

# Operationalizing Pro-Poor Growth: Bangladesh as a Case Study

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## I. Description of Historical Context and Growth-Poverty Trends

### 1.1 From 'Test Case' to the League of 'Medium Human Development'

#### 1.1.1 Initial Pessimism

It is important to emphasize that the economy of Bangladesh is one of the most vulnerable economies in the world characterized by an extremely high population density, low resource base, high incidence of natural disasters, and persistent socio-political instability, especially during the initial years.<sup>1</sup> Moreover, the country inherited a war-ravaged economy after the Independence War in 1971. With such extremely adverse initial circumstances, the implications for economic growth were considered extremely unfavourable for Bangladesh. Many development observers also went on to question the country's long-term economic prospects and political viability as an 'independent state'.<sup>2</sup>

In effect, with characterization of extremely bleak development prospects, the predominant theme that persisted during the initial years was one of negative images. The country was considered a model of extremities and odds of human existence, an example of hopeless future, a case of constant fear of some hidden disasters in the making, and a permanent cause of liberal conscience and global welfarism. Bangladesh was regarded as a 'landscape of disaster' and a 'catalogue of woes'.<sup>3</sup> Such pessimistic appraisals defined a development discourse that conditioned the mind-set of the domestic policy makers as well as the external donors for the subsequent two decades. The 'agrarian pessimists' highlighted the importance of traditional production relations constraining the future developments of productive forces (see, Jannuzi and Peach 1980, van Schendel 1981, de Vylder 1982, Hartmann and Boyce 1983, Boyce 1987, Jansen 1987). Similarly, 'persistent authoritarianism' was considered as the ultimate political fate of Bangladesh (see, for example, Franda 1982, Maniruzzaman 1987).

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<sup>1</sup> The estimated population of Bangladesh was about 130 million in 2000 living in a geographic area of around 148 thousand square kilometres which gives a population density of about 880 persons per square kilometre which is the highest in the world excluding the city states, such as Singapore. The contrasting themes of "initial pessimism" and "subsequent success" of the 1990s, as pursued in Section 1, are built on the past works on Bangladesh. See, Sen (2001), Mujeri and Sen (2003), GoB (2003), World Bank (2003), Ahluwalia and Mahmud (2004).

<sup>2</sup> For details on adverse initial social and economic conditions, see Khan 1972, Islam 1977, Rahman 1993, Islam 2003. In 1973, the former US Secretary of State Henry Kissinger is reported to have commented that Bangladesh was a 'basket case', being possibly overwhelmed with the appalling state of the economy.

<sup>3</sup> For example, it was observed that: 'If the problem of Bangladesh can be solved, there can be reasonable confidence that less difficult problems of development can be solved. It is in this sense that Bangladesh is to be regarded as a test case'. See, Faaland and Parkinson 1975, p. 5.

During the period, the ‘negative images’ of the country was fed by social upheavals, economic mismanagements and political disasters. With recurrent disasters, systematic risks of famine-like syndrome and the absence of democratic governance, the country was considered to be locked in a ‘below poverty level equilibrium trap’ resisting any policy-based solution short of radical restructuring (see, Alamgir 1978). The bleak statistics of the development indicators of the period provided the empirical evidence in support of such views. The theme of ‘economic pessimism’, as applied to Bangladesh’s inability to make a transition to modernity, continued to persist throughout the 1980s, often from diverse theoretical considerations (see, for example, Abdullah et. al. 1991, Sobhan 1991).

### **1.1.2 Recent Economic Progress in the Comparative Context**

Contrary to initial pessimisms, the recent years have seen a significant change in the performance of Bangladesh. In many respects, it is now regarded as a lead performer among the least developed countries and considered as a successful example of graduation from traditional society to modernity at a low level of per capita income (see, Stern 2002). In recent years Bangladesh has graduated into the league of “medium human development” according to the global ranking of UNDP. We may note several of the successes. On the economic front, there have been considerable gains in terms of per capita GDP. In the 1980s, the per capita GDP grew only at a rate of 1.6 per cent per year; this has nearly doubled to 3 per cent during the 1990s. This encouraging performance is also reflected in the comparative context of neighbours and other Asian countries as well as LDCs (Table 1). The comparative performance of Bangladesh (measured in terms of GDP per capita in PPP\$) has improved vis-à-vis neighbouring and other Asian countries except India. In 1988, per capita GDP of Bangladesh was only 22 per cent of Thailand, 29 per cent of China, 40 per cent of Pakistan and 72 per cent of Vietnam. By 2001, the comparative position of Bangladesh has improved vis-à-vis all these countries. This also comes through comparisons with countries outside the region. Thus, GDP per capita of Bangladesh was only 61 per cent of the Sub-Saharan average in 1988; the matched indicator has increased to 88 per cent in 2001. Similarly, Bangladesh’s relative position vis-à-vis the group of LDCs further improved during this period. One remarkable aspect of this feat is that the improved comparative growth performance was achieved in the backdrop of endemic vulnerability to natural disasters.<sup>4</sup>

This relative improvement cannot be overplayed, however. First, Bangladesh’s current GDP per capita is only US \$ 380, i.e. way below the cut-off mark of US \$ 1000 needed to graduate from the LDC status. Second, the gains are modest, as its current GDP per capita in PPP\$ is only 42 per cent of the average estimated for all developing countries. Third, these gains not only need to be sustained but increased further through “repeat games” in the coming decade, which is not an easy task given the changing national and

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<sup>4</sup> Indeed, underlying the aggregate growth statistics one can observe significant social success in overcoming the phenomena of mass starvation and the threat of famine syndrome. The production of rice, the staple food, reached a near self-sufficiency level through the adoption of modern technologies. Increased disaster preparedness combined with expanded capacity to implement lean-season targeted wage-employment and transfer programs played an important role in ensuring minimum food entitlements for the poorest in times of crisis.

global circumstances.<sup>5</sup> Nevertheless, Bangladesh's progress in the 1990s merit closer analytical attention, especially if one recalls that in 1974, Bangladesh lagged behind all countries except Rwanda in terms of per capita GNP ranking of the World Bank. From this angle, pro-poor growth lessons from Bangladesh may contain insights for ascent elsewhere, especially in the context of widely prevalent Afro-pessimism in global governance and development discourse

### **1.1.3 Making a difference: Achieving Social Progress at a Low Level of Income**

Accumulation of favourable human development conditions at a relatively low level of income can serve as the additional source of pro-poor economic growth. The relatively higher progress in human development at a low level of income is also vindicated by the comparison of predicted (for a given level of per capita income) with the actual values of social indicators achieved by the country (Table 2). Compared with the predicted values, the actual progress recorded has been higher for the contraceptive prevalence rate, lower for population growth rate as well as for TFR and CBR, higher for life expectancy at birth and child immunization coverage, and lower for IMR.<sup>6</sup> Here we particularly highlight three major areas having a direct bearing on the basic capabilities of the poor. These are: population, basic health and basic education. Bangladesh has achieved success in each of these spheres over the last two decades.

Reducing population growth rate at a low level of income is an important source of pro-poor growth (on this see, Eastwood and Lipton 2000). Apart from having obvious implications in terms of accelerating current per capita GDP growth, reduction in TFR has positive dynamic effects on pro-poor growth through raising the demand for “quality” of the children.<sup>7</sup> This, in turn, is reflected in higher investments in education and health of the children, giving rise to the virtuous cycle of higher human capital, higher productivity, and still higher subsequent growth rate. The experience of the industrialised countries earlier showed that lowering population growth rate is next to impossible without achieving first a higher level of economic development. The subsequent success in the Indian state of Kerala and Sri Lanka brought an important corrective to this observation, adding the possibility that countries even without entering the modern phase of development can reduce TFR provided there is adequate public investments in human development. Since most low-income countries have limited public resources to support human capital in the early phase of development, there was a tendency to view the Kerala-Sri Lanka model as exception. This was the basis of the doomsday hypothesis based on neo-Malthusianism of not being able to check the growth in population eventually dragging down the momentum of development in the context such as

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<sup>5</sup> The risk of slippage is enormous, as efforts of the decades can be washed away easily through policy mistakes, bad luck, war, lack of political leadership, as happened in many developing countries with changing fortunes on global economic mapping, ranging from Pakistan, Sri Lanka, Ghana and Argentina, to name the few.

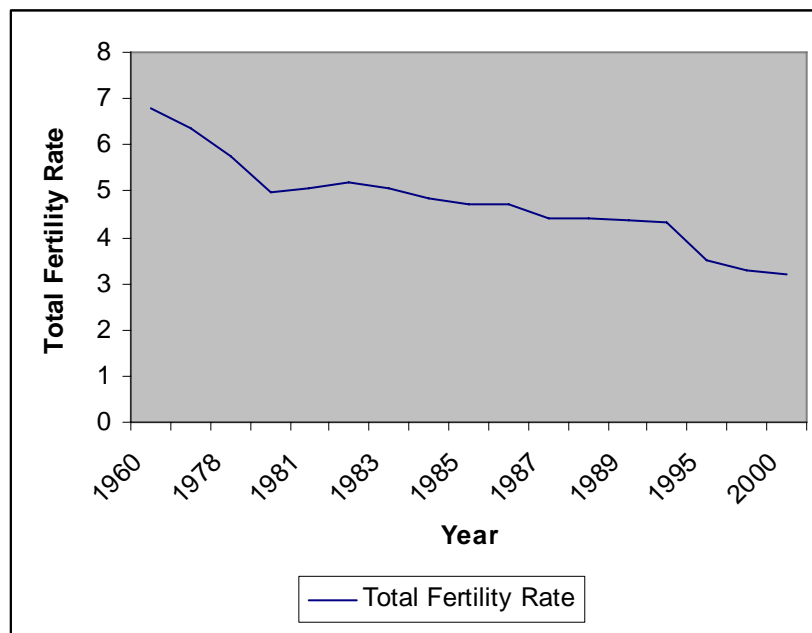
<sup>6</sup> One vitally important indicator where Bangladesh is still visibly lagging behind, notwithstanding the progress in the expansion of primary and secondary education in the nineties, is the adult literacy rate reflecting the enormous burden of the initial backlog of the illiterate population.

<sup>7</sup> The principal mechanism through which reduction in population growth takes place is through lowering the total fertility rate (TFR)—a measure of number of children ever born per woman in the reproductive age-group of 15-44.

Bangladesh (Faaland and Parkinson 1975). This, however, proved incorrect in the later reflections.

Bangladesh's experience shows that while the conventional wisdom "development is the best contraceptive" is important it is not binding. The population growth rate came down from 2.9 percent per year in the mid-1970s to 1.5 percent in the late-1990s through impressive decline in the total fertility rate. The remarkable feature of this decline was that it had been achieved not only at a low level of income but also at a low level of literacy. The onset of decline in TFR can be dated back to the mid-eighties, i.e. at a fairly early stage of development (defined both in terms of per capita GDP as well as relatively low level of human development compared with Sri Lanka and Kerala). Thus, the total fertility rate (TFR) has declined from 7 in 1975 to 3.2 in 1999/00 according to DHS data (see, Chart 1). Factors that have contributed to this decline include strong emphasis on family planning through favourable public policy, women's empowerment, community interaction, especially among the self-help groups (Dev et al 2002).

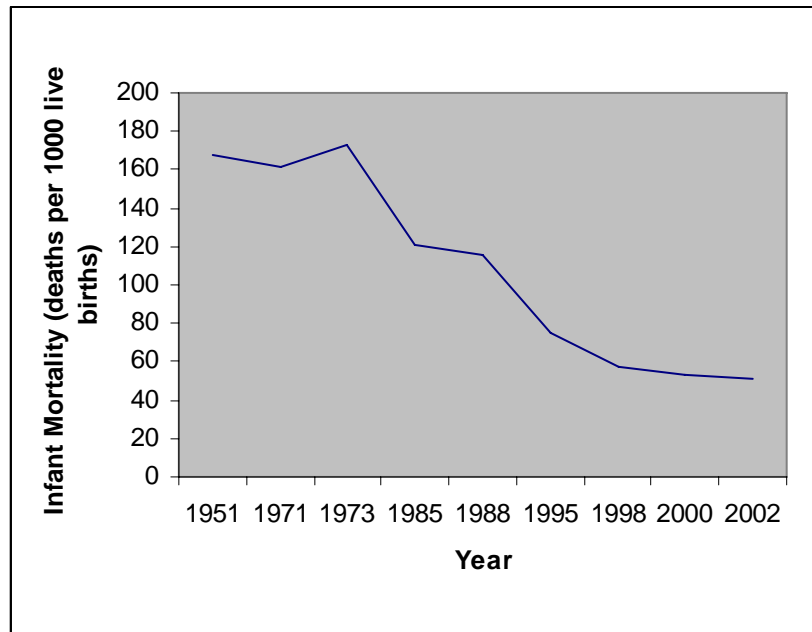
**Chart 1: Long Trends in Total Fertility Rate**



Three indicators can capture the broad trends in the area of public health relevant to the concerns of pro-poor growth. These are child mortality, child malnutrition, and maternal malnutrition. Mortality is often seen as the criteria of "success and failure of nations", to use the word of Amartya Sen (1998). The historical trends in infant mortality culled from different sources and surveys show a very high level of infant mortality prevailing in the 1950s and 1960s. The IMR started declining slowly since the mid-seventies; by 1985, it stood at 121 compared with 173 in 1973. It is only after 1989 does one see a definitive and a faster trend of decline, with dramatic improvements in child mortality in the nineties as the level of IMR dropped to 51 in 2002 (see, Chart 2). This has prompted

some observers to rank the country as the “fastest reducer of infant mortality” in the nineties (Stern 2002).<sup>8</sup>

**Chart 2: Long Trends in Infant mortality**

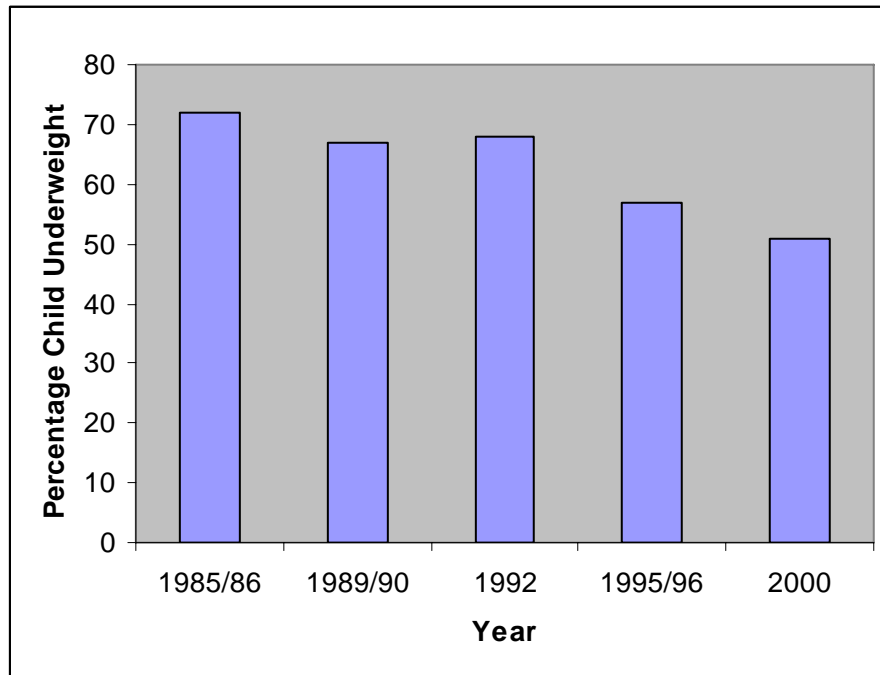


In Bangladesh, the prevalence of child malnutrition—as measured by the anthropometric measures—has gone down substantially over the last decade, with faster decline recorded for the second half of the nineties (see, Chart 3). The proportion of children (6-71 months) underweight has declined nationally from 72 per cent in 1985/86 to 51 per cent in 2000.<sup>9</sup> The extent of improvement was not restricted to the category of moderate malnutrition alone, but also occurred at the level of severe malnutrition, though the progress was slightly slower in case of the latter. Improvement in child malnutrition is closely linked with improvement in maternal malnutrition. The status of maternal nutrition has improved quite noticeably over the nineties. While the share of malnourished mothers was 52 per cent in 1996/97, it is now 42 per cent in 2000 (Sen and Ali 2004).

<sup>8</sup> This trend is confirmed by the Demographic and Health Survey (DHS) data using different survey methodology and estimation procedures: the IMR has dropped from 101 in 1993/94 to 80 in 1999/00 according to the latter. DHS data also show considerable improvement in the under-five mortality, as the matched figure dropped from 150 to 110 over 1994-2000.

<sup>9</sup> This refers to the child malnutrition data collected by the Bangladesh Bureau of Statistics (BBS). The DHS data also show that the proportion of children (0-59 months) underweight has dropped from 56 per cent to 48 per cent during the period between 1996/97 and 1999/00.

**Chart 3: Trends in Child Malnutrition**



Bangladesh's achievements in education over the last two decades have been impressive, especially when seen against the backdrop of the performance of other countries in the region. Major successes include (a) rapid expansion of primary education – the gross primary enrolment increased from 72 per cent in 1990 to 91 per cent in 2000 (b) a narrowing of disparity between rural and urban primary enrolment and (c) the closing of the gender gap, including the very poor.<sup>10</sup> Moreover, enrolment in secondary education expanded at an annual rate of 10 per cent during the 1993-99 period. Gender and urban-rural parity in Bangladesh are comparable to that in Sri Lanka. Roughly 9 out of every 10 children eventually enrol in primary school, and Bangladesh has achieved levels of primary and secondary gross enrolment similar to those in countries with higher per capita income, such as Vietnam, Thailand and Indonesia (BIDS 2001; GoB 2003; World Bank 2002; World Bank 2003).

What explains this success in accumulating favourable social conditions for pro-poor growth at a relatively low level of income? One important factor of political commitment to social development has been reflected in the policy consistency that cut across the regime types since the Independence. Successive governments emphasised the need for reducing population growth, the importance of investing in primary and girl's education, the role of primary health care in the forms of child and maternal immunisation, and universal coverage of safe drinking water. Perhaps the agony of governing a state in the context of highest population density in the world and least amount of natural resources (discovery of natural gas fields became part of national consciousness only in recent years) sustained this commitment to basic population, health and education—a concern

<sup>10</sup> The level of net enrolment rate is lower however, but shows impressive progress as well.

widely shared in popular imagination in Bangladesh, igniting actions and adoption behaviour conducive to technological change (as classically described in Boserup 1965).

Perhaps “culture” also mattered to some extent in this narrative. Lacking caste-ridden structure, more open to heresy and pluralism in religious practices, a curious mix of peasant beliefs and popular Islam, a history of political and cultural struggles in the 1950s and 1960s based on the Language movement whereby a vernacular policy elite had to establish its right to self-determination fighting religion based homogenising tendencies of the Pakistani state and local obscurantism (Eaton 1994; Khan 1996; Sen 2000).<sup>11</sup> In short, Bangladesh demonstrated considerable promise and potentials in both social and economic indicators in the 1990s notwithstanding the bleak predictions of the earlier years.

#### 1.1.4 Phases of Growth-History

For analytical purposes, the growth-history of Bangladesh may conveniently be divided into four distinct phases using the policy-based periodization.<sup>12</sup> The first period, covering the period until 1981/82, may be termed as the period of *‘reconstruction and recovery amidst political turbulence’* during which the country achieved the pre-Independence level of per capita GNP as well as other macroeconomic ratios relative to GDP, such as gross savings and investment. The subsequent period of the 1980s (until 1988/89) was the period of *‘slow economic growth with growing macroeconomic instability’*. The slow growth of the period, however, became increasingly unsustainable and the ensuing macroeconomic crisis led to the compulsion for undertaking a range of stabilization measures. Although the reform measures were driven by the balance-of-payments crisis and were a part of the conditionalities related to the Extended Structural Adjustment Facility (ESAF) of the World Bank and the IMF, its implementation in Bangladesh signalled a qualitatively new phase of development. This transitional period, covering 1989/90 to 1992/93, may be considered as the period of *‘crisis-driven economic reforms and formation of favourable initial condition state’* both in terms of improved economic fundamentals and attaining a ‘threshold level’ of human and other forms of capital. With the necessary conditions for graduating into a higher level of economic growth in place, the subsequent period since 1993/94 exhibited much improved performance both in terms of economic growth and the pace of social development. Accordingly, the period may be characterized as the period of *‘higher economic growth and faster social development’*. The better performance of the last period may be viewed as the outcome of the interactions between the improved ‘initial condition state’ and the policy and institutional changes during the 1990s toward more market-responsive and democratic policy regimes.

The relative performance of selected macroeconomic indicators in each period is summarized in Table 3. As one can see, the economic performance has been uneven over

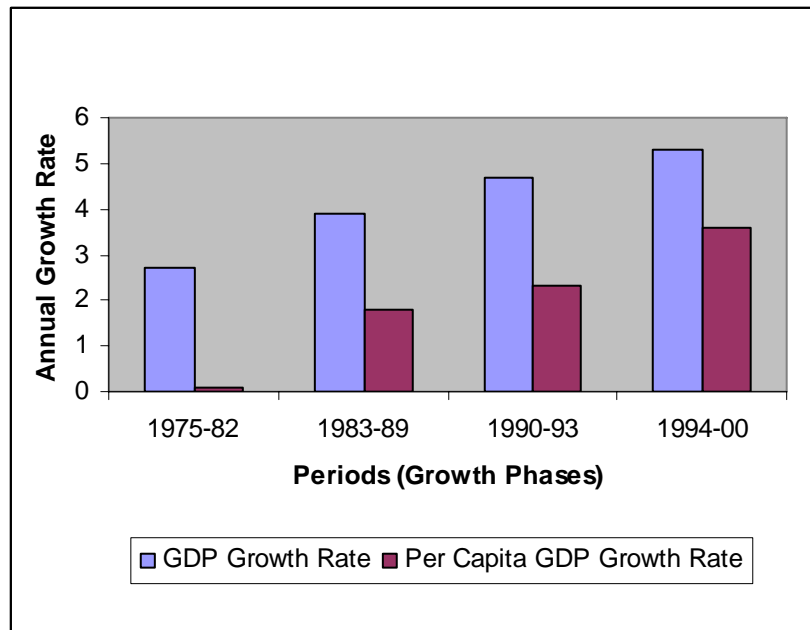
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<sup>11</sup> It is no less striking that Western trained and secular Bangladeshi economists—with a clear tendency for left-of-the-centre views—played an important part in developing the “Two Economy” thesis that eventually served the economic ideological basis for the emergence of independent Bangladesh and shaped the ideological environment of the policy elite in the subsequent years (see, Islam 2003).

<sup>12</sup> The above periodization using the policy criterion also appears to be consistent with other possible criteria, such as periodization by crisis and periodization through identifying ‘structural breaks’ in aggregate and sectoral growth performance. For details, see Mujeri and Sen 2003.

the periods. In particular, building on the favourable conditions of the earlier periods, the 1990s witnessed a more facilitating macroeconomic environment and achieved higher economic growth (See, Chart 4).

**Chart 4: Growth Performance of the economy over Successive Phases**



Several major characteristics of each of these periods may be identified. The period of reconstruction and recovery was characterized by: (i) a very modest and disastrous beginning amidst economic and political uncertainties of a war-ravaged economy, including a famine in 1974; (ii) economic nationalism emphasizing an inward orientation with strong import control, nationalization of large and medium scale industries and financial institutions during the first half of the 1970s; (iii) violent change of political power through military coup d’etat in 1975; (iv) partial liberalization and privatization measures in the second half of the 1970s with increased inflow of concessional aid; (v) political loans and the early signs of crisis of development finance institutions (DFIs); (vi) emergence of targeted employment programs for mitigating food insecurity during lean seasons; (vii) emphasis on green revolution as part of a drive for national food self-sufficiency; (viii) emphasis on population control; and (ix) restoration of the pre-Independence level of per capita GNP by the end of the period. A significant economic development of the period was the high and unsustainable reliance on external assistance and the issue of the ‘crisis of external dependence’ emerged as a major concern of the period (Sobhan 1982).

