barisal are discussed below.

As we have noted earlier, such differences in occupational pattern can have important implications for the level of poverty. Day labourers were seen to have not only the highest level of poverty but also the slowest rate of poverty reduction during the period 2010-2016 (owing largely to a fall in real wages), while salaried workers had the lowest rate of poverty as well as the fastest rate of poverty reduction during the same period (Table 5). Not surprisingly, the western region, with its preponderance of day labour and relative scarcity of salaried workers, experienced much slower rate of poverty reduction than the East. It is noteworthy that the two eastern divisions, Rangpur and Rajshahi, which had the highest proportion of day labourers in the country (around 50 percent) and the lowest proportion of salaried workers (around 16-17 percent) were also the worst performing divisions in the country in terms of poverty reduction during 2010-2016. In fact, neither of them saw any reduction in poverty at all, and Rangpur actually saw an increase. By contrast, Barisal, which had the lowest proportion of day labourer and the highest proportion of salaried workers in the West – almost comparable to the average levels in the East – enjoyed the fastest rate of poverty reduction.

To some extent, the difference in occupational pattern owes itself to differential levels of educational achievement in the two regions; this should not be surprising in view of the close link between education and occupation we noted earlier. Among all the divisions, Rangpur and Rajshahi had the highest proportion of workers with ‘no education’ – about 43 percent (Appendix Table A.4); it is no coincidence that these two divisions also had the highest proportion of day labourers, highest level of poverty, and the slowest rate of poverty reduction in the country in recent years. In contrast, in Barisal the proportion of workers with ‘no education’ was even lower than in the eastern divisions; and its proportion of day labourers and performance in terms of poverty reduction were also comparable to that of the East.

It is thus clear that the divergent nature of poverty reduction across regions can be explained to a large extent by two inter-related factors: (a) disparate nature of the existing structures of production – which create opportunities of more remunerative occupations differentially between different regions, and (b) unequal levels of educational achievement which create differential ability of the workforce of different regions to take advantage of the opportunities for more gainful employment that are created.

Closer inspection reveals, however, that even after the allowing for the differences in employment opportunities and educational achievement, there remains something adverse about the environment in which the workforce of the western region works. This is evident from the fact that for each broad occupational group, all the eastern divisions (including Barisal) have higher level of poverty compared to the western divisions (Appendix Table A.5). Clearly, the problem with the West lies not just in the occupational pattern. Education could be partly responsible for this, because, as we have seen earlier, within each occupational group education has a close negative correlation with poverty (Table 7), and the West does have a worse educational achievement (with the exception of Barisal). But even the combination of occupation and education does not constitute the whole story, because even within the same

occupation-cum-educational group, the West fares worse than the East (Table 11). There are clearly some other disadvantages – whether geographical, institutional, demographic, or policy-induced – which the western region suffers from, aggravating its poverty beyond what can be explained in terms of employment opportunities and educational achievement.

Table 11
Poverty Rates of Workers by Occupation and Education across Regions: 2016
(headcount index; percent)

Division	No education	Primary	SSC	HSC plus
<i>Day Labourer</i>	<i>37.4</i>	<i>33.5</i>	<i>26.3</i>	<i>19.7</i>
West	44.4	40.4	34.8	16.2
East	30.4	26.3	15.9	24.2
<i>Self-employed</i>	<i>25.8</i>	<i>19.6</i>	<i>12.2</i>	<i>7.6</i>
West	29.7	24.6	16.4	8.2
East	22.6	15.5	8.4	6.9
<i>Salaried worker</i>	<i>25.4</i>	<i>20.5</i>	<i>12.3</i>	<i>5.5</i>
West	39.5	35.8	25.7	8.4
East	21.9	16.6	8.3	3.8

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

Determinants of Poverty: A Multi-Variate Analysis

The preceding analysis suggests that the dynamics of poverty in the recent past has been influenced by a number of social-economic and structural factors – such as occupation, education, residence (urban or rural) and region (east or west). Since many of these variables are inter-related, however, and may in turn depend on various household characteristics such as assets, demographics, etc., it is necessary to carry out a multi-variate analysis of poverty in order to identify the significant causal factors. The results of such an exercise are reported in Table 12.

A poverty regression was undertaken at the individual worker level – for all workers in the sample, by using a probit equation. The explanatory variables included a number of individual-level, household-level, and locational variables. The individual-level variables were occupation and education of workers and the broad sector in which they work. The occupation variable was defined as an ordinal variable with four values – 1 for day labour, 2 for self-employed, 3 for salaried worker and 4 for employer. The ordering was based on the results reported earlier on the poverty raking of various occupations – going up from poorer occupations to better off ones. We would thus expect a negative coefficient of the occupation variable, signifying that poverty should fall as one moves up the ladder from day labour to self-employed to salaried work and to employer. The education variable is also an ordinal variable, with five values – 1 for no education, 2 for primary level, 3 for secondary level, 4 for secondary

level and 5 for above secondary. Again, we should expect a negative coefficient of this variable, with higher levels of education entailing lower levels of poverty. The third individual-level variable was the broad sector of work, represented by a dummy variable with value 0 for agriculture and 1 for non-agriculture. From our preceding discussion, we should expect a negative coefficient for this variable as well, signifying lower poverty status of workers engaged in the non-agricultural sector.

The household-level variables are (1) age of the household head (as well as age-squared, which is meant to capture possible non-linearities due to life-cycle effect), (2) per capita land owned (taken as a proxy for asset ownership), (3) dependency ratio (number of dependants as a ratio of labour force available in the household), and (4) gender of the household head (with value 1 for households headed by single females, 0 otherwise). A couple of locational variables were also included – a residence dummy (0 for rural and 1 for urban) and a regional dummy (0 for East and 1 for West).

Table 12
Determinants of Poverty at the Level of Workers: 2016

Explanatory variables	Coefficient	z-value
Education (code)	-0.23671	-17.61
Occupation (code)	-0.14430	-8.78
Age of household head (yrs)	-0.02527	-5.11
Age of household head squared (yrs)	0.00023	4.41
Per capita land ownership (acre)	-0.00293	-3.34
Household dependency ratio	0.14152	13.61
Gender of household head dummy	0.30771	4.57
Regional dummy	0.43636	11.29
Sector dummy	-0.04869	-1.78
Residence dummy	-0.02128	-0.43

Notes and Sources:

(2) Estimated by the author from raw data of the *Household Income and Expenditure Survey 2016*.

(1) Probit regression was used to estimate the coefficients. Standard errors were corrected for clustered sampling.

(2) Education is an ordinal variable with the following values: 1 for no education, 2 for primary, 3 for secondary, 4 for higher secondary and 5 for above higher secondary.

(3) Occupation is an ordinal variable with the following values: 1 for day labour, 2 for self-employed, 3 for salaried worker, and 4 for employer.

(4) The dummy for the gender of the household head has value 0 for male or married female and 1 for widow or divorced or separated female.

(5) Regional dummy has value 0 for East and 1 for West.

(6) Sector dummy has value 0 for agriculture and 1 for non-agriculture.

(7) Residence dummy has value 0 for rural and 1 for urban.

As can be seen from Table 12, all the explanatory variables, except the residence dummy, are statistically significant and have the expected signs. Thus, even though many of these variables are inter-related to each other, each of them has an independent effect on poverty, after controlling for the effects of other variables. Focussing on the policy-relevant variables, it might be noted that (a) occupation and educational level of workers have a highly significant effect on their poverty, (b) households with more assets have lower levels of poverty, (c) households living in the western region of Bangladesh are significantly poorer than those of the east, even after controlling for all individual-level and household-level differences, and (d) working in the non-agriculture sector entails less poverty as compared to working in agriculture (although the coefficient of this variable is more weakly significant than the rest.)

Table 13
Marginal Probabilities of Being Poor: 2016

Explanatory variables	Probability (%)	z-value
<i>Education</i>		
No education	29.8	33.3
Primary	22.4	37.7
Secondary	16.1	30.4
Higher secondary	11.1	19.6
Above higher secondary	7.3	12.9
<i>Occupation</i>		
Day labour	25.4	34.4
Self-employed	21.1	37.0
Salaried work	17.3	24.5
Employer	13.9	15.5
<i>Region</i>		
West	28.8	32.7
East	16.0	22.0
<i>Sector</i>		
Agriculture	22.3	27.9
Non-agriculture	20.9	34.2
<i>Gender of household head</i>		
Widow/divorced/separated female	30.6	13.0
Male or married female	21.0	37.1

Notes and Sources:

(1) The reported probabilities represent marginal effects of the respective variables after controlling for the effects of all other variables.

(2) Estimated from the probit regression, whose results are reported in Table 12.

In order to give a quantitative feel of how much difference the explanatory variables make to the probability of being poor, we have reported in Table 13 the marginal effects of some of the important variables; they show the probability of being poor at different values of a particular explanatory variable after adjusting for the effects of all other variables.⁵

The level of schooling is found to have a very strong effect on poverty. The probability of being poor is only 16 percent for a person with secondary education as compared with almost 30 percent for someone with no education; thus, completion of a full cycle of school education is capable of cutting the probability of being poor by almost half. Occupation has a very strong effect too. An average day labourer has 25 percent probability of being poor, after controlling for the effects of all other variables, but someone with self-employment has a probability of 21 percent and someone with a salaried job has a probability of just 17 percent.

Similarly, the probability of being poor is also affected very strongly by the region in which one lives; after adjusting for all other effects, the mere fact of living in the eastern region of the country nearly doubles the probability of being poor (29 percent) compared to living in the West (16 percent). Once the effects of occupation, education, etc. have been allowed for, the sector of work does not seem to make a huge difference, however, as the probability of being poor is only 1.4 percentage point higher in non-agriculture compared to agriculture. This fact does not, however, detract from the importance of developing the non-agricultural sector from the point of view of poverty reduction, because non-agriculture is capable of creating opportunities for more remunerative self-employment as well as salaried work, which, as we have seen, have very strong potential to reduce poverty. At the level of household characteristics, the gender of the household head makes enormous difference to the probability of being poor. Living in a household headed by a single female (either widowed, or divorced or separated) increases the probability of being poor by almost 50 percent compared to living in a household headed by either a male or a married female, even after controlling for the effects of assets, education, occupation, location, etc.

II.2 Inequality

Inequality Matters for Poverty Reduction

While poverty reduction is a matter of overriding concern for any developing country, the concern with inequality cannot be ignored either. Inequality is of course a matter of interest in its own right, because it is intimately related to the issues of justice and fairness which any decent society must be concerned with. But even in the context of poverty reduction, policy-makers cannot afford to disregard inequality because of the important instrumental role that inequality can play in influencing the pace of poverty reduction. The essential point is that a high initial level of inequality is likely to reduce the rate at which poverty can be brought down in the subsequent period.

⁵ As the adjoining z-values show, all the reported probabilities are highly statistically significant.

There are a number of distinct channels through which inequality can have this effect. The first channel operates by affecting the rate of economic growth. The argument is that higher initial inequality may entail a lower subsequent rate of growth in average income, and hence lower rate of progress in reducing poverty. There are two causal links in this argument – one runs from initial income distribution to growth, and the other from growth to poverty reduction. Both these links have been subject to intense scrutiny in the literature, at both theoretical and empirical levels. Despite many controversies along the way, a consensus is now beginning to emerge, which states that (a) an initially unequal distribution of income tends to reduce the pace of subsequent growth, especially in developing countries, and (b) sustained lower rate of growth tends to reduce the pace of poverty reduction.⁶ The two links together entail that high initial inequality would tend to constrain the rate of progress in reducing poverty.

A second channel links initial distribution to the rate of poverty reduction directly, without the intermediation of growth. The argument is that for any given rate of growth, a higher initial level of income inequality entails a lower rate of poverty reduction.⁷ The logic behind this argument is explained by Ravallion (1997, p.52) as follows: “Assume a growth process in which all levels of income grow at roughly the same rate. Higher inequality will then entail that the poor gain less in absolute terms from growth; the poor will have a lower share of both total income and its increment through growth; thus the rate of poverty reduction (for a wide range of measures) must be lower.” This has been christened as the “growth-elasticity argument”, which states that for any given rate of growth higher initial inequality reduces the growth-elasticity of poverty reduction.

A third line of argument involves the relationship between relative and absolute deprivations. The essential point here is that persistent relative deprivations in some dimensions can result in absolute deprivation in other dimensions. For example, if inequalities in human capital such as education and health continue to persist among the poorer and richer segments of the population, then the poor may remain absolutely poor in terms of income even if they enjoy improvements in health and education in absolute terms. The reason is that when the poor and the rich compete in the labour market for limited employment opportunities, the poor are likely to lose out in the competition because of their relative disadvantage in human capital; as a result, even if their absolute level of human capital has increased over time it won't be translated into absolute increase in income. Thus, persistent inequality in non-income dimensions can lead to persistent poverty in income dimension, even if the poor happen to enjoy absolute improvement in non-income dimensions.

⁶ For an extensive review of the relevant theoretical and empirical arguments, see Osmani (2015a) and the literature cited therein.

⁷ This argument needs to be distinguished from the common observation that increasing inequality reduces the effectiveness of growth to reduce poverty. It is of course arithmetically inevitable that if growth is accompanied by worsening distribution, its poverty-reducing effect would be less than it would otherwise be. This is, however, a relationship between contemporaneous changes in inequality and poverty. In contrast, the focus in the present argument is on the effect of initial inequality on subsequent poverty, not on how a change in inequality within a given period affects the change in poverty in the same period.

The upshot of all these arguments is that persistent inequality can have an adverse effect on the fight against poverty in a variety of ways. The theoretical underpinnings of these arguments have received ample empirical support from recent research. A wide-ranging review of the evidence from the developing world has summarised the findings as follows: “While in the majority of countries, growth was the major factor behind falling or increasing poverty, inequality, nevertheless, played the crucial role in poverty behavior in a large number of countries. And, even in those countries where growth has been the main driver of poverty-reduction, further progress could have occurred under relatively favorable income distribution.” (Fosu 2017, p.306) Thus, while rightly emphasizing the critical importance of sustaining high rates of growth for the sake of poverty reduction, the policy-makers of Bangladesh cannot afford to ignore the role of inequality, even if the primary concern is with poverty reduction rather than with inequality *per se*.

The Evolution of Inequality in Bangladesh: The Income Dimension

According to official statistics, income inequality, as measured by the Gini coefficient, displays an upward long-term trend since the early 1990s (Table 14). Inequality increased from the 1990s to 2000s, and after remaining virtually unchanged throughout the 2000s, it has gone up again since then. At the national level, the Gini coefficient has increased from 0.46 in 2010 to 0.48 in 2016. Both rural and urban areas have witnessed rising inequality since 2010, but the increase has been particularly sharp in urban areas, where the Gini coefficient has gone up from 0.45 in 2010 to 0.50 in 2016.

