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## **JOURNAL OF BANGLADESH STUDIES (ISSN 1529-0905)**

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Articles are solicited from authors engaged in a variety of fields including agriculture, anthropology, basic sciences, business, economics, education, engineering, management, political science, psychology, sociology, and related fields. This diversity of perspective is sought by JBS because comprehensive development requires a broad foundation of knowledge. The articles should, therefore, address Bangladesh's development problems and prospects from a theoretical or analytical perspective prevalent in academic disciplines. Authors are also encouraged to prescribe measures that are meaningful, practicable, and amenable to the sector(s) or issues they address. Articles must also be comprehensible to the wide target audience. Thus, while the articles must be grounded in theory, analysis, and referenced

work, they must also reach an audience outside the specific disciplines of the authors without being perceived as popular, journalistic writing.

Both short communications and full-length articles may be submitted. Analysis of recent developments, short reviews of newly published books, and expert comments on specific issues are treated as short communications, which should be limited to about 2,000 words. A full-length article should be about 5000 words and include a review of the literature. JBS also invites critiques or commentaries on articles published in the journal to foster debate and discussion. These may be published on the basis of space availability (which is often constrained by budgets) and the advice of the editorial board. Critiques must be about two JBS pages and must be written in a positive demeanor to ensure healthy discussion. JBS will attempt to obtain responses from the authors whose articles are critiqued. Opinions expressed in the selected articles or commentaries are solely the responsibility of the author(s).

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## *FROM THE EDITOR*

The development of Bangladesh remains an ongoing quest for many scholars; some are exuberant about its prospects, others remain deeply skeptical, while still others continue to nurture their flickering hopes, yet expecting little to change...at least in their lifetimes. Part of the conundrum lies in the ongoing power struggles that have dogged the nation since its inception: between the haves and the have-nots, the conservatives and the liberals, the rival political parties, labor and business owners, the politicians and the military, the bureaucracy and those they are supposed to work for, the oppressed and the oppressor in gender relations, and so on. The struggles within each counterpoised entity are also of no mean proportion. In this milieu of conflict and disorder, within and between the various groups, what role can policy play? How can the nation chart new pathways for its people to reach the imaginary Promised Land – Sonar Bangla?

Then there are the global power brokers who have once again begun to play their ancient game of shuffling the who's who list. The oft-viewed single superpower—USA—is already purported to be in decline, weakened by its internal discord and overseas (mis)adventures to assert itself as number one. And while it fritters away its resources (in men, money, and, most importantly, its social capital reflected in its image of peace-maker and global leader) the ascendance of Asia, especially China and India, is being heralded by many scholars as the next dominant continent in the global balance of power. Already India is eyeing a seat in the Security Council, while China has been accorded greater voice and power in decision-making in the IMF. Groups of nations such as the ASEAN (+8) have also been jostling for countervailing power against their mightier counterparts in the region. In their recent 17<sup>th</sup> summit in Vietnam, they articulated a “vision to action” ASEAN Master Plan on regional connectivity that will feature “innovative infrastructure financing mechanisms, taking into account the work done and planned to ensure optimum synergy... (newsahead.com).”

What do these emerging developments, especially in Asia, mean for Bangladesh? How should the country place its bets? What must it do to prepare itself for the new opportunities? And how must it prepare to handle the unknown threats? For scholars on Bangladesh, these are some interesting and important questions they must address in terms of economic, social, political and cultural responses. The answers

will not come in neat packages, but “no answer” is not an option. JBS seeks provocative and innovative ideas on these issues based on scholarly research. And in finding answers for Bangladesh, scholars may eventually offer to the world new ideas, off the beaten track, that could represent the beauty of some esoteric mathematical equation resplendent in its imagination and subtlety. Microcredit was one such answer!