The period of slow growth and growing macro-instability covering most of the period of the 1980s had several identifiable characteristics: (i) slow and fluctuating economic growth; (ii) deteriorating macroeconomic stability with growing fiscal crisis; (iii) continued inward orientation; (iv) authoritarianism and illegitimacy of governance; (v) institutionalization of corruption and the rise of ‘crony capitalism’; (vi) massive debt default of the financial institutions; (vii) ‘first waves’ of privatization amidst unfavourable environment; (viii) safety-nets programs as response to food insecurity and

natural disasters; (ix) decentralization and local governance initiatives; and (x) emergence of NGOs as important conduits of development especially in the arena of poverty reduction and social development.

The major characteristics of the period of crisis-driven economic reforms and the formation of favourable initial conditions covered several dimensions: (i) outward orientation with emphasis on trade liberalization; (ii) key developmental role assigned to the private sector; (iii) a move toward macroeconomic stability; (iv) emphasis on the development of human capital; (v) emergence of NGOs as major service providers and the recognition of the GO-NGO collaborative framework; (vi) transition to a parliamentary form of democracy; and (vii) emerging signs of political instability and deterioration of governance. The period witnessed more conscious efforts geared toward creating a more liberalized and responsible policy regime along with significant reforms in the external sector to rationalize and reduce tariffs and other import taxes, and eliminate import prohibitions and quantitative restrictions. As a result, the economy became significantly outward-oriented along with positive trends for major macroeconomic indicators.<sup>13</sup>

The period of the 1990s, which may be termed as an era of higher economic growth and faster social development, provides a potentially instructive story of development with a key message: higher human and social development outcomes can be achieved even at relatively low levels of per capita income. Several features of the period are noteworthy: (i) favourable macroeconomic fundamentals; (ii) continued emphasis on the private sector as the engine of economic growth; (iii) liberalization and outward orientation; (iv) emphasis on agriculture and rural development; (v) reduced income poverty and child malnutrition; (vi) impressive success in human development; (vii) strong emphasis on NGOs in social and economic development; (viii) enhanced disaster management capacity; (ix) continued political confrontation and uncertainties; and (x) continued deterioration of governance, especially law and order situation. In short, building on favourable conditions and pursuing more prudent policies, the period achieved higher economic growth accompanied by faster improvement in social indicators.

## **1.2 Trends in Growth, Inequality and Poverty, 1983-2003**

### **1.2.1 Decadal GDP Growth**

The overall growth performance of the Bangladesh economy improved considerably in the 1990s compared to earlier periods (Table 4). The acceleration in per capita income growth was both due to a slowdown in the rate of population growth and increase in the GDP growth rate. In relative terms, however, it is the better production performance of the economy which played the dominant role in the acceleration of the per capita growth contributing nearly three-fourths to the observed increase since the 1980s.

### **1.2.2 Volatility of Growth**

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<sup>13</sup> The openness ratio, as measured by trade (merchandise exports and imports) to GDP ratio, increased from 20 percent to 28 percent between 1990 and 1995 compared to only one percentage point increase between 1985 and 1990.

Higher volatility tends to lower growth both by slowing the rate as well as the efficiency of investment. From this angle Bangladesh's growth experience is quite instructive. The better growth record of the 1990s was contributed by the low volatility of growth itself.<sup>14</sup> Historically, an important issue in Bangladesh's growth performance has been the volatility of economic growth as reflected in considerable variations in yearly growth rates. This has been largely due to extreme vulnerability of the economy to natural disasters and other unforeseen events. From this perspective, a significant development in the 1990s is the diminishing severity of such events in affecting the growth performance of the economy. Thus, the coefficient of variation of yearly GDP growth rate declined from a high of 29.5 per cent in the 1980s to only 8 per cent during the 1990s indicating a substantial reduction in its yearly volatility. This has been largely achieved through several structural changes, such as agriculture becoming more resilient with the spread of dry-season irrigated crop production and rapid expansion of non-crop sectors; non-agricultural sectors gaining relatively more importance; reduced price effects of external shocks due to greater spatial integration of the economy; and improved mitigation capacity in responding to natural disasters. Overall, recent developments indicate that the economy has achieved greater resilience to withstand external shocks as shown by the diminished variation in inter-temporal fluctuations in the yearly GDP growth rates in the 1990s.

### 1.2.3 Trends in Poverty

Poverty is multi-dimensional, involving both income and non-income dimensions. In this section, we focus on the trends in income-dimensions of poverty only. This is not to understate the value of non-income based definitions of poverty, but rather stems from the logic of the present narrative, exploring the analytical and empirical links between pro-poor growth and income-poverty. As would be evident from the analysis later, many of the non-income dimensions of poverty would be relevant considerations as explanators (in the form of "variables on the right hand side") of income-poverty and pro-poor growth.<sup>15</sup>

Household Income Expenditure Survey (HIES) data is the major source of information for estimating trends in poverty and inequality. There are, however, data inconsistency problems plaguing poverty comparisons between specific years. Thus, the survey data between 1973/74 through 1981/82 are mutually comparable, but *not* comparable with the survey data starting with 1983/84 through 2000 (last year for which HIES is presently available). The source of incomparability primarily lies with different methods of food expenditure recording: while "memory recall" method was mainly used in surveys up to 1981/82, the more reliable "diary keeping" method was used in the later surveys (on this, see Ravallion 1990; Hossain and Sen 1992). Within the later series, there are severe problems of comparison between urban data of 1995/96 and 2000: the average level of urban per capita expenditure is grossly overestimated, yielding average negative growth in real urban expenditure between 1995/96 and 2000 (on this, see GoB 2003). Keeping

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<sup>14</sup> This may be clearly seen within the framework of cross-country growth regressions. Adding volatility to the standard Barro-type cross-country regressions increases significantly the predictive power of the model, which was used to predict the long-terms growth of GDP per capita in Bangladesh (see, World Bank 2003).

<sup>15</sup> For a review of the non-income dimensions of poverty, see Sen (2001); BIDS (2001); GoB (2003).

these aspects in view, we restrict poverty comparisons to the poverty series starting with 1983/84, skipping the urban estimate for 1995/96 (Table 5).

Several aspects are noteworthy. *First*, Bangladesh made notable progress in income-poverty reduction since Independence. The proportion of national population living below the poverty line was as high as 74 per cent in 1973/74. The most recent estimate available for 2000 is 40 per cent, indicating long-term progress in poverty reduction.<sup>16</sup> The income-poverty trends since the early nineties show the following pattern. Between 1991/92 and 2000, the incidence of national poverty declined from 50 to 40 per cent, indicating a reduction rate of 1 percentage point per year. The declining trend is robust to the choice of FGT class of poverty measures. In this context it is important to consider trends in the Watts index. The latter has arguably “the most attractive properties of any poverty measure” (Ravallion 2004). The conclusions about declining poverty trends remain valid even when the trends in the Watts index are considered for rural and urban areas separately (Table 6).

*Second*, the results broadly indicate that the progress was faster during the nineties compared with the eighties. The faster pace of poverty reduction in the nineties is attributable to the accelerated growth. This is evidenced from both the trends in consumption expenditure data (on which the poverty estimates are based) as well as national accounts data on GDP growth. Thus, the annual per capita HIES consumption expenditure growth at national level, which was just 0.83 per cent during the period between 1983/84 and 1991/92, rose to 2.38 per cent between 1991/92 and 2000.

*Third*, not only the poverty reduction process was slow in the eighties, it was marked by considerable instability. The incidence of rural poverty declined in 1983-85, increased in 1985-88, declined again in 1988-91, with overall very little drop between 1983 and 1991. Much of these fluctuations were related to the damaging effects of floods in 1987 and 1988 on agricultural output. In contrast, the incidence of rural poverty dropped consistently throughout the 1990s notwithstanding the adverse impact of the 1998. This indicates that the rural economy of the nineties had a better resilience capacity and more diversified sources of growth. As would be discussed later, expansion of winter-season irrigated *boro* rice crops combined with the development of rural non-farm activities played an important role in mitigating the adverse impact of floods.

*Fourth*, the comparative progress was uneven between rural and urban areas. In general, the pace of urban poverty reduction was faster in urban areas compared with rural areas in both eighties and nineties. The pace of rural poverty reduction was slow in the eighties, but became considerably faster in the nineties. The pace of urban poverty reduction was slightly higher in the nineties compared to the eighties.

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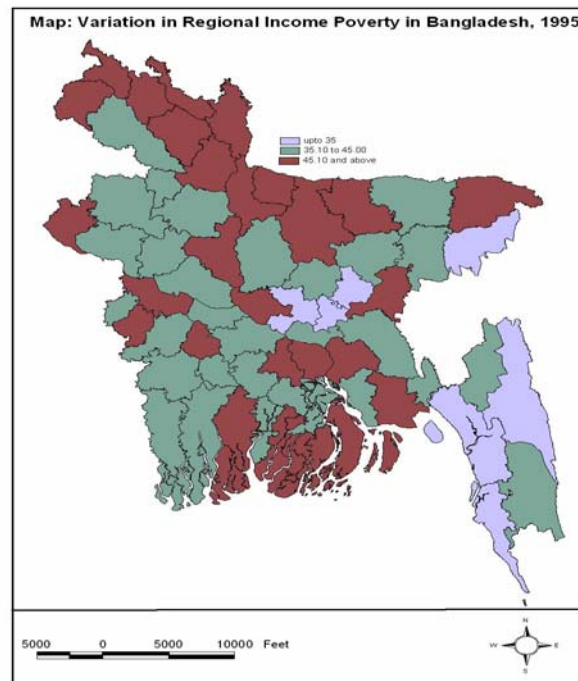
<sup>16</sup> Assessment of the poverty level will vary depending on the poverty line used. Based on the 1991/92 poverty line (derived by the so-called upper poverty line method) World Bank (2002) found the level of poverty in 2000 to be in the order of 50 per cent in contrast to 40 per cent derived on the basis of 1983/84 poverty line (frequently used in the Bangladesh literature). While the level estimates vary between the two sources the extent of poverty reduction was similar i.e. roughly about 1 percentage point drop per year during the 1990s.

*Fifth*, in addition to rural-urban variation, considerable regional variation in poverty exists in Bangladesh. According to the HIES data, the administrative divisions of Dhaka and Khulna (inclusive of Barisal) have much lower poverty incidence compared with Rajshahi division. Moreover, the progress in poverty reduction was uneven across different regions in the 1990s, with relatively rapid progress in Dhaka division and very little change in poverty in Chittagong (inclusive of Sylhet) division. There also exists considerable district-level and sub-district (*Thana*) level variation in poverty incidence in the country, as suggested by several spatial poverty mapping exercises in the country (see, Map 1). Such regional variations in the level of poverty are influenced by many factors, including uneven expansion of socio-economic opportunities influenced by human capital and physical infrastructures. The incidence of poverty tends to be high in disaster-prone areas. Thus, the poverty-trapped areas (defined as areas which had the highest incidence of poverty in both 1991 and 2001) have a distinct mark of *ecological vulnerability* as they are found to be in the depressed basins of the northeastern districts; the river-erosion belts of the northwestern districts; coastal islands; and remote hill tracts (Sen 1981; Sen and Ali 2004; WFP 2004; Kam et al 2004).

#### **1.2.4 Income Turbulence: Ascent and Persistence of the Extreme Poor**

There is considerable income turbulence below the poverty line. Poverty is typically high for the landless, especially those who have agricultural wage labor as their principal occupation and for those who are engaged in marginal occupations and skills. A major policy concern in the poverty reality in Bangladesh is the large differentials that still exist in the levels of income (consumption) and other social indicators between the poor and the poorest.

The estimates of the number of the poorest vary depending on the definition of ‘extreme poverty’ adopted. If the ‘hardcore poor’ are defined as those consuming less than 1,800 kcal per person per day (using the direct calorie intake method), then around 45 percent of the rural poor belonged to the poorest category in 2000. The Demographic and Health Survey (DHS) data for 2000 used the subjective well-being indicator of self-rated poverty. The results show that about 18 per cent of the rural households self-rated themselves into “always food-deficit” (corresponding to the extreme poor) category while 42 per cent were found in the “occasional deficit” (corresponding to the moderate poor) category. This suggests that about 36 per cent of the rural poor are extreme poor. The matched figure for urban areas is lower however: about 28 per cent of the urban poor live in extreme poverty. More importantly, the problem of “hungry poor” still remains a major concern (Sen and Hulme 2004). According to a recent set of estimates, about 19 per cent of rural households cannot have “three full meals a day”; 10 per cent of rural households have to subsist on “two meals” for some months of the year. Whatever may be the definition, it is apparent that *at least about one-third of the national poor* in Bangladesh subsist in extreme poverty, indicating the importance of differentiating pro-poor growth strategy to match the varying needs of the different groups of the poor.

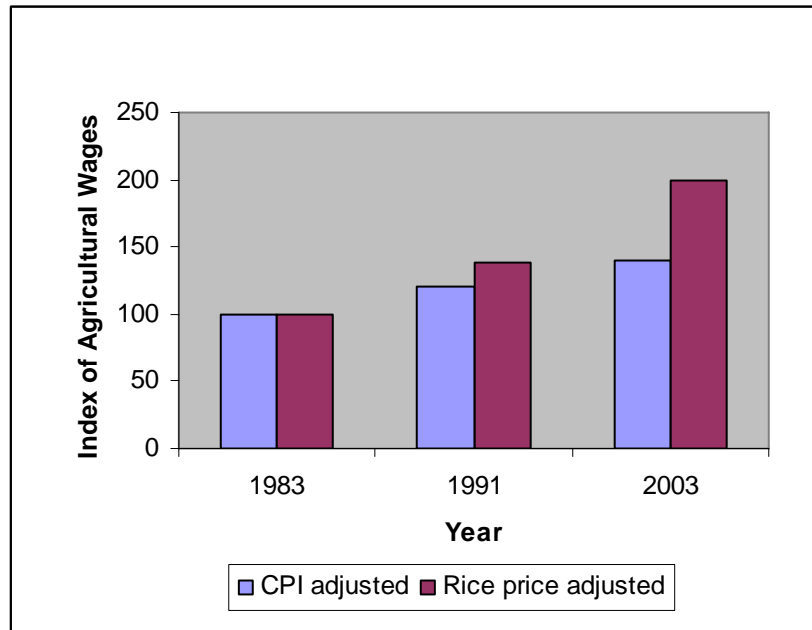


The above, however, should not create the impression that the type of growth witnessed in Bangladesh was to the benefits of the moderate poor only. Both the FGT poverty gap and squared poverty gap measures improved at a higher pace in the nineties. Changing face of the poor in rural Bangladesh provides further evidence in this regard. This is because in the early seventies about 80 per cent of the poor in rural areas were in the category of extreme poor; in the late eighties, about 60 per cent of the rural poor would fall in that category still; by the end of the nineties, the proportion has come down to one-third. Indeed, from this angle, the decade of the nineties can be termed as the decade of the “silent ascent of the extreme poor”. In all the recent commentaries about the persistence of extreme poverty this particular pro-poor shift has not received adequate attention. In short, the growth in the nineties has benefited not only the moderate poor, but also a large section of the extreme poor households as well. The improvement in real agricultural wages in recent years is also consistent with the trend of improvement in the situation of the extreme poor.

### 1.2.5 Trends in Agricultural Wage Rates: 1983-2003

Real agricultural wage rate registered considerable improvement over the last two decades, especially in the second half of the nineties. The real agricultural wage rate for male labourers (deflated to 1983/84 values) rose very slowly in the 1980s and showed little upward movement in the first half of the nineties. A major breakthrough came in recent years, especially after the economy recovered from the adverse effects of the 1998 flood (see, Chart 5). Improvements in real agricultural wages have taken place in most districts between 1995 and 2003. The male-female gap in the wage rate has been persistent, however, during the nineties and this trend cuts across all administrative divisions.

**Chart 5: Trends in Real Agricultural Wages**



The central message is worth emphasizing: the sustained gain in real agricultural wages in recent years indicates a turnaround over the fluctuating and stagnating trends observed in the eighties. Improvements in real agricultural wages is consistent with the picture of falling incidence of extreme poverty, suggesting welfare gains at the lower end of rural income distribution.

### **1.2.6 Trends in Inequality**

Although growth accelerated in the nineties leading to greater poverty reduction compared to the eighties, the pattern of growth became increasingly inequitable. Both consumption expenditure and income data point to this trend. During the earlier surveys up to 1991/92, the level of consumption expenditure inequality did not vary much: the urban Gini ratio hovered around 0.30-0.32, while the rural Gini fluctuated in and around 0.25-0.26 (Table 7). The situation has changed in a major way since the early nineties. The increase in inequality—especially in urban areas--was sharp on a scale not seen before. Thus, the Gini coefficient for urban areas shot up to 0.38 in 2000, rising from 0.32 in 1991/92. Similarly, the rural Gini rose to 0.30, up from 0.26 during the same period.

It should be noted, however, that consumption data understates the degree of relative inequality prevailing in the society. One needs to consider the distribution of income and wealth to get a fuller picture. The wealth data are, however, difficult to come by, but we have access to information on current income distribution. Analysis of current income distribution further confirms the increasing trend in relative inequality. The Gini ratio for rural income inequality rose sharply from 0.27 in 1991/92 to 0.31 in 1995/96, rising further to 0.36 in 2000. The corresponding rise in urban income inequality during the

nineties is even more striking, urban Gini having increased from 0.33 in 1991/92 to 0.39 in 1995/96, increasing subsequently to 0.44 per cent in 2000.<sup>17</sup>

Is the sharp rise in inequality a cause of concern for pro-poor growth? After all despite the sharp increase in urban income inequality a more rapid decline in the urban head-count index was achieved through higher growth in urban income relative to the rural income. Note that Bangladesh's Gini ratio for per capita national income currently stands at 0.41, which is comparable to the current income Gini for USA (Khan and Sen 2004). While international comparison of Gini index is subject to many problems, it is fair to conclude that at a relatively low level of average affluence Bangladesh has entered the stage of relatively high income inequality which is increasing over time. It would appear that Bangladesh is currently riding fast on the rising part of the Kuznet's curve.<sup>18</sup> Did Bangladesh have alternative growth-strategic choices in terms of higher poverty reduction with higher growth and lower income inequality? Theoretically, always a case can be made to show that a distributionally neutral growth will yield higher poverty reduction.<sup>19</sup> But, the growth dynamics for a given country may not render such choice feasible. Nevertheless, at the present stage of analysis, it is safe to observe that the rising inequality remains a major reason as to why the full potential of the poverty reducing effects of the accelerated growth of the period of the 1990s was not translated into reality.

### **1.2.7 Robustness of Poverty Trends**

An important issue in analyzing inter-temporal poverty trends in Bangladesh is the non-comparability of the data across the surveys over different years and associated methodological changes. This requires the examination of the robustness of the poverty trends to the choice of alternative data sets. For instance, a comparison between the changes in per capita consumption between the HIES and the national accounts data for the 1990s reveals considerable discrepancies. For the first-half of the 1990s, the rate of per capita consumption growth as per the HIES data is considerably higher than similar growth rate for the national accounts data. The reverse is true for the second-half of the 1990s. Such differing growth rates can have significant implications on the estimates of the level and trends of poverty. For example, by applying a simple sensitivity test through the use of the distribution of national consumption data with the alternative HIES mean

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<sup>17</sup> The 1991/92 and 1995/96 figures are from Khan and Sen (2001) while the 2000 estimates are from Khan and Sen (2004). It may be noted that the BBS estimates differ from these estimates. Past BBS estimates of the income Gini index were based on the flawed "per household" income distribution rather than the preferred "per capita" income distribution. Besides, the BBS definition of "income" includes several kinds of non-income revenues, which need to be re-considered while computing the Gini index for relative income inequality. These items relate to capital receipts from the sale of assets, increase in financial assets, and receipts arising out of the repayment of loans made in the past. Excluding these items, Khan and Sen (2001) re-computed the Gini index for 1991/92 and 1995/96. The re-working gives lower figures for Gini in both rural and urban areas, though the underlying trend remains unaffected.

<sup>18</sup> Although the general validity of the Kuznets process has not been borne out by recent cross-country experience (Fields 1989; Anand and Kanbur 1993; Deininger and Squire 1996; Bruno et al 1998), this does not mean that the process cannot be valid for a specific country for a specific period.

<sup>19</sup> It has been argued that had the observed rate of growth between 1991/92 and 2000 been distribution-neutral, the head-count index would have fallen by 17 percentage points or almost twice the actual rate of poverty reduction achieved during the period. See, World Bank (2002).

consistent with the rate of growth suggested by the national accounts series on per capita private consumption and per capita GDP, one can derive two alternative series of equally plausible poverty estimates. The results from such an analysis indicate a complete reversal of national poverty trends between the two sub-periods of the 1990s (see, GoB 2003). No doubt, such controversies are more likely to emerge in using alternative sources of data in poverty analysis in a country like Bangladesh. For ensuring robustness of the results, complementary information from other sources, such as micro and panel surveys can be useful in filling the gaps and providing credible explanation to the observed trends.

## **II. Analysis of Growth and Its Distributional and Poverty Impact, 1983-2003**

The analysis presented in this section along the following lines. In the beginning a review of the growth performance of the Bangladesh economy over the 1980s and 1990s is presented in terms of aggregate growth rate, standard growth accounting and sectoral composition of growth (Section 2.1). The discussion then proceeds to consider the distinction is made between ‘overall’ growth and ‘pro-poor’ growth (Section 2.2). Attention is drawn here to the issues of differential growth performance of various income and social classes, as captured by the growth incidence. The issues of the “poverty responsiveness of growth” with particular focus on the impact of contemporaneous changes in inequality on poverty reduction also included here.

### **2.1 Sources and Sectoral Distribution of Growth**

#### **2.1.1 Aggregate Growth Decomposition**

Using the standard neo-classical framework, the growth of output can be decomposed into accumulation of inputs, such as labour and capital, and technical progress (or improvement in productive efficiency).<sup>20</sup> More specifically, the total factor productivity growth (TFPG) can be measured by the output growth that is not explained by input growth:

$$TFPG = \dot{A} / A = \dot{Y} / Y - \alpha \dot{K} / K - (1 - \alpha) \dot{L} / L$$

where L and K refer to labor and capital inputs, A is the level of technology while the dotted variables denote time derivatives, and  $\alpha$  is the elasticity of production with respect to capital (which is equal to the capital income share). In general, TFPG is taken as the output growth unexplained by known factors (e.g. labor and capital) and reflects the result of more efficient use of the inputs or the adoption of new production technologies. For Bangladesh, the estimates of the TFPG, based on alternative values of the share of capital ( $\alpha$ ) in total output, are given in Table 8. It also gives the human capital adjusted estimates of the TFPG and the estimated values of TFPG using the translog function. It may be mentioned here that, in the case of labor input, the growth rate has been 2.8 per cent between 1981 and 2000, which declined from 3.2 per cent in the 1980s to 2.3 per cent in the 1990s. In contrast, the growth rate of capital stock increased to 6.2 per cent in

<sup>20</sup> This section is based on the results presented in Mujeri and Sen (2003).

the 1990s from the average rate of 4.3 per cent in the 1980s. The growth of human capital (estimated by the mean years of schooling) has been modest with an average growth rate of 1.5 per cent during the two decades.

The results indicate a relatively low contribution of TFPG to the overall growth of the economy. The alternative estimates, in most cases, are modest with average values of less than one. The sub-periods of the 1980s and the 1990s are, however, somewhat different in terms of performance. In the 1980s, the TFPG is very low (in some cases negative) indicating almost no productivity growth in the economy. The story, however, is different in the 1990s. It appears that better macroeconomic management and higher growth performance of the period have contributed to improved productivity trends across all sectors in the economy. Moreover, as the TFPG is closely associated with capital accumulation, the higher rate of capital accumulation contributed to higher TFPG in the 1990s.