Table 14
Trend of Income Inequality
(Gini coefficient)

Year	National	Rural	Urban
1991-92	0.388	0.364	0.398
1995-96	0.432	0.384	0.444
2000	0.451	0.393	0.497
2005	0.467	0.428	0.497
2010	0.458	0.431	0.452
2016	0.483	0.454	0.498

Notes and Sources: Reports of *Household Income and Expenditure Surveys*, various years. The figures for 2016, are from BBS (2017).

While income inequality has increased, consumption inequality has remained surprisingly stable (Table 15). The Gini coefficient of consumption distribution has hovered around 0.30-0.32 since the mid-1990s. Even as income inequality increased since 2010, consumption inequality remained virtually unchanged at the national level. The stability of consumption inequality in the face of long-term increase in income inequality may seem somewhat surprising. A plausible explanation of this apparent paradox was offered in Osmani *et al.* (2015) in terms of the effects of consumption smoothing over time that has been made possible by the rapid expansion of microfinance. This explanation implies, however, the existence of an underlying pressure towards growing inequality in consumption as well; it's just that the pressure has not yet translated into actual inequality thanks to the opportunity for consumption smoothing offered by microfinance. But as the expansion of microfinance slows down, this mechanism for maintaining stability in consumption distribution in the face of rising inequality of income is bound to become less effective. The trend of rising income inequality, therefore, remains a major concern from the perspective of poverty reduction.

Table 15
Trend of Consumption Inequality
(Gini coefficient)

Year	National	Rural	Urban
1991-92	0.259	0.243	0.307
1995-96	0.302	0.265	0.363
2000	0.307	0.271	0.368
2005	0.310	0.278	0.353
2010	0.320	0.275	0.338
2016	0.324	0.300	0.330

Notes and Sources: Reports of *Household Income and Expenditure Surveys*, various years. The figures for 2016, are from BBS (2017).

In order to investigate the forces behind rising inequality, it would be useful to look at it from a slightly different perspective from the one offered by the widely used Gini coefficient. It has been well-known for a long time that one of the limitations of the Gini coefficient is that by construction it attaches more weight to the middle of the distribution than to the tails. This would not be a problem for comparison between distributions if the middle of the distribution behaved in the same way as the tails – e.g., if any widening of the gap between the upper and lower tails was also accompanied by similar widening of the gap in the middle of the distribution. This is indeed the implicit assumption behind the widespread use of the Gini coefficient.

But the path-breaking recent work by Gabriel Palma has seriously questioned the empirical basis of this assumption. In an influential study on income distribution for a large

number of countries around the globe, he has demonstrated that the middle of the distribution does not generally behave in the same way as the tails (Palma 2003, 2011). In fact, one of the stylized facts that emerges from his studies is that the middle class – representing 50 per cent of the population belonging to the five deciles from the fifth to the ninth – manages to capture a fairly constant share of roughly 50 per cent of national income in most countries most of the time. It is the changing division of the remaining 50 per cent of national income between the bottom 40 per cent of the population and the top 10 per cent that drives the change in overall income distribution. Thus, when income distribution worsens it is usually because the share of the top 10 per cent goes up at the expense of the bottom 40 per cent, while the middle 50 per cent of the population more or less hold on to their share. The changing pattern of income distribution thus essentially represents a struggle between the two tails of the distribution for sharing the half of national income that is not captured by the middle class.

This finding has a clear implication for how best to measure the degree of income inequality. What one should look for is not a measure of overall distribution, such as the Gini coefficient, because the middle of the distribution doesn't change much anyway, but simply a measure of the gap between the two tails of the distribution because that's where changes mainly occur. The simplest such measure is the ratio between the income shares of the top 40 per cent and the bottom 10 per cent of the population. Some researchers have christened this ratio as the Palma ratio and advocated its use in preference to the Gini coefficient (e.g., Cobham and Sumner 2013a, 2013b).

Table 16
An Alternative Measure of Income Inequality:
The Palma Ratio

	1985-86	1995-96	2005	2016
Income Share of Bottom 40%	18.17	15.54	14.36	13.01
Income Share of Middle 50%	50.37	49.78	48.00	48.83
Income Share of Top 10%	31.46	34.68	37.64	38.16
Total	100.00	100.00	100.00	100.00
Palma ratio	1.73	2.23	2.62	2.93

Notes and Sources:

(1) Palma ratio is defined as the ratio of income shares of the top 10% and bottom 40% of the population in the income distribution.

(2) Calculated by the author from the data on income distribution by income deciles given in the reports of *Household Income and Expenditure Surveys*, various years. The figures for 2016 are from the Preliminary Report of HIES 2016,

In Table 16, we have reported a time series of Palma ratio for Bangladesh, starting from 1985-86 and ending in 2016, with an interval of roughly a decade. It may be noted that exactly in line with the Palma hypothesis, the share of the middle 50 percent of the population has

remained virtually unchanged – at close to 50 percent of national income. But the gap between the top and the bottom has widened. Palma ratio has gone up continuously – from 1.73 in 1985-86 to 2.23 in 1995-96 to 2.62 in 2005 and further to 2.93 in 2016. There is clearly a long-term trend of an increasingly unequal society. While the middle class has held its own, the bottom 40 percent of the population is continuously losing out to the top 10 percent in the perennial struggle over income distribution.

Since the struggle between the top and the bottom over the distribution of income is fundamentally a reflection of the tussle between labour and capital (defined broadly to include land and other assets), this way of looking at income inequality naturally focusses our attention on functional distribution of income i.e., the distribution of income among the owners of factors of production. Empirical estimation of functional distribution and linking it with personal income distribution is fraught with serious practical problems, however, as it is hard to obtain data on the ownership of factors of production. An alternative approach is to use rough indicators of functional distribution.

An indicator that can be especially helpful in this regard is the share of labour in the growth of income. Since labour is the most important factor of production owned by the poor, evolution in the share of labour can reveal a great deal about the evolving share of the poor vis-à-vis the share of the rich in national income. The evolution in labour share can in turn be inferred by comparing the growth of real wage with the growth of labour productivity (as measured by GDP per worker). If real wage and productivity grow at the same rate, the relative shares of labour and non-labour inputs (such as land and capital, including human capital) in national income will remain constant, and since labour input comes mostly from the poor and non-labour inputs mostly from the rich the personal distribution of income will also remain relatively stable. If, however, real wage grows more slowly than productivity, this would lead to rising share of non-labour inputs, with the implication that the share of the rich is also perhaps rising i.e., personal income distribution is getting more unequal. The converse would be true if real wage grows faster than productivity.⁸

The relevant data in this regard are presented in Table 17. Here we compare the growth of labour productivity and real wages over three decadal periods – 1985/86-1995/96, 1995/96-2005/06 and 2005/06-2015/16, chosen in such a way that their terminal years coincide roughly with the years for which we reported Palma ratio in Table 16. The first two columns of this table report the annual rates of growth of GDP and employment respectively during each of the three periods. The difference between these two gives us the growth of labour productivity,

⁸ It should be noted that even though real wage data relate directly only to those who are employed for wages, the comparison between the real wage and productivity growth is relevant for a wider set of workers, including the self-employed among the poor. Since the poor self-employed people would rely more on labour than on non-labour inputs in whatever enterprise they are engaged in, their fate will be inextricably linked to the fate of labour as a factor of production. Real wage can thus be seen as a proxy for the earnings for all those who rely mainly on the supply of labour for their livelihood, regardless of whether they are wage-employed or self-employed.

which is shown in column 3, which is then compared with the growth of real wages reported in column 4.

Table 17
Growth of GDP, Employment, Labour Productivity and Real Wage
(Annual average growth rate; percent)

Period	GDP	Employment	Labour productivity	Real Wage
1985/86 - 1995/96	4.21	1.33	2.88	1.26
1995/96 - 2005/06	5.56	3.14	2.42	1.16
2005/06 - 2015/16	5.89	2.30	3.59	0.03

Notes and Sources:

(1) GDP growth rates are based on constant price GDP series obtained from BBS publications on national accounts. Employment data are from *Labour Force Surveys* of BBS.

(2) Growth of labour productivity is derived by subtracting employment growth from GDP growth.

(3) Real wage was calculated by deflating nominal wages by national CPI. The data on both nominal wages and CPI were taken from BBS, *Consumer Price Index (CPI), Inflation Rate and Wage Rate Index (WRI) in Bangladesh*, February, 2017, Dhaka. For nominal wages, the new series with base year 2010/11 was used for the period from 2010/11 to 2015/16.

A couple of features of these figures are worth noting. First, throughout the period under consideration growth of real wages has lagged behind the growth of labour productivity, indicating that the share of labour in national income has been falling consistently over the last three decades. This is at least partly, if not primarily, responsible for worsening income distribution as indicated by the rising Palma ratio. Second, the chasm between labour productivity and real wages has worsened in the recent years. From the mid-1980s to the mid-2000s, real wages grew at slightly less than half the rate at which labour productivity grew, but the gap between the two has widened sharply in the last decade. On the one hand, the growth of labour productivity has surged – from an average of around 2.6 percent per year prior to 2005/06 to 3.6 percent since then. On the other hand, the growth of real wages has slowed down from around 1.2 per cent prior to 2005/06 to virtually zero (0.03%) in the decade ending 2015/16. The main setback in real wages has occurred since 2010, when wages actually declined in real terms, as we noted earlier (Figure 1). As a result, the distribution of income has worsened so much since 2010 that it has been captured not only by the Palma ratio, which is designed to capture such changes, but also by the less sensitive Gini coefficient for the first time since the early 1990s.⁹

⁹ Possible reasons for the decline in real wages since 2010 have been discussed in section II.1 – primarily in terms of the consequence of a massive rural-to-urban migration instigated by a combination of push and pull factors.

Inequality in Human Capital: Health and Education

Bangladesh's achievement on the health front has been widely acclaimed. As measured by the indicators of health outcomes such as life expectancy and child mortality as well as indicators of health services such as coverage of immunization, Bangladesh outperforms most other developing countries at similar or even higher levels of per capita income. In fact, a recent cross-country study by Headey (2013) has concluded that in the recent decades Bangladesh had recorded one of the fastest prolonged reductions in child underweight and stunting in recorded history, narrowly behind the more celebrated case of Thailand in the 1980s and just ahead of several success stories identified in the nutrition literature, such as Brazil, Mexico, and Honduras.

Despite these achievements, the challenges with regard to health status in general and nutritional status in particular still remain formidable. For instance, more than one-third (36 percent) of all under-five children still suffer from stunting, which means some 5.5 million children are suffering from chronic undernutrition. Furthermore, the prevalence of acute malnutrition, as reflected in wasting, remains alarmingly stubborn, afflicting more than 2 million children. Clearly, an enormous task lies ahead if the country is to rid itself of the scourge of undernutrition.

The task is made all the more difficult by the fact that, while the average health status has improved, inequality in the health status of the poor and the rich is not only high but has also been worsening over time. In this respect, Bangladesh's experience is in sharp contrast to that of most other developing countries. According to a recent cross-country study, Bangladesh is one of only 11 countries, out of 80 countries studied, in which inequality in child nutrition is increasing (Bredenkamp *et al.* 2104). As we shall see, the problem of rising inequality afflicts not only child nutrition but also maternal nutrition, which has important implications for inter-generational transmission of inequality.

Using data from the periodic *Demographic and Health Surveys* (DHS), the trends in inequality in infant mortality and child undernutrition are shown in Tables 18 and 19 respectively. In these tables, the health status is compared between children belonging to the poorest and richest quintiles of the population (as measured by an index of asset ownership). The ratio between the health status indicators of the poorest and richest quintiles is taken as the index of inequality. As can be seen from Table 18, even though infant mortality has fallen impressively over the last three decades for both the rich and the poor, the index of inequality shows no long-term improvement: the ratio between the bottom and top quintiles was 1.7 in 1996 and 1.8 in 2014.

The situation with child nutrition is even worse; as Table 19 reveals, inequality has actually been increasing over time in this arena. Two measures of nutritional status have been used – stunting, which reflects the effect of chronic nutritional stress, and underweight, which captures the combined effects of both chronic long-term deprivation and acute short-term

stress. As in the case of infant mortality, so in the case of child nutrition there is no doubt that both the poor and the rich have made remarkable progress over the years, but the rich have made much faster progress than the poor, thus making for a widening gap between the two. The ratio of the rates of stunting (i.e., the percentage of stunted children) as between the poorest and richest quintiles was 1.7 in 1996; it went up to 2.2 by 2004 and further to 2.6 by 2014. The trend of increasing inequality is thus quite evident; and the picture is very similar when undernutrition is measured by the proportion of underweight children.

Table 18
Inequality in Infant Mortality Rate

Wealth Quintile	1996	2004	2014
First Quintile (Q1)	96.5	89.8	52.0
Fifth Quintile (Q5)	56.6	64.8	29.0
<i>Q1/Q5 ratio</i>	1.70	1.39	1.79

Notes and Sources:

(1) Infant mortality rate is defined as number of deaths within the first year of an infant's life per 1000 live births.

(2) The figures are taken from the World Bank's *WDI Health and Nutrition Equity Database*. The original data source is various rounds of the *Demographic and Health Survey (DHS)* of Bangladesh.

Table 19
Inequality in Child Nutrition
(percent)

Wealth Quintile	1996	2004	2014
<i>Underweight</i>			
First Quintile (Q1)	65.2	55.6	45.1
Fifth Quintile (Q5)	37.6	25.9	17.4
<i>Q1/Q5 ratio</i>	1.73	2.15	2.59
<i>Stunting</i>			
First Quintile (Q1)	61.4	62.2	49.2
Fifth Quintile (Q5)	34.8	30.5	19.4
<i>Q1/Q5 ratio</i>	1.76	2.04	2.54

Notes and Sources:

(1) Underweight means low weight for age, and stunting means low height for age; data refer to children under five years of age.

(2) The figures are taken from the World Bank's *WDI Health and Nutrition Equity Database*. The original data source is various rounds of the *Demographic and Health Survey (DHS)* of Bangladesh.

The trend with maternal nutrition is equally worrying. Once again, it is clear that both poor and rich women have enjoyed improved nutritional status over time, as revealed by falling proportion of women with low bodymass index (BMI) among both groups (Table 20). But, once again, it is the richer segment of the population which is making faster progress, leading to a widening gap in nutritional outcomes. While the proportion of undernourished women has been just about halved among the poorest quintiles during the period from 1996 to 2014, for the richest quintile the proportion has fallen to one-fourth of its initial level. As a result, the ratio of undernourished women as between the poorest and richest quintiles has gone up quite alarmingly from 2.0 in 1996 to 4.6 in 2014. Since undernourished mothers are more likely to have undernourished children (principally, by giving birth to low birthweight babies), increasing inequality in maternal nutrition threatens inter-generational transmission of health inequality. The outcome would be perpetuation of the trend of rising inequality in child nutrition, leading eventually to increasing inequality in adult nutritional status as well – of both men and women.