This issue of JBS presents four essays that address various issues embedded in Bangladesh's development discourse. Jyoti Rahman and Asif Yusuf examine Bangladesh's economic growth as a subject in its own right that can facilitate more equitable and welfare enhancing distribution of wealth in the country. While the authors find that “the economy accelerated from 1990, driven by a remarkable turnaround in the growth of multi-factor productivity,” they also identify factors that inhibit the sustained pattern of growth: low levels of human capital, poor infrastructure, market failures specific to individual industries, low levels of international trade, corruption, and cumbersome regulations. As has been a common refrain over the past decades, the authors reiterate that tackling infrastructure bottlenecks, promoting trade, and carrying out regulatory reforms are among the topmost priorities facing the nation's policymakers. If there's one thing that can facilitate or hinder Bangladesh's long-term growth projections, it is the quality of the country's human capital that can play a crucial role. The Asian Miracle has resolutely demonstrated how a steady human capital formation strategy has led to Asia's ascendance in the region and, in fact, the world. And in view of the significant demographic shifts occurring globally, Bangladesh, the seventh largest nation in the world, would seem to be blessed with a population that can be strategic. The policies that must emanate on these factors must be vigorously debated to develop, for Bangladesh, a human resource strategic frontier to serve as the platform to take the nation to middle income status and beyond.

Bernhard Gunter, Ataur Rahman, and Jesmin Rahman examine the role of aid and its allocation to Bangladesh, as well as the country's debt sustainability. They show how aid allocation as well as donors' influence increased sharply during the 1970s that led to much criticism; yet the same criticisms remain even today although the amount of aid that Bangladesh receives has decreased in relative terms. Such criticisms include lower levels of

savings, reduced incentive for the governmental to develop the export sector, and the creation of an elite class in the country that has widened the chasm of disparity in the country. On the authors' claim that "Bangladesh has been discriminated [against] in terms of aid allocation," it is important to look into why the donors chose this course, given their purported goal of poverty reduction. Regarding Bangladesh's debt, the authors indicate that the "total public debt (TPD) service payments amount currently to about 100 percent of government revenues..." implying a high fiscal burden for years to come. From a human development perspective, the authors contend that TPD will be unsustainable in the long run. The current policies of the government must address the concerns that the authors share; otherwise Bangladesh's growth prospects will continue to be stunted for years to come.

M. Saidul Islam examines an important export sector that represents Bangladesh's second largest industry: the shrimp industry. Islam's research indicates that despite various improvements in the sector over the last two decades, it continues to face numerous challenges locally and globally. Among the key challenges are "the campaigns of some NGOs, non-tariff barriers, labor practices, ability to maintain quality of the product (shrimps), corruption and malpractices, viruses, and natural calamities." For a sector that generates substantial revenues and foreign exchange, as well as employment for millions in Bangladesh, the study suggests the enormous prospects for developing a sustainable shrimp industry in Bangladesh with significant economic implications. The author highlights the new era of environmental certification and market competition, in which the credibility of the industry is a *sine qua non*. To remain viable, "if Bangladesh fails to act, it actually acts to fail."

Finally, Munir Quddus reflects on a relatively new concept – Social Business – introduced by the Nobel

Peace Laureate, Muhammad Yunus. In an attempt to reform the economic and financial system and to improve their effectiveness in addressing some of the major problems that exist in society today, Quddus is confident of the role that Social Business can play "to reform free markets and capitalism, making them less prone to periodic crises, and transforming them into more effective instruments in the war on poverty." Yunus's idea impinges on a new type of entrepreneur whose motivation to run a business is not for profit, but to "do good" with charitable overtones. Yunus contends that a Social Business is "Operated as a business enterprise, with products, services, customers, markets, expenses, and revenues – but with the profit-maximizing principle replaced by the social-benefit principle" (p. 23). The critics of this idea attack its fundamental premise, suggesting that "There seem to be very few social businesses in the world, which implies that social business is a very difficult enterprise." They also seek further clarity on Yunus's efforts to operationalize the concept, while providing more detailed insights into the role of the entrepreneur and his basic motivation to do good.

Let me end on two high notes for JBS: 1) Princeton University and Rice University are the latest among the world-class universities where JBS has found a home. Other renowned universities where JBS has already been welcomed include Berkeley, Columbia, Cornell, Illinois, Minnesota, Syracuse, and Cambridge University in the United Kingdom. The World Bank and the US Department of State are other recipients of the journal; and 2) We are very pleased to note the new partnership that we have forged with Policy Research Institute (PRI) in Bangladesh; PRI will represent JBS in the country, help disseminate the work of scholars in JBS to various academic and research institutions and work with BDI to promote a vibrant research culture in Bangladesh.