### **2.1.2 Sectoral Composition of Growth**

The sectoral composition of growth indicates that all the three broad economic sectors (e.g. agriculture, industry and services) contributed to the overall growth of the economy (Table 9). The annual growth rate of agricultural GDP increased from 2.5 per cent in the 1980s to 3.2 per cent in the 1990s whereas similar increase was the highest by 1.2 percentage points for industrial GDP followed by a 0.8 percentage point increase for the services sector GDP.

At a disaggregated level, one can identify several sub-sectors which expanded rapidly during the 1990s. In agriculture, the growth rate of the crop and horticulture sub-sector, which is the major activity, actually declined (from 2.7 per cent in the 1980s to 1.8 per cent in the 1990s) and fishery emerged as the fastest growing sub-sector of agriculture. In the case of industry, manufacturing sub-sector experienced acceleration growth from 5.0 per cent to 6.9 per cent (from 4.9 per cent to 7.0 per cent for large and medium scale industries and from 5.2 per cent to 6.8 per cent for small scale industries). Similar acceleration is observed for the construction activities. In the services sector, wholesale and retail trade, hotel and restaurants, and financial intermediations experienced more rapid growth. It thus appears that some parts of all broad economic sectors of the economy got positive stimulus to emerge as the most rapidly growing activities in the 1990s.

In addition to the growth rates, the relative contribution to the incremental value added is an important indicator of the sectoral performance and their underlying dynamism. For the purpose, we measured the share of the absolute contribution of each sector to the incremental GDP during the 1980s and the 1990s (Table 10). During the 1980s, the services sector contributed nearly 50 per cent to the incremental GDP while the contribution of industry was 29 per cent and that of agriculture was 21 per cent. The 1990s saw the share of industry rising to 34 per cent along with declining shares of both agriculture and services sectors. Within industry, the manufacturing sub-sector contributed more than 20 per cent out of which nearly 15 per cent came from large and medium industries and the rest from small-scale industries. Agriculture's potential role for pro-poor growth cannot be judged, however, from its relatively modest contribution to the incremental value added. Agricultural growth has important demand-induced linkage

effects for the expansion of non-farm and non-agricultural activities (on this see, Osmani et al 2003).

The above results highlight two important characteristics of the growth process of the 1990s. *First*, the manufacturing sub-sector, despite its fluctuating growth over the years, is the largest contributor among all sub-sectors to the incremental growth during the last decade. *Second*, the role of the non-tradable sectors in the process of growth acceleration is important in Bangladesh as, except for large and medium-scale industries and fishery, all other activities can be counted as non-tradable sectors of the economy. The combined contribution of the two major tradable sectors (large and medium scale industries and fishery) was, however, less than 30 per cent indicating that about 70 per cent of the incremental growth of the 1990s came from the non-tradable sectors comprising services, construction, small-scale industry and other demand-driven activities.

## **2.2 Pro-Poor Growth: Concepts, Measures and Attributes**

### **2.2.1 Overall vs. Pro-Poor Growth**

So far no distinction was made between ‘overall’ growth (i.e. ‘growth in general’, alternatively termed as ‘ordinary growth’) and ‘pro-poor’ growth. In fact, these two terms are often used interchangeably with the underlying premise that development (however defined) primarily works through the mechanism of economic growth. There is, however, considerable distinction between the two. Empirical evidence is abundant to show that the rate of pro-poor growth is not the same as the average rate of growth (DFID 2004). For instance, the per capita annual ‘overall’ growth rate in income was similar in Brazil and Ghana over the period between mid-1980s and late 1990s, but the rate of pro-poor growth was higher in Ghana (1.8 vs. 0.7 per cent). Clearly, from the view-point of pro-poor growth, it is the rate of growth in per capita income for the poor that needs to be maximized. Ravallion (2004) reviews the recent literature and suggests a convenient framework for thinking about ‘pro-poor growth’ as distinguished from ‘ordinary growth’. The estimates presented in this section are based on this framework and uses the measure of pro-poor growth as proposed by Ravallion and Chen (2003). Pro-poor growth measures what happened over the period to the incomes of the part of population that was poor at the start of the period. Hence, the rate of pro-poor growth during a particular period is calculated as the *average* of the growth rates in per capita income over that period observed for each of the *initially poor* households.<sup>21</sup>

### **2.2.2 Differential Income Mobility: Insights from Growth Incidence Curves**

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<sup>21</sup> Note that the mean growth rate of the poor is not the same thing as the growth rate in the mean for the poor.

The distinction between overall and pro-poor growth is important as various income and social classes participate differently in the growth process with differential benefits derived from it. Such distinction helps to provide first-cut answer to the issue of the winners and losers in the growth process. The issue at stake is not relative inequality in the level of income that persists among the various income and social classes at any given point of time, but one primarily of income mobility (see, for instance, Birdsall and Graham 2000; Stern et al 2003), i.e., whether and to what extent the scope of upward movement along the income ladder exists within the growth process for the least advantaged.<sup>22</sup> From this angle we have constructed the growth incidence curve (GIC) for the 1991-00 separately for national, rural and urban distributions of per capita consumption expenditure. The GIC maps the distributional pattern of growth over a population, with percentiles of households ranked by per capita consumption expenditure (income) shown on the horizontal axis and the annual growth rate in per capita consumption expenditure (income) corresponding to each percentile shown on the vertical axis. Three observations are noteworthy.

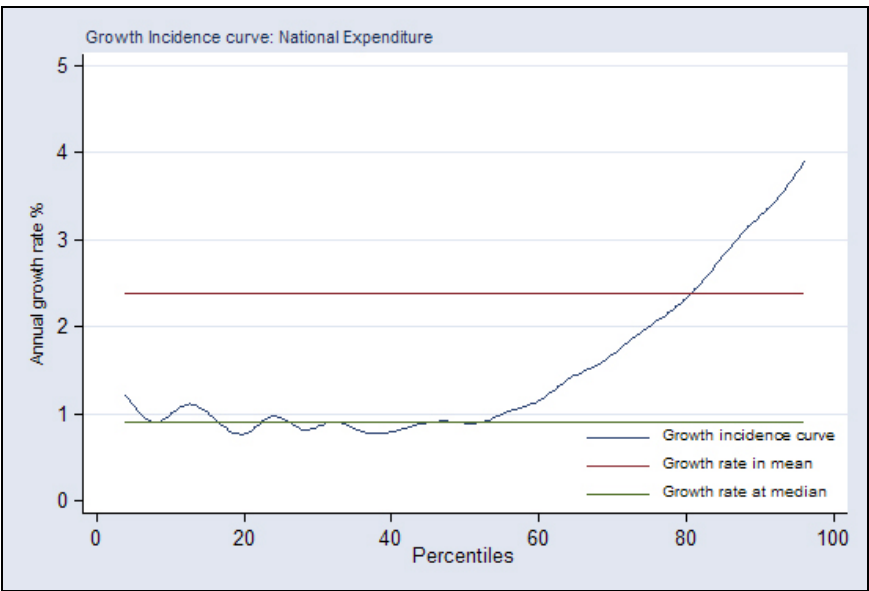
*First*, the results show considerable disparity in the growth rate of the poorer expenditure percentiles compared with the richer expenditure percentiles (Chart 6). At the national level, the annual growth rate of the poorest 5% is estimated to be 0.88 per cent compared with 3.92 per cent for the richest 5%. *Second*, the extent of disparity is particularly sharp in urban areas. The growth rate increases almost monotonically as one proceeds from lower expenditure percentiles to higher expenditure percentiles (Chart 7). There are three distinct jumps in the growth rate, the first one occurs right after the 50<sup>th</sup> percentile, the second one right after the 80<sup>th</sup> percentile, but the sharpest jump in the growth rate occur for the top 5%. This is consistent with the picture of sharply rising Gini index of urban inequality discussed earlier.

*Third*, the extent of disparity in rural areas reveals an interesting tendency (Chart 8). The process of rural growth in the 1990s benefited the bottom 10% (the growth rate for them was higher than the other poor groups) and the top 30% (the largest beneficiary among all rural groups); the middle 60% had shared more or less similar growth rate, giving rise to a inverted-U shaped growth incidence curve. As would be discussed later, this appears to be an entirely plausible outcome given the nature of the rural growth process, which benefited the labor selling households (who are also net purchasers of foodgrains) through declining real rice prices. The top 30%, on the other hand, reaped the principal benefits of rural diversification by combining various agricultural and non-agricultural activities. It is the middle 50-60% who remained still dependent on crop (especially, rice) agriculture returning modest income growth in the 1990s. Why the route of diversification remained rather restricted for this middle segment during the 1990s remains an important strategic challenge from the perspective of accelerating pro-poor economic growth in the next decade.

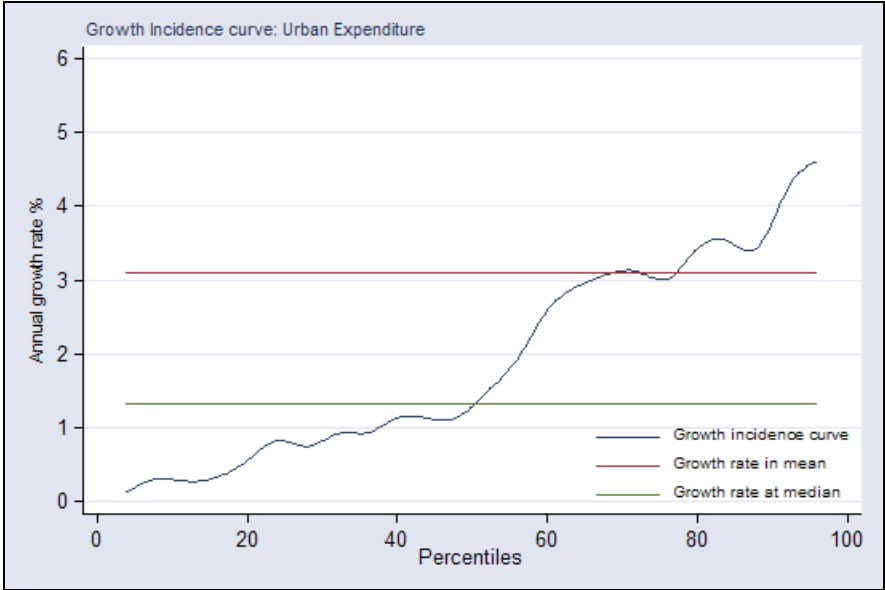
#### **Chart 6: Growth Incidence Curve of National Expenditure Data**

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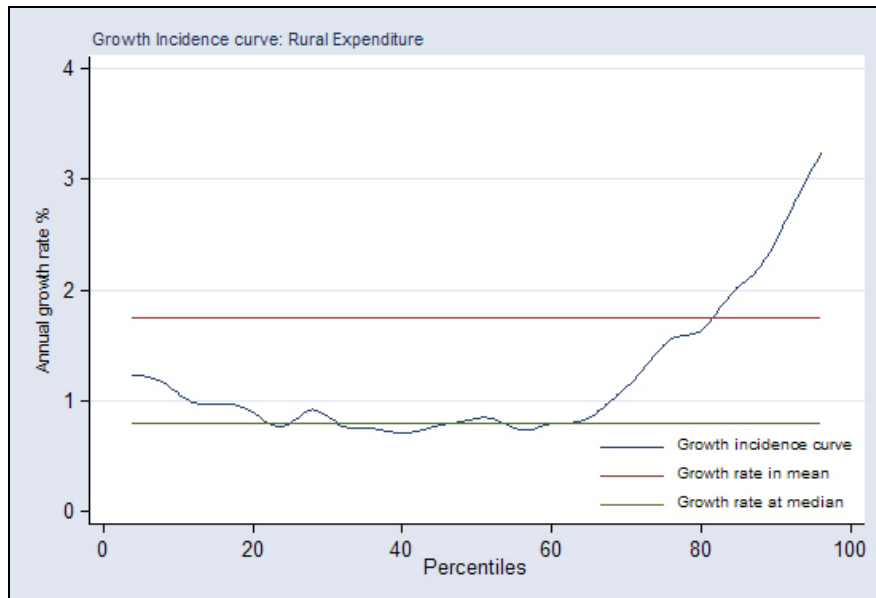
<sup>22</sup> This is the criteria which is consistent with the MaxiMin principle advocated by John Rawls (1971).



**Chart 7: Growth Incidence Curve of Urban Expenditure Data**



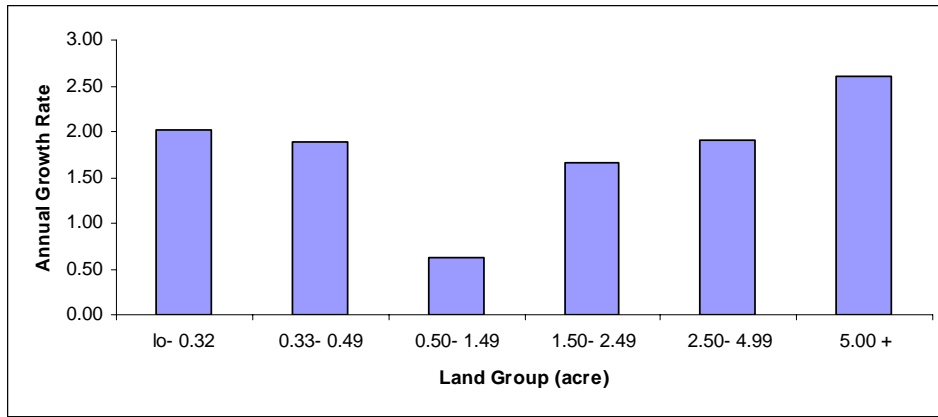
**Chart 8: Growth Incidence Curve of Rural Expenditure Data**



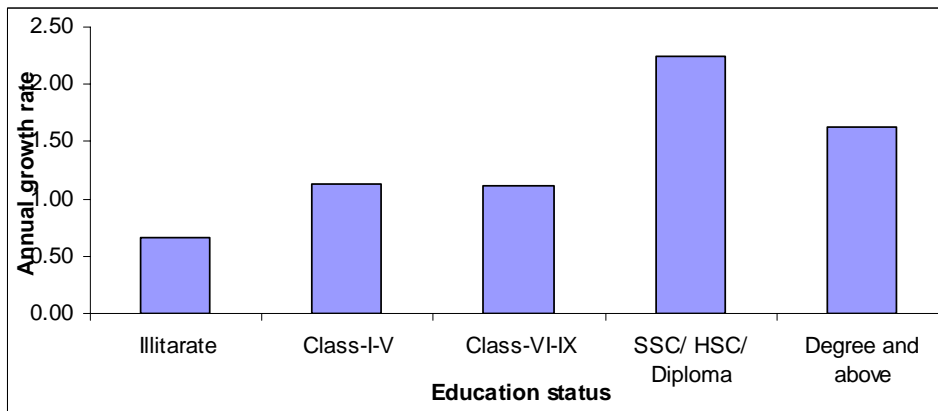
Some vindication of this tendency can be seen from the analysis of the rural growth rate by different landownership groups (Chart 9). Large landowners have displayed the highest annual growth rate in expenditure (2.6 per cent), followed by the two poorest land-owning groups (1.8-2 per cent). The marginal farmers (50-149 decimals) and small farmers (150-249 decimals) have lower growth rates, varying in the range of 0.6 to 1.67 per cent.

Land, however, is an imperfect proxy of income earning ability, especially in urban areas, but increasingly even in the context of rural areas. From this angle it is instructive to decompose growth rate according to the educational status of the household head, which has been taken as the proxy for the human capital endowment of the household. In urban areas, the growth rate in per capita expenditure increases almost linearly with the years of education (Chart 11). Illiterate households in urban areas, on average, had an annual expenditure growth rate of only 0.7 per cent compared with 4.8 per cent recorded for those with higher education (degree and above) followed by 3 per cent recorded for those with higher secondary education. The growth prospects for the illiterate households in rural areas are almost similar to that in urban areas, the corresponding growth rate in expenditure being only 0.66 per cent (Chart 10). In contrast, those with higher secondary education have much superior growth prospects (2.3 per cent per year) followed by the higher education group (1.63 per cent per year).

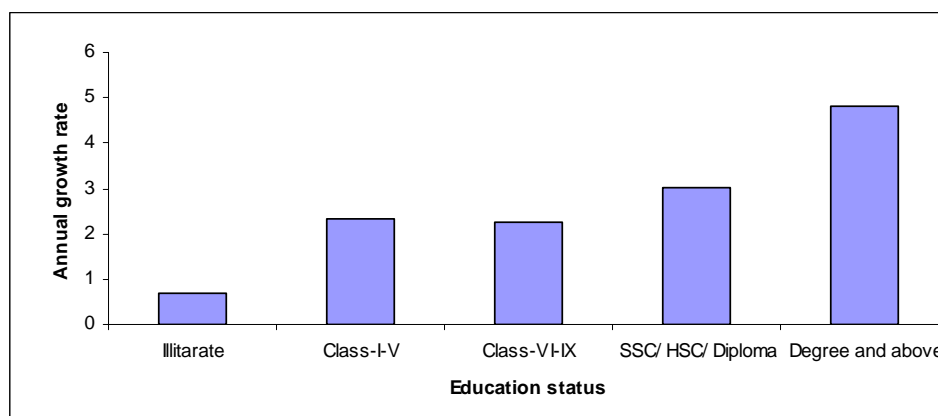
**Chart 9: Comparative Growth Rate by Landownership, Rural: 1991/92-2000**



**Chart 10: Comparative Growth Rate by Education of Household Head, Rural: 1991/92-2000**



**Chart 11: Comparative Growth Rate by Education of Household Head, Urban: 1991/92-2000**



Two conclusions follow from this exercise. *First*, unequal distribution of the benefits of the growth is largely accounted for by unequal access to assets, especially human capital. Indeed, human capital based differences between the poorest and richest is higher than the physical asset based differences such as land. This is consistent with the general theoretical insights of the endogenous theories of growth showing *growing divergence* in income-growth rates (and hence, rising inter-personal inequality in income) based on higher accumulation of human capital.<sup>23</sup> *Second*, in order to increase the poverty responsiveness of growth, more attention needs to be given to the *completion of higher secondary education* (SSC and above) in the context of rural areas, i.e. mere emphasis on primary education is not going to be enough. The same is applicable for the urban areas, although here more distributive gains can be achieved if the entry to higher education can be ensured.

The strength of the conventional GIC based on general expenditure (income) percentile based growth incidence analysis is that it gives a growth-mapping over the entire distribution and shows how different groups of population have participated differentially in the overall growth process. The preceding discussion however also points to the need for going beyond the conventional income GIC. For instance, GIC gives little indication as to *why* a particular income percentile has done better than others. The problem may lie in differential asset-access (such as human capital and physical capital) as well as in differential rates of returns to assets. In short, one needs to supplement the conventional income GIC based analysis by carrying out asset-poverty based analysis of growth incidence which will give a better handling over the issue of winners and losers in the growth process. This is however a subject of future research.

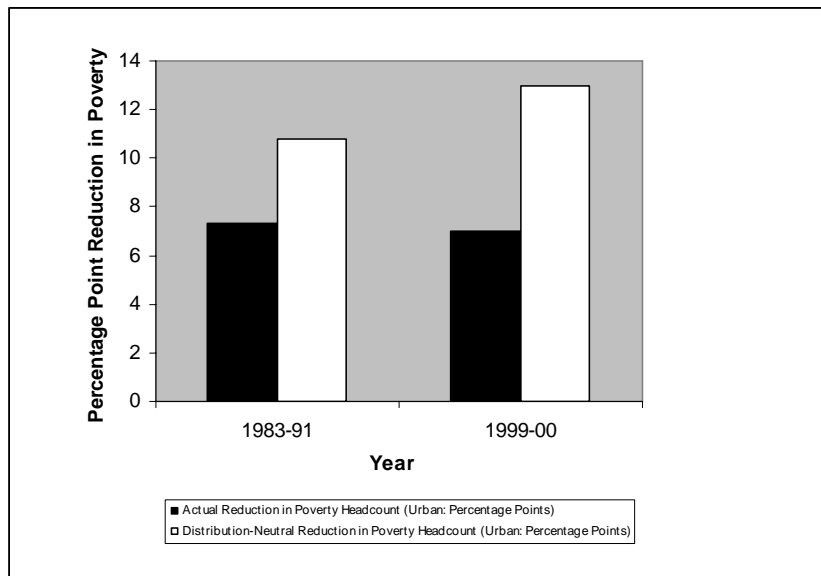
### 2.2.3 Decomposing Poverty Reduction into ‘Growth’ and ‘Equality’ Effects

Contemporaneous changes in income inequality can influence the pace of poverty reduction. This is captured by decomposing the changes in poverty measures into “growth” (often termed as the “growth elasticity”) and “inequality” components (often termed as the “inequality elasticity”). The inequality component will capture the extent of poverty reduction not taken place because of the adverse effects of inequality. The effects of rising inequality on changes in the FGT class of poverty measures have been carried out for the 1980s and the 1990s. The results are presented in Table 11 and Table 12,

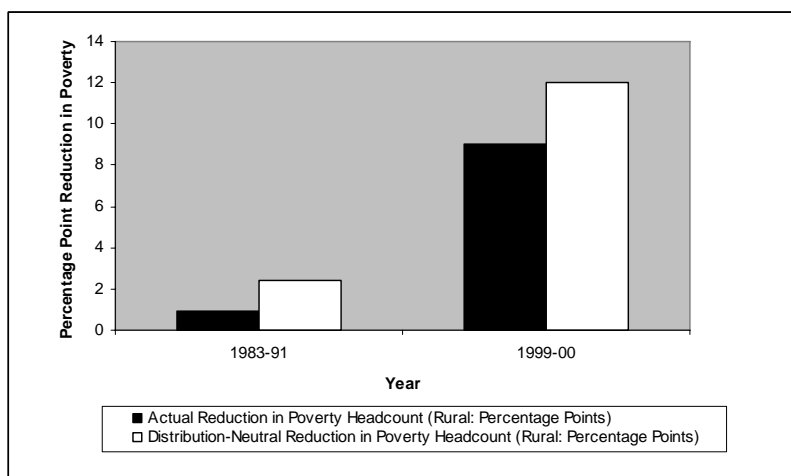
<sup>23</sup> For an accessible discussion on this, see Ray (1999); Weil (2005).

respectively. The results showed that the problems of inequality plagued Bangladesh economy even during the period of relatively slow rising Gini index of inequality witnessed in the 1980s. For example, had growth in Bangladesh been distributionally neutral, the head-count index of rural poverty would have declined by 2.4 percentage points per annum instead of 0.9 actually observed between 1983/84 and 1991/92. Similarly, the incidence of urban poverty would have dropped by 10.8 percentage points instead of 7.3 during that period. The matter has been aggravated further in the context of the 1990s when the potential loss due to rising inequality has become larger, especially in the context of urban areas (see, Charts 12 and 13). Had the observed rate of urban growth during the period between 1991/92 and 2000 been distribution neutral, the incidence of urban poverty would have fallen by 13 percentage points instead of 7 percentage points, or almost twice the actual observed rate. Similarly, the incidence of rural poverty would have dropped by 12 percentage points instead of 9 percentage points.