Table 20
Inequality in Maternal Nutrition
(percentage of adult women undernourished)

Wealth Quintile	1996	2004	2014
First Quintile (Q1)	96.5	89.8	52.0
Fifth Quintile (Q5)	56.6	64.8	29.0
<i>Q1/Q5 ratio</i>	1.70	1.39	1.79

Notes and Sources:

(1) Maternal undernutrition is defined as percentage of adult women whose bodymass index (BMI) is less than 18.5.

(2) The figures are taken from the World Bank's *WDI Health and Nutrition Equity Database*. The original data source is various rounds of the *Demographic and Health Survey (DHS)* of Bangladesh.

On the educational front, good progress has been made in recent years in closing the gap between the rich and the poor in some areas, but there are some crucial areas in which the gap not only persists but is also increasing, with quite ominous implications for the evolution of inequality and poverty in the coming years.

Especially impressive gains have been made in ensuring more equitable access to schooling. As can be seen from Table 21, the differentials between the richest and the poorest quintiles (in terms of asset ownership) in the rate of school attendance has been narrowing at both primary and secondary levels. At the primary level, the narrowing of the gap started already in the 1990s, while at the secondary level it is more of a recent phenomenon, occurring mostly since the mid-2000s. By 2014, hardly any difference existed at the primary level, with the attendance rate being about 85 percent for both the poorest and the richest quintiles. At the

secondary level, there was still a difference of about 20 percentage points, but this was less than half the difference that existed only a decade earlier. Greater equity in school attendance is reflected in narrowing of the gap in the completed years of schooling: the difference between the richest and poorest quintiles in the average years of schooling has come down from 4.8 in 1993 to 2.7 in 2014 (Table 22).

Table 21
Inequality in School Attendance Rates
(percent)

Wealth Quintile	1996	2004	2014
<i>Primary level net attendance rate</i>			
First Quintile (Q1)	56.7	73.8	84.1
Fifth Quintile (Q5)	82.4	87.5	85.2
<i>Q5 – Q1</i>	25.7	13.7	1.1
<i>Secondary level net attendance rate</i>			
First Quintile (Q1)	3.5	11.0	29.6
Fifth Quintile (Q5)	49.1	53.2	49.9
<i>Q5 – Q1</i>	45.6	42.2	20.3
<i>Post-secondary level gross attendance rate</i>			
First Quintile (Q1)	0.0	0.4	7.1
Fifth Quintile (Q5)	29.2	26.8	34.4
<i>Q5 – Q1</i>	29.2	26.4	27.3

Notes and Sources: The figures are taken from the World Bank's *WDI Education Time Series Database*. The original data source is various rounds of the *Demographic and Health Survey (DHS)* of Bangladesh.

Table 22
Inequality in Average Years of Schooling
Among 15-19 Years Olds
(years)

Wealth Quintile	1996	2004	2014
First Quintile (Q1)	3.55	4.39	5.54
Fifth Quintile (Q5)	8.37	8.25	8.19
<i>Q5 – Q1</i>	4.82	3.86	2.66

Notes and Sources:

(1) Maternal undernutrition is defined as percentage of adult women whose bodymass index (BMI) is less than 18.5.

(2) The figures are taken from the World Bank's *WDI Education Time Series Database*. The original data source is various rounds of the *Demographic and Health Survey (DHS)* of Bangladesh.

There still remain some major concerns, though. First, there is clear evidence of growing differential in enrolment at the pre-primary level. For example, the percentage point difference between ‘food surplus’ and ‘food deficit’ households in enrolment at pre-primary level has widened from 8.2 in 1998 to 11.2 in 2005 and further to 16.2 in 2013 (Table 23). Second, disparity in access to education remains stubborn at the post-secondary level. The differential between the richest and the poorest quintiles in terms of attendance in post-secondary institutions had fallen slightly from 29.2 percentage points in 1993 to 26.4 percentage points 2004, but then it rose slowly again to 27.3 in 2014 (Table 21).

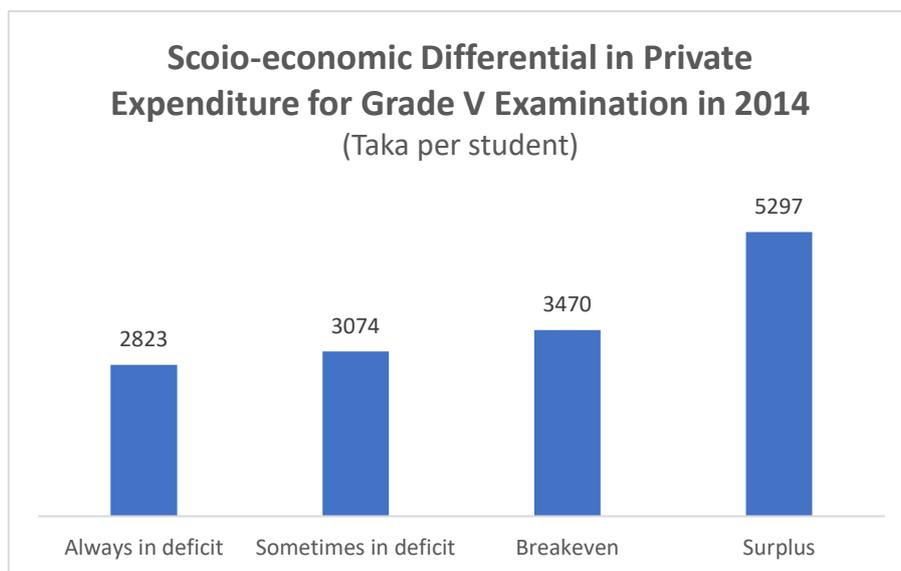
Table 23
Inequality in Enrolment for Pre-primary Education
(percent)

Food Security Status	1996	2004	2014
Always in deficit	6.9	7.3	31.9
Sometimes in deficit	9.2	12.2	34.3
Breakeven	10.0	14.2	37.5
Surplus	15.1	18.5	48.1
All	9.3	13.4	40.4
‘Surplus’ – ‘Always deficit’	8.2	11.2	16.2

Source: CAMPE (2013)

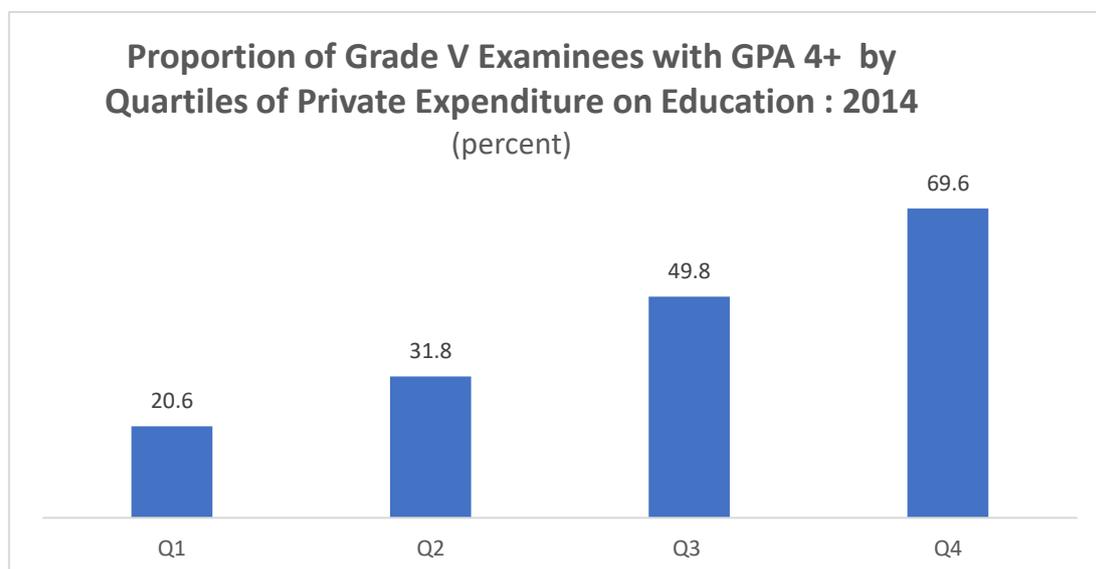
The consequence of the first of these two phenomena is that children from richer households are getting a head-start over the poorer children right at the beginning of their educational journey, and the relative disadvantage of the poor in this regard is becoming more severe over time. Their disadvantage is further compounded later in life because of differential access to private tuition. The practice of supplementing school education with private tuition is becoming ever more widespread and increasingly more expensive. A recent study has found that the cost of private tuition per fifth grade student has increased nearly three- fold in real terms over the last decade and a half – rising from Tk. 2771 in 2000 to Tk. 8212 in 2014 (CAMPE, 2015). Naturally, children from richer families are able to access the increasingly more expensive private tuition disproportionately more. It has been estimated that in 2014 the level of expenditure incurred per student preparing for the fifth-grade final examination was almost twice as high for children from food surplus families compared to the children from food deficit families (Figure 2). At the same time, there is clear evidence that higher level of private expenditure on education leads on average to better performance in examination (Figure 3). As a result, the children from poorer families are bound to suffer in comparison with children from better-off families in terms of examination grades.

Figure 2



Source: CAMPE (2015)

Figure 3

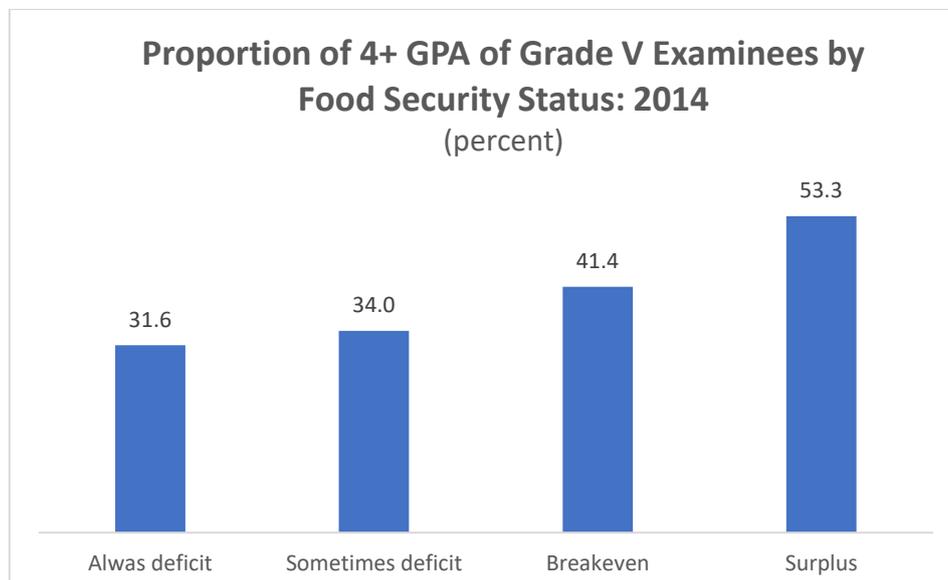


Source: CAMPE (2015)

The poorer children are thus disadvantaged on at least two counts while competing with children from better-off families. First, the better-off children enjoy a head-start early in life through greater access to pre-primary education; and, secondly, their advantage is further accentuated in later life through greater access to private tuition. The net result is that, on the

average, children from better off families are able to obtain much better examination results in comparison with children from worse-off families (Figure 4).

Figure 4



Source: CAMPE (2015)

All this has grave consequences for later life when the children grow up and enter the labour market. Lower levels of educational performance, coupled with lower levels of enrolment at the post-secondary level, entail that children from poorer backgrounds enter the labour market with a serious disadvantage in terms of both quality and quantity of education. Growing inequality in pre-primary and post-secondary education, combined with increasing inequality in the access to private tuition, will ensure that children from the poorer background will in future enter the labour market at an even greater disadvantage vis-à-vis children from well-off background than they do now. This disadvantage will be all the more serious as the economy moves on to a higher skill-base in the next phase of growth.

II.3 The Social Safety Net

How Pro-Poor is the Safety Net System?

According to the *Household Income and Expenditure Survey* (HIES) of 2016, some 24.3 percent of households participated in the social safety net programme (Table 24). This represents a considerable slowdown in the expansion of the programme. Between 2005 and 2010, the proportion of households covered by the safety net increased from 13 percent to 24

percent (World Bank, 2013a, p.108). This means that there has hardly been any expansion in the extent of coverage between 2010 and 2016.

Table 24
Participation in Social Safety Net: 2016
(percent)

Residence	Proportion of participating households	Share of participating households
Rural	28.6	82.1
Urban	14.3	17.9
National	24.3	100.0

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

The programme has a distinctly rural orientation. An overwhelming 82 percent of the participating households reside in rural areas (Table 24). This is not just because rural areas happen to be more populous; the degree of participation is also higher there. The proportion of households participating in safety net in rural areas (29 percent) is more than twice the proportion in urban areas (14 percent).

Although there are over hundred programmes currently being operated by various ministries and departments, the majority of them have very little coverage. As can be seen from Table 25, there are only 12 programmes which account for 1 percent or more of the beneficiaries (in terms of individuals, not households). The rest of the programmes, which have been lumped together as ‘minor programmes’ in Table 25, account for less than 1 percent of the beneficiaries each. It is interesting to note, however, that while these minor programmes together account for just over 7 percent of the beneficiaries, as much as 30 percent of all the benefits of the entire safety net programme are disbursed through them. This means that even though only a small number of people have access to these programmes, those who do have access to them enjoy much higher level of benefit per capita compared to the beneficiaries of major programmes (in terms of coverage). As we shall presently see, this has important implications for the poverty orientation of the safety net.

By far the biggest programme in terms of coverage is Primary School Stipend, which accounts for 36.3 percent of all beneficiaries (Table 25). The next two big programmes are Old Age Allowance (13.9 percent) and Secondary School Stipend (10.8 percent). Thus, the two school stipend programmes together account for almost half of all the beneficiaries (47.1 percent). Other programmes with a sizeable coverage are: Vulnerable Group Feeding (7.8 percent), Gratuitous Relief (6.4 percent), School Feeding Programme (4.2 percent), Widow/Deserted/Destitute Women’s Programme (3.9 percent) and Test Relief (3 percent).