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# Economic Growth in Bangladesh: Experience and Policy Priorities

Jyoti Rahman  
and  
Asif Yusuf

## Abstract

The Liberation War of 1971 destroyed about a fifth of Bangladesh's economy, and the post-war dislocations left the country on a slow growth trajectory for better part of two decades. Then the economy accelerated from 1990, driven by a turnaround in the growth of multi-factor productivity. We identify factors that inhibit another growth spurt: low levels of human capital; poor infrastructure; market failures specific to individual industries; low levels of international trade; corruption; and cumbersome regulations. Of these, we consider tackling infrastructure bottlenecks, promoting trade, and carrying out regulatory reforms as top priorities for the policymakers.

## Introduction

In the 1960s, the then East Pakistan's economy grew by an annual average rate of around 4 per cent. About a fifth of that economy was destroyed during the Liberation War of 1971, and severe dislocations caused at that time left Bangladesh on a slower economic growth trajectory for the following two decades. Then the economy accelerated sharply from 1990. Figure 1 illustrates Bangladesh's economic trajectory over the past five decades.

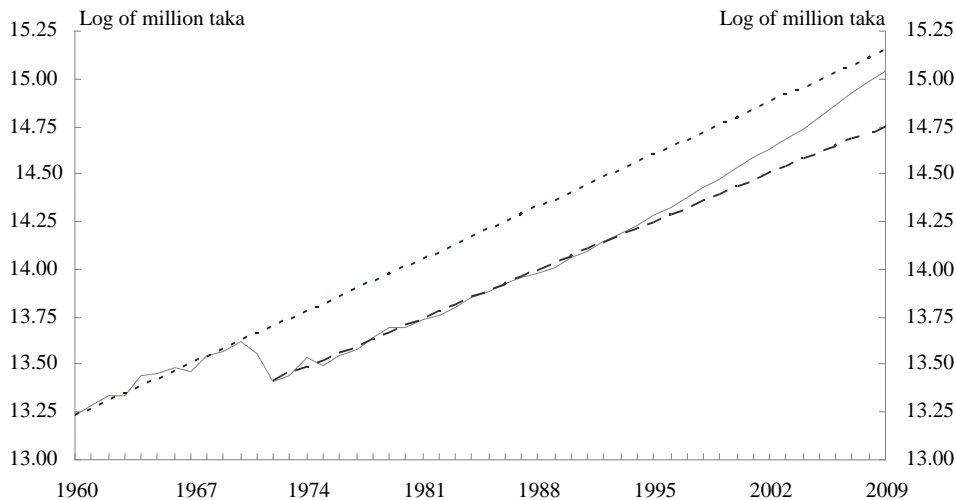
Had it continued to grow at the 1960s pace in the decades since, Bangladesh's GDP would have been 10 per cent higher by 2009. On the other hand, if not for the post-1990 acceleration, the Bangladesh economy would have been 29 per cent lower in 2009

than the actual. In 2009, GDP per capita was about 21,000 taka (in 1995 prices). Had the 1980s growth rate persisted, the average Bangladeshi would have been about 7,100 taka worse off (or a third poorer) in 2009.

The implications of an even a small but sustained increase in economic growth is self-evident. Therefore, it is natural to ask whether another sustained economic acceleration is possible. To paraphrase Lucas (1988):

*Is there some action the government could take that would lead the Bangladesh economy to increase its growth rate by another 2 percentage points? If so, what exactly? If not what is it about the "nature of current Bangladesh" that makes it so. The*

Figure 1: Real GDP



The solid line shows actual path of GDP. The dotted line is the hypothetical path based on the 1960s trend and the dashed one is on the 1970s/1980s trend.

Source: Bangladesh Bureau of Statistics, World Bank, authors' calculations.

consequences for human welfare involved in questions like these are simply staggering. Once one

*starts to think about them, it is hard to think about anything else.*

We analyse Bangladesh's growth experience and explore policy priorities that could spur another sustained pick up in growth rate. The paper is structured as follows.

In the next section, we focus on Bangladesh's growth experience of the past five decades. Consistent with the existing literature, we find that the post-1980s economic acceleration had been due to a turnaround in multi factor productivity (MFP) growth. A combination of macroeconomic stability, education and openness may explain the MFP turnaround.