**Chart 12: Actual and Counter-factual Reduction in Urban Poverty**



**Chart 13: Actual and Counter-factual Reduction in Rural Poverty**



Another way of presenting the same set of findings is to estimate the “inequality elasticity of poverty” along with the “growth elasticity of poverty”.<sup>24</sup> Growth elasticity measures the poverty responsiveness of growth, namely, the percentage change in poverty brought about by 1% increase in the average income. Inequality elasticity measures percentage change in poverty brought about by 1% increase in the Gini index of inequality. Table 13 presents these elasticities for the consumption expenditure data for 1983/84, 1991/92 and 2000. Two observations are noteworthy. *First*, inequality elasticity is rising with the increase in the Gini index of inequality over time, especially in the nineties, indicating its rising significance as a deterrent of poverty reduction. *Second*, inequality elasticity for the head-count is lower than the growth elasticity for the head-count in 2000. This indicates that the growth effects still predominate over inequality effects when it comes to reducing the incidence of poverty. But, this is no longer the case with the other two distributionally sensitive poverty measures such as poverty-gap index (measuring the “depth” of poverty) and squared poverty-gap index (measuring the “severity” of poverty). In respect of these two measures, the inequality elasticities are either *as important as* the growth elasticities (as in the case of rural areas) or even *more important* than the growth elasticities (as in the case of urban areas).

Another way of interpreting the above findings is that the position of the “moderate poor” (who are nearer to the poverty line) in both rural and urban areas would be more responsive to the growth policies vis-à-vis inequality-reducing policies. However, when it comes to improving the well-being of the “extreme poor” residing in rural areas (who are far below the poverty line) policies for reducing inequality have the potential of being quantitatively as important for poverty reduction as the growth policies. For the extreme poor residing in urban areas policies for reducing inequality would have much more poverty-reducing effects (judged by these elasticities) than the growth policies.

It must be pointed out, however, that the above results isolating the effects of inequality (under the assumption that there is “no growth”) from the effects of growth (under the

<sup>24</sup> For broader discussion on the properties of these elasticities, see Kakwani (2000).

assumption that there is “no change in inequality”) on the changes in poverty measures are essentially simulations based on an accounting framework. There is nothing wrong with such decomposition as long as one is acutely aware of the purpose of such exercise. It would be clearly wrong to think that one could easily intervene into the realm of inequality leaving the growth effects unchanged. This is because the inequality effects and growth effects are simultaneously determined by the same growth process. For argument’s sake, even if we consider the inequality effects to be completely separable from the growth effects (one could, for instance, interpret such effects as *initial inequality* for the next cycle of growth) there may be still unaddressed incentive problems for long-term growth. Thus, reducing inequality by increased taxation of the incomes of the non-poor beyond a point can be distortionary and actually reduce the level of overall private investment adversely affecting the rate of long-term growth in the economy.

What is, then, the real value of such poverty-decomposition analysis? First, it makes the policymakers aware about the dangers of entering *too fast* into the phase of high or very high inequality, which would dampen the poverty reducing effects of growth (as discussed in Ravallion 1997). Second, it can draw attention to the need for designing alternative growth strategy with greater poverty responsiveness and/or differing resource availability. Clearly, with less inequality, the overall poverty elasticity of growth will increase making it possible to achieve the same quantum reduction in poverty with lower aggregate growth rate in income.<sup>25</sup> This is especially important to keep in view of the uncertainties in the growth scenario over the medium-term, especially after the withdrawal of MFA. Of course, a sharp rise in inequality possibly would not be worrying in the context of rapid economic growth and structural change about which Kuznets wrote decades earlier. Evidently, this has not been the Bangladesh experience during the nineties, which witnessed a pronounced increase in inequality in the backdrop of a fairly modest rate of economic expansion.

#### 2.2.4 Estimation of “Pro-Poor Growth”

According to Ravallion and Chen (2003), the rate of pro-poor growth equals the overall rate of growth (termed as the “ordinary” rate of growth by Ravallion-Chen) times a “distributional correction” given by the ratio of the actual change in poverty over time to the change that would have been observed under distributional neutrality. In short, the rate of pro-poor growth is a function of overall growth and distributional factor; as a result, *even if* the distributional factor worsens in a given country the rate of pro-poor growth *can increase* simply because of the more than compensatory effects of the overall growth. Evidently, such a ‘poverty-conditional’ approach is less binding than the ‘inequality-conditional’ approach proposed by Kakwani and Pernia (2000) and Baulch and McCulloch (2000) which puts stronger restrictions: the growth process can be viewed

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<sup>25</sup> One numerical example can illustrate this. The national poverty elasticity of growth for 1991/92 under the business-as-usual inequitable scenario has been estimated to be (-) 0.7, while that for distributional neutral growth it is estimated to be (-) 1.8. One finds that the switch to either a neutral or equitable growth path will entail a sizable drop in the minimum rate of growth needed to prevent rising numbers of poor. Thus, at Bangladesh’s projected population growth rate of 2% per year in the 1990s, the minimum growth rate in GNP per capita needed to prevent rising numbers of poor switches from 5% per year under the inequitable growth path to about 3% under the neutral or equitable growth paths (see, Ravallion and Sen 1996).

as “pro-poor” if and only if the poor’s income grows at a faster rate than (or same as that of) the rich.<sup>26</sup>

From the view-point of the inequality-conditional approach China’s impressive growth performance leading to equally impressive poverty–reduction record in the 1990s would be termed as “anti-poor” simply because there has been sharp rise in inequality. Or, for that matter, the relatively improved poverty-reducing effects of growth in Bangladesh during the 1990s is likely to be seen as anti-poor because of sharp rise in inequality, although as we have already noted this was the best decade for the Bangladeshi poor from the poverty reduction point of view.

Addressing rising relative inequality is one matter (which may be an important social concern in its own right especially from the view-point of getting “fair deal” in the process of growth), using that as the yardstick for judging the absolute standard of pro-poorness of growth is another matter, however. Sustained poverty reduction in China and India during the 1990s notwithstanding rising inequality (and in fact at a higher rate compared to many Asian economies) illustrates the argument well.<sup>27</sup> This is also illustrated by the contrasting experience of the 1980s and 1990s in Bangladesh (Table 14). Two points are noteworthy. *First*, during the 1980s the rate of overall growth rate in per capita consumption expenditure was only 0.83 per cent per year compared with 2.38 per cent recorded for the 1990s. This was achieved at some distributional costs. Thus, annual change in rural consumption Gini which was only 0.45 per cent in the 1980s increased to 1.94 per cent in the 1990s; similarly, the urban consumption Gini also increased at a faster rate annually (2.21 vs. 0.88 per cent). Was the transition to higher growth regime marked with greater inequality a bad move for the country’s poor? The Ravallion-Chen measure of the pro-poor growth rate shows that *such a move was still pro-poor in overall consideration*. Although there has been a distributional shift against the poor (the rate of pro-poor growth is appreciably lower than the overall rate of growth) the rate of pro-poor growth rate was 0.88 per cent per year resulting in appreciable 10 percentage points drop over the 1990s. This is in contrast to the experience of the 1980s, where the rate of poverty reduction was extremely slow— registering only a 2 percentage point fall over the entire decade (see, Table 5).<sup>28</sup>

The idea of pro-poor growth and the application of its more technically correct measure should not diffuse, however, the policy attention to address the growing concern about entering higher phase of inequality at a relatively low level of income. More of the gains from the overall growth in the nineties could have been translated into additional pro-

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<sup>26</sup> Alternatively, the inequality-conditional approach will consider a growth process pro-poor if and only if the redistribution component in the Datt-Ravallion (1992) decomposition for changes in poverty is negative.

<sup>27</sup> This is, of course, less true of India if one discounts the progress measured by the “official” poverty estimates. There is considerable debate over the measurement of poverty trends for India between 1993/94 and 1999/00 (see, Deaton and Dreze 2002), and the “adjusted” estimates show slower drop and proceeded more or less in line with earlier trends observed for the late eighties.

<sup>28</sup> More careful scrutiny suggests an almost imperceptible fall in national poverty, which is very sensitive to the choice of the poverty line and the estimate of the Lorenz distribution. The methodological point here is to illustrate that the pro-poorness of the growth process cannot be judged by looking at the rate of distributional changes alone.

poor growth effects but for the sharp rise in inequality. This is clearly seen when comparison is made with China and India (Table 15). Although the overall growth rate in per capita survey mean expenditure the 1990s is higher in Bangladesh than in India, the matched difference is almost insignificant with respect to the rate of pro-poor growth. China's edge over Bangladesh becomes even more staggering when the matched difference in the rate of pro-poor growth is taken into consideration. The distinction between the overall and pro-poor growth becomes clearer when the contrasting experience between the rural and urban areas during the 1990s is taken into consideration. Although per capita average consumption expenditure growth was 76 per cent higher in urban areas, the reverse is true when it comes to assessing the rate of the pro-poor growth. *The latter is 85 per cent higher in rural areas than in urban areas* (Table 16). Given the prevailing distributive arrangements at the present stage of development, the acceleration of rural growth would have had greater poverty reducing effects at the national level compared with an urban-biased growth strategy.<sup>29</sup> This, however, does not still answer as to what elements of a rural growth strategy pursued in the 1990s did contribute to improved poverty responsiveness. A first-cut answer to this question can be derived from the consideration of micro-determinants of household income of the rural poor. The focus on the rural poor is also motivated by the fact more than 90% of the total poor of the country still lived in rural areas in 1991/92, i.e. at the beginning of the pro-poor growth process.

#### **2.2.5 Micro-Determinants of “Pro-Poor Growth”**

Most economic and social indicators in Bangladesh started improving since the late 1980s/ early 1990s (BIDS 2001). Since the reduction of poverty depends on the increase of the real income of the poor, it is important to identify the factors that can favorably influence the income earning ability of the poor. In the prevailing circumstances of the late 1980s what were the significant explanators of the rural poor's income, which can now be viewed as the most favored elements within a pro-poor strategy in countries such as Bangladesh? Identification of these elements at the start of the growth process would help to us to track the policy responses that followed as well as facilitate our understanding of the mechanisms and processes that eventually led to improved pro-poor outcomes during the 1990s. Fortunately, a suitable data set on a representative rural sample of 62-villages is available to shed light on the issue.<sup>30</sup>

Several findings from this exercise having implications for “explaining history” are noteworthy (Table 17). *First*, land ownership reform would not have been the most important option for pro-poor growth even in the late eighties because of the very limited

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<sup>29</sup> This is not to say that all the areas of urban growth have low poverty responsiveness. Readymade garments, small and medium industries, construction, transport, and informal service activities are likely to be poverty reducing. But, it is in the aggregate sectoral sense that the urban growth in the 1990s emerged as a less poverty-reducer than the rural growth.

<sup>30</sup> For broader description of the sample and detailed discussion of the underlying factors and policies, see Hossain and Sen (1992).

availability of potentially surplus land under the most radical land-ceiling (of say 5 acres). Thus, the elasticity of rural income is quite low in regard to landownership. A doubling of the size of landownership for an average poor household would increase income by only 14 per cent (the matched figure for the non-poor is also low—only 20 per cent). This appears even more valid in the current context.<sup>31</sup> *Second*, land access through the tenancy market was going to benefit the poor and could serve as a potentially important mechanism for pro-poor growth. The adoption of new HYV technology also contributed to the increase in rural poor's self-employment income (apart from providing them greater wage employment opportunities in crop agriculture). *Third*, primary education contributed significantly to the increase of rural incomes of the poor households. Secondary education did not appear to have any immediate effect (the situation has changed since then, as we shall see shortly), but the higher education already emerged as an important human capital category with greater poverty-reducing effects. In the prevailing circumstances of the late 1980s, investment in primary education already emerged as one of the most important avenues of pro-poor growth. *Fourth*, already by the late 1980s involvement in the non-agricultural sector emerged as one of the most important factors for anti-poverty. In case of the poor households, the contribution of a non-agricultural worker was about 13 per cent higher than that of an agricultural worker. The contribution of a female worker was about 52 per cent lower than the male worker, indicating the significant gender differentials in poverty. *Fifth*, remittance did not appear to be a significant factor for the poor then (the situation in this regard did not change very much even now as would be discussed later), but was already an influential factor for the non-poor (explaining 11 per cent difference in the latter case). *Sixth*, poor households in villages with electricity used to earn an income that is 14 per cent higher than their counterparts in villages with no electricity, and those living in villages with good transport facility had additional 13 per cent income. *Seventh*, reduced number of dependents and, consequently, an increase in the number of adult earners was a significant contributor of poor household's income. The elasticity of income for workers is high, suggesting that a 100 per cent increase in the number of workers would increase household income by 38 per cent. This suggests the importance of household demography and, by implication, the role that fertility control plays in the low income situation to trigger sustained movement out of poverty.

Looking back it seems that the following factors would have been considered as key elements of pro-poor growth in rural areas at the start of the growth process of the 1990s. These include access to natural assets such as land through the mediation of the tenancy market (especially on favourable input cost-sharing or fixed rental arrangements), within labour market increased access to non-farm and non-agricultural occupation, access to human capital (at the least a completed primary education), and access to infrastructure such as access to road and electricity. The overall importance of these factors has not changed since then. The analysis along the similar line with more recent (2000) data shows the continued relevance of the above factors: tenancy and labour market dynamics, diversification, human capital, and infrastructural access (Table 18). Indeed, if anything, the importance of integrating multiple livelihood avenues within a single household context--avenues such as diversification, access to higher secondary and above education, access to electricity, access to credit (capital)--has increased over time. This is evidenced

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<sup>31</sup> Limitation of land redistributive reform as a poverty reduction device in the specific Bangladesh context has been argued elsewhere (see, Ravallion and Sen 1994).

not only from the analysis of cross-sectional data, but also from the long-term panel data spanning the period between 1987 and 2000 (Sen 2003).

### **III. Factors Affecting the Participation of the Poor People in Growth**

The previous section captured the *statistics* of the poverty impact of growth, which was followed by a brief review of the possible policy-relevant factors for increasing the poor household's income and hence, by implication, potential channels for accelerating the pro-poor growth. Identification of the growth-factors influencing increase of the real income of the poor is only a first (statistical) step in the understanding of the mechanism of pro-poor growth. Yet, the analysis carried out so far remains uninformative about the intermediate transmission mechanisms and intervening processes that mediated the access of the poor to these growth-factors. The key question in this section is to provide an *explanation* for faster poverty reduction--and, hence, faster pro-poor growth—in the context of 1990s compared to 1980s. Although the factors discussed here has general relevance for seeking explanation for national poverty reduction, primacy is given to the question of rural poverty reduction given that more than 80 per cent of the poor people are concentrated in rural areas.

Possible factors affecting the participation of the poor in the growth process of the 1990s are grouped in the following manner. *First*, we discuss the macro-economic policies (e.g. macro-stability, openness, fiscal space for poverty reducing expenditures) that were found actually relevant in giving rise to higher pro-poor growth in the 1990s. These policies set a favorable economic environment for other meso-level and micro-level factors to work in the directions to produce greater poverty-reducing effects than was possible in the 1980s. For instance, not only the public expenditure policies provided the fiscal space for higher allocation to poverty-reducing expenditures, which in turn increased the poor's *access* to assets, but the resultant policy environment also helped to increase the *return* to their assets. *Second*, we examine the working of meso-level factors (e.g. institutions and markets) with special focus on the role of institutions (e.g. NGOs) and changes in rural factor markets that worked favorably on the poor both in terms of higher asset-access and greater return to assets. *Third*, at the micro-level (e.g. at the level of community/household/ individual) we pay special attention to the role of greater *gender equality* and development of *institutional capital* in accelerating the pace of pro-poor growth in the 1990s.

#### **3.1 Macro-Policy Environment for Higher Pro-Poor Growth in the 1990s**

In this section an attempt is made to highlight those *macro-policies* that were conducive not only to higher growth in general, but they are also actually found relevant in explaining higher rate of pro-poor growth in the 1990s. These are related to the following areas: macroeconomic stability, openness, and fiscal space for poverty-reducing expenditures such as human development and rural infrastructures.<sup>32</sup> Not all the policy variables played equally important role or acted to their potentials. For instance, role of

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32 These policy factors also emerged as the key elements from the growth literature on Bangladesh and South Asia. See, Tendulkar and Sen (2003); Osmani et al (2003); Mujeri and Sen (2002); World Bank (2003).

physical capital (for a given level of technological progress) could have been larger but for the poor performance on account of domestic resource mobilisation and debt management.

### **3.1.1 Macroeconomic Stability**

Importance of macroeconomic stability, especially price stability, has been long-recognised in the cross-country and cross-region literature on the determinants of growth as well as rate of poverty reduction (Alesina and Rodrik 1994; Jayarajah et al 1996; Ravallion 1997; Ravallion and Datt 2002). For accelerating economic growth, Bangladesh needed to increase investments to ensure the availability of required resources for meeting the priority needs and expanding the economy's productive capacity. At the macro-level, this required a stable macro-economic framework that would create an enabling environment for higher growth with greater scope for poverty reduction. From this view-point Bangladesh's performance was better than most other low-income countries. The country was able to maintain a broad degree of stability of macroeconomic policies, as reflected in relatively low inflation, a stable exchange rate, low current account deficit and low fiscal deficit. Fiscal, monetary and exchange rate management improved appreciably during 1989/90-1992/93, providing a reasonably sound basis for higher growth during the next ten years (Table 19).

The average inflation rate in the 1980s, which was still in the order of 10.3 per cent (admittedly, a vast improvement over nearly 20 per cent in the 1970s) came down further to 5.6 per cent in the 1990s, which is lower than most countries in South Asia, averaging 7.1 per cent in China, 8.6 per cent in India, and 9.2 per cent in Pakistan. Since the mid-eighties the management of exchange rate has been characterised by a remarkable stability in the real exchange rate. Indeed, the real exchange rate has moved within a fairly small band of about 10 per cent around its trend (World Bank 2003). By avoiding significant real exchange rate appreciation the country was able to preserve the competitiveness of the export sector.<sup>33</sup> Growth in exports (currently averaging 13% of GDP compared to 5% in 1981/82) combined with increasing remittances (currently at 5% of GDP) more than offset the decline in aid flows (currently averaging 2.5% of GDP compared with 10% in 1981/82 and 5% in 1990/91) and were sufficient to balance the increases in imports resulting from the trade liberalisation measures during the 1990s. As a result, the current account deficit, which averaged at 2.6% in the 1980s, came down to an average of 0.8 per cent in the second half of the nineties.

### **3.1.2 Openness**

Outward orientation is an important instrument for sustained economic growth. In the low-income labour-abundant countries such as Bangladesh, the problem of economic growth is precisely to gainfully employ unlimited labour supplies while simultaneously raising their productivity, for which incentives for reproducible and human capital accumulation become necessary. These incentives are governed by the limited size of the

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<sup>33</sup> The strength of the Taka since 1997 is due in part to the rapid growth of readymade garments (RMG) exports and increasing remittances. Yet, given Bangladesh's narrow export base, the appreciation of the real exchange rate during the 1990s was not a good policy outcome. Fortunately, this trend is now being reversed and Bangladesh has adopted a flexible exchange rate regime from mid-2003.

domestic market and hence the causal role of international trade in expanding the size of the market, especially in the early stage of development.<sup>34</sup> The legacy of inward orientation with restrictive trade and exchange rate practices—a shared economic ideology for most of South Asia—made only things worse by creating distortions in product and factor markets. Bangladesh was also no exception for the most part of 1970s and 1980s in this regard. As a part of the reform process, significant openness of the Bangladesh economy has taken place during the 1990s. The external sector has been substantially liberalized both in terms of external trade and foreign exchange regimes. A rapid increase in Bangladesh's global economic integration has also taken place. For example, the share of merchandise trade (exports and imports) in GDP increased from an average of 16 per cent in 1976-81 to 19 per cent in 1982-90 to 30 per cent in 2000, which is higher than the South Asian average of 23 per cent.<sup>35</sup> The unweighted mean tariff has come down from 94 per cent in 1989 to 21 per cent in 1998, which may be compared with 27 per cent for the South Asia region.

Greater openness has been found to be associated with lower aggregate ICOR for all the countries of South Asia (Tendulkar and Sen 2003), indicating dynamic gains from trade. In case of Bangladesh, the aggregate ICOR dropped from an average of 5.02 in the 1980s to 4.01 in the 1990s.<sup>36</sup> An open trade regime was, on the whole, beneficial to growth-acceleration for the Bangladesh economy, as exports grew at an average rate of 11 per cent per year in the 1990s with substantial employment generation, especially in the RMG sector. The evidence based on firm-level panel data shows that for the majority of the sampled firms (which includes a sub-sample of both export-oriented and import-competing firms) have experienced positive TFP growth between 1992/93 and 1997/98. This has attributed to the progressive reductions in trade restrictions inducing technical efficiency gains, technological progress/ diffusion, and hence enhanced productivity of inputs (World Bank 1999).<sup>37</sup>

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<sup>34</sup> This is often seen as Adam Smith's conjecture on dynamic gains from trade, as described by Sachs (1998). The causal role of the lack of outward orientation as the principal factor of long-term slow-down in South Asia during 1950-90 has been made forcefully elsewhere. See, Tendulkar and Sen (2003).

<sup>35</sup> There are several other possible indicators of openness focusing on different aspects of advantage derived from integration with the world economy. These are the elasticity of volume of a country's merchandise exports with respect to the volume of world merchandise exports, the rates of growth in income terms of trade, a variety of indices reflecting restrictions on export and import transactions.

<sup>36</sup> Such rapid openness has created both challenges and opportunities for the Bangladesh economy. In particular, the interfaces of trade liberalization and poverty have proven to be complex. These seem to have depended more on the nature of functioning and characteristics of the channels through which the liberalization effects have been transmitted to the economy and to different household groups (see, for example, Mujeri 2002). With differing meso-environments, the net impacts also varied for various household groups in the society. The abilities to respond, especially of the heterogeneous poor groups, were also different largely due to their differential access and participation in socio-economic transactions. For the future, it is important for Bangladesh to pursue liberalization and effectively manage the process so as to realize the opportunities in a more credible and equitable manner.

<sup>37</sup> The average TFP growth for the entire sample was estimated to be 6 per cent annually between 1992/93 and 1996/97. The TFP growth was considerably higher for the import-competing firms than export-oriented firms (11 vs. 3.5 per cent annually) reflecting the larger initial technology gap and the scope for larger leaps in technological progress. This, in turn, enabled the import competing firms to experience larger TFP growth. Some import-competing firms (in iron/ metal works, engineering, rubber works, and cotton mill) may have been adversely affected by trade liberalization. However, in many of these cases the surveyed

Pronounced outward orientation also helped to strengthen the capacity of domestic self-reliance. The dependence on foreign aid declined along with increased role of indigenous initiatives, such as export earnings and remittances by overseas workers.<sup>38</sup> The macro-significance of the latter can be appreciated by the fact that the flow of overseas remittances has increased impressively reaching more than 5 percent of GDP by the end of the 1990s. This has helped the country to maintain current account deficit at a very low level, avert pressures on foreign exchange reserves in the face of adverse export shocks (as witnessed in 2001/02) and in general imparted stability to the whole machinery of macroeconomic management in the country.

From the view-point of pro-poor growth in rural areas, the relevance of overseas (and urban) remittances is better revealed when its micro-use is considered. Available empirical evidence reveals that significant proportion of remittances is allocated to house repairs. Buying land and agricultural inputs such as irrigation and fertilizers to cultivate HYV rice are common ways of using remittances in rural areas. Remittances also help to strengthen human capital development through children's education and treatment of sick members. On average, temporary migrants remit respectively 40 per cent and 45 per cent of their urban and overseas income to their families in rural areas (Afsar 2000).

### **3.1.3 Fiscal Space for Expenditures with Higher Pro-Poor Effects**

After successive years of high and unsustainable fiscal deficit in the 1980s which culminated into the fiscal crisis of 1988/89, Bangladesh made an impressive effort to stay on-course in balancing the budget. It pursued reasonably prudent fiscal policies in the 1990s in the face of rapid fall in foreign aid and inadequate revenue-raising measures. The average fiscal deficit for the 1980s stood at 5.8 per cent, which was already lower than many low-income countries, including the neighbouring countries of South Asia; it dropped further to an average of 4.8 per cent in the 1990s. In general, public expenditure-GDP ratio has been traditionally lower by international standard, even relative to countries with similar per capita income. Public expenditure as proportion of GDP increased by 1 percentage point during the 1990s compared to the 1980s. Given the low revenue mobilisation and declining aid inflows this was mainly achieved through increased domestic borrowing—a strategy paid off well by averting a potential demand contraction while at the same time not erring on the side of creating excess demand (Osmani et al 2003).<sup>39</sup>

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firms cited other factors such as inadequate infrastructural services and “high cost of doing business” as the key factors affecting their performance.