Table 25
Distribution of Safety Net Programmes by Shares of
Beneficiaries and Benefits: 2016
(percent)

Programme	Share of beneficiaries	Share of total benefits
Stipend for Primary Students	36.3	14.3
Old Age Allowance	13.9	22.3
Stipend for Secondary and higher student	10.8	6.8
Vulnerable Group Feeding (VGF)	7.8	2.5
Gratuitous Relief (GR)- Food/ Cash	6.4	1.5
School Feeding Program	4.2	3.4
Widow/Deserted/Destitute Women Allowance	3.9	6.8
Test Relief (TR) Food (cash)	3.0	4.8
Ananda School (ROSC) [Cash/kind]	2.2	0.9
Vulnerable Group Development (VGD)	1.9	3.3
Allowances for the Financially Insolvent	1.3	3.2
General Relief Activities	1.0	0.3
Minor programmes	7.3	29.9
Total	100.0	100.0

Notes and Sources:

- (1) Minor programmes are those that account for less than 1 percent of beneficiaries each.
- (2) 'Beneficiaries' refer to individual participants rather than participating households.
- (3) 'Benefits' refer to the combined cash and value of kind benefit received, as reported by the participants.
- (4) Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

The whole purpose of operating a safety net programme is to support and protect the poor. By that criterion, the current safety net programme fails quite conspicuously. There is of course some degree of progressivity in the overall programme in the sense that the poor participate proportionately more than the non-poor, but it is the non-poor who enjoy the bulk of the benefit.

Progressivity in participation is evident from the fact that in 2016 the extent of participation was 33.7 percent among the extreme poor, 32.6 among all the poor and only 21.3 percent among the non-poor (Table 26). The regional distribution of safety net also displays an element of progressivity, in as much as the extent of participation in the poorer eastern region of the country is higher than in the better off western region. Thus, in the poorer East the rate of participation was 31.1 percent of all households in 2016 as against 17.4 percent in the better-

off West (Table 27). Furthermore, the participation of poor households is also higher in the East, where 39.3 percent of poor households had access to safety net programme as against only 23 percent in the West. Barisal is the leading division in the East in this respect, with more than half of the poor households (56 percent) being covered by the safety net compared to the national average of only one-third. Rangpur, the poorest division of the country, comes next with a coverage of about 40 percent among poor households.

Table 26
Participation in Safety Net Programmes by
Poverty Status of Households: 2016
(percent)

Poverty Status	Proportion of participating households	Share of participating households	Share of total benefits
Extreme Poor	33.7	17.5	13.7
Poor	32.6	32.7	25.0
Non-poor	21.6	67.4	75.0
All	24.3	100.0	100.0

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

Table 27
Regional Pattern of Participation by Households
In Safety Net Programme: 2016
(percent)

Division	Proportion of participating households	Proportion of poor households participating
East	17.4	23.0
Chittagong	19.2	24.5
Dhaka	15.0	21.2
Sylhet	23.0	26.4
West	31.1	39.3
Barisal	39.2	56.4
Khulna	28.3	31.3
Rajshahi	27.3	36.6
Rangpur	32.4	39.5
All	24.3	32.6

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

While this element of progressivity in the rate of participation is a positive attribute of the safety net programme, its fundamental weakness is that most of the benefit of the programme does not go to the poor. About two-thirds of the beneficiaries belong to the non-poor households, and they capture three-fourths of the total benefits disbursed by the programme nation-wide (Table 26). The same pattern is observed across regions. In each of the divisions, the poor constitute a minority of participants (with the exception of Rangpur, where they count for half of the participants) and they receive a minority share of the benefit (Table 28). The relatively poor eastern region of the country fares somewhat better in this regard in that the shares of the poor both among the participants and in total benefit are higher in the East compared to the West, with Rangpur being the best among them. But even in this region, in each of the divisions it is the non-poor who claim greater share of benefits. For example, even in Rangpur, where the poor fare the best, the non-poor participants claim more than half of the benefits (56 percent). The situation in the relatively better off eastern region is especially dismal in this respect. Nearly 78 percent of the participants in this region are non-poor, and they capture as much as 80 percent of total benefits. Clearly, the safety net programme as it currently operates is highly regressive in the distribution of benefits.

Table 28
Pro-Poor Orientation of Safety Net Programmes
Across Regions: 2016
(percent)

Division	Proportion of poor among participants	Share of benefits going to the poor
<i>East</i>	27.50	19.75
Chittagong	31.14	28.08
Dhaka	28.31	16.14
Sylhet	16.84	16.71
<i>West</i>	38.79	27.72
Barisal	41.14	29.81
Khulna	28.32	19.45
Rajshahi	35.96	20.23
Rangpur	50.04	43.77
<i>All</i>	34.94	24.45

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

While the distribution of benefits is decidedly regressive, the actual benefit received by the poor would depend not just on the distribution but also on the total amount of benefits disbursed by the safety net programme. Even when these two elements are combined, however,

the overall effect is far from encouraging, as can be seen from Table 29, which reports the extent of benefits received by various groups of households in 2016 as a proportion of household income and consumption.

Table 29
Contribution of Safety Net to
Household Income and Consumption: 2016
(percent)

Poverty Status	Proportion of income	Proportion of consumption
<i>All households</i>		
Extreme poor	0.68	0.98
Poor	0.57	0.79
Non-poor	0.36	0.34
All	0.40	0.40
<i>Only beneficiary households</i>		
Extreme poor	2.15	2.94
Poor	1.76	2.45
Non-poor	1.86	1.72
All	1.83	1.86

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

In order to gauge the overall contribution of the safety net programme to the economic welfare of the population as a whole, the first panel of Table 29 considers all households, regardless of whether they are beneficiaries or not. The picture is pretty dismal. For the entire population, the contribution of safety net amounts to less than half of one percent (0.4 percent) of household income and consumption. The percentage contribution is slightly higher for the poorer households, if only because their income is lower, but even for the extreme poor the contribution does not exceed 1 percent (0.68 percent of income and 0.98 percent of consumption expenditure).

The figures are somewhat higher if one considers only the beneficiary households, but only marginally so. For all beneficiary households (rich or poor), total benefit received from safety net amounts to less than 2 percent of income and consumption. For the poor, the figures are naturally higher, but even for the extreme poor it is less than 3 percent.

With such paltry contribution towards household income and consumption, it is only to be expected that the poverty impact of the safety net programme will be trivial, and our estimates confirm that this is indeed so. The poverty impact was assessed by creating a counterfactual scenario of ‘without safety net’ in which the transfer amount received from safety net was deducted from household consumption and the poverty rate was recalculated.

Comparison of this counterfactual poverty rate with the actual poverty rate provides an estimate of the poverty impact of safety net. This exercise was done separately for all households and only for the beneficiary households, and the results are reported in Table 30.

Table 30
Extent of Poverty with and without
Social Safety Net Programme (SSNP): 2016
(percent)

Poverty Measure	All households		Beneficiary households	
	With SSNP	Without SSNP	With SSNP	Without SSNP
<i>Extreme Poor</i>				
Headcount Index	12.8	13.2	19.1	20.9
Poverty Gap Index	2.2	2.4	3.4	4.0
Squared Poverty Gap index	0.6	0.7	1.0	1.2
<i>Poor</i>				
Headcount Index	24.2	24.6	34.4	36.2
Poverty Gap Index	4.9	5.1	7.2	8.0
Squared Poverty Gap index	1.5	1.6	2.3	2.7

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey* (HIES), 2016.

For the population as a whole, safety net has reduced the headcount index of poverty by a miniscule amount. Without the safety net, the rate of poverty would have been 24.6 percent in 2016 instead of 24.2 percent, and the rate of extreme poverty would have been 13.2 percent instead of 12.8 percent – in either case, safety net makes a difference of just 0.4 percentage point. These figures suggest that in the population as a whole, safety net has helped 1.6 percent of poor households to come out of poverty and 3 percent of extreme poor households to come out of extreme poverty.

It is arguable that the safety net programme is unlikely to have much impact on the headcount index anyway because this would require pulling the poor households above the poverty line, which is not an easy thing to do, except for those households who would have been just below the poverty line in the absence of safety net. Following this line of argument, the real impact of the safety net should be sought in what happens to the condition of the poor relative to the poverty line i.e., how close they can get to the poverty line. This is shown by the measures of poverty gap and squared poverty gap. By these measures, we do notice some improvement, but very marginal. For example, for the poor as a whole, safety net brings down the poverty gap from 6.1 to 5.9 percent in the case of overall poverty, and from 2.4 to 2.2

percent in the case of extreme poverty. Looking at the beneficiary households alone, the impact is slightly more visible, but not very much so.

To understand the reason for the minimalist nature of its poverty impact, we need to look a bit more closely at the structure of the current safety net programme. The problem of course lies partly in the total amount of resources that are devoted to the safety net programme as a whole, but partly the problem also lies in how the resources are allocated to various programmes within the safety net. Since all the programmes are not equally pro-poor, the poverty impact would depend on how the resources are distributed between more pro-poor and less pro-poor ones. As it happens, the current pattern of distribution is not particularly favourable to the more pro-poor programmes.

Table 31
Distribution of Safety Net Programmes by Poverty Orientation
And Share of Benefits: 2016
(percent)

Programme	Proportion of poor beneficiaries	Share of total benefits
School Feeding Programme	51.5	3.3
Ananda School (ROSC)	49.0	0.9
Vulnerable Group Feeding (VGF)	41.6	2.5
Vulnerable Group Development (VGD)	39.7	3.3
Gratuitous Relief (GR)	36.4	1.5
Primary School Stipend	36.4	14.3
Insolvency Allowance	36.3	3.2
Widow Allowance	32.1	6.8
General Relief Activities	31.3	0.3
Minor Programmes	30.0	30.2
Old Age Allowance	29.4	22.2
Secondary School Stipend	27.2	6.8
Test Relief (TR)	19.7	4.7
<i>All</i>	<i>34.6</i>	<i>100.0</i>

Notes and Sources:

- (1) Minor programmes are those that account for less than 1 percent of beneficiaries each.
- (2) 'Beneficiaries' refer to individual participants rather than participating households.
- (3) 'Benefits' refer to the combined cash and value of kind benefit received, as reported by the participants.
- (4) Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey* (HIES), 2016.

This can be seen from Table 31, which ranks the various programmes in the descending order of poverty orientation, as measured by the proportion of poor among the beneficiaries, and also reports the share of total benefits offered by each of them. As we have noted earlier, the poverty orientation of the overall programme is quite low, as only about one-third of participants come from poor households. Some of the specific programmes are, however, better than others. Even so, among the major programmes, there is only one in which poverty orientation is above 50 percent i.e., poor people participate more than the non-poor, albeit marginally: namely, School Feeding Programme (51.5 percent). The next most pro-poor programme is *Ananda* School, in which almost half the participants are poor (49 percent). Among the rest, there are just two other programmes in which pro-poor orientation is significantly above average (VGF 41.6 percent and VGD 39.7 percent). The least pro-poor programmes are: Test Relief (with a poverty orientation of 19.7 percent), Secondary School Stipend (27.2 percent), Old Age Allowance (29.4 percent) and the set of minor programmes (30 percent).

The second column of Table 31 reveals the disturbing fact that there is a clear inverse relationship between poverty orientation of programmes and the share of benefits allocated through them. Thus, School Feeding Programme, which is the most pro-poor programme of all, has a share of just 3.3 percent of total benefits. *Ananda* School, the next most pro-poor programme, has a meagre share of 0.9 percent; and the next two in order, namely VGF and VGD, have shares of 2.5 percent and 3.3 percent respectively. Altogether, about 10 percent of total benefits are channelled through these four most pro-poor programmes. By contrast, four least pro-poor programmes (Test Relief, Secondary School Stipend, Old Age Allowance and minor programmes) together account for almost two-thirds (63.9 percent) of total benefits.

Thus, not only do the poor participate proportionately less than the non-poor in the social safety net, the programmes in which they participate relatively more happen to receive relatively less funds. By contrast, the programmes in which the non-poor participate relatively more happen to be more generously funded. The poor are thus doubly disadvantaged. Clearly, the entire structure of the safety net programme needs to be overhauled if it is to serve the interests of the poor, which is its stated objective.

III. Challenges for the Future

The analysis of past trends presented in section II suggests a number of challenges that the policymakers will have to deal with if the goal of poverty elimination in the coming decades is to be turned into reality. The foremost challenge is to sustain a healthy rate of overall economic growth. There is ample evidence from around the world that, even though growth alone is not sufficient to reduce poverty fast, sustained growth over a period of time is essential for sustained poverty reduction (Dollar and Kraay, 2002). It is no coincidence that in Bangladesh the pace of poverty reduction began to accelerate at about the same time that

growth also started to accelerate – around the early 1990s. After remaining quite stubborn in the first two decades of Bangladesh’s existence as an independent nation, poverty went down impressively in the next two decades and a half – from 56.7 percent in 1991/92 to 24.2 percent in 2016; much of this decline owes itself to what happened to growth. In the first two decades, per capita GDP growth was a paltry 1.5 percent per annum on the average; in the next two decades and a half, it rose sharply to 4.1 percent per annum, thanks partly to faster GDP growth and partly to slowing population growth. Without such improvement on the growth front, it would have been impossible to achieve success on the poverty front to the extent that it has been achieved. Therefore, if the current vision of eliminating poverty within the next 25 years is to be realized, sustaining a high rate of growth is of the first order of importance.

It needs to be emphasized, however, that to acknowledge the cardinal importance of growth for sustained poverty reduction is not to subscribe to the old-fashioned ‘trickle-down’ view of the linkage between growth and poverty. The ‘trickle-down’ view has never been given a proper analytical formulation, either by its proponents or its critics, but its essential idea is that growth will initially benefit the rich but the actions taken by them will then set in motion a process whereby the poor may also benefit eventually – to some extent. The emphasis in this account is on ‘eventually’ and ‘to some extent’.

But the real significance of growth for poverty reduction (in particular, for income poverty) is different – what matters is the transformation that growth brings about in the structures of production and employment. As Simon Kuznets pointed out in the middle of the last century, sustained growth over a long period of time has historically been accompanied by major structural changes, in which new activities have emerged that were characterised by higher levels of productivity compared to the traditional ones. These new and more productive activities are the main drivers of growth, but they are also at the same time the main drivers of poverty reduction as they enable the workforce to shift from low-productivity low-paying employment of the traditional types to higher-productivity higher-paying employment of the new varieties. Thus, the shift in the structure of production and the accompanying shift in the structure of occupation drive both growth and poverty reduction at the same time – it’s not a case of one following the other as in the ‘trickle-down’ view. In this account, growth and poverty reduction are concurrent phenomena, driven by a common cause – namely, structural transformation of the economy.

Our analysis of the evolution of poverty presented in Section II corroborates this ‘concurrent’ view, as distinct from the ‘trickle down’ view, of the linkage between growth and poverty. Major structural changes, accompanying growth, have opened up opportunities for new and more remunerative employment in the non-agricultural sector – for both self-employment and salaried work. Taking advantage of these new opportunities, large chunks of the workforce have shifted from low-paying employment as day labour or marginal self-employed farmers to the more remunerative occupations. This is what has helped to bring down poverty at a relatively rapid pace. Indeed, as we have seen, the fact that poverty declined during

the period from 2000 to 2016 despite a decline in the real wage of unskilled workers was largely because of this shift from low-paying to better-paying occupations – a shift that in turn was made possible by growth-related structural change.

If the pace of poverty reduction is to be kept up, it would be essential to keep up the pace of structural transformation as well. The new activities that have emerged in manufacturing, construction and services must be expanded further, and conducive conditions must be created for the emergence of more new activities. Elaboration of the policy framework that would be needed for such structural transformations to occur at a rapid pace is beyond the scope of this paper. But some of the essential ingredients of such a framework can be readily enumerated – massive investment to overcome infrastructural bottlenecks, maintaining a competitive environment especially by encouraging outward orientation of the economy, and a structure of governance that provides the right kind of incentive to the entrepreneurs – to invest in the economy rather than to either take their capital and enterprise out of the country or to waste them for unproductive purposes.

While sustained growth at a relatively high rate will no doubt help reduce poverty – through the channel of structural transformation described above – policymakers will have to move beyond their usual preoccupation with the rate of growth. To sustain a high rate of growth is certainly important, but equally important are several other considerations that have a bearing on how strongly poverty responds to a given rate of growth. In technical jargon, we need to pay attention also to the ‘growth elasticity of poverty’.¹⁰ The reason this elasticity deserves attention is that, while sustained growth is usually poverty-reducing, there is no one-to-one relationship between the rate of growth and the rate of poverty reduction. The same rate of growth may be related to faster or slower rate of poverty reduction. And the relationship is not monotonic either; sometimes higher rate of growth can beget slower rate of poverty reduction, as demonstrated by Bangladesh’s experience during the 2010-2016 period when compared with the preceding decade. As such, how to increase the growth-elasticity of poverty in the coming decades should be at least as much of a concern as how to accelerate the rate of growth.

There are two aspects of the task of improving the growth elasticity of poverty. On the one hand, the pattern of growth must be such that it creates a lot of opportunities for the poor to engage in more remunerative employment than they currently have. On the other hand, the poor must be able to take advantage of the opportunities that are created by the growth process. The first aspect may be described as ‘creating opportunities for the poor’ and the second aspect as ‘enabling the poor to seize opportunities’. Both aspects are important for raising the growth elasticity of poverty. The first aspect is important because a given rate of growth may be achieved through many different patterns of growth, not all of which have the same impact on poverty. Some of these patterns will create more opportunities for the poor than the others, and the patterns that create more opportunities for the poor (relative to the non-poor) are likely to

¹⁰ Higher value of the elasticity would imply greater ability of growth to reduce poverty, for any given rate of growth.

be the ones that make for a higher growth elasticity of poverty. The second aspect is important because even when opportunities are created, the poor may not be able to avail of them because of various constraints they face. Removing those constraints, and thereby enabling the poor to take advantage of the opportunities that are being created by the growth process, is also an integral part of improving the growth elasticity of poverty. High growth elasticity of poverty thus requires a combination of (a) a pattern of growth that creates a lot of opportunities for the poor and (b) actions that enhance the ability of the poor to seize those opportunities. Some of the strategic considerations that are relevant to these two aspects are discussed below.

III.1 Creating More Opportunities for the Poor

The list of actions that can be taken to make the growth process more conducive for creating opportunities for the poor is potentially quite long. We focus on a few of them below, the ones we consider to be especially relevant in the current state of the Bangladesh economy, in the light of the analysis of poverty presented in section II.

(1) The Importance of Agriculture: As always happens in the course of economic development, the share of agriculture in national income has come down over time in Bangladesh as well. In the 1980s, before the growth acceleration began, agriculture accounted for just over 30 percent of national income; that share has now been almost halved – coming down to about 16 percent in recent years. One could thus reasonably argue that the importance of agriculture for the overall growth performance of the country has diminished considerably.

It would, nevertheless, be a mistake to underestimate the importance of agriculture from the point of view of growth-induced poverty reduction. This is because nearly one-third of the national labour force (and some 45 percent of rural labour force) still work primarily in agriculture (Appendix Table A.6), and both day labourers and a large chunk of self-employed workers in agriculture are among the poorest groups of the country.¹¹ The disjunction between the relatively small share of agriculture in national output and the relatively large share of poor workers directly dependent on agriculture has the obvious implication that the number of poor people who are directly supported by a unit of output is far higher in agriculture than in any other sector. As such, a given rate of growth in agriculture should have a much higher impact on poverty compared to the same rate of growth in other sectors. In other words, the growth elasticity of poverty is likely to be much higher in agriculture than in any other sector. This is why, agriculture deserves special emphasis in the context of growth-induced poverty reduction despite its dwindling share in national income.

¹¹ Poverty rate among day labourers in agriculture is 38.7 percent, the highest among all occupation groups (Table 4). Among the self-employed in agriculture, some 46 percent are either landless or functionally landless (owning less than half an acre of land), and their poverty rates are 26.2 and 23.1 percent respectively (Appendix Table A.7), which are well above the rates of poverty among either the richer landowners in agriculture, or the self-employed or salaried workers in non-agriculture (Table 2).

As our analysis in section II shows, however, the causal mechanisms that link agricultural growth with poverty reduction may be much subtler than one might think. If agricultural growth falters, one should expect a relatively large adverse effect on poverty *ex ante*, but looking at the rural scene *ex post* one might not observe that effect! This is precisely what happened between 2010 and 2016, when agriculture grew much more slowly compared to the preceding decade, but one did not observe any slowdown in the pace of reduction of rural poverty. The reason for this apparent paradox is that many of those who suffered from the consequences of slow agricultural growth simply disappeared from the rural scene, and sought their livelihood in new pastures – in urban areas. There are clear indications that a massive rural-to-urban migration has been occurring since 2010; and slowdown in agricultural growth must be at least partly responsible for this. But migration has not attenuated the adverse effect of slow agricultural growth on poverty; it has simply transferred the location of poverty from rural to urban areas. Those who migrated may have made a perfectly rational decision from their individual perspective since *ex ante* probability of being poor has historically been lower in urban areas than in rural areas, but many of them have fallen unwitting victim to the fallacy of composition. Because of mass migration, *ex post* probability of being poor has turned out to be much higher than *ex ante* probability; as a result, migration has simply led to a swelling of the ranks of the urban poor. In other words, many of those who would have become rural poor (or poorer) as a consequence of slow agricultural growth now remain hidden as urban poor.

Swelling of the urban poor in turn has led to excess supply of unskilled workers in the urban labour market, resulting in a decline in real wages since 2010, which has had a depressive effect on rural wages as well. The fall in real wages marks a reversal of earlier trend and constitutes the proximate reason for the slowdown in poverty reduction since 2010. The underlying reason, however, is the slowdown in agricultural growth, which set in motion a series of responses – first in the form of an upsurge in rural-to-urban migration and then in the form of swelling the supply side of the urban labour market – that eventually led to the decline in real wages.

Slowdown in agricultural growth since 2010 is thus primarily responsible for the apparent anomaly that the pace of poverty reduction in the country as a whole slowed down during the period 2010-2016 despite a slight acceleration in overall GDP growth. On the growth front, faster growth of other sectors may have more than compensated for the slow the growth of agriculture, thus sustaining the overall rate of growth, but no such compensation was possible on the poverty front. Since agriculture has a much higher growth elasticity of poverty than other sectors, faster growth of other sectors could not offset the consequence of slower growth of agriculture for poverty. As a result, the *ex post* growth elasticity of poverty has declined for the economy as a whole.

The lesson for the future is thus clear: agriculture deserves special emphasis if the overall growth elasticity of poverty is to be improved. The recent trend in the slowdown of agricultural growth must be reversed if the poverty-reducing effect of economic growth is to

be strengthened. Farmers, especially the poorer farmers, must be supported through continuous innovation in technology so that they can produce more on the shrinking amount of land available to them and through upgradation of the marketing framework so that producers can receive a better share of the value of what they produce.

(2) Decentralized Urbanization: The preceding discussion leads naturally to recognising the importance of managing the speed and process of urbanization. At independence, Bangladesh had the lowest level of urbanization in South Asia, but it has since been urbanizing at very rapid pace. Between 1980 and 2011, the country's annual rate of growth of urban population (4.2 percent per annum) was higher than that of India, Pakistan, Sri Lanka and Afghanistan. In 1974, only 9 percent (6.3 million) of the total population was living in the urban areas; in 2011, this figure stood at 23 percent (35.1 million). There is no up to date estimate of the size of urban population, but a variety of evidence presented in section II suggests that the pace of rural-to-urban migration, and hence the pace of urbanization, has accelerated since 2010. If this trend continues, Bangladesh's urban population will exceed its rural population by 2040.

The poverty implication of this process depends on the forces underlying the dynamics of urbanization. If urbanization grows in proportion to the demand for skilled and unskilled labour created by the expanding production base of urban centres, the overall impact on poverty will almost certainly be beneficial. However, the normal tendency is for the pace of urbanization to far exceed the growth of remunerative employment opportunities. The reason is that urbanization grows not just because of the pull forces generated by expanding employment opportunities but also because of the push forces operating in rural areas. And when the push forces become very strong, as they did because of the slowdown in agricultural growth after 2010, the spurt in migration that is induced may lead to a pace of urbanization that far exceeds what is warranted by expanding urban opportunities. The poverty effect of this kind of urbanization can be quite adverse, as was the case during the period from 2010 to 2016.

In an ideal world, without frictions and with perfect labour mobility, the adverse effect would be mitigated by a process of reverse migration. Those who fall victim to the fallacy of composition, and find that the *ex post* probability of escaping poverty has fallen well below *ex ante* probability owing to excessive migration, would then return home rather than suffer in urban slums, but in the real world it seldom happens. Quite apart from the fact that hope burns eternal, a practical reason is that there are huge fixed costs of both the initial migration and subsequent reverse migration, which deter any move back to rural areas. Most migrants, for a while at least, decide to tough it out, even if their living conditions in urban areas are no better than those they were used to back home.

This has resulted in an explosion of urban slums in Bangladesh. According to one estimate, as of 2009, Bangladesh had the highest proportion of urban population living in slums (61.6 percent) among the South Asian countries (MHC, 2014, p.46). And there is ample

evidence that living conditions in urban slums are often worse than those found in rural areas. For example, according to the *Bangladesh Urban Health Survey* of 2013, as many as 50 percent of the children of urban slums were found to be stunted (NIPORT, 2015a), in comparison with 33 percent to 38 percent found in rural areas, depending on the source. The extent of wasting is similarly found to be higher in urban slums than in rural areas.

To some extent the problem may be softened by trying to improve the condition of life in urban slums. Efforts in this direction have already been undertaken, a prime example being the *Urban Partnership for Poverty Reduction (UPPR)* project operating in 23 towns and cities from 2008 to 2015. Admirable as these initiatives are, one of the problems associated with them is that any success achieved by them is likely to induce further migration, thus creating a treadmill effect – to keep running simply to stay at the same place. A much better strategy, at least a complementary one, is to create conditions that would minimise the incentive for excessive migration in the first place. There should be two components of such a strategy. First, opportunities must be created for more remunerative employment in the rural area itself, encompassing both agriculture and non-agricultural activities. Second, urbanization must be made as decentralized as possible.

Decentralized urbanization would not only help avoid excessive pressure on one or two major urban centres, but would also help reduce the flow of migration itself, in a number of ways. First, people living in the periphery of small urban centres will be able to avail of urban employment opportunities without leaving home. Second, proximity of the urban centres from rural areas will ensure that the decision on whether or not to migrate will be based on a much better informational foundation, which will help narrow the gap between *ex ante* and *ex post* probability of escaping poverty through migration. Third, proximity between urban centres and rural home will also enable the migrants who fall victim to the fallacy of composition, and find themselves caught in a worse living condition than what they left behind, to return home at minimal cost. The net effect of all these would be to avoid the adverse effect of excessive migration and thus to improve the growth elasticity of poverty reduction.

(3) Addressing the Spatial Dimension of Poverty: Closely related to the strategy for managing urbanization is the issue of spatial disparity in poverty. To the extent that the bottlenecks faced by the poorer regions are successfully addressed, the poverty-reducing effect of any given rate of growth will be magnified i.e., the growth elasticity of poverty will be improved.¹² Two aspects of spatial disparity need to be distinguished here – the macro aspect and the micro aspect. At the macro level, spatial disparity in Bangladesh refers to regional disparity between the Eastern and Western parts of the country, popularly known as the East-West divide, which we discussed in section II; and at the micro-level the focus is on pockets of extreme poverty, which actually straddle the East-West divide.

¹² In addition, the rate of growth may itself may be boosted as the laggard regions are enabled to grow faster.

At the macro level, the most disconcerting fact is that the East-West divide, which showed a tendency to close during the second half of the 2000s, appears to be widening again (see, section II). The Western region of the country has historically been poorer, and generally less advanced, than the Eastern region. But during 2005-2010, things seemed to have taken a turn for the better as poverty declined faster in the West than in the East, raising hopes for a regional convergence in course of time. It is well-known from the literature on economic growth that convergence between less advanced and more advanced regions can be expected once the special obstacles impeding the growth of the laggard regions have been removed. The experience of the late 2000s had suggested that perhaps the binding constraints facing the West had indeed been removed at last. Most analysts identified lack of connectivity between the two regions as the principal bottleneck that prevented the West from benefitting from and integrating with the growth of industry and commerce which had traditionally been concentrated in the East, and construction of the Jamuna bridge was believed to be the *deus ex machina* that had finally removed that bottleneck.

But the recent reversal of the trend towards convergence has thrown a spanner into that particular line of thinking. This is not to suggest that Jamuna bridge did not have a beneficial effect. Micro-level evidence suggest that it did, and by extension one can also hope that the ongoing construction of the Padma bridge will have a similarly beneficial effect. What the reversal of convergence does suggest, however, is that some other constraints may have become binding now that the connectivity problem has begun to be addressed.

One possible explanation of the reversal of convergence lies in falling real wages. As we noted in section II, the West has a preponderance of daily labour in its occupational structure, much more than the East, and as such the recent fall in real wages may have hurt the West more. But this cannot be the whole explanation, because as our multi-variate poverty analysis revealed, even after controlling for the effects of occupation, education and a host of other variables, the West seemed to suffer from a relative disadvantage vis-à-vis the East. Perhaps the problem is geographical and/or ecological. In any case, the problem needs to be investigated afresh and new solutions found.

That ecology can play a major role in causing spatial disparity in poverty can be seen from the studies on regional variation at micro-level. In one such study, Sen and Ali (2017) used a disaggregated poverty map focusing on the upazila level¹³, and using information on income-poverty, social deprivation index (a synthetic index summarizing nine non-income indicators), and vulnerability to natural disaster (measured by “susceptibility to floods, tidal surges, and major disaster events”). The study found that relatively high extreme poverty was spread in four distinct zones prone to adverse ecology, encompassing North-West and North-East, South-West and South-Central areas of Bangladesh. This includes (a) the river-erosion belts of Kurigram, Gaibandha and Jamalpur, (b) the *haor* areas of greater Mymensingh and

¹³ The map was developed at the joint initiative of BBS, World Bank and the World Food Programme.