<sup>38</sup> The aid-GDP ratio, which was around 10 percent in 1981/82, has declined to 3 percent by 2000. In contrast, the export-GDP ratio has increased from about 6 percent to 14 percent during the same period.

<sup>39</sup> This, however, cannot be seen as sustainable strategy, as interest payment on account of internal borrowing already became a significant item of budget spending. The Tax-GDP ratio must increase to pay for the increasing envelop of public expenditures required to develop human resources and rural infrastructures.

Greater fiscal realism was expressed not only in better aggregate fiscal management compared to many neighbouring countries, but also in channelling public resources into sectors that are likely to be more supportive of poverty reduction than others. Greater priorities were given to investments in rural infrastructures and human development (including a single-minded pursuit of population control and girl's education). Support to technological progress in agriculture by providing stimuli to the spread of green revolution was a consistent feature of successive governments: in the context of the nineties it was realized mainly in the form of undertaking wide-ranging policy reforms.

## **3.2 Public Expenditure Policies for Higher Pro-Poor Growth in the 1990s**

### **3.2.1 Accelerated Rural Infrastructural Development**

Government policies have traditionally emphasized development of the rural economy as a means to alleviate poverty and contain the impact of natural calamities. In the 1970s the emphasis was on direct market interventions and large capital spending on flood control, irrigation and drainage projects (Table 20). In the 1980s, most public expenditures focused on broad agricultural development, with relatively low emphasis on rural infrastructure. In the 1990s the development of physical infrastructures—including roads, bridges, culverts, and market places—was singled out as the major element of the new rural development strategy.<sup>40</sup>

This prompted the Local Government Engineering Department (LGED) to initiate numerous projects for the development of feeder roads, upazilla (Sub-district) connecting roads and nascent market/growth centres throughout the country. Indeed, the creation of LGED in itself as the new focal point with empowered centralised authority outside the direct day-to-day scrutiny of the Ministry of Local Government for overseeing the speedy implementation of the road infrastructure projects was a major institutional breakthrough without which the rapid development of the country-wide rural road network would not have been possible. The road development projects, connecting 1400 of the 2100 growth centres/markets, contributed to increasing farm and non-farm output, employment and income, especially of the rural poor and women. Moreover, the functionally landless and small farmers gained a larger share of the increase from crops, wages, livestock and fisheries (World Bank 1996). Other positive impacts of the rural infrastructure development policy included the rapid growth of non-farm sector employment, roadside shops, petty trading etc. (Mondal 2002). There is some evidence based on large-scale micro-survey data suggests that the number of small/medium sized market centres has more than doubled between 1994 and 2000 in rural areas, indicating the growing vibrancy of the rural economy (Sen and Hulme 2004). The rural road network, however, has reached a level where it would be more appropriate to invest in quality rather than network expansion. This will imply putting more emphasis on quality construction using labour-based technologies, maintain and upgrade the existing network, and undertake selective expansion to fill critical gaps to ensure rural-urban linkages.<sup>41</sup>

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<sup>40</sup> Though rural electricity gained higher policy attention in this period it was still a relatively neglected area by the end of the 1990s, which poses an important development challenge in accelerating the rate of pro-poor growth in the next decade.

<sup>41</sup> For example, more emphasis needs to be given on developing growth centres (including market structures, storage, communications and information services) and growth centres connecting roads with

### **3.2.2 Pro-poor Public Expenditure in Social Sectors: The Case of Basic Education**

Three key public policies underscored successes in primary and, in recent years, secondary education in Bangladesh. These include (i) sustained injections of public resources, (ii) effective partnership with non-government institutions for service delivery and (iii) provision of subsidies to influence the demand for education in favour of the poor and the girls. The greater emphasis on primary education, especially girl's education, has been a consistent feature of the successive regimes, more explicitly after transition to democracy in 1991. Spending in education has been the largest single item in the revenue and development budget, and has become an important part of the electoral competition. Thus, the proportional allocation of education has continuously increased over the past two decades: the matched share has actually doubled from 8 per cent to 16 per cent between early eighties and late nineties.

Most government expenditure on education is directed towards basic education--primary and mass education and secondary education. However, during the past decade, there has been a significant shift within basic education from the primary to the secondary level. For example, primary education's share of the recurrent education budget decreased from 48.5 per cent to 39.5 per cent over the course of 1990s, while secondary education's share increased from 36.8 per cent to 48.5. While the pressure to accommodate the increasing demand for continuing education from the cohort that finished primary school contributed to the trend, it also reflected a policy shift to widen the progress of secondary education, particularly girls. Public-private partnership played a crucial role in the expansion of secondary education. A large part of the public spending on basic education supports substantial demand-side incentives to boost enrolment (food-for-education program, secondary school stipend etc.). The country's extensive non-government institutions have also contributed to developing education services, especially at the primary level through the expanding net of non-formal education.

However, enrolment expansion and gender parity have not been matched by improvements in the quality of education. Quality remains low because of the poor quality of educational inputs and learning processes, weak accountability and incentive mechanisms and inadequate checks and balances for teachers and administrators (CAMPE, 1999, 2000). Public education expenditures now need to be directed to improving quality in basic education and providing access to the hard-to-reach poor.

### **3.2.3 Pro-poor Public Expenditure in Social Sectors: The Case of Primary and Preventive Health Care**

As discussed in earlier (Section 1.1.3) Bangladesh has achieved impressive gains in life expectancy, child mortality and reproductive health during the 1990s. Bangladesh appears to have lower child mortality, higher access to drinking water and sanitation, lower maternal mortality, higher contraceptive prevalence rate compared to some of its neighbours (see, for instance, Dreze 2004 for favourable comparison with India in some

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Upazila headquarters and nearest all weather roads; developing rural roads which connect villages with growth centres and feeder roads and providing drainage structure (e.g. bridges and culverts) on rural roads.

of these respects). Although considerable public health challenges remain, there is something instructive from the policy lessons that underpin the achieved success.<sup>42</sup>

The national health program in Bangladesh has over the years focused on the provision of affordable rural primary health care (through Upazila Health Complexes and Union Health and Family Welfare Centres) and on developing partnerships with NGOs. NGOs have been an extremely important source of health successes in Bangladesh, especially in the area of family planning and immunization services. Historically, most health promotion services have been supplied by NGOs.<sup>43</sup> The immunization program, implemented in a collaborative framework, expanded from less than one per cent of the population in 1981 to over 90 per cent in the early 1990s. More recently, NGOs have become recognised partner of development within a long-term collaborative framework with the government to provide primary and community-based health care and nutrition services.

Consistent with the long-standing emphasis accorded by public policy to human resources development, public spending on health has been increasing in both nominal and real terms over the last three decades. Table 21 provides a broad view of the evaluation of public expenditure over this period, showing secular increases. Again, while the current pattern of public health spending is much less than what is recommended by WHO the overall ratio for Bangladesh looks favourable compared to a number of developing countries.<sup>44</sup> The distribution of public health spending was also found to be pro-poor: the health subsidy represents 1.45 per cent of the average per capita expenditures of the poor and 0.8 per cent of the non-poor (World Bank 2002).<sup>45</sup>

The preceding discussion points to the substantive role of the state in promoting pro-poor public investment strategy by way of higher allocations to rural infrastructures and social sectors. Some of the benefits of these investments such as lower transactions costs associated with the availability of all-weather roads and reduced burden of demographic dependency and lower health costs associated with fertility/mortality reduction are likely to be readily translated into higher pro-poor growth effects in the 1990s compared to the 1980s. The other categories of public investment such as expenditures on primary and

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<sup>42</sup> Some of these challenges such as the still high level of maternal mortality and child malnutrition rates have received considerable attention in recent years. The others represent second-generation issues such as emergence of dengue and arsenic as major public health concerns, rising incidence of non-communicable diseases and occupational health hazards with growing urbanization. Moreover, some disparities in access to health care services still separate the poor and the non-poor.

<sup>43</sup> NGOs can be credited with popularizing oral rehydration therapy (ORT) for diarrhoea and the use of contraceptives as well for providing services in nutrition and in tuberculosis and leprosy management, mainly under contract from the government.

<sup>44</sup> Dreze (2004), for instance, attributes somewhat superior performance on health indicators in Bangladesh compared with India to a higher level of public spending on health as proportion of GDP as well.

<sup>45</sup> It has also been observed that of all categories of health expenditures considered, spending on child health as part of the Essential Services Package (ESP) is the most strongly pro-poor in large part because poor households tend to have more children. By contrast, allocations to limited curative care show the most unequal distribution, with the poorest 20 per cent of the population having considerably lower access to the subsidy compared to the rest of the population.

secondary education take a longer time (usually 5-10 years) before their positive pro-poor growth effects become discernible. However, public expenditure is but only one channel through which good policy can make a difference to the pace of pro-poor growth. The Bangladesh case study highlights the importance of two such areas, namely, agriculture for creating food security, and vulnerability management for enhanced coping capacity with natural disasters.

### **3.3 Supporting Policies to Pro-Poor Growth: Agriculture and Vulnerability Management**

#### **3.3.1 Technological Progress in Agriculture**

Since independence, Bangladesh has more than doubled its cereal production with the same or even declining amount of cultivated land. It helped the country to sustain the food-population balance and contributed to a decline in real prices of rice that benefits the rural landless and the urban poor. Most of the incremental production can be attributed to the impressive progress in the diffusion of modern rice technology and improved farming practices. The high yielding variety seeds have now spread to about 65 per cent of rice cropped area, supported by an expansion of irrigation facilities to more than 40 per cent of cultivated area. Total fertilizer use also registered an impressive growth of 10 per cent per year over the last three decades, recording more than 3 million metric tons in year 2000. The Government of Bangladesh carried out wide-ranging reforms by deregulating and liberalizing markets and distribution of key agricultural inputs such as fertilizer, irrigation and improved crop varieties. Policy changes since the early 1980s aimed at reducing government interventions as well as subsidies have completely transformed the markets for these inputs (Hossain 1996). Available evidence suggests that the policy reforms, on the whole, created positive impact on the crop sector. Reforms in the input market contributed to increased production; prices of irrigation equipment and other inputs including fertilizer declined with no clear evidence of adverse distribution consequences.<sup>46</sup>

Success of green revolution in the Bangladesh context has wider significance in understanding the crucial role of the development of “productive forces” in bringing about favourable changes in the traditional “relations of production”. Many scholars argued earlier that the preponderance of small and marginal farmers and the widespread use of crop-sharing tenancy that characterized the Bangladesh agrarian structure would impede technological progress and constrain agricultural growth (Jannuzi and Peach 1979, Boyce 1987). These apprehensions have proved to be wrong. In-depth studies have shown that adoption of modern varieties and the intensity in the use of chemical fertilizers are not affected by farm size and tenurial status if farmers have access to water (Hossain et al 1994, Hossain 1996). In fact, the diffusion of new technology has led to institutional changes--crop-sharing has given way to fixed-rent tenancy in the cultivation of modern varieties, and the tightening of the labour market during the busy agricultural

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<sup>46</sup> The deregulation of fertilizer marketing was completed in 1992 when Bangladesh Agricultural Development Corporation (BADC) withdrew from wholesale trade, allowing the private sector to procure, import (except urea) and distribute fertilizers in domestic markets. The privatization of fertilizer market reduced the cost of marketing. The fertilizer crisis in 1995, however, partially reversed some of the reforms.

seasons has led to a change in the contractual arrangements in the labour market from daily-wage to piece-rate contracts (more about this later). The areas that have not yet benefited from the modern technology are those where irrigation development is uneconomical at current input-output price configurations or those with poor drainage and saline soils for which scientists have yet to develop appropriate high-yielding rice varieties. There is also some potential for increasing the yield of modern varieties in both wet and dry seasons by using improved crop management practices. The exploitation of this potential, however, would require a more effective education and extension system and closer linkage with research and extension (Zohir et al., 2003).

### 3.3.2 Coping with Natural Disasters

Being one of largest active deltaic regions of the world combined with the feature of highest population density, vulnerability to natural disasters with frequent occurrence of floods and cyclones is a common feature in Bangladesh. Almost every year, some parts of the country are affected by natural disasters. Vulnerability to natural disasters has immediate bearing on the downward mobility and hence carries adverse implications for accelerating pro-poor growth. *First*, floods and droughts affect foodgrain production, which cause fluctuations in availability, employment and prices. Abnormal increases in foodgrain prices and non-availability of jobs affect food entitlement of the poor and thereby create transitional food security problems. *Second*, frequent occurrence of flood breeds systematic risks and uncertainty. It discourages private capital formation and hence depresses long-term growth in the economy. *Third*, social effects of natural disasters have long-term consequences for chronic poverty, which combined with environmentally fragile setting often lead to dislocation and displacement of population groups, often termed as “environmental refugees”.

There have been significant changes in the approach to natural disasters, especially in respect of disaster-preparedness, disaster-mitigation and coping with disasters. This may be evident from the contrast drawn between the 1988 and the 1998 flood. The 1998 flood was far more severe than the 1988 flood both in terms of intensity and geographical coverage. Nevertheless, the macroeconomic and social effects of the 1998 flood were much less compared with the 1988 flood. As a result of the devastating effect of the 1988 flood the overall GDP growth turned negative in 1988/89. In contrast, although the severity of flooding (as measured by the duration, which was over 60 days) was higher in 1998, its effect on GDP growth was much less, being in the order of 3% in 1998/99. This improved result is outcome of the enhanced resilience capacity of the poor people in the informal subaltern economy supported by a range of pro-poor vulnerability reduction policies.

*First*, there have been considerable qualitative changes in the rural economy since the early eighties, but especially since 1988. The regions normally affected by the flood have achieved an impressive growth in foodgrain production during the dry season so the farmers may not have to wait for the whole year to recover the losses. *Second*, rural non-farm sector has emerged as an important source of rural income and employment (especially part-time employment). Many of these non-farm activities are supported by the micro finance operations of NGOs. Since a large proportion of the landless and near landless remain employed in the non-farm sector, it is now relatively less difficult for the rural poor to adjust to the loss in employment in the foodgrain production activity during

a flood-affected year. *Third*, disaster coping mechanisms at the micro level are also much stronger today. The overall leakage in the distribution of food has come down. Private sector foodgrain imports through formal and informal border channels also played a crucial role in stabilizing market supply. The policy makers are also now better informed about the regional variation in food insecurity. As a result, the food distribution system tends to be better targeted to poor areas and the poor people than was the case before because of greater coordination between the government and NGO during both the relief and rehabilitation phases.<sup>47</sup> Weather monitoring and early warning system have been strengthened. The ability to evacuate people from disaster zones and to provide shelter has improved. The presence of free press and active democratic opposition also helped to highlight the areas of deficiencies within public action.

### **3.4 Social Forces for Higher Growth**

#### **3.4.1 Gender Equality**

Gender equality is a core development issue which, in addition to being a development objective in its own right, provides an equally desirable perspective in accelerating growth and reducing poverty. One area where Bangladesh holds out important lesson for pro-poor growth strategy relates to its impressive success in strengthening women's agency role as the catalyst of broader social change and economic development. This was achieved through concomitant involvement in many growth-conducive areas including the success of microcredit, readymade garments exports, reducing population growth, increasing child nutrition, and in the spread of education. Although the sex ratio (proportion of the number of males over the number of females in the population) is still adverse and is indicative of significant discrimination against women, the extent of discrimination has declined. Gender parity has been achieved in life expectancy. Bangladesh has achieved significant progress in expanding basic education for girls. The evidence suggests a clear female edge over male at primary and junior secondary (VI-VIII) levels in both rural and urban areas (GoB 2003).

Although the gender difference in economically active population is still quite high in Bangladesh, it has increased at a faster rate over the 1990s. The female (10+) work-force participation rate—based on the “usual definition” of the labor force survey (LFS) -- has increased from about 14 per cent in 1991/92 to 18 per cent in 1995/96, rising further to 23 per cent in 2000.<sup>48</sup> In promoting export-led growth in Bangladesh, women's role has been substantial through their rapidly increasing participation in export production, especially in the readymade garments (RMG) sector. The boom in the RMG sector has been an important source of salaried employment for women (currently totalling about

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<sup>47</sup> This does not mean that there is no leakage in the distribution system, but it is surely the case that the extent of such leakage has gone down over time. Several independent assessments of the distribution of Vulnerable Group Feeding (VGF) card during the 1998 flood suggest this (see, for instance, del Ninno 2003).

<sup>48</sup> However, the extent of participation is still low compared to sub-Saharan Africa. Besides, considerable wage differentials based on gender persist in the labour market, suggesting discrimination against women for the same work.

1.4 million workers) with better pay, more status, and a sense of pride and empowerment (Kabeer 2002).

Finally, women's role in microfinance projects has been well-recognized in Bangladesh. Over the years, poor women, particularly in the rural areas, have played the key role in achieving impressive success in the efforts of the NGOs and other organizations for extending microcredit facility to the assetless poor households. One recent estimate suggests that the aggregate number of borrowers would be about 5 million of which about 90 per cent are women. The greater visibility of women in MFIs was a response to favourable policy. Making women as the main target clients reflected a *conscious choice* on the part of the MFI movement. Thus, in case of the Grameen Bank the female members constituted roughly 50 per cent of the all members till the end of the 1980s. Since then, the Grameen adopted the near-exclusive policy of targeting the female members for its microcredit program.<sup>49</sup>

### 3.4.2 Institutional Capital

Non-government organizations (NGOs), community level organizations (CBOs) and civil society organizations (CSOs) have vastly expanded their visibility in the recent decades and widened their developmental role (see Box 1). Many of the activities of these organizations play a pivotal role in providing and/or enhancing the access to *social and institutional capital* of the poor at the grassroots level.

The emergence of NGOs as social enterprises, however, needs to be seen in a broader institutional context within which the growth process unfolded in the 1990s. As is known, low-income countries typically suffer not only from a 'weak' state, but also from weak civic and grass-roots movements and activism. Bangladesh was an instructive outlier in this regard. The advances made by the NGOs and CSOs as alternative delivery mechanisms as well as vocal civic institutions have played a pivotal role in the reversal of fortunes. *The emergence of these actors played a partially compensatory role in the backdrop of weak state and market institutions.* These social enterprises continue to play an important role in developing a pro-poor development agenda in Bangladesh. In recent years, many of the larger NGOs have opened up commercial windows operating as separate entities under the Company Law and competing with the private sector. Diversified areas of investment include mobile phone, internet, vegetable exports, textile and garments, cold storage, agro-processing, printing press, solar energy, real estate, private university, commercial bank to name the few. The evolution of the NGOs, especially large and medium-sized social enterprises, played an important role in the growth process of the modern sector in the 1990s and holds out a promising future for the private sector development in the next decade.

#### **Box 1: Microfinance Programs of NGOs**

Bangladesh has achieved impressive success in extending micro-credit facility to the assetless poor households who were earlier considered "non-bankable" under the traditional collateral-based financial practices. There has been rapid expansion of micro credit programs over the last two decades. The

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<sup>49</sup> This has been confirmed through the personal communication with Prof. Muhammad Yunus of the Grameen Bank to the authors.

programs are implemented under various institutional arrangements run by non-governmental organizations (NGO), community-based organization (CBO) as well as (increasingly so) by government agencies (GO). The average annual disbursement of loans from these programs currently stands over Taka 5000 crores (about 1 billion US \$), far exceeding the scale of total rural operations of nationalized banks and specialized banking institutions taken together. The general repayment performance is outstanding by any standard: the share of cost recovery as proportion of the total dues is over 90 per cent – it is over 70 per cent even in a flood-affected year. This stands in sharp contrast to the performance of the traditional banking system, where the weight of non-performing assets is as high as 45 per cent.

Successive evaluations have found micro-credit programs to be beneficial to their members. Available evidence suggests that the programs help the poor in consumption smoothing, building net worth, investment in schooling, and in contraceptive behaviour. Women acquire assets of their own and exercise power in household decision-making. One recent estimate suggests that the effect of every dollar provided as credit by the Grameen Bank raises annual household expenditures by 17 cents. This estimate does not include additional earnings that are saved, the value of social education and empowerment, heightened future earnings, and possible spillover effects on non-borrowing households. Another recent study finds that a 10 percent increase in borrowing from a micro-finance program reduces the probability of being below the poverty line by 0.3 percent for males and by 0.2 percent for females (Khandker 1998). This is consistent with the claim that micro-finance programs help poor borrowers over time, besides meeting their immediate needs. However, the economic effects in terms of broad based growth opportunities (as measured by income, expenditure, asset and employment) generated because of these programs have been modest. This is primarily because average size of loan disbursed under micro-credit is rather small thereby limiting the possibility of a big push.

These programs have various non-credit components as well. Available evidence tends to suggest that poor members that get enrolled in such programs receive social awareness training often packaged with health and education. The social affects seem to have been higher than the income or asset generating effects. The aggregate effects of micro-credit have been poverty-reducing both as part of enhanced “voice” and increased income/employment. The poverty and human development situation could have been much worse in the absence these programs.

With the expansion of the reach of micro-finance institutions (MFIs), a set of second generation problems has emerged. These include: higher rates of loan default, problems of economic sustainability of MFIs, conflict between objectives of commercial viability and social mission, and so on. Currently, some of the advanced NGOs are experimenting with various innovative ideas in responding to some of these emerging challenges. There are also indications that the Government is aware of at least some of these challenges and has already initiated some steps to address these. The success of these efforts will determine, to a large extent, how the financial sector would be able to serve the poor, especially the medium and small-scale enterprises, in the next decade.

### **3.5 Changing Market Conditions and Pro-Poor Rural Growth**

#### **3.5.1 Pro-Poor Changes in Rural Input Markets**

Functioning of input markets has important bearing on the efficiency in the use of capital, influencing the rate of overall growth. If changes in the input markets favour the poor then the pro-poor growth effects from such changes would be larger. There has been a sea-change in the operation of rural input markets over the past two decades. Take, for example, the shifts that have taken place in the irrigation water market. It is now widely recognized that the adoption of modern varieties of rice and therefore, growth in the crop sector, has been largely dictated by the rapid expansion of area under irrigation in Bangladesh. The policies of removal of restrictions on standardizations and placement of tubewells in the early nineties had a positive effect on private-sector investment in tubewells for the expansion of groundwater irrigation in the country. The number of shallow (and private force mode tubewells) increased from 183,000 in 1987-88 to

624,000 in 1995/96. This spectacular growth was undoubtedly caused by the increased availability of cheaper Chinese and Korean engines as a result of standardization and the reduction in import duties. Not only did such policy changes make available to farmers cheaper (if less durable) brands of engines, but the resulting competition as well as elimination of duties caused a fall in the prices of standardized brands (Abdullah and Shahabuddin 1993). A vibrant water market has developed under which the owners of shallow tubewells (mostly large and medium farmers) sell water to farmers operating land within the command area of the tubewell.<sup>50</sup> In fact, along with expansion of minor irrigation, a market for transactions in irrigation water was developed, which provided small and marginal farmers access to irrigation.

The 1990s has also witnessed power tillers as the emerging draft power technology. Over time, the pressure of rural population growth has encroached upon common land for grazing to the extent that such grazing lands have virtually disappeared. The competition for land between crop production and fodder requirements has become intense. The result has been a serious search for alternatives to animal driven ploughing practices. Power tillers have become a convenient substitute for traditional draft power in cultivation (Ahmed 2001). The 1996 Agricultural Census provides some useful information on the extent of use of tractors and power tillers (mostly power tillers) for the purpose of ploughing. The Census data indicate that about 28 per cent of cultivated land was ploughed with power tillers/tractors in 1996, whereas the 1977 Census had indicated little mechanization in that year. This reveals a surprisingly rapid progress of mechanization in Bangladesh where farm sizes are so small and plots so scattered. It may be mentioned that the household surveys conducted in 1982 and 1987 also reported very little use of power tillers. Thus it seems that the progress in the application of power tillers in Bangladesh was rapid in the 1990s after liberalization of agricultural input markets, and particularly the liberalization of imports of agricultural machinery in 1988.