Sylhet, (c) coastal areas of greater Khulna and Barisal divisions in the South prone to tidal surges and storms, and (d) pockets of ecological vulnerability in the South-Central region encompassing Shariatpur, Chandpur, upper Barisal and Lakshmipur i.e., areas in the eco-zone of Meghna Basin.

The study thus shows that poverty associated with ecological vulnerability cuts across the East-West divide. This is confirmed by other studies which investigated spatial variation in poverty at the as the district and sub-district level (e.g., Khondker and Mahzab, 2015; Alam and Iqbal, 2017). Taken together, these studies point to the important lesson that when considering strategies for reducing spatial disparity in poverty it won't suffice to focus merely on the East-West divide. There are pockets in the East where not only is the level of poverty higher than in the West as a whole, but also where poverty has been falling much more slowly compared to some of the districts and upazilas in the West. The spatial strategy must therefore be devised at a much more disaggregated level.

The poverty map developed at the joint initiative of BBS, World Bank and WFP is a useful device for this purpose, but the map needs to be updated. The current map builds upon the information contained in the HIES of 2010, but a limitation of the map is that since the HIES of 2010 provides representative information only at the division level, the extrapolation from division to upazilas constitutes a huge jump, opening the door to large margins of error. In contrast, the just completed HIES of 2016 has been designed to be representative at the district level, which should make the transition to the upazila-level much less prone to error. Constructing an updated poverty map at the upazila level, using HIES 2016, should therefore be treated as a task of utmost priority.

III.2 Enabling the Poor to Seize Opportunities

Growth may create opportunities for more remunerative employment, but how strongly this will make a dent into poverty depends in part on how well the poor are able to take advantage of those opportunities. Most of the poor people work very hard to make a better life for themselves and their families. The fact that they still remain poor is usually not because of lack of effort but because they face a multitude of constraints – some economic, some social and some personal – that prevent them from seizing the opportunities that life may sometimes offer them. A vision for creating a poverty-free society in not too distant a future must involve actions that remove those constraints and enable the poor to seize the opportunities that are thrown up by the growth process. Drawing upon the analysis of poverty and inequality presented in earlier sections, we highlight a number of considerations that are especially relevant from the point of view of policy-making.

(1) Addressing Inequalities in Human Capital: As we saw in section II, moving from less remunerative to more remunerative employment is an important route for the poor to escape poverty. This is precisely the reason why we emphasized the importance of structural transformation that creates more remunerative employment opportunities – in the form of both

self-employment and salaried work, mostly in the non-agricultural sectors. As we also noted, however, poor workers will not automatically be able to shift to better-paying employment just because the opportunities exist. There are obstacles along the way, and an important one is the lack of education. We presented evidence to the effect that more remunerative occupations also demand higher levels of education. In addition, education was also found to be important for better remuneration within occupations. Since occupation was defined broadly in our analysis, the within-occupation effect of education probably reflects the fact that within each broad occupation group education enables a worker to access more remunerative sub-occupations. Thus, generally speaking, better education can be said to be the key to seizing the opportunities for more remunerative employment opened up by structural transformation generated by the growth process. This statement can be generalised in terms of human capital broadly defined, to include both education and health, because like better education better health is also essential for engaging in more productive employment in a sustained manner.

The progress the country has made in recent decades on both education and health fronts have been of great help in this regard because the poor have also shared in the progress. School attendance and years of schooling have improved across the population, not just for the rich. Similarly, health indicators such as infant mortality rate and rate of undernutrition have improved for both the rich and the poor. The resulting improvement in human capital of the poorer segment of the population has no doubt played an important role in ensuring that growth acceleration since the early 1990s has also been accompanied by faster rate of poverty reduction compared to the past.

The emphasis on education and health sectors must be strengthened in the coming decades, not just because higher levels of education and health are intrinsically valuable capabilities in their own right, but also because they have valuable instrumental role to play in reducing poverty. Two types of instrumental role may be distinguished here – these might be described as the ‘growth-mediated’ and ‘elasticity-mediated’ instrumental roles. Better health and education should help to raise the rate of growth since a workforce with better human capital means a more productive workforce, and productivity is the key to growth; through higher growth, better human capital plays an instrumental role in reducing poverty. This is the growth-mediated instrumental role. In addition, broad-based improvement in human capital will also help reduce poverty by enabling the poor to seize the opportunities for remunerative employment opened up by growth. This is the elasticity-mediated instrumental role.

From the policy perspective, it is important to recognise, however, a fundamental way in which the elasticity-mediated instrumental role differs from both the growth-mediated instrumental role and the intrinsic value of human capital. The latter two aspects depend on the absolute levels of human capital; the higher the absolute levels, the stronger is the effect on growth and the higher is the intrinsic value. In contrast, the elasticity-mediated instrumental role is a function of both absolute and relative levels – relative, that is, between the poor and the non-poor. In order to seize the opportunities created by the growth process, the poor will

have to compete with the non-poor in the labour market, and what will matter in that competition is not just the absolute levels of human capital they have but also how much they have relative to the non-poor. If absolute levels improve for both the poor and the non-poor but the poor lag behind the non-poor, it is very likely that most of the new opportunities thrown up by the growth process will be seized by the non-poor, leaving precious little for the poor. Poor worker will not then be able to escape poverty at a rapid rate despite enjoying higher absolute levels of human capital over time. Relative deprivation in human capital will thus be translated into absolute deprivation in terms of income poverty. This is a classic example of a seminal point made by Amartya Sen that relative deprivation in one space can lead to absolute deprivation in another (Sen, 1992).¹⁴

The upshot of this argument is that for human capital to play its elasticity-mediated instrumental role, inequality in human capital will also need to be addressed, in addition to improving its absolute level for the poor. This is where there remain reasons for serious concern. As we have noted in section II, inequality in health and education among the rich and poor is widening along many dimensions. In the case of education, while inequality has narrowed in some dimensions, for example, in terms of attendance at primary and secondary levels, it has widened in some other crucial dimensions, which has led to lower levels of educational performance and lower exposure to post-secondary education for the poor children compared to the rich. This has serious consequences for competition in the labour market.

Just how serious the disadvantage might be can be gauged from a recent study which examined the rewards to education and skills in the labour market of Bangladesh (World Bank 2013b, Part III). Several findings are of particular interest in the present context. First, workers with higher levels of education are found proportionately more in occupations that pay more. Second, workers with lower levels of education are found more in the informal sector, and for any given level of education, the reward in the informal sector is less than in the formal sector. Thus, the less educated workers are doubly penalized – once through lower return for lower education, and again through a further reduction in return because of working in the informal sector. Third, in addition to the years of schooling, the quality of education also matters in getting a good job in the labour market. There is a clear positive correlation between the grades achieved and remuneration of the jobs offered by employers. Finally, the quantity and quality of education also matters for self-employed workers. Those who are more successful (in terms of poverty status) were found to have both longer years of schooling and greater literacy skills.

These labour market characteristics imply that, even though poorer children are achieving higher levels of education than before, this may not translate into a corresponding improvement in living standards for them in their adult life because they are likely to lose out in the competition in the labour market owing to the growing disadvantage they face relative

¹⁴ Interestingly, Sen's remark was made in the context of demonstrating that relative inequality in the space of incomes can yield absolute deprivation in the space of capabilities. What we are arguing here is that the converse is also true – relative inequality in capabilities can yield absolute deprivation in the space of income.

to the workers from better-off families. Furthermore, since future children of these disadvantaged workers are likely to face similar inequality in human capital, this would constitute a mechanism for inter-generational transmission of inequality, making further reduction of poverty in future decades all the more difficult.

So far, the policy thrust in Bangladesh in the arena of human capital has been on improving its quantity. The fact that greater quantity, especially in the case of education, has not been accompanied by improvement in quality has been well recognised, even though this recognition has not led to much action as yet. What has not received much recognition at all is the implication of growing inequality in the space of human capital for absolute deprivation in the space of income and poverty. Policymakers will have to address these inequalities on a priority basis if the growth elasticity of poverty is to be improved.

On the education front, a major reason for growing inequality in the quality of achievement is the overwhelming influence of private expenditure on education. In any system, where the ability to incur private expenditure determines the outcome, inequality of outcome between the rich and the poor is bound to arise. In Bangladesh, private expenditure has taken a firm hold in the arena of education – in the form of access to expensive private schools providing high quality education as well as expensive private tuition that prepares the children for getting access to prestigious private schools. The relative disadvantage that children from poorer background face as a result is well understood, but not much has been done about it.

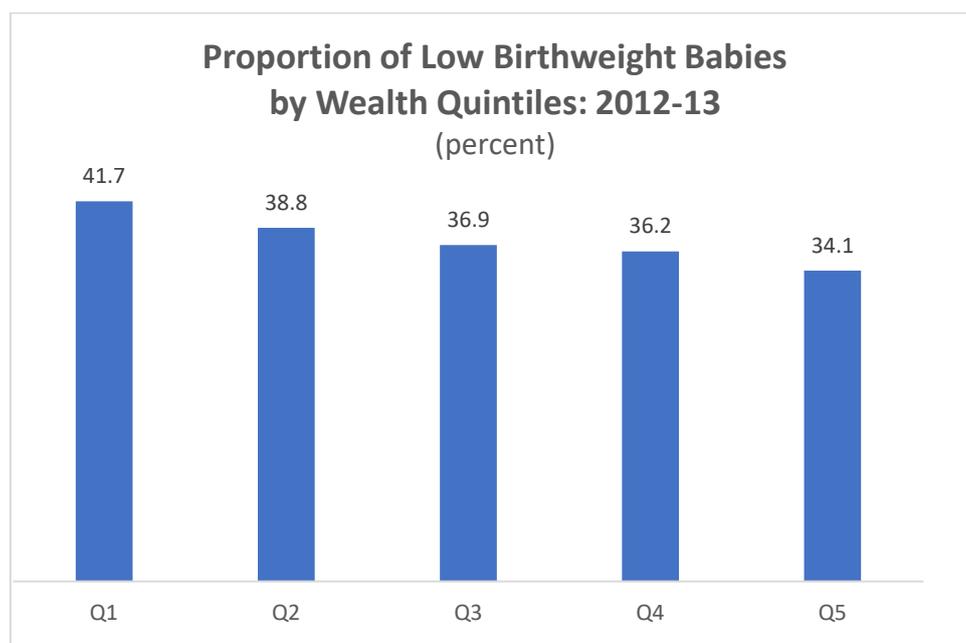
Occasionally, one hears about cosmetic measures such as banning commercialised private tuition; some even go as far as calling for a ban on private schools. But such measures will be futile. So long as there is a felt need for spending large amount of private resources for better education of their children, the well-to-do parents will always find a way of doing so and institutions will emerge that will enable them to do so. The solution lies in making private expenditure redundant, not in banning it. But private expenditure will only become redundant when publicly funded education provides the quantity and quality of education that parents justifiably want for their children. And therein lies the problem. It is well-known that the public education system in Bangladesh is in dire straits. It's a problem of both inadequate resources and poor governance – perhaps more of the latter. Improved governance, combined with infusion of more resources, should be at the top of the policy agenda in any plan for narrowing inequality and reducing poverty.

On the health front, the problems have something in common with the malaise in the education sector – namely, thoroughly inadequate state of the public healthcare system, which creates incentives for the well-to-do families to seek private healthcare, leaving the poorer segment of the population to bear the brunt of the inefficiencies and inadequacies of the public healthcare system. The result, inevitably, is gross inequities in health outcomes. The solution, as in the case of education, is to improve the resources and governance of the public healthcare system so that the private sector becomes redundant (or only a fall back option), at least for the basic healthcare needs.

There is, however, a different aspect of health inequities that call for some additional measures. One of the reasons why health inequities persist is that there exist mechanisms for inter-generation transmission of such inequities – i.e., inequities existing in one generation are transmitted to future generations. A prime example in the context of Bangladesh is the inter-generation transmission of inequities in nutritional status. Maternal nutrition and reproductive behaviour play a critical role here. Mothers who suffer from nutritional deprivation (throughout their life, not just during pregnancy) and mothers who marry and bear children before becoming fully adult women tend to give birth to low birthweight babies. And it is well-established that low birthweight babies tend to be more susceptible to being undernourished (stunted) in later life. Thus, if there are social differentials in maternal nutrition and reproductive behaviour, inequities in nutritional status will be transmitted to future generations.

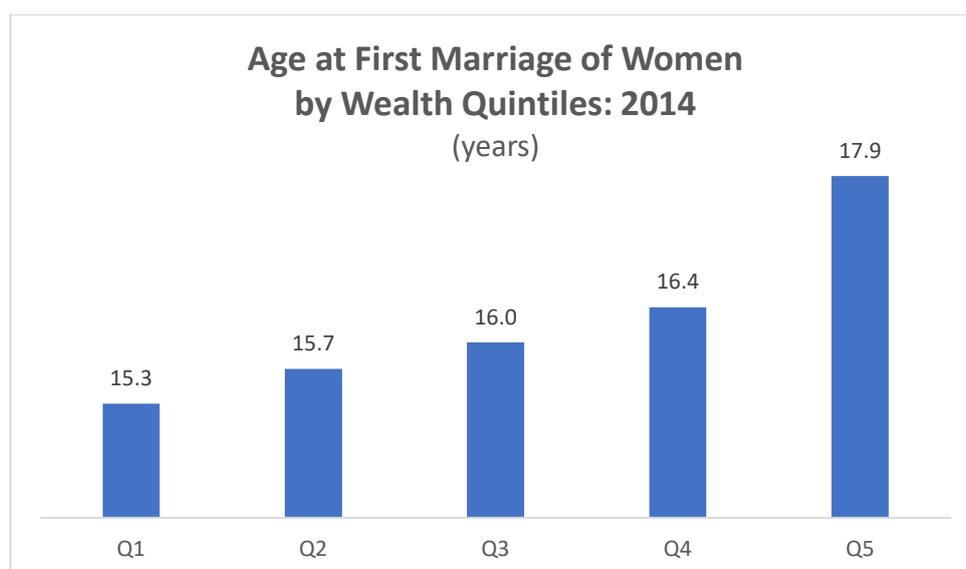
There is clear evidence that socio-economic differentials in the incidence of low birthweight babies exist in Bangladesh. A nation-wide survey carried out in 2012-13 showed that the incidence of low birthweight is systematically higher for the poorer segments of the population – for example, it was 41.7 percent for the poorest wealth quintile as compared with 34.1 percent for the richest quintile (Figure 5). This differential in low birthweight is partly a reflection of socio-economic differentials in maternal nutrition noted in section II. But partly it is also a reflection of differences in reproductive behaviour. Early marriage and early childbirth is an endemic and widespread problem in Bangladesh, but evidence shows that the prevalence of such behaviour is much higher among poorer women. Thus, the latest *Demographic and Health Survey* (2014) shows that the average age-at-first-marriage for women from the poorest wealth quintile is only 15.3 years as compared with 17.9 years for women from the richest quintile (Figure 6).