### **3.5.2 Pro-Poor Changes in Rural Labour Market**

The dynamics of rural labour market has an important bearing on the dynamics of poverty in rural Bangladesh. These emanate from the difference in rewards for labour that exist between farm and non-farm on the one hand, and between self-employment and wage employment in the rural non-farm sector on the other. This can be observed from Table 22, which presents information for different income groups on returns to labour under different modes of employment in both farm and non-farm sectors.

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<sup>50</sup> Initially, the predominant practice in water pricing was to collect a fixed proportion of the harvest (25% of gross produce) in exchange for irrigation water in which the farmer did not have any incentive to save water. The current practice in many areas is to charge an hourly rate depending on the duration of renting the irrigation equipment. Since this practice provides incentives to save water, the capacity use of irrigation machines has increased. Moreover, the system of renting irrigation equipment on an hourly basis is convenient for supplementary irrigation during the wet season to cope with late-season droughts and has thereby reduced the risk of crop failure. This development has stimulated incentives to grow modern varieties during the aman season on flood-free and shallow flooded lands. Thus, the areas under modern varieties has spread very rapidly and reached 65% of rice-cropped areas in 1999-2000. Rice production grew at a respectable rate of 3.0% per year from 1985 to 2000 despite several disastrous floods (1987, 1988, and 1998).

Several interesting points can be noted. First, for each income group, any mode of employment in the non-farm sector is, on average, far more rewarding than any mode of employment in the farm sector. It is in this difference in the relative returns to labour that lies behind the shift of labour force towards the non-farm sector. The second interesting point concerns the gradation of returns within the non-farm sector. For the poor and especially for the extreme poor, salaried jobs are far superior to self-employment in this sector. In fact, even for the moderate non-poor salaried jobs are at least as good as self-unemployment. It is only for the very rich that self-employment in the non-farm sector is decidedly more rewarding than salaried jobs. These findings suggest that when the poor shift from farm to non-farm activities, they will on average gain, but the gain will be considerably higher if they are able to enter into salaried employment as compared with self-employed activities (Osmani et. al. 2003).<sup>51</sup>

Against the backdrop of the differential structure of return to labour presented above, it is worthwhile to examine the shift of rural labour force from farming to non-farm activities. This has important implications for the dynamics of poverty in rural Bangladesh. Table 23 indicate that a sizeable proportion of rural labour has shifted from farming to non-farming activities, over the last two decades. In 1983/84, about 34 per cent of the rural labour force was engaged in non-farm activities as their principal occupation, this figure increased to about 39 per cent by the year 2000. This increase in the relative size of the non-farm sector is an outcome of the contrasting trends between male and female participation. Apart from this gender contrast, there are other interesting contrasts as well. The most important contrast lies in structure of the RNF sector. Although there are no systematic surveys of this sector that would provide a clear picture of how its structure might have changed over time, Osmani et al (2003) have pieced together a number of different kinds of evidence (using both LFS and HIES data) to derive some reasonable conclusions. The broad picture that emerges is that in the 1980s, the shift to the RNF sector took place primarily at the lower end of the productivity scale – in the form of low-earning self-employment. By contrast in the 1990s, the RNF sector witnessed relative expansion of large-scale enterprises, which employed wage labour and which were more productive than low-end self-employed activities that had expanded more in the previous decade. These contrasts provide important part of the explanation for higher pro-poor growth in the 1990s.

### **3.5.3 Pro-Poor Changes in Rural Tenancy Market**

A comparison of information provided by 1983-84 and 1996 National Agricultural Census indicate significant changes in the structure and organization of agricultural production (including land tenure situation) in Bangladesh. The changes in land tenure situation are shown in Table 24. Although the composition of the owner and tenant farms remain almost unchanged at 60:40 ratio the proportion of area under tenancy has increased from about 17 per cent of the operated area in 1983-84 to about 22 per cent in

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<sup>51</sup> It may be mentioned in this context that the RNF sector can be considered as a poverty-reducing force if the marginal income gained by the poor is higher in this sector than income gained in agriculture. The econometric analysis of 1990-91 HES data by several studies (World Bank 1998) suggests that a shift from agriculture to non-farm occupations entails a significant income gain for households with similar land ownership and other characteristics. The 1995-96 HES also provide strong evidence that people in non-farm occupations is less likely to be poor (Rahman, 2002).

1996.<sup>52</sup> This change may be due to an increase in area under absentee landownership with the rapid rural-urban migration of the rural population and the abandonment of marginal landholdings in favour of taking up rural non-farm occupation.

What is more significant to note is dramatic change in the structure of tenurial arrangements. The exploitative sharecropping tenancy, which provides disincentives to agricultural investments and the adoption of input-intensive new technologies, is giving way to different fixed-rent tenancy and medium-term leasing arrangements. The area under share tenancy has declined from about 74 per cent of tenanted area in 1983-84 to about 62 per cent in 1996 (this share was 91 per cent in 1960), while the area under fixed rent and other arrangements increased from about 26 per cent to 38 per cent over the same period. It is well-known that the fixed-rental arrangements are generally more profitable to the poor tenants than the share-cropping arrangements. When tenants grow input-intensive modern varieties, they use fixed rent arrangements that allow them to reap the fruits of additional investment on agricultural inputs but they continue the sharecropping arrangements for the rainfed crops to share the risks in crop cultivation from floods or droughts. The agrarian institutions in Bangladesh are thus changing under the pressure of market, social and demographic forces to adopt the new technologies (Hossain 2001).

### **3.6 Spill-Over Effects and Learning-by-Doing: Urban Dynamics of Pro-Poor Growth**

#### **3.6.1 The Case of Readymade Garments (RMG)**

From its very modest beginnings in the early 1980s, the readymade garments (RMG) industry has registered phenomenal growth, to become the leading industry and the leading export items of Bangladesh. The sector provides a vivid example of how spill-over effects and learning-by-doing can result in the fast growth of manufactured exports in the context of poor countries. By the mid-1990s, it was contributing somewhere between 20 and 25 per cent of total value-added and employing between 40 and 50 per cent of the total workforce engaged in medium and large scale manufacturing. In 1983/84, its share in total exports was barely 4 per cent which had risen to 75 per cent by the end of the last decade. In fact, the growth of RMG was especially rapid in the last decade. In 1990/91, there were fewer than 1000 units, but by the end of the decade nearly 3000 units were in operation. In 1988/89, its value-added was less than Tk. 10 billion, but by 1997/98, it had risen to Tk. 35 billion. These figures suggest that the additional income generated by the exceptionally rapid growth of RMG in the 1990s could have offered a significant demand boost to services and other non-tradables. Since garment workers happen to be some of the poorest among manufacturing workers, their spending pattern must have been skewed more towards the inferior quality goods and services produced in the informal non-tradable sector than those produced in the formal

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<sup>52</sup> It may be noted here that most of the tenants are owner-cum-tenants who have some land of their own and rent-in more land for better utilization of the farm resources (e.g. family workers, draft animals, farm equipment etc.). Insignificant percentage of farms as pure tenants (1.39 per cent in 1983-84 and 1 per cent in 1996) are observed to operate insignificant percentage of land (0.55 per cent in 1983-84 and 0.50 per cent in 1996) with an average size of less than one acre of land (Saha, 2001).

tradable sector or those imported from abroad. This must have provided a significant boost to the production of non-tradables (Osmani et al. 2003).

### **3.6.2 Employment Generation through Small and Medium Enterprises**

There is a broad consensus that a vibrant small and medium enterprises (SME) sector is one of the major driving forces in avoiding the phenomenon of jobless growth and fostering pro-poor manufacturing growth. Any precise quantitative estimate of the importance of SMEs in Bangladesh economy is precluded by non-availability of comprehensive and reliable statistical information about these industries at the national level.<sup>53</sup> Regardless of the correct magnitude, there is little doubt that SMEs are quite predominant in the industrial structure of Bangladesh comprising over 90 per cent of all industrial units. Broadly, four industry categories (food and allied products, textiles and apparels and engineering and fabricated metal products) currently dominate the SME sector. In recent years, other industries which have grown in importance in the SME sector are light engineering, readymade garments, printing and publishing, wood and wood products, plastic products, electrical goods, electronics, artificial jewellery, wooden and steel furniture, television and radio assembling, and soaps and detergents. The growth in new sectors is reflective of a structural change taking place in the SME sector from traditional to relatively modern product categories, perhaps with higher capitalization and use of better production techniques.

Summarizing the findings of various studies, SEDF (2003) has identified a number of important positive changes taking place in SMEs in Bangladesh. First, SMEs have diversified their activities. Second, entry and exit into the sector has become easier. Third, the RMG industry has contributed significantly to SME development by providing with orders for accessories and packaging materials. Fourth, development of the footwear industry has increased subcontracts to SMEs. Finally, small-scale entrepreneurship has grown significantly in agro-processing in general and in poultry in particular.

## **IV. Trade-Offs between Overall Growth and Pro-Poor Growth**

The preceding section focused on the factors (with particular attention to the possible role of policy) influencing the acceleration of pro-poor growth in the 1990s. In the process we by-passed the question of trade-offs between overall growth and pro-poor growth. The question of “trade-offs” can be understood and posed differently: (a) does past poverty reduction strategy undermine potential (long-term) rate of growth, and (b) does current growth strategy undermine potential (long-term) rate of poverty reduction? From the perspective of the first question one could, for instance, ask whether the success in achieving acceleration of pro-poor growth in the 1990s came at a price of undermining

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<sup>53</sup> Latest BSCIC estimates suggest that there are currently 55,616 small industries and 511,612 cottage industries excluding handlooms. Including handlooms, the number of cottage units shoots up to 600,000 units indicating numerical abundance of small and cottage industries (SCIs) in Bangladesh. Quoting informal Planning Commission estimates, the SEDF puts the number of medium enterprises (undefined) to be around 20,000 and that of SCIs to be between 100,000 to 150,000. This wide variation in the BSCIC and Planning Commission estimates of the SMEs might be due to at least two reasons: (a) different definitions of SMEs and (b) different coverage of SME families. There is an urgent need for adopting and using a uniform set of definitions for SMEs by all government agencies to help formulation of pro-active SME promotion policies (BEI, 2004).

the incentives for higher long-term overall growth rate. This is related to the issue of short-term vs. long-term gains such as ‘less poverty now’ compared with ‘more poverty later’. From the perspective of the second question one could, for instance, ask whether Bangladesh’s record for the 1990s was pro-poor enough. Could Bangladesh do better—achieve faster rate of pro-poor growth by avoiding rising inequality in the 1990s? We address each of these questions in turn.

#### **4.1 Was Higher Poverty Reduction Achieved at the Expense of Growth?**

On the first question there is little evidence of possible permanent trade-offs between poverty reduction and growth. If anything, there appears in general a strong correlation between higher overall growth and higher rate of poverty reduction. This is true for both the decade of eighties and nineties. A closer look at the processes and mechanisms for achieving higher pace of poverty reduction also supports this conclusion. For instance, higher poverty reduction in the 1990s was achieved—as indicated by the preceding discussion in Section III—in the backdrop of an overall decent performance in maintaining a stable macro-economic framework through relatively prudent fiscal and monetary policy, pursuit of public expenditure policies that favoured rural infrastructural and social investments, by stimulating small landholders agricultural growth (including growing diversification) through pro-market policy reforms and continued support to agricultural research and extension, expansion of rural non-farm activities with strong financial supports from the MFIs, fostering high export growth and reaping advantage of the overseas remittance opportunities. All of these measures are likely to have favourable effects not just on the rate of pro-poor growth but also on overall growth rate of the economy, as has indeed been the case given the pronounced growth acceleration in the 1990s.

It is often argued that in the presence of high inequality certain pro-poor policy responses such as redistributive transfers supporting consumption short-fall needs of the poor can do more harm than good to long-term overall growth by imposing higher tax rates on the private investors that may be distortionary (Alesina and Rodrik 1994). The detrimental effect of such transfers is expected to be higher in market democracies. Such description scarcely fits into what happened in Bangladesh in the 1990s.

*First*, Bangladesh is characterised by a considerably lower income Gini—largely because of lower initial land-asset inequality—compared with the most countries in Latin America. *Second*, in the context of the 1990s the key institutional response to a very high level of initial poverty came not in the form of high redistributive transfers, but in the form of a rapidly expanding NGO movements mainly supported by concessional foreign aid. Unlike some of the developing countries (such as Sri Lanka) the pure redistributive transfers constituted only a very tiny proportion of the government budget to have any tangible effect on the overall public investment rate.<sup>54</sup>

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<sup>54</sup> Although in recent years a number of new transfer programs such as old-age pension schemes and allowances for widows and female destitute were added to the list the overall allocation for these programs was very limited. In most of the food or cash assisted transfer schemes the value of the transfers per recipient did not change in nominal terms for successive years. As a result, their real budgetary effects were even less.

*Third*, except for a few minor categories the forms of government transfers were not purely redistributive in nature either. Unlike India and many developing countries Bangladesh already dismantled by early 1980s the system of urban coverage by the public food distribution system (PFDS) and by early 1990s the prevailing system of rural coverage through modified food rationing. Major food-assisted programmes had more pronounced “developmentalist” orientation. Thus, food-for-works (FFW) programme was linked to building or maintenance of the small-scale infrastructures such as rural roads and culverts; since 1989 vulnerable group development (VGD) was increasingly transformed into self-employment based income-generation by linking its beneficiaries with microcredit programmes (as in the case of IG-VGD of BRAC). Others such as food-for-education (FFE)—which in recent years has been converted into cash stipend schemes—were conceived from the outset mainly as human capital development programs rather than pure redistributive programs. Stipends were disbursed conditional on participation at the primary level of education (as in the case of Primary Stipend Scheme) or at the secondary level of education (as in the case of Female Secondary School Stipend Scheme). Indeed, if any thing, the share of the overall food assisted programs in the overall GoB budget dropped in the course of the nineties (except for the flood-year of 1998).

*Fourth*, the tax incidence on the private incomes and wealth is rather modest to have any adverse effects on the incentives of private investment. Indeed, if any thing, the “burden of proof” should lie in other direction. With one of the lowest tax-GDP ratios in the world—lowest even by the lack-lustre standard of its South Asian neighbours—Bangladesh needs to significantly step up its domestic revenue mobilisation efforts to sustain its anti-poverty investments in infrastructure and human capital in the next decade.<sup>55</sup> In short, there is very little empirical support for the Alesina-Rodrik type argument of redistributive transfers allegedly having negative effects on long-term private investment and growth in the Bangladesh context.

Finally, evolution of the policy changes in the decade of the 1990s also shows that the successive regimes consciously attempted to protect growth impulses and search for new sources of growth as the principal mechanism for bringing faster changes in the level of poverty. Rather than moving against the “currents of growth” GoB policies were actually guided by the overall growth and structural change considerations. Sectors which signalled higher growth potentials were eventually picked up for policy support. An active and vibrant civil society with closer donor engagement in the democratic context of the 1990s helped this process of policy articulation. Thus, one finds that the pattern of economic and social policies often changed courses in the 1990s in line with the changing structures of the economy and responded to the attendant growth compulsions. The examples are manifold, here we summarise a salient few.

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<sup>55</sup> It may be noted that while these government transfers have important effects on minimizing the severity of poverty because of their overall low share in the budget they have very little influence on the relative distribution of expenditure (income). As expected, since in the Bangladesh case the share of such expenditures is even lower than the case typical of the high-inequality Latin American countries, the effect of such transfers on the level of income inequality is rather imperceptible. Thus, the Gini coefficient for the year 2000 calculated separately *with* and *without* such government transfers remains virtually unchanged.

Thus, one discerns a clear shift in the emphasis within rural education from primary to secondary; within rural health--from preventive to curative health care; within agriculture--from rice-centric cultivation practices to increased emphasis on agricultural diversification such as the growth of non-rice crops, livestock and fisheries; within MFI lending--a perceptible shift from smaller sized microcredit to larger sized microenterprise loans with focus on technology transfers; within job creation--from low-productivity self-employment to higher-productivity self-employment and regular wage employment; within rural infrastructures--from road-construction to quality maintenance and greater emphasis on the development of the power and telecommunication sectors, within anti-poverty government transfers--from food-assisted to cash-assisted programs, and from relief/ rehabilitation approach to risk management approach; within exports--from low value-added RMG products to higher value added RMG products and, in general, towards more diversified export profile; within SOEs--a clear emphasis on private participation (especially in infrastructure) and, where possible, closure/ restructuring of endemically loss-making enterprises (as reflected in the eventual closure of the Adamjee Jute Mill—once viewed as the largest jute mill in the world-- incurring huge losses every year), and on the social front a discernible shift towards greater and more cross-sectoral presence of women's participation in the growth process as a key agent of development.

These “structural” transitions are far from being complete and there are second-generation challenges that remain to be addressed in the next decade, but the unmistakable signs of gradually moving towards the new sources of growth just cannot be overlooked. Of course, there were negative experiences of the preceding decade, particularly towards the end of the decade, of slippages such as re-emergence of the signs of fiscal profligacy, creeping inflation rate, and a tendency to go-slow on the trade reforms and other structural measures such as reforming the SOEs. Of particular concern was the temporary decline in the forex reserve in 2001/02 following the export shocks. However, none of these backtrackings was of permanent nature, and most of these negative tendencies have already been contained through the GoB efforts over the past three years. After a dip of 2001/02 the overall growth recovered quickly and has been in the level of 5.4-5.6% over the past two years. Of course, there are lurking uncertainties relating to the post-MFA prospects for RMG growth, continued concerns over the poor quality of schooling, deterioration of law and order, and persistent perception of misgovernance and corruption, but these are cross-cutting moments, having adverse bearing on both overall growth and pro-poor growth alike. In sum, there is nothing particularly irreconcilable moment in Bangladesh's growth experience of the 1990s, which can be classified as dilemma between growth and poverty reduction, or for that matter, between overall growth and pro-poor growth.

#### **4.2 Is the Rising Inequality a Concern for Pro-Poor Growth in Bangladesh?**

Turning to the question as to whether the country could avoid sharply rising inequality in the retrospective consideration of the decade of the nineties--and hence could have maximised further the rate of pro-poor growth—the following may be noted. The answer would differ between the rural and urban areas.

In order to answer this question it is important first to look at factors contributing to the rising inequality in the 1990s. The problem of increasing inequality assumes special

significance in a situation where the very process that brings some initial dynamism in the system also contains factors that lead to sharp deterioration in the distribution of income. Some growth-seeking sources have become prominently disequalizing; while some of the equalizing sources of income have apparently lost past growth momentum, as their share in total income have gradually declined.<sup>56</sup>

#### 4.2.1 Was Rise in Inequality Unavoidable in Rural Areas?

Table 25 presents information on the sources of inequality in rural Bangladesh.<sup>57</sup> Two major findings from the table may be highlighted. *First*, activities that are intensive in financial capital (such as trade and many non-farm self-employment activities requiring considerable injection of capital), income sources associated with human capital (such as salaried wage employment) as well as migration to foreign countries (“remittances from abroad”) were found to be the three most important sources of deterioration in rural income distribution. *Second*, the disequalizing tendencies in respect of these three sources of rural income have magnified over the decade of the nineties.

The first important disequalizing source of rural income in the context of the 1990s relates to income from non-farm self-enterprises. While income from this source of income was equalizing in the early nineties, it has become highly disequalising by the end of the decade – the concentration ratio rose from 0.22 to 0.48. At the same time, the share of non-farm enterprise income in total rural income increased from 15 to 20 per cent. As a result of the combined effect of these two tendencies, the contribution of this source of income to overall rural income inequality has increased from 12 to 27 per cent.

The second important disequalising source is salaried wage-employment. Although the overall wage income component is still equalizing in the rural context, there are clear signs of social polarization within the labor market. While both casual agricultural and non-agricultural wage income activities have become more pro-poor, the salaried wage-employment has become a source of growing income inequality (the contribution of this source to overall rural income inequality has risen from 10 to 21 per cent).

The third important source of rising rural income inequality is associated with remittance. Here again polarizing tendencies are discernible. Remittance from internal migration appears to be only mildly disequalising. In contrast, remittance from abroad has emerged

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<sup>56</sup> It may be noted that the discussion of distribution dynamics presented in this section is based on current income as opposed current consumption expenditure data. While consumption expenditure measure of well-being gives a truer picture of the poverty dynamics, it cannot be meaningfully used to shed light on the underlying structural/ sectoral factors that drive the distribution dynamics. For that one needs to use the current income data (however imperfect that data may be from the poverty measurement point of view). A general methodological point here is to note the importance of restoring the status of collecting good income data in the empirical context of pro-poor growth literature. For only an effective combination of consumption expenditure data (for capturing changes in poverty) and income data (for understanding income distribution dynamics) can give us a better clue to unpacking the determinants and dynamics of pro-poor growth.

<sup>57</sup> If a component of income whose contribution to inequality (as represented by the last column in Table 25) is higher than its per cent share of total income (as given in the second column in Table 25) then that particular source of income is termed as “disequalising”: a rise in its share of total income increases the Gini ratio. In the reverse case, it is termed as “equalizing”.

as a highly disequalising source of income, the contribution of this source to overall rural income inequality being assessed at 19 per cent.

An important source of moderating rural income inequality has been agriculture over the period under consideration. Agricultural income (farm plus agricultural wage income) has a concentration ratio of only 0.18 compared with 0.43 recorded for its non-agricultural counterpart (non-farm income plus non-agricultural wage income). However, agriculture's potential for exerting equalizing influence has been greatly compromised by its rapidly declining share in total rural income.

The question is: could anything be done about these developments in the 1990s? The answer is to be given in negative in overall consideration and at least for two reasons. The first line of reasoning has already been indicated. The three main sources of rising inequality in rural Bangladesh—non-farm self-enterprise income, salaried wage employment, remittance—also represented the most growth-seeking sources of the rural economy. Of course, there is nothing intrinsic about the level of inequality exhibited by these growth-seeking sources. For instance, we have just noted that the concentration ratio for the non-farm self-enterprise income was only 0.22 in the early nineties, but it rose to 0.48 by the late nineties. In short, the concentration ratio for a particular growth-seeking source could change dramatically over medium-term. Why, then, are we still considering that such rise in inequality on account of the above three sources was possibly inevitable in the context of the 1990s? This brings us to the second line of reasoning.

We shall argue that the kind of growth unfolded in rural Bangladesh in the 1990s can be best described as an *evolutionary diffusion process of new ideas and technologies*—as historically typified in the Bangladesh context by the process of gradual “deepening” of the green revolution and population control. In the last two examples, development opportunities are first accessed by the non-poor, and then they percolate to the moderate poor, and only in the third stage, the extreme poor start making their presence noticeable.<sup>58</sup> There is, of course, no claim here of any inevitability in this pattern of evolution, but perhaps, only an indication of empirical regularity. In the first stage where the rich and the most educated (who lack resource-constraints otherwise) get early access to the new ideas and technologies; in the second stage the moderate poor enters the scene as “adopters of new technology” especially after the institutional access to resources via government policies and MFIs makes such adoption easier for them. The most crucial policy challenge emerges in the third stage because the extreme poor are often also hard to reach poor. The difficulty here lies in the lack of commensurate institutional innovation for service delivery that cater specifically to their needs (which is harder to develop in the first place) and because the latter too often lack voices to demand such delivery.