Figure 5



Source: BBS (2015b).

Figure 6



Source: BBS (2015b).

In sum, any strategy to tackle health and nutritional inequities must attempt seriously to reduce socio-economic differentials in the incidence of low birthweight, which in turn entails reducing socio-economic differentials in maternal nutrition and early childbirth. It needs to be borne in mind, however, that such a strategy cannot afford to target the poorer segments of the population alone, because both low birthweight and low age-at-first marriage characterise all socio-economic groups and not just the poor, even though it's a bigger problem for the poor. Because of the generic and endemic nature of the problem, the average level of low birthweight has remained high in Bangladesh over a long period of time. In 2003-04, a nationwide survey carried out by BBS found the prevalence of low birthweight to be 35.6 percent. About a decade later, in 2012-13, another survey found the proportion to be 37.7 percent (BBS, 2015b). Early childbirth is similarly endemic. Data from *Demographic and Health Surveys* show that the proportion of 15-19 year-old girls/women who had already started child-bearing has fallen only marginally in the last two decades – from 33 percent in 1993-94 to 30.8 percent in 2014.

The approach towards tackling these problems should, therefore, be broad-based in nature and should not focus only on the poor. If all segments of the society can be reached equally, the differentials between the rich and poor will also disappear as the overall level of the problem begins to diminish. Of the two major determinants of low birthweight, maternal undernutrition needs to be tackled by a properly funded and well-governed public-sector healthcare and nutrition surveillance system. However, for the other determinant – namely, early childbirth – a different, and complementary, approach will be needed. The main challenge here is to change social attitude towards early marriage. It is alarming to observe that when women were asked by the *Demographic and Health Survey* of 2014 to give their opinion on their age-at-first-marriage, half of the women who married before the age of 18 said either that

they married at the right age or that they would have preferred to marry even earlier (NIPORT, 2015b). The Survey did not seek the opinion of parents on this matter, but it is safe to assume that for them the proportion of those who thought along the same lines would be even higher. Clearly, a massive social campaign needs to be launched to bring about a fundamental change in attitude. Bangladesh can boast of some outstanding success stories of mass campaign on a range of issues, including immunization, oral dehydration therapy, cleaner drinking water, and family planning. It is essential to harness the country's proven ability to conduct mass campaigns in order to eliminate the deeply ingrained cultural practice of early marriage.

(ii) Overcoming Market Imperfections to Improve the Poor's Access to Assets: When the process of economic growth opens up opportunities for more productive self-employment, only those will be able to seize the opportunities who have the necessary skills and assets. The poor will usually lose out in this competition, just as they are likely to lose out in the competition in the market for salaried work. Lack of skills, relative to the better-off people, is a common cause for the poor's disadvantage in both these competitions, but in the case of self-employment an additional reason is the lack of assets. For instance, without access to land, one cannot benefit from productivity-enhancing technological innovations in agriculture; and without some physical assets one cannot engage in gainful self-employment in either manufacturing, or in transport and communications, or in most types of services. But the income-poor are also typically asset-poor; indeed, it is the lack of assets that acts as the proximate cause of their income poverty. The problem of inadequate assets must, therefore, be addressed if the growth-elasticity of poverty is to be improved.

Since direct asset redistribution in any significant scale is not practically feasible in a non-revolutionary political environment, the only way to address the problem is to enable the poor to acquire assets through the market place. But market is not kind to the poor either. For the poor to be able to acquire assets through the market they must have access to credit in the first place; in the absence of accumulated savings, and barring direct transfer through charity or otherwise, the only way the poor can acquire assets is with the help of credit. But well-known imperfections in the credit market generate a kind of credit rationing in which the relatively better off people gain access to credit but the poor are left out. Addressing the problem of credit market imperfections is, therefore, an essential pre-requisite for enabling the poor to acquire assets.

A lot has been achieved in this regard in Bangladesh, mainly through non-government initiatives. In particular, emergence of the microcredit sector has gone a long way towards softening the credit constraint faced by the poor. Contrary to a common misperception popularised by some quarters, most the credit taken by the poor is not spent on either unproductive consumption or repayment of previous loans, but for productive purposes. Using the credit history of a large nationally representative panel survey of rural Bangladesh, it has been estimated that in recent years over 60 percent of the loan amount has been used for

income-generating activities and asset augmentation, while 21 percent has been used for immediate consumption and 10 percent for loan repayment (Appendix table A.8).

One especially illuminating case of the impact of credit on asset market can be observed in the rural land market. While the amount of credit offered by the microfinance institutions (MFI) is seldom large enough to enable the borrowers to buy land, it is often large enough to acquire land from the land rental market. The consequence can be seen from certain significant changes in the tenancy structure that keen observers of the rural scene of Bangladesh have noticed for quite some time. It has been observed, in particular, that contrary to what many had predicted at the onset of the Green Revolution in agriculture, the share of land under tenancy has increased over time, and a pronounced shift has occurred from share-tenancy to fixed rent and leasehold tenancy (Hossain and Bayes, 2009).¹⁵ For instance, the share of leased-in land in total operated land held by rural households increased impressively from 23 percent in 1988 to 40 percent in 2004. Secondly, the form of tenancy has also been changing, from inefficient and oppressive forms of share-cropping to cash-based fixed rental system. Thus, from a negligible proportion in the late 1980s, the share of fixed-rent land in total leased-in land had risen to about 40 percent by 2004. Finally, the landless/marginal farmers have been the major beneficiaries of these changes in the tenancy market. Even the landless group has benefited, as is evidenced by the fact that the share of landless tenants among all tenants went up from 34 percent in 1988 to 54 percent in 2004, giving rise to a growing phenomenon of ‘pure tenancy’. Much of this pro-poor transformation in the rural land market owes itself to the increasing flow of credit made available to the rural poor by the microfinance institutions.¹⁶

The impact of microcredit is of course most visible in the non-agricultural sector, where most of the productive use of microcredit has been concentrated. An econometric study of the rural labour market of Bangladesh has found that access to microcredit raises household employment by about 19 percent, most of which takes the form of self-employment in rural non-agricultural activities (Osmani, 2015b). The net result has been significant increase in household income, faster accumulation of assets compared to non-borrowers, and substantial reduction of poverty (Osmani *et al.*, 2015). Clearly, access to credit has enabled the rural poor to seize a share of the growing opportunities for more productive self-employment in the non-agricultural sector. Without this access, the same opportunities would have gone mostly to the non-poor; this is a clear illustration of how microcredit has had a positive impact on the growth elasticity of poverty.

Any future strategy for poverty elimination must, therefore, include a strong focus on further strengthening and expanding the microcredit sector. A move has already been made by the Government in that direction by acknowledging the importance of financial inclusion – a concept that subsumes the idea of expanding poor people’s access to credit, while going beyond it to include other financial services as well. A comprehensive strategy for financial inclusion

¹⁵ For fuller discussion of these issues, see Hossain *et al.* (2013).

¹⁶ Remittance income would have played a role as well.

must be included as part of a strategy for poverty elimination during the next Perspective Plan period.

At the same time, it needs to be acknowledged, however, that provision of microcredit alone, or even financial services in general, may not be enough to enable some of the poor people to sustainably engage in productive self-employment. This is especially true of the poorest of the poor, who are variously described as ultra-poor, hardcore poor, extreme poor, and so on. One can make a plausible case that these people are so seriously disadvantaged by multiple constraints on various fronts that they won't be able to make good use of credit even if it was made available to them on reasonable terms; they are genuinely not creditworthy. Many of them will end up as day labourer, working for wages, but that will hardly be a route out of poverty. If they are to escape poverty by engaging in productive self-employment in a sustainable manner, they must be made creditworthy first.

Based on this recognition, a number of experimental approaches have been launched by various institutions, some with government support and some without it. The objective of these initiatives is to find ways of enabling the hardcore poor to graduate to a level from where access to credit, and a more substantial engagement with the market, can have a chance of providing them an escape route out of poverty. Some of the more successful of these experiments include *Char Livelihoods Programme (CLP)*, *Rural Employment Generation for Public Assets (REOPA)*, *Strengthening Household Abilities for Responding to Development Opportunities (SHOUHARDO)*, *Targeting the Ultra-Poor (TUP) Programme*, *Urban Partnerships for Poverty Reduction (UPPR)*, and *Economic Empowerment of the Poorest (EEP/Shiree)* programme. While these programmes vary from each other in many significant details, a common feature of all them is a multi-pronged approach towards supporting the vulnerable households, often with a component of asset transfer, and sometimes cash transfer as well. Evaluation of these programmes show that most of them have been successful in varying degrees in their objective of graduating their clients to a more sustainable level.¹⁷ Their combined experience offers a pool of insights which the Government should be able to utilize for the purpose of scaling up initiatives for the hardcore poor.

(iii) Social Protection for the Poor: The structural transformations that accompany rapid economic growth create different types of vulnerabilities even as they ensure a higher living standard for the general population. When new economic activities emerge offering more remunerative employment opportunities, some traditional activities become less remunerative, and may even disappear altogether. Thus, in the short run at least there are both winners and losers from the growth process. This is especially true in the age of globalization, which can hasten the process of structural transformation. Protection for those segments of the society that may face adversities amidst prosperity thus naturally becomes a major concern. A system of adequate social protection can minimise transitory poverty by providing a safety net to those

¹⁷ See Sen and Ali (2017) for a summary assessment of these programmes.

who are in danger of going down due to shocks emanating from structural changes; at the same time, it can also provide a lift to those who could fall into poverty or remain chronically mired in poverty due to various other kinds of vulnerabilities – personal and social. Either way, a well-designed safety net system can play an important role in improving the growth elasticity of poverty.

Our analysis in section II reveals, however, that in its current state the social safety net in Bangladesh is far from being an effective tool for protecting the poor. Using data from HIES 2016, it has been estimated that safety net has helped only about 1.6 percent of poor households to come out of poverty and 3 percent of extreme poor households to come out of extreme poverty. Apart from failing to make any significant dent into poverty, the safety net programme also fails in one of its most crucial functions, namely, to enable poor households to cope with shocks better. Using a nationally representative household survey carried out in late 2009, Santos *et al.* (2011) found that more than 50 percent of Bangladeshi households experienced one or more shocks over a one-year recall period but less than two percent of households reported the use of safety nets as one of the top four coping mechanisms against a shock. By contrast, use of savings was reported by 26 percent to 44 percent of households as the principal means of coping with shocks, and the use of loans was reported by 31 percent to 46 percent of households. A similar conclusion was reached by Osmani *et al.* (2015) using another nationally representative rural survey in 2010. Through careful econometric analysis, they identified a set of factors that helped rural households to cope better with shocks. Own savings and access to microcredit were found to be among the factors that helped, but access to the social safety net was of no help.

One of the reasons for the minimalist nature of the impact of the safety net is inadequate resources. As a percentage of GDP, total expenditure on all safety net programmes went up slowly from about 1.4 percent at the turn of the present century to 2.6 percent in 2010-11. But it is disconcerting to note that since 2010-11, expenditure on the safety net has been falling both as percentage of GDP and as share of total government budget (Appendix Table A.9). In recent years, safety net expenditure as percentage of GDP has hovered around the 2.0 mark, a significant fall from the peak of 2.6 percent achieved in 2010-11. Similarly, as share of total budget, safety net expenditure has fallen from a peak of about 16 percent in 2010-11 to around 12-13 percent in recent years. The absolute amount of expenditure has of course increased in recent years (in real terms), but the fact that its shares in total budget and GDP have been going down indicates that the government has not given safety net the high level of priority it deserves. This trend must be reversed.

Just as important is the need to rationalise the whole system so that the safety net becomes genuinely pro-poor, which it currently is not. As we have noted in section II, the poor participate proportionately less in the safety net and receive a lower share of the benefits compared the non-poor. This perverse pattern is explained in part by the well-known misuses and leakages that have become endemic to the system. But misuse is by no means the whole

story. As our analysis in section II shows, there are built-in structural biases in the system that go against the interests of the poor. The fundamental problem is that the funding pattern of various programmes is itself anti-poor, in the sense that the few programmes in which the poor participate relatively more happen to receive relatively less funds, whereas the programmes in which the non-poor participate relatively more happen to be more generously funded. With such a lopsided nature of the allocation of funds across the programmes, it is little wonder that the safety net as a whole fails to serve the poor.

The structure of safety net programmes, therefore, needs to be radically rationalised. Part of the problem is that the current structure of the safety net has emerged in a completely haphazard fashion over time, at the disjointed and un-coordinated initiatives of various ministries and departments, each pursuing its own agenda. A significant move has already been made towards rationalization through the formulation of the *National Social Security Strategy* (NSSS) of Bangladesh in 2015. Among other things, NSSS attempts to bring order into the chaos by classifying various programmes according to their objectives and by bringing in life-cycle considerations – i.e., to design programmes to suit people’s needs at different stages of their life cycle.

This is an admirable move, but one needs to go further. To begin with, the number of programmes must be reduced drastically. Currently, there are more than 100 programmes running, with the majority of them being very small in scope, but collectively these minor programmes (defined as those with less than 1 percent of total beneficiaries each) devour a large share of total resources and distribute them mainly to the non-poor (Table 31). If the majority of these programmes are terminated forthwith and their funds are diverted to the few pro-poor programmes that exist, the poverty impact of the safety net will rise appreciably even without the infusion of any additional resources.

The eventual aim should be the adoption of a Universal Social Protection Programme for the hardcore poor, supplemented by a few life-cycle programmes such as child benefit and old-age pension. The adoption of the Universal Protection Programme for the hardcore poor will be contingent on devising a reliable method of identifying the hardcore poor with as little errors of omission and leakage as possible. This may take some time because any such programme must be based on means testing, and developing a satisfactory method of means testing can be time-consuming. Meanwhile, it will be necessary to continue with the current practice of indirectly identifying the deserving persons with the help of observable correlates of deprivation such as landlessness, casual labour, widowhood, disability, etc. It would be essential, however, to keep the number of such programmes to a minimum, so that their pro-poor orientation can be ensured through strict monitoring and so that adequate resources can be made available to each of them, making them capable of having a meaningful impact.

IV. Summary of Policy Conclusions

A number of policy conclusions emerge from the analysis presented in sections II and III. The most important ones among them are summarised below.

(1) Sustaining a healthy rate of overall economic growth is the first pre-requisite for maintaining a healthy rate of poverty reduction in the coming decades. Even though growth alone is not sufficient to reduce poverty fast, sustained poverty reduction is not possible without sustained growth over a period of time. Some of the essential ingredients of a policy framework for sustaining a rate of growth include: massive investment to overcome infrastructural bottlenecks, maintaining a competitive environment especially by encouraging outward orientation of the economy, and a structure of governance that provides the right kind of incentive to the entrepreneurs – to invest in the economy rather than to either take their capital and enterprise out of the country or to waste them for unproductive purposes.