We argue that something similar has happened in the context of the nineties: the non-poor and, to a considerable extent, the moderate poor have benefited more from the new sources of rural growth such as non-farm self-enterprise income, salaried wage-

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<sup>58</sup> On the issue of “diffusion” in the context of low-income countries there is a large body of literature. See, Dev et al (2002) for a review.

employment, and remittance. In contrast, participation of the extreme poor in these activities was either very limited or even when they participated it was restricted only to the low-productivity end of these activities. There is some evidence to support this conclusion. First, there appears to exist some kind of entry barriers for the poor, especially the severe poor, for the activities in which the moderate non-poor are mostly engaged. Osmani et al (2003) list the activities that together account for ninety per cent of the time devoted by the moderate non-poor to productive activities and find that the extreme poor are able to devote only half as much time to such activities. Second, to the extent that the poor do engage in these activities, the return to labour per unit of time is distinctly lower for them compared to the moderate non-poor. Thus, the extreme poor are twice disadvantaged – they are unable access fully the activities that have the potential to raise them above the poverty line and even when they do gain access to such activities they are unable to earn as much as the moderate non-poor do from the same activities. Both these disadvantages surely have a lot to do the extreme poor’s relative lack of ability to access salaried jobs in the non-farm sector or to earn high rates of return from self-employment. The key factor for their relative backwardness lies in their comparatively limited access to capability-enhancing assets such as human capital, physical assets (both personal and collective) and support from social network. They are often largely excluded from the “progressive segment” of the market, facing often most conservative terms of conditions and more exploitative relations of production.<sup>59</sup>

Given the relative disadvantages in initial household capability conditions prevailing at the start of the 1990s it was not possible for the extreme poor to participate in full in the afore-mentioned growth-seeking activities. Of course, the government policies recognized by the beginning of the 1990s the need for capability-raising policies for the poor and the poorest: a variety of stipend schemes for attracting students from the poor families that came into existence during this period remains pointer to this (towards the end of the decade a number of microcredit programs specifically designed for the extreme poor also started functioning). However, the benefits from these human capital development programs could not be readily translated into growth advantages, at least over the medium term. The positive effects of these programs are likely to show up in the next decade’s distribution dynamics.

In short, Bangladesh could not have avoided rising rural inequality in the 1990s given the evolutionary nature of the growth path and given the fact that rising rural inequality also picked up some effects of growing unevenness between the moderate and the extreme poor. The 1990s was largely the decade of escape from poverty for the moderate poor in rural areas. While both groups of the poor benefited, the extent of gains was larger for the moderate poor.

#### **4.2.2 Was Higher Pro-Poor Growth Possible in Urban Areas?**

Table 26 presents the sources of rising inequality in urban areas in the 1990s. The role of non-farm self-enterprise income, salaried wage-employment, and remittance is highlighted in case of urban distribution dynamics as well (the additional contributing

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<sup>59</sup> Recent works on caste and ethnicity based discriminations also show that the extreme poor tend to have not only limited access to assets such as human capital, but also lower returns to their assets (see, World Bank 2004).

factor is “rental value of housing”). The same set of arguments as applied to rural inequality trends cannot be made in case of urban areas however. The key reason for this lies in the serious neglect of human capital development programs as applied to the urban poor community. For the past two decades nearly all targeted anti-poverty programs (including human capital development programs such as stipend schemes and essential health service packages) were oriented towards the rural areas only. As a result, disadvantages in initial household capability conditions continued to persist both for the urban moderate poor and urban extreme poor groups.

It may be noted from Table 26 that activities such as casual non-agricultural jobs where most of the urban poor are located while having equalizing effects on urban income distribution do not exhibit much growth prospects: if any thing, its share in urban income has actually dropped during the 1990s. Besides, expansion of many of these activities (such as rickshaw-pulling or brick-breaking, or tannery) cannot be seen as viable exit route from urban poverty. While these activities apparently may pass as candidates for pro-poor growth because of labour-intensity of operations they often represent unsustainable livelihoods for the urban poor with short-term gains but long-term risks of decline because of far reaching adverse health externalities.<sup>60</sup>

All these factors conditioned the fact that the rate of pro-poor growth rate in urban areas was actually lower than the rate of pro-poor growth in rural areas (as observed earlier). Persistence of these factors to the present day also suggests limited prospects of upward mobility of the urban poor in the next decade. The rapid rise in urban income inequality, as measured by Gini index, from a level of 0.33 to 0.44 in a matter of decade, is a cause of concern in itself, *representing one of the fastest increases in inequality in the developing world*. Given the continued rise in urban population in Bangladesh—currently totalling 25 per cent, up from just 12 per cent two decades ago, and projected to reach 40 per cent in 2018—this cannot be but a source of broader policy concern (the metropolis of Dhaka is going to be the fourth largest city in the world in 2018). Clearly, more can be done in the areas of human development, sustainable job creation, access to basic social services, and improved urban governance. In short, there exists considerable scope for improving the relative position of the urban poor in the urban growth process, not just for moderating the sharply rising trends of urban inequality, but also for accelerating the rate of rather modest pro-poor growth in urban areas.

## **V. Recommendations for Policy**

### **5.1 Summary of Key Findings**

Notwithstanding initial pessimistic appraisal about the long-term growth prospects of Bangladesh has been able to accelerate social progress, economic growth and the pace of poverty reduction. In many respects of accelerating development at a low level of income Bangladesh shows the way (Dreze 2004). The country once dubbed as the “test case of development” has graduated into the league of “medium human development” as per the global Human Development Report. The experience of Bangladesh shows that social and economic achievements are possible even in the face of extreme odds characterized by an extremely high population density, low resource base, high incidence of natural disasters,

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<sup>60</sup> For a detailed review of unsustainable livelihoods of the rickshaw-pullers, see Begum and Sen (2004).

and persistence socio-political instability, especially during the initial years. Bangladesh's success, however limited be it may appear compared to more well-known success stories of East Asia or Sri Lanka has implications for other contexts, as, for instance, in case of responding to widespread Afro-pessimism in the development literature.

The other important lesson emerging from the preceding review touches on the issue of pro-poor growth itself. Bangladesh has achieved considerable acceleration in the rate of pro-poor growth in the 1990s compared with the 1980s. The faster rate of pro-growth in the 1990s was achieved in the backdrop of rising inequality which stands in sharp contrast to the experience of the 1980s marked by low growth and low inequality. Two methodological insights from the measurement section of the present review can be highlighted here. *First*, the rate of pro-poor growth is a function of overall growth and distributional factor; as a result, *even if* the distributional factor worsens in a given country the rate of pro-poor growth *can increase* simply because of the more than compensatory effects of the overall growth. *Second*, such a 'poverty-conditional' approach to defining the measure of pro-poor growth should not diffuse the policy attention to address the growing concern about entering higher phase of inequality at a relatively low level of income. More of the gains from the overall growth in the nineties could have been translated into pro-poor growth in adequate measure but for the sharp rise in inequality.

This last point just made is clearly vindicated when comparison is made with China and India. Although the overall growth rate in the 1990s is about 83 per cent higher in Bangladesh than in India, the matched difference vanishes with respect to the pro-poor economic growth. The rate of overall growth in China is about 2.6 times higher than in Bangladesh, but it is remarkable that the rate of pro-poor growth is about 4.4 times higher in China. The distinction between the overall and pro-poor growth becomes clearer when the contrasting experience between the rural and urban areas during the 1990s is taken into consideration. Although per capita average consumption expenditure growth was 76 per cent higher in urban areas, the reverse is true with respect to the rate of the pro-poor growth. The latter is 85 per cent higher in rural areas than in urban areas. Given the prevailing distributive arrangements at the present stage of development, the acceleration of rural growth would have had greater poverty reducing effects at the national level compared with an urban-biased growth strategy.<sup>61</sup> This, however, does not still answer as to what elements of a rural growth strategy pursued in the 1990s did contribute to improved poverty responsiveness. Much of what followed in the present review was to address this central policy question.

Improved record of the 1990s on account of faster pro-poor growth can be traced back to several policy origins. An important role was played by favourable macro-policy environment such as maintenance of stable macro-economic framework through relatively prudent fiscal and monetary policy, pursuit of more pronounced outward

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<sup>61</sup> This is not to say that all the areas of urban growth have low poverty responsiveness. Readymade garments, small and medium industries, construction, transport, and informal service activities are likely to be poverty reducing. But, it is in the aggregate sectoral sense that the urban growth in the 1990s emerged as a less poverty-reducer than the rural growth.

orientation resulting in decent export performance (besides sustaining large inflow of overseas remittances), and creation of fiscal space for pro-poor public expenditures. Within the rubric of public expenditure policies strong emphasis was placed on the development of rural physical infrastructures such as roads, bridges, culverts, and market places. Higher allocation for social sectors such as basic education and health with explicit poverty and gender targeting was an important aspect of the social policy during the 1990s.

The state also played a crucial role in supporting technological progress in agriculture through investing in agricultural research and extension in the first phase of green revolution and carrying out bold policy reforms by liberalising input and output markets for private investment in the second phase. As a result, there has been a considerable increase in land productivity in crop agriculture and already by the end of the decade the country nearly achieved self-sufficiency in rice. Bangladesh's success in cereal production notwithstanding the earlier agrarian pessimism indicated the possibility that the traditional production relations in agriculture need not be binding and technological progress can be achieved even without radical land redistributive reform.

Another important area of policy engagement was in the area vulnerability management: the experience of the flood years of 1998 and 2004 indicates greater resilience capacity of the economy (compared with the past record of the 1974 and 1988 floods), which is, in turn, attributable to a range of factors such as greater reliance on the non-farm sector activities, growth of the cultivated area under irrigated (winter) crops, increased role of private imports ensuring ready supply and stable cereal prices, better targeted distribution of food to the most needy areas and social groups, improved early warning system, higher ex-ante awareness and flood preparedness among the affected people minimizing the extent of early damages, and a vigorous post-flood recovery program.

A significant aspect of the development experience of the 1990s was the success the country achieved in the area of gender equality, which is a goal to be cherished in its intrinsic merit. But, impressive success in strengthening women's agency role as the catalyst of broader social change and economic development has important lesson for pro-poor growth strategy as well. Higher agency of women was achieved through concomitant involvement in many growth-conducive areas including the success of microcredit, readymade garments exports, reducing population growth, increasing child nutrition, and in the spread of education. Gender parity has been achieved in life expectancy (in fact the very recent figures show higher female life expectancy). Bangladesh has achieved truly outstanding progress in expanding basic education for girls. The evidence suggests a clear female edge over male at primary and junior secondary (VI-VIII) levels in both rural and urban areas (GoB 2003).

As is known, low-income countries typically suffer not only from a 'weak' state, but also from weak civic and grass-roots movements and activism. Bangladesh was an instructive outlier in this regard. In the backdrop of weak state and weak market the advances made by the non-government organizations (NGOs) and civil society organizations (CSOs) played an important role in accelerating pro-poor growth in Bangladesh. Social entrepreneurialism through catalyzing the developmental roles of the "organizations of the poor" such as community based organizations (CBOs) and "organizations for the

poor” (NGOs and CSOs) has been an important element in the poverty reduction strategy. In recent years, the evolution of NGOs along the lines of diversified social market enterprises signals a promising future for the private sector development in the next decade, which carries the potentials of being at the same time efficient and equitable.

The above policy and institutional interventions were also accompanied by favourable changes in the market conditions, which benefited the rural poor by and large. In particular, the dynamics of rural input, labour and tenancy markets had an important bearing on the dynamics of poverty in rural Bangladesh. The broad picture that emerges suggests that a sizeable proportion of rural labour has shifted from farming to non-farming activities, over the last two decades. In the 1980s, the shift to the RNF sector took place primarily at the lower end of the productivity scale – in the form of low-earning self-employment. By contrast in the 1990s, the RNF sector witnessed relative expansion of large-scale enterprises, which employed wage labour and which were more productive than low-end self-employed activities that had expanded more in the previous decade.

## **5.2 Strategies for Accelerated Pro-Poor Growth in the Next Decade**

While the above policy thrusts defined Bangladesh’s relative success in promoting pro-poor growth in the 1990s, there are important caveats to it. *First*, many of the gains of the 1990s cannot be simply extrapolated based on past trends. The matter can be illustrated by picking examples from three sectors--agriculture, exports and social development--where Bangladesh’s performance was impressive during the past decade. Thus, the relatively high agricultural growth recorded in the recent years was mainly achieved through the expansion of rice production. Given the declining profitability of rice farming it is obvious that high agricultural growth cannot be maintained in the next decade simply by relying on the expansion of high-yielding variety rice technology. The same applies to the sustainability of the export growth given its current near-exclusive reliance on the ready-made garments, especially in the context of post-MFA. Similarly, sustaining fertility or mortality dynamics in the next decade would require much more than mere “supply-side interventions”. Such demographic transitions often require deep-cutting structural changes in the society involving industrialization, women’s active participation in all walks of life, developed private sector with major share of the work force engaged in the modern sector, greater openness to and closer integration with the forces of international trade and capital movements.

*Second*, it is also important not to overlook the negative developments of the 1990s. Thus, in the area of macro-stability effective debt management covering both internal and external debts is an important agenda for Bangladesh. The deteriorating fiscal position of the government towards the end of the decade has largely been financed by higher domestic bank and non-bank borrowing which has significantly increased the debt repayment liabilities. The wider use of domestic borrowing as a source of finance (which, as a share of GDP, nearly doubled from 1 percent in the late-1980s to 2 percent in the late-1990s) needs to be kept within sustainable limits due to its adverse repercussions on other macroeconomic aggregates, such as the availability of private sector credit and the inflation rate. In recent years there has been considerable slow-down on trade reforms as

well compared to other countries of South Asia, especially India and Sri Lanka (World Bank 2004b).

*Third*, one of the key shortcomings of the past fiscal performance relates to the area of poor domestic resource mobilization. Since overall as well as pro-poor growth acceleration needs increase in the (public) investment rate, the tax efforts of the government must be stepped up while ensuring that the burden of new tax measures do not hurt the poor. At the least tax measures that currently hurt the poor must be curtailed. The reform of tax administration as well as broadening of the tax base could generate new resources required to finance quality investments in social and physical infrastructures in both rural and urban areas. A greater scope for public-private participation exists in the implementation of development projects.

A related concern, which has important implications for the availability of public resources and the overall growth prospects of the economy, is the increasing losses of the state-owned enterprises (SOEs) in the country. As a legacy of the past policies, Bangladesh's SOE sector comprises of around 40 state corporations and boards, along with their subsidiary enterprises, many of which enjoy various degrees of monopoly power in key sectors, such as power, gas, ports, railways, petroleum, fertilizer and others. Despite huge resource involvements, the operating surplus of the SOEs, as a share of GDP, has declined from 0.6 percent in 1990/91 to (-) 0.9 percent in 2000/01. Over the period of 1990/91 to 2000/01, gross losses of the SOEs were, on average, equivalent to 30 percent of the budgetary spending on health and education. In view of the wider implications on efficiency and growth, curbing the losses of the SOEs is a major priority of macroeconomic management in Bangladesh. Along with bringing efficiency and accountability in the sector, policy responses involving privatization with due attention to worker's rights, closure of non-viable enterprises, and other institutional measures are required to address the problems in an efficient and equitable manner.

*Fourth*, the other major area of weakness in the past rounds of policy reforms relates to the rather dismal record of the public financial institutions in terms of savings mobilization and outreach to genuine entrepreneurs, especially to the poorer sections of the population. Improvements in the system require the removal of the handicaps that plague the entire financial system covering diverse problems, such as under-capitalization, high share of non-performing bank assets (assessed to be over 40% at the end of 1990s), and excessive political interference. Improving the governance and financial discipline, and strengthening the legal framework in the banking sector is important if the financial sector is to emerge as effective intermediaries for promoting rapid economic growth. NGOs should be involved as far as possible in the intermediation of rural lending for greater anti-poverty impact.<sup>62</sup>

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62 There are other concerns arising out of the development experience of the past decade. They range from the problem of law and order, deteriorating investment climate, economic misgovernance leading to persistent wastage, mistargeting, inequities, "system loss" and leakage, policy inconsistency and lack of coordination among the development agencies, and ill-consequences of polarized politics (GoB 2003). Attacking these economic and social ills will be a priority though admittedly very difficult task.

*Fifth*, there is a need for sectoral re-prioritization given the new contexts of the pro-poor growth agenda over the next decade. A few cross-sector examples illustrate the challenges of transition. Thus, within the rubric of pro-poor economic growth priority now needs to be given to the promotion of small and medium industries, especially agro-processing, information technology and diversified exports. This, in turn, requires not just good road connection, but also access to the reliable supply of electricity, port, and telecommunication facilities, reducing transaction costs and improving investment climate. In particular, *power and port sectors have been the two most neglected areas of public investments in the 1990s constraining pro-poor growth.*<sup>63</sup> In each of these areas there is scope for public-private partnership, which needs to be explored in full.

Within the sub-sector of agriculture, diversification by providing support to non-rice crops, livestock and fishery sectors has emerged as the key sectoral priority. The quality of primary education, enrollment at secondary level and expansion of technical and vocational education should constitute the central focus within the education sector. Every year a large proportion of the youth population drop out at the secondary and higher levels. Building the mobility routes for this growing segment of youth manpower with some formal exposure to education appears to be a key social concern for pro-poor growth in both rural and urban areas.<sup>64</sup> The sector-wide approach to health needs to be supported further and will be designed to focus on new areas not covered in the earlier phase such as urban primary health, emergency health care, major public health problems such as dengue and arsenic, broadening of the net of curative health care services for the poor, and enabling broad-based access to reproductive health care.

Within the area of disaster management, the focus must shift from the earlier relief and rehabilitation to vulnerability management approach, including the better system of early warning, improved disaster preparedness, including planned involvement of the NGOs and local government as supportive actors of disaster-management both during the crisis and post-crisis recovery phases. Within the system of development administration there is a long felt need of decentralization, local government, and community mobilization for the maximum effects on poverty reduction and social development.

*Sixth*, the present review has suggested the central importance of the non-farm activities as the catalyst for faster pro-poor growth in both rural and urban areas. A rapid expansion of the non-farm activities, especially in the rural areas, will accelerate the pace of labour absorption in relatively larger and wage-labour based enterprises where the wage income of the poor is higher than the return from both farm and self-employment activities. This process of rapid non-farm growth will also be beneficial for agricultural sector. A progressive reduction in the dependence of land-poor households on the agricultural labour market will lead to an increase in both agricultural labour productivity and the wage rates (the latter will further facilitate the adoption of productivity-enhancing technologies in agriculture). In short, a virtuous cycle of rapid growth in the rural

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<sup>63</sup> A legacy of underinvestment in the power sector led to very low expansion of electricity in rural areas in the 1990s, constraining the rate of pro-poor growth. It may be noted that the household access to rural electricity in Bangladesh is substantially lower than in the neighbouring Indian state of West Bengal (22 vs. 40 per cent).

<sup>64</sup> On the issue of “educational explosion” without remunerative employment amidst growing quality concerns, see PERC (2004), Easterly (2001), Pritchett (2004).

economy will depend on policies that support the growth of high productivity non-farm activities (rather than the traditional low productivity ones which provide “distress employment” for the poor) along with measures that facilitate greater participation of the poorer groups in these activities. This requires, among others, investments in education and skill development of the poor along with providing them access to finance and technology.

Seventh, women played an instrumental role in the acceleration of pro-poor growth in Bangladesh. A balanced emphasis needs to be given to economic, social and political empowerment issues in promoting further the cause of women’s advancement and closing of gender gaps in the next phase of development. There are however considerable barriers to women’s further upward mobility. These include persistent negative sex ratios, violence against women, high maternal mortality, discrimination against women in labour force participation, wage rate and working condition, inadequate legal measures to ensure formal equality with men in all affairs of state and public life, insufficient initiatives in supporting quotas and affirmative action at all levels and in all spheres, and creation of women-friendly institutional environment.<sup>65</sup> The challenge of the next decade would be to foster further women’s advancement in all spheres of nation-building by removing these barriers.

*Finally*, the issue of income turbulence below the poverty line needs to be kept in view. After all, one of the key messages of the present review has been the inadequate attention in the past decade to capability-enhancing measures for the extreme poor in both rural and urban areas. Targeted social development (including incentive schemes for human capital development) has been virtually missing to date in the urban areas. This along with greater security of land-tenure for the neglected slum-population can create the basis for faster pro-poor growth in urban areas. In case of rural areas it is a question of *upscaling* of the already existing targeted anti-poverty programs and *deepening* further the links of the extreme poor with the mainstream growth-seeking activities. There are already a number of potential examples of forging such pro-poor growth links in the form of Grameen Handloom, microcredit for the ultra-poor, and employment in the RMG sector. But many more of such activities will be needed before the extreme poor can transform themselves from being the transfer-recipients into active agents of pro-poor growth.

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<sup>65</sup> These are, of course, generic outlining of the possible steps. A range of specific measures under each of these categories have been discussed in greater details in the Interim Poverty Reduction Strategy (see, GoB 2003, pp. 107-113)

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**Table 1**  
**GDP Per Capita in Bangladesh and Other Asian Countries, 1988-2001**

Country	GDP per capita (PPP US \$) 1988	Bangladesh as % of Others Countries 1988	GDP per capita (PPP US \$) 2001	Bangladesh as % of Others Countries 2001
Bangladesh	720	-	1610	-
China	2470	29.15	4020	40.05
India	870	82.76	2840	56.69
Pakistan	1790	40.22	1890	85.19
Thailand	3280	21.95	6400	25.16
Viet Nam	1000	72.00	2070	77.78
All Developing Countries	2170	33.18	3850	41.82
SSA	1180	61.01	1831	87.93
LDCs	720	100.00	1274	126.37

Note: SSA: Sub-Sahara Africa; LDC: Least Developed Countries.  
Source: Human Development Report, 1991 and 2003, UNDP

**Table 2**  
**Social Development in Bangladesh: Predicted vs. Actual Values**

Indicators	Predicted values	Actual values
1. Population growth rate (annual %)	2.45	1.59
2. Total fertility rate (TFR) (births per women)	4.68	3.20
3. Contraceptive prevalence rate (% of women aged 15-49)	23.16	53.00
4. Crude birth rate (CBR)	35.26	23.40
5. Crude death rate (CDR)	11.49	8.40
6. Infant mortality rate (IMR) (per 1000 live births)	70.78	66.00
7. Life expectancy at birth, female (years)	59.50	60.8
8. Life expectancy at birth, male (years)	56.19	60.4

Note: The term 'predicted value' is a theoretical value for the present (benchmark) level of national income. The figure is derived from the implied functional relationship between the indicators of interest (as given in the Table) and the level of per capita national income, the parameters of the relationship being estimated from the cross-country data.

Source: GoB (2003). Original: Based on available data of 163 countries out of 210 obtained from 'World Development Indicators, 1999' published by the World Bank.

**Table 3**  
**Relative Performance of Macroeconomic Indicators**

Indicators	Period			
	I (1975-1982)	II (1983-1989)	III (1990-1993)	IV (1994-2000)
Average yearly growth Rate(%) at 1984/85 prices				
GDP	2.7	3.9	4.7	5.3
Agriculture	1.5	1.5	3.9	3.1
Industry	1.4	3.1	6.7	6.2
Services	4.0	5.7	4.7	6.3
Per capita GDP	0.1	1.8	2.3	3.6
As % of GDP				
Gross Investment	11.6	12.8	12.7	17.3
Gross Domestic Savings	1.6	2.4	4.9	8.1
Gross National Savings	6.8	10.1	11.9	14.9
Exports	5.7	7.5	9.8	15.3
Imports	15.8	17.9	17.4	22.8
Current Account Balance	-1.4	-2.8	-1.2	-1.0
Tax Revenue	6.3	7.3	8.4	9.5
Overall Budget Balance	-6.9	-6.4	-5.3	-6.8
Inflation (%)	12.3	10.0	4.7	5.8

Note: Due to non-availability of national accounts data for the new series for the entire period since the 1970s, the old series of national accounts have been used to ensure comparability across all periods.