(2) While sustained growth at a relatively high rate is essential for sustainable poverty reduction, policymakers will have to move beyond their usual preoccupation with the rate of growth. At least equally important is the ‘growth elasticity of poverty’, which indicates how strongly poverty reacts to any given rate of growth. A comprehensive strategy for poverty elimination must include a range of policies designed to ensure a high ‘growth elasticity of poverty’. These policies can be classified into two categories – (a) those that ensure that the process of economic growth creates a lot of opportunities for the poor to engage in more remunerative employment than they currently have and (b) those that enable the poor to take advantage of the opportunities that are created by the growth process. Some of the major policy imperatives of both types are summarised below.

(3) Special emphasis must be given to agricultural growth. Although the relative importance of agriculture in national income is coming down over time – as it inevitably will in the course of development – from the point of view of poverty reduction, agriculture still retains a special significance. A given rate of growth in agriculture should have a much higher impact on poverty compared to the same rate of growth in other sectors because the number of poor people who are directly supported by a unit of output is far higher in agriculture than elsewhere. In other words, the growth elasticity of poverty is likely to be much higher in agriculture than in any other sector. As such, efforts must be made to reverse the slowdown in agricultural growth that has been witnessed in the recent years.

(4) Managing rural-to-urban migration through decentralized urbanization should be treated as an essential component of any comprehensive strategy for rapid poverty reduction. Quite apart from creating a plethora of problems afflicting the urban life, excessive migration concentrated in a small number of urban centres goes against the interests of the poor, by excessively inflating the supply side of the labour market, and thereby exerting a downward pressure on the incomes of unskilled workers. Decentralized urbanization would not only help avoid excessive pressure on the major urban centres, but would also help reduce the flow of

migration itself, in a number of ways. The net effect of all these would be to avoid the adverse effect of excessive migration and thus to improve the growth elasticity of poverty reduction.

(5) Closely related to the strategy for managing urbanization is the issue of spatial disparity in poverty. To the extent that the bottlenecks faced by the poorer regions are successfully addressed, the poverty-reducing effect of any given rate of growth will be magnified i.e., the growth elasticity of poverty will be improved. Two aspects of spatial disparity need to be distinguished here – the macro aspect and the micro aspect.

(6) At the macro level, the most disconcerting fact is that the East-West divide, which showed a tendency to close during the second half of the 2000s, appears to be widening again. It was once hoped that improved communication following the opening of the Jamuna bridge would help to narrow the gap between the West and East, but this hope has been belied by the growing divergence witnessed in the recent years. Perhaps the fundamental problem is geographical and/or ecological. In any case, the problem needs to be investigated afresh and new solutions found.

(7) At the micro level, it has been found from recent research, based on disaggregated poverty map, that pockets of extreme poverty exist in all regions, cutting across the East-West divide. In order to identify these pockets more accurately, and to gain an understanding of the specific problems faced by each of them, it is essential to constructing an updated poverty map at the upazila level, using HIES 2016.

(8) In order to ensure that the poor are better able to seize the opportunities opened up by the growth process, it is essential to improve their human capital – in the form of education and health – both in absolute and relative terms. The poor have enjoyed considerable improvement in the absolute levels of both education and health in the recent decades. But they still suffer from relative disadvantage vis-à-vis the better-off segments of the population, and this disadvantage is becoming more serious over time as inequalities in health and education are widening in many crucial dimensions. This is not only contributing to widening of income inequality but is also threatening to have an adverse effect on poverty. This is because if the poor lag behind the non-poor in the quantity and quality of human capital, they will lose out to the non-poor in the competition for more remunerative employment opportunities that are thrown up by the growth process. Poor workers will not then be able to escape poverty at a rapid rate despite enjoying higher absolute levels of human capital. Relative deprivation in human capital will thus be translated into absolute deprivation in terms of income poverty. It is, therefore, imperative that inequality in human capital is addressed, in addition to improving its absolute level for the poor.

(9) On the education front, the primary reason for growing inequality is the predominance of private expenditure as a determinant of the quantity and quality of educational outcomes. The predominance of private expenditure is in turn a consequence of the fact that the public education system in Bangladesh is in dire straits. The public education system suffers

both inadequate resources and poor governance – perhaps more of the latter. Improved governance of the public education system, combined with infusion of more resources, should be at the top of the policy agenda in any plan for narrowing inequality and reducing poverty.

(10) The health sector shares with education the problem of an abysmal system of public provision. The dismal state of the public healthcare system creates incentives for the well-to-do families to seek private healthcare, leaving the poorer segment of the population to bear the brunt of the inefficiencies of the public healthcare system. The solution, as in the case of education, is to improve the resources and governance of the public healthcare system so that the private sector becomes redundant, at least for the basic healthcare needs.

(11) There is, however, an additional factor in the case of health inequalities that calls for some additional measures. To some extent, health inequalities are perpetuated through an inter-generational transmission mechanism, with undernourished mothers giving birth to low birthweight babies who in turn grow up to be undernourished adults. There exist socio-economic differentials in the incidence of low birthweight babies, with the poorer families having a higher incidence than the richer ones; and this is what contributes to the perpetuation of health inequalities. A two-pronged strategy needs to be adopted to deal with two major determinants of low birthweight – namely, maternal undernutrition and early childbirth by adolescent mothers. Inequalities in maternal undernutrition should be addressed through a well-funded and well-governed public healthcare and nutrition services system. Early childbirth should be prevented by embarking on a massive public awareness-raising campaign against early marriage – with the same vigour and zest with which some other mass campaigns were launched successfully in the past, for example, in the fields of family planning, oral rehydration therapy and child immunization.

(12) In addition to human capital, the poor will also need access to physical assets if they are to seize the opportunities for more remunerative self-employment created by the process of economic growth. Since direct asset redistribution in any significant scale is not feasible in a non-revolutionary political environment, the only way to address the problem is to enable the poor to acquire assets through the market place. This in turn is only possible if the poor get access to credit, from which they have traditionally been deprived. The microcredit revolution has eased the problem to a significant extent; every effort must be made to strengthen and expand the role of microcredit, by embedding it in a broader programme of financial inclusion.

(13) It needs to be acknowledged, however, that provision of microcredit alone, or even financial services in general, may not be enough for the hardcore poor, as they typically are so seriously disadvantaged by multiple constraints on various fronts that they won't be able to make good use of credit even if it was made available to them on reasonable terms. Many of them will end up as day labourer, working for wages, but that will hardly be a route out of poverty. If they are to escape poverty by engaging in productive self-employment in a sustainable manner, they must be made creditworthy first. Based on this recognition, a number

of experimental approaches have already been launched by various institutions. Their objective is to find ways of enabling the hardcore poor to graduate to a level from where access to credit, and a more substantial engagement with the market, can have a chance of providing them an escape route out of poverty. The more successful of those programmes should be scaled up and mainstreamed through the infusion of significant amount of resources.

(14) The safety net system is in need of a complete overhaul, as it does not serve the interest of the poor. The latest evidence shows that the safety net makes very little impact on poverty. One of the reasons for this failure is inadequate resources. Total expenditure on the safety net as a share of government budget and as the share of GDP have been declining since 2010-11. This trend must be reversed and much larger allocations should be made to what is a vital component of any strategy for poverty elimination.

(15) Equally important is the need to restructure the safety net programmes so as to improve its poverty orientation. The current structure is not pro-poor at all – it is, in fact, the non-poor who participate more in the programme and who claim the larger share of the benefit. The fundamental problem is that the funding pattern is anti-poor, in the sense that the few programmes in which the poor participate relatively more happen to receive relatively less funds, whereas the programmes in which the non-poor participate relatively more happen to be more generously funded. The system should be reformed by eliminating the programme that have a heavy bias against the poor; and this is true for the majority of programmes. Efforts and resources should be concentrated on a small number of programmes that have proven to be relatively pro-poor, with the eventual goal of moving towards a universal protection scheme for the hardcore poor.

Appendix Table A.1
Sectoral GDP Growth Rates: 2000/01 – 2015/16
 (percent per annum)

	Agriculture	Industry	Construction	Services	All
2000/01 – 2004/05	3.08	6.12	7.66	5.05	5.09
2005/06 – 2009/10	4.99	7.63	6.57	5.56	6.07
2010/11 – 2015/16	3.29	9.04	7.50	5.66	6.45

Source: BBS, *Bangladesh National Accounts: Sources and Methods*, 2014; BBS, *National Accounts Statistics 2016*, May 2016.

Appendix Table A.2
Rural Poverty by Land Ownership: 2000-2016
 (headcount index; percent)

Land ownership category	2000	2005	2010	2016
Landless (<0.05 acre)	63.5	56.8	45.6	33.7
Functionally landless (0.05-0.5 acre)	59.7	48.8	45.6	26.8
Marginal (0.5-1.5 acre)	47.2	35.1	25.0	18.5
Small (1.5-2.5 acre)	35.4	23.7	16.8	13.9
Large/medium (> 2.5 ac)	20.7	12.8	9.7	12.4
All	52.3	43.8	35.2	26.4

Notes and Sources: The figures from 2000 to 2010 are from World Bank (2013), Table 2.2. The figures for 2016 were calculated by the author from raw data of HIES, 2016.

Appendix Table A.3
Trend of Real Wages of Unskilled Workers
(2010/11=100)

Year	Nominal wage	CPI	Real wage
1999-00	41.2	48.2	85.3
2000-01	43.3	49.4	87.6
2001-02	46.4	50.9	91.0
2002-03	50.0	53.2	94.0
2003-04	53.8	56.1	95.8
2004-05	57.1	59.8	95.5
2005-06	61.0	64.4	94.7
2006-07	66.4	70.7	93.9
2007-08	75.1	77.6	96.6
2008-09	84.7	84.3	100.2
2009-10	93.7	91.5	102.4
2010-11	100.1	99.6	100.7
2011-12	106.3	108.2	98.3
2012-13	112.6	116.4	96.7
2013-14	118.7	124.4	95.5
2014-15	125.4	132.5	94.7
2015-16	133.2	140.4	94.8

Notes and Sources: BBS, *Revision and Rebasing of Wage Rate Index (WRI) from 1969-70 to 2010-11*, 2015.

Appendix Table A.4
Regional Pattern of Educational Achievement: 2016
 (percentage of workers)

Division	No education	Primary	Secondary	Higher Secondary	Graduate
West	32.9	31.0	28.7	4.9	2.6
Barisal	26.1	32.1	28.3	6.9	6.6
Khulna	32.6	29.1	29.9	4.4	4.0
Rajshahi (new)	42.7	26.1	21.8	5.1	4.3
Rangpur	42.7	25.0	23.6	4.6	4.1
East	31.9	31.6	29.1	4.9	2.6
Dhaka	35.4	25.7	27.9	5.4	5.6
Chittagong	32.9	28.6	28.9	5.0	4.7
Sylhet	39.4	35.1	19.5	3.2	2.8
Total	36.2	27.6	26.4	5.0	4.8

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

Appendix Table A.5
Poverty within Occupations Across Regions: 2016
 (headcount index; percent)

Division	Day labour	Self-employed	Salaried worker	Employer	All
West	41.0	22.6	23.9	14.2	34.6
Barisal	35.4	23.0	18.4	19.8	26.4
Khulna	31.6	19.2	20.0	2.2	27.5
Rajshahi (old)	45.8	24.3	27.7	17.7	37.5
Rajshahi (new)	37.0	17.9	19.7	14.0	28.9
Rangpur	55.6	32.0	37.8	23.5	47.3
East	26.8	15.5	12.3	5.9	20.5
Chittagong	26.3	16.0	14.3	6.1	18.3
Dhaka	29.6	16.6	11.1	7.0	19.6
Sylhet	19.9	10.6	15.2	0.0	16.2
Total	34.1	18.8	15.2	8.5	24.2

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

Appendix Table A.6
Structure of Occupation in 2016
 (percent)

Occupation	National	Rural	Urban
<i>Agriculture</i>	<i>34.1</i>	<i>44.6</i>	<i>9.2</i>
Day labour	17.4	23.1	4.0
Self employed	15.6	20.3	4.3
Salaried worker	0.7	0.7	0.8
Employer	0.4	0.5	0.2
<i>Non-agriculture</i>	<i>65.9</i>	<i>55.4</i>	<i>90.8</i>
Day labour	20.8	20.5	21.6
Self employed	15.1	14.0	17.5
Salaried worker	29.5	20.6	50.9
Employer	0.4	0.3	0.8

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

Appendix Table A.7
Poverty of Self-employed Workers in Agriculture
by Land Ownership: 2016
 (percent)

Land ownership category	Share in self-employment in agriculture	Rate of Poverty
Landless (<0.05 acre)	13.9	26.2
Functionally landless (0.05-0.5 acre)	32.7	23.1
Marginal (0.5-1.5 acre)	30.8	18.8
Small (1.5-2.5 acre)	12.4	14.8
Large/medium (> 2.5 ac)	10.1	13.4
<i>All</i>	<i>100.0</i>	<i>20.2</i>

Note: Land ownership refers the land owned by the household in which a worker lives.

Source: Calculated by the author from raw data of BBS, *Household Income and Expenditure Survey (HIES)*, 2016.

Appendix Table A.8
Uses of Microcredit by Rural Households in Bangladesh: 2007-2013
 (percent)

<i>Use of microcredit</i>	Share of loan amount
<i>Income-generating activities (IGA)</i>	43.56
Crop agriculture	13.59
Livestock, poultry, fishery	7.08
Non-farm activities	22.89
<i>Asset augmentation</i>	17.13
Physical capital	11.72
Human capital	5.41
<i>Consumption</i>	20.77
<i>Loan repayment</i>	10.24
MFI	2.44
Institutional (excluding MFI)	0.16
Informal lenders	7.64
<i>Others</i>	8.30
Of which, wedding/dowry	2.63
<i>Total</i>	100.0

Notes and Sources: (1) Loan-use data refer to actual uses as reported by households, not official uses as recorded by the MFIs. Furthermore, the figures are estimated by combining primary and secondary uses of loan, recognising that any single loan may be used for multiple purposes, and they represent average figures for the period 2007-2013.

(2) Estimated by the author from two rounds of a nationally representative panel survey carried out by the author in 2010 and 2013 for the project entitled Dynamics of Poverty in Rural Bangladesh under the auspices of the Institute of Microfinance, (now renamed as Institute of Inclusive Finance and Development), Dhaka.

Appendix Table A.9
Government Expenditure on
Safety Net Programmes: 2008/09 – 2016/17
 (percent)

Year	Share of Budget	Share of GDP
2008-09	14.71	2.25
2009-10	15.12	2.42
2010-11	16.07	2.64
2011-12	13.63	2.40
2012-13	12.20	2.23
2013-14	12.33	2.26
2014-15	12.78	2.02
2015-16	13.60	2.08
2016-17	12.88	2.09

Source: Ministry of Finance, Government of Bangladesh,

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