Source: Mujeri and Sen 2003.

**Table 4**  
**Economic Growth in Bangladesh**

(Annual average growth rate at constant 1995/96 prices)

	Five-yearly average				Ten-yearly average		Recent years 2001-2003
	1981- 1985	1986- 1990	1991- 1995	1996- 2000	1981-1990	1991- 2000	
GDP	3.7	3.7	4.4	5.2	3.7	4.8	5.0
Population	2.1	2.2	2.0	1.6	2.2	1.8	1.4
Per capita GDP	1.6	1.5	2.4	3.6	1.6	3.0	3.6

Source: Mujeri 2003.

**Table 5**  
**Trends in FGT Measures of poverty: Consumption expenditure data**

	1983/84	1988/89	1991/92	2000
Rural				
H	53.8	49.7	52.9	43.6
P(1)	15.0	13.1	14.6	11.3
P(2)	5.9	4.8	5.6	4.0
Urban				
H	40.9	35.9	33.6	26.4
P(1)	11.4	8.7	8.4	6.7
P(2)	4.4	2.8	2.8	2.3
National				
H	52.3	47.8	49.7	39.8
P(1)	14.5	12.5	13.6	10.3
P(2)	5.7	4.6	5.1	3.6

Note: The estimates for 1983/84 through 1991/92 are taken from Ravallion and Sen (1996) while that of 2000 are authors' estimates. National poverty estimates are population-weighted poverty measures obtained separately for rural and urban sectors. The rural population shares are 88.7% (1983/84), 86.6% (1988/89), 83.4% (1991/92) and 78% (2000). These measures use mean consumption expenditure as reported in Table 2.03 in successive HES reports, and are based on the suitable parameterized Lorenz curve as estimated from the grouped distribution data ranked by per capita consumption expenditure. The above estimates use the 1983/84 non-food poverty line as the base-year non-food poverty line.

**Table 6**  
**Trends in Watts Index, 1983-2000**

	(%)		
Year	National	Urban	Rural
1991/92	17.49	9.38	19.01
2000	14.87	8.85	15.85

Note: Watts index ( $W_t$ ) at date t can be written in the form:

$$W_t = \int_0^{H_t} \log [z/y_t(p)] dp,$$

where  $y_t(p)$  is the quantile function (obtained by inverting the cumulative distribution function  $p = F_t(x)$  at the  $p$ 'th quantile),  $H_t = F_t(z)$  is the head-count index, and  $z$  is the poverty line. Estimates are based on the unit-record per capita expenditure data.

**Table 7**  
**Trends in Inequality: Consumption data**

(Tk/month/person)

	Poverty line	Survey mean	Mean/poverty line (%)	Gini index
Urban				
1983/84	301.72	396.53	131	29.8
1988/89	453.65	695.19	153	32.6
1991/92	534.99	817.12	153	31.9
2000	724.56	1430.12	197	37.9
Rural				
1983/84	268.92	284.84	106	24.6
1988/89	379.08	435.39	115	26.5
1991/92	469.13	509.67	109	25.5
2000	634.48	820.20	129	29.7

Source: See, note to the Table 5.

**Table 8**  
**Estimates of Total Factor Productivity Growth in Bangladesh**

(Per cent per year)

Period	Cobb-Douglas function with assumed value of capital share				Human capital adjusted ( $\alpha = 0.35$ )		Translog function
	0.30	0.35	0.40	0.45	Adjustments in labor input	Human capital as a separate input	
	1981-1991	0.08	0.03	-0.02			
1991-2000	1.40	1.20	1.01	0.81	0.17	1.48	0.93
1981-2000	0.73	0.61	0.49	0.37	-0.38	1.09	0.45

Source: Mujeri and Sen (2003)

**Table 9**  
**Growth of Sectoral GDP**

(at constant 1995/96 prices)

	Average yearly growth (%)		
	1981-2000	1981-1990	1991-2000
Agriculture	2.9	2.5	3.2
Crop and Horticulture	2.3	2.7	1.8
Animal Farming	2.3	2.1	2.5
Forest and Related Services	3.2	2.7	3.6
Fishing	5.3	2.4	8.2
Industry	6.4	5.8	7.0
Manufacturing	6.0	5.0	6.9
Large and Medium Scale	6.0	4.9	7.0
Small Scale	6.0	5.2	6.8
Mining and Quarrying	7.3	8.6	6.0
Electricity, Gas and Water Supply	9.4	13.2	5.5
Construction	6.8	6.0	7.5
Services	4.1	3.7	4.5
Wholesale and Retail Trade	5.1	4.5	5.7
Hotel and Restaurants	4.8	4.1	5.5
Transport, Storage and Communication	4.6	4.7	4.6
Financial Intermediations	4.3	3.7	4.8
Real Estate, Renting and Business Activities	3.3	3.2	3.5
Others	3.5	3.0	4.0
Total	4.3	3.7	4.8

Source: BBS 2000, 2001.

**Table 10**  
**Contribution of Different Sectors to Incremental GDP**  
(Per cent)

Sector	Period		
	1980-2000	1980-1990	1990-2000
Agriculture	19.6	21.1	18.8
Crop and Horticulture	9.2	14.3	6.4
Animal Farming	2.0	2.3	1.8
Forest and Related Services	1.5	1.6	1.5
Fishing	6.9	2.9	9.1
Industry	32.5	29.2	34.2
Manufacturing	18.8	15.7	20.4
Large and Medium Scale	13.4	11.0	14.6
Small Scale	5.4	4.7	5.8
Mining and Quarrying	1.4	1.7	1.2
Electricity, Gas and Water Supply	2.1	3.1	1.6
Construction	10.2	8.7	11.0
Services	47.9	49.7	47.0
Wholesale and Retail Trade	15.0	14.2	15.4
Hotel and Restaurants	0.7	0.6	0.7
Transport, Storage and Communication	9.7	11.2	9.0
Financial Intermediations	1.6	1.6	1.6
Real Estate, Renting and Business Activities	7.6	8.8	7.0
Others	13.3	13.3	13.3
Total	100	100	100
Incremental GDP (Billion Taka at constant prices)	1105.2	380.7	724.5

Source: BBS 2000, 2001.

**Table 11: Simulated Poverty Measures**

	Head Count Index (%)	Poverty-Gap Index (%)	Squared Poverty-Gap Index ( $\times 100$ )
	Urban:		
1983/84 (actual)	40.9	11.4	4.4
1991/92 (actual)	33.6	8.4	2.8
1991/92 (with no change in equality)	30.1	7.5	2.6
1991/92 (with no growth in $\mu/z$ )	44.5	12.7	4.9
	Rural:		
1983/84 (actual)	53.8	15.0	5.9
1991/92 (actual)	52.9	14.6	5.6
1991/92 (with no change in equality)	51.3	14.0	5.4
1991/92 (with no growth in $\mu/z$ )	55.4	15.6	6.1
1992/92 (with urban rate of growth in $\mu/z$ , 1984-1991/92)	41.0	10.3	3.6

Source: Ravallion and Sen (1996)

**Table 12**  
**Inequality Matters: Facts and a Counterfactual Based on Per Capita Expenditure**  
**Data, 1991/92 to 2000**

	Rural			Urban		
Actual						
	1991/92	1995/96	2000	1991/92	1995/96	2000
Headcount	58.45	50.47	49.53	38.20	29.79	31.30
Proportionate Poverty Gap	16.73	14.01	13.84	11.40	7.62	9.02
Weighted Poverty Gap	6.43	5.42	5.16	4.54	2.58	3.47
Gini Index for Consumption	28.21	30.62	31.02	36.25	38.55	40.53
Per Capita Expenditure	504.71	652.65	779.96	817.48	1234.25	1389.04
Assuming 1991/92 Lorenz Distribution for All the Years (i.e. no change in inequality)						
	58.45	48.37	46.53	38.20	25.84	25.27
Headcount	58.45	48.37	46.53	38.20	25.84	25.27
Proportionate Poverty Gap	16.73	12.32	11.61	11.40	6.32	6.12
Weighted Poverty Gap	6.43	4.37	4.05	4.54	2.18	2.09

Note: These estimates were made by combining the decile distribution data for expenditure with the poverty lines used in the IPRSP. Computations were made by using a program developed at the World Bank which fits a parametric Lorenz distribution to the decile distribution data and finds the values of the three measures of poverty by juxtaposing the poverty line and average expenditure against that distribution. The program also gives the Gini ratios from the fitted parametric Lorenz Distribution. Note that poverty estimates based on unit record data (as computed by the present study) and BBS grouped distribution data varies at level, though show similar trends in the nineties.

Source: Khan and Sen (2004)

**Table 13**  
**Growth and Inequality Elasticities of Poverty Measures, 1983/84 to 2000**

	Growth Elasticity			Inequality Elasticity		
	Head-Count Index	Poverty-Gap Index	Squared Poverty-Gap Index	Head-Count Index	Poverty-Gap Index	Squared Poverty-Gap Index
Urban						
1983/84	-1.9	-2.6	-3.2	0.6	2.1	3.6
1991/92	-2.1	-3.0	-3.9	1.1	3.1	5.1
2000	-2.0	-2.9	-3.9	1.9	4.8	7.7
Rural						
1983/84	-1.8	-2.6	-3.1	0.1	1.2	2.3
1991/92	-1.8	-2.6	-3.2	0.2	1.3	2.5
2000	-1.9	-2.8	-3.7	0.6	2.1	3.7

Source: 1983/84 and 1991/92 estimates are from Ravallion and Sen (1996), while the estimates for 2000 are based on unit-record data.

**Table 14**  
**Ordinary rates of growth and rate of pro-poor growth in Bangladesh: 1990s vs. 1980s**

Growth Rates (% per annum)	National 1983/84- 1991/92	National 1991/92-2000
Ordinary Growth Rate	0.83	2.38
Rate of pro-poor growth	na	0.88
Annual Change in Gini index, Rural (%)	0.45	1.94
Annual Change in Gini index, Urban (%)	0.88	2.21

Note: The Bangladesh estimates are based on a national head-count index of 50% for 1983/84 and 1991/92, as there has been very negligible change in head-count index of poverty during the eighties (see, Table 5). Note that the rate of pro-poor growth has been calculated as the mean growth rate of the poor at the beginning of the period. Gini index for consumption expenditure is taken from Table 7. For details of the method for calculating pro-poor growth, see footnote to Table 15.

**Table 15**  
**Ordinary rates of growth and rate of pro-poor growth in China, India and Bangladesh**

Growth Rates (% per annum)	India 1993/94- 1999/00	China 1990-1999	Bangladesh 1991/92-2000
Ordinary Growth Rate	1.3	6.2	2.38
Rate of pro-poor growth	0.8	3.9	0.88
Distributional effect	0.63	0.63	0.37

Note: India and China estimates are from Ravallion (2004), while the Bangladesh estimate is by the present study. The Bangladesh estimates are based on a national head-count index of 50% in 1991/92 (see, Table 2.3). The rural and urban distributions have been integrated to generate national distribution by using the cost-of-living differences proxied by the poverty line expressed in local currency units and by using appropriate population weights. The rate of pro-poor growth is defined as the “mean growth rate of the poor” following Ravallion and Chen (2003); it gives the change in the Watts index per unit time divided by the headcount index. Note that the mean growth rate of the poor is not the same thing as the growth rate in the mean for the poor.

**Table 16**  
**Ordinary rates of growth and rate of pro-poor growth in Bangladesh: Rural, Urban and National during 1990s**

Growth Rates (% per annum)	Rural 1991/92-2000	Urban 1991/92-2000	National 1991/92-2000
Ordinary Growth Rate	1.75	3.09	2.38
Rate of pro-poor growth	0.85	0.46	0.88
Distributional effect	0.49	0.15	0.37

Note: Estimates are based on unit-record data. Calculations are done on the basis of national head-count index of 50%, urban head-count of 33%, and rural head-count of 53% in 1991/92.

**Table 17**  
**Determinants of Income of the Poor and Non-Poor Households, 1987-88**

Description	Poor Households		Non-Poor Households	
	Regression Coefficient	't' Value	Regression Coefficient	't' Value
Land owned (acre)	0.139	9.10 <sup>a</sup>	0.203	11.52
Proportion of cultivated land under tenancy	0.218	3.50 <sup>a</sup>	0.043	0.52
Proportion of cultivated land under modern variety	0.043	1.84 <sup>b</sup>	0.020	1.68 <sup>b</sup>
Number of earning members	0.375	7.35 <sup>a</sup>	0.489	10.44 <sup>a</sup>
Proportion of female earning members	-0.520	-4.38 <sup>b</sup>	-0.437	-3.08 <sup>b</sup>
Proportion of non-agricultural earners	0.131	2.28 <sup>a</sup>	0.285	4.76 <sup>a</sup>
Household head with primary education	0.121	1.87 <sup>b</sup>	0.010	0.14
Household head with secondary education	-0.004	-0.07	0.184	2.77 <sup>b</sup>
Household head with higher education	0.150	2.03 <sup>a</sup>	0.301	5.07 <sup>a</sup>
Household receiving remittances	0.029	0.38	0.112	1.70 <sup>b</sup>
Village with access to electricity	0.140	2.18 <sup>a</sup>	0.171	3.12 <sup>a</sup>
Village with good transport facilities	0.131	2.39 <sup>a</sup>	0.060	1.18
R <sup>2</sup>	0.29		0.49	
Number of cases	591			521

a. Denotes that the regression coefficient is statistically significant at less than 5 per cent probability error.

b. Denotes that the regression coefficient is statistically significant at less than 10 per cent. The dependent variable is measured in natural logarithms of household income. Number of earning members and land owned variables are also measured in logarithms.

Source: Hossain and Sen (1992)

**Table 18**  
**Contribution of Different Factors to Rural Incomes:**  
**Estimates from a Sample Survey, 2000**

Factors	Mean	Marginal return	t-value of the coefficient	Contribution to income (%)
Land owned (ha)	0.53	339	9.92	14.6
Irrigated land (%)	44.4	271	4.29	5.2
Agricultural capital (US\$)	151	1.21	9.47	14.5
Non-agricultural capital (US\$)	412	0.31	38.46	10.5
Agricultural worker (person)	0.81	60	2.31	3.9
Non-agricultural worker (person)	0.86	391	15.61	27.1
Average education of worker (years)	4.35	25	4.22	8.8
Household with migrant member (%)	10.3	638	10.92	5.3
Villages with paved roads (%)	34.2	106	2.04	2.9
Households with electricity (%)	31.5	284	4.23	7.3

Note: The average household income is estimated at US\$ 1,232. The marginal returns for different factors are estimated by fitting a linear regression with income as the dependent variable. The model explains 78% of the variation of income across the 1,888 sampled households.

Source: Kam et al 2004

**Table 19**  
**Macroeconomic Performance Indicators**

	1980- 89	1990- 00	1990- 95	1996- 00	1999- 00	2000- 01	2001- 02
<b>Internal Balance Indicators</b>							
Gross domestic savings	11.6	15.1	13.4	16.7	17.9	18.0	18.0
Gross domestic investment	16.7	19.7	17.9	21.5	23.0	23.1	23.2
Fiscal deficit	5.8	4.8	4.8	4.8	6.2	5.0*	4.6
Rate of inflation (CPI)	10.3	5.6	5.5	5.7	3.5	1.6	3.3
M2 growth	21.6	12.8	13.5	12.2	18.6	16.6	13.1
<b>External Balance Indicators</b>							
Foreign exchange reserves	2.0	4.0	5.5	2.5	2.3	1.5	2.0
Export growth	5.5	11.7	13.9	9.5	8.6	12.6	-6.7
Import growth	4.4	8.1	11.2	5.0	5.7	11.4	-9.1
Current account balance	-2.6	-0.3	0.2	-0.8	0.0	-1.7	0.5
Debt-service ratio	21.1	12.6	15.5	9.7	8.0	8.0	7.2
GDP Growth	3.7	4.8	4.4	5.2	5.9	5.3	4.4

Note: Data relate to annual average; gross domestic savings and investment, fiscal deficits, and current account balance are given as percent of GDP; foreign exchange reserves are given as equivalent of months of imports; debt-service ratio as percent of exports of goods and services. \* The comparable figure including float is 5.9

Source: Bangladesh Bureau of Statistics (BBS) and World Bank (2003)

**Table 20**  
**Distribution of Public Expenditure in Agricultural and**  
**Rural Development in Bangladesh: 1980-2001**  
**(Per cent)**

Area	1980/81	1984/85	1989/90	1994/95	2000/01
Agricultural Research	2.95	4.73	4.14	3.57	3.84
Extension and Training	5.31	4.02	9.65	6.03	5.00
Market and Institutions development	21.27	17.33	27.52	6.75	5.75
Rural infrastructure (roads and electricity)	6.09	9.03	15.69	47.64	56.60
Water control and irrigation	46.72	64.30	42.65	28.90	25.47
Mixed type	1.04	0.59	0.35	1.16	2.15
Miscellaneous	16.62	0.00	0.00	4.91	2.19
Total	100.00	100.00	100.00	100.00	100.00

Source: Bangladesh: Public Expenditure Review, 2003.

**Table 21**  
**Bangladesh: Health and Family Welfare Allocation and**  
**Expenditure in Successive Five Year Plans, 1973-2002**

Category	First FYP (1973-78)	Two-year Plan (1978-90)	Second FYP (1980-85)	Third FYP (1985-90)	Fourth FYP (1990-95)	Fifth FYP (1995- 2002)
Allocation (Crore Taka)	147.8	117.6	781.0	1420.0	2658.0	9086.2
Share of Health and Family Welfare Allocation in Total Budget Allocation (per cent)	3.7	3.6	4.9	5.7	7.7	10.6
Expenditure (Crore Taka)	133.2	114.6	717.0	918.0	2499.0	n.a.
Share of Health and Family Welfare Expenditure in Total Budget Expenditure (per cent)	8.1	4.8	5.2	5.5	7.8	n.a.

Source: Bangladesh: Public Expenditure Review (May, 2003).

**Table 22**  
**Returns to Labour by Mode and Sector of Employment and by**  
**Poverty Status in Rural Areas: 1999/00**

Poverty Status	Farm		Non-Farm		
	Self-employment	Casual wage labour	Casual wage labour	Self-employment	Salaried wage labour
Extreme Poor	16.43	30.15	40.53	38.47	56.10
Moderate Poor	25.76	35.93	49.93	65.60	71.38
Moderate Non-poor	36.07	35.70	57.16	85.75	85.85
Rich Non-poor	47.73	37.39	72.42	239.58	125.30
All Poor	22.75	33.33	45.70	57.22	63.75
All Non-poor	40.51	36.71	61.10	157.68	107.28
All Households	33.51	33.85	51.98	116.08	96.29

Note: Estimated from the unit records of Household Income and Expenditure Survey, 2000. Rural population has been classified into four broad groups: the extreme (bottom two deciles), the moderate poor (next three deciles), and the rich non-poor (top two deciles).

Source: Osmani et. al. (2003)

**Table 23**  
**Trends in the Share of Non-Farm Sector in Rural Population**  
**(Per cent)**

Sex	1983/84	1984/85	1990/91	1995/96	1999/00
Both sexes	34.3	34.4	38.6	37.8	38.7
Male	28.5	29.4	35.1	35.0	38.6
Female	89.5	88.8	61.3	51.0	39.0

Source: Osmani et. al. (2003)

Note: Labour Force Survey, various years. Employment estimates are based on the “usual definition”.

**Table 24**  
**Changes in Land Tenure Situation: 1983/84 to 1996**

Indicators	1983-84	1996
Owner-farms (000)	6,239	7,250
Average size of owner farm (ha)	0.86	0.65
Tenant farms (000)	3,730	4,548
Average size of tenant holdings (ha)	1.02	0.76
Land rented-in (000 ha)	1,541	1,837
Per cent of operated holding under tenancy	16.8	21.6
Area rented-in under share-cropping arrangements (000 ha)	1,140	1,093
Area rented-in under fixed rent and other arrangements (000 ha)	400	672
Number of farm holdings (000)	9,969	11,797
Operated land area (000 ha)	9,180	8,181

Source: Report of Agricultural Census, 1983-84 and 1996, BBS.

**Table 25: Rural Income Inequality and its Sources**

Sources of Income	Share of Total Income (%)		Gini/Concentration Ratio		Contribution of Income Component to Overall Inequality	
	1991/92	2000	1991/92	2000	1991/92	2000
Farm Income:	41.48	20.92	0.33	0.35	49.90	20.45
Crop	-	16.01	-	0.35	-	15.65
Livestock	-	1.47	-	0.24	-	0.99
Fishery	-	1.62	-	0.40	-	1.81
Forestry	-	1.83	-	0.37	-	1.89
Wage Income:	21.42	31.17	0.10	0.21	7.90	18.28
Casual Agri.	10.86	10.29	-0.11	-0.15	-4.38	-4.31
Casual Non-Agri.	4.23	7.33	0.14	0.07	2.17	1.43
Salaried (non-agri.)	6.32	13.55	0.45	0.55	10.42	20.82
Non-Farm Enterprise:	15.33	20.24	0.22	0.48	12.40	27.14
Property Income from Land:	0.89	3.41	0.55	0.56	1.80	5.33
Transfer and Remittance:	10.90	12.17	0.36	0.55	14.40	18.70
Transfer	-	1.31	-	0.06	-	0.22
Informal	-	1.07	-	0.11	-	0.33
Formal	-	0.24	-	-0.16	-	-0.11
Remittance	-	10.86	-	0.61	-	18.51
Within	-	3.33	-	0.39	-	3.63
Abroad	-	7.53	-	0.71	-	14.93
Rental Value of Housing:	7.74	5.29	0.35	0.33	9.80	4.88
Misc. Income:	2.29	6.79	0.37	0.27	3.60	5.12
Grand Total:	100.00	100.00	0.276	0.358	100.00	100.00

Source: The 1991/92 estimates are from Khan and Sen (2001). The 2000 figures are from Khan and Sen (2004). Column totals do not always add exactly up to the amounts shown due to rounding error.

**Table 26: Urban Income Inequality and its Sources**

Sources of Income	Share of Total Income (%)		Gini/Concentration Ratio		Contribution of Income Component to Overall Inequality	
	1991/92	2000	1991/92	2000	1991/92	2000
Farm Income:	6.09	2.41	0.12	0.22	2.10	1.21
Crop	-	1.75	-	0.20	-	0.80
Livestock	-	0.23	-	0.05	-	0.03
Fishery	-	0.20	-	0.59	-	0.27
Forestry	-	0.23	-	0.19	-	0.10
Wage Income:	36.55	38.03	0.28	0.31	30.80	26.92
Casual Agri.	3.25	0.89	-0.03	-0.25	-0.30	-0.51
Casual Non-Agri.	10.01	8.03	0.09	-0.18	2.76	-3.30
Salaried (non-agri.)	23.29	29.11	0.40	0.46	28.40	30.57
Non-Farm Enterprise:	28.42	28.84	0.31	0.50	26.60	32.92
Property Income from Land:	3.76	1.59	0.64	0.51	7.40	1.85
Transfer and Remittance:	9.27	10.10	0.43	0.62	12.10	14.30
Transfer	-	4.27	-	0.78	-	7.60
Informal	-	4.25	-	0.78	-	7.57
Formal	-	0.02	-	-0.32	-	-1.46
Remittance	-	5.83	-	0.50	-	6.66
Within	-	1.93	-	0.30	-	1.32
Abroad	-	3.90	-	0.59	-	5.25
Rental Value of Housing:	9.19	12.77	0.43	0.58	12.20	16.91
Misc. Income:	6.72	6.26	0.42	0.42	8.70	6.00
Grand Total:	100.00	100.00	0.327	0.438	100.00	100.00

Source: The 1991/92 estimates are from Khan and Sen (2001). The 2000 figures are from Khan and Sen (2004). Column totals do not always add exactly up to the amounts shown due to rounding error.