Next, we benchmark Bangladesh's performance with a set of comparable countries. Bangladesh lags behind the reference countries in terms of investment in physical and human capital, and trade. We also discuss policy priorities— increased openness, more investment in human capital, reform of economic and political governance —identified in earlier surveys on the country's economy in this section.

It is, however, far from clear that large scale reforms of economic or political institutions are either necessary or sufficient preconditions for an economic acceleration. Finally, we ask what are the key constraints prohibiting Bangladesh from growing by a sustained pace of, say, 7¼ per cent a year? We use the *growth diagnostics* framework of Rodrik, Hausmann, and Valesco (2005) to explore this question. As far as we are aware, this is the first growth diagnostics assessment of the Bangladesh economy.

We find that major constraints on Bangladesh's economic growth include: low levels of human capital; poor infrastructure; market failures in specific sectors; low levels of trade; corruption; and cumbersome regulation. Of these, designing appropriate policy responses to raise human capital, curb corruption, or alleviate sector specific market failures will require much further research. Unless carefully crafted, policy actions on these issues could at best be ineffective, and at worst, downright counterproductive in their impacts on economic growth. In comparison, tackling infrastructure bottlenecks, promote trade, and reducing the regulatory burden on the private sector are relatively straightforward, albeit not necessarily easy, tasks that should be tackled as priority.

In this paper, we do not discuss whether economic growth has translated into higher standards of living for the poorest sections of the society. Nor do we ask whether inequality has widened during the growth process, or how the environment has been affected. We implicitly assume that a sustained further increase in economic growth will accompany a pro-poor, equitable, welfare enhancing income and wealth distribution. These are strong assumptions. However, these are also important issues that we feel cannot be addressed adequately in passing. 'The quality of Bangladesh's economic growth — past, present, and future' is a subject of research in its own right.

## **Growth Experience**

We begin this Section with a set of figures to illustrate Bangladesh's growth experience over the past five decades. Then we perform a set of growth accounting exercises, and discuss some explanations for the post-1990 growth pick up.

### ***Economic growth in Bangladesh since 1960***

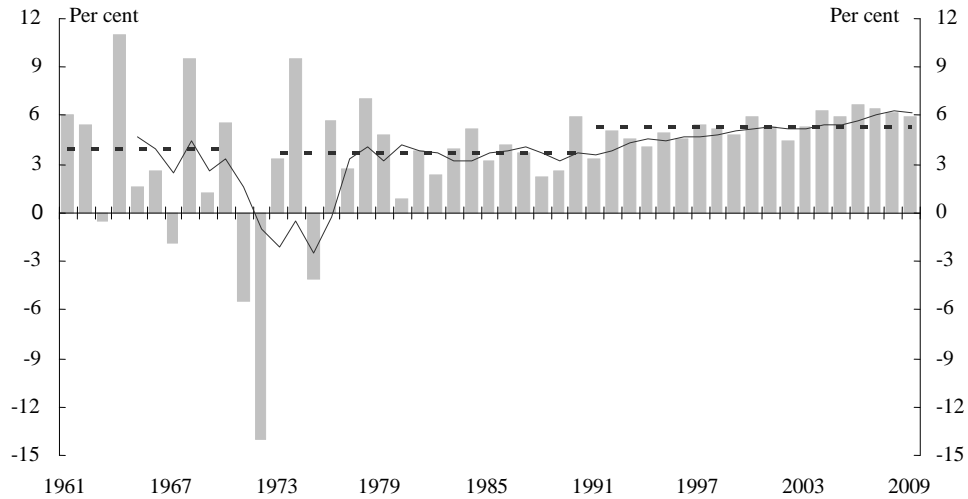
After suffering major set backs in *levels* during the Liberation War and a slowdown in *growth* in its aftermath, Bangladesh's economy has accelerated since the end of the 1980s (Figure 2).<sup>1</sup> Economic growth has also become less volatile over time.<sup>2</sup>

The sectoral composition of the economy has changed significantly over the past five decades. Agriculture's share of the economy has nearly halved from about two-fifths in the early 1960s. The share of industry, on the other hand, has doubled since the early 1970s to about 30 per cent. Services have steadily accounted for about half of the economy since the 1970s. The economic acceleration of the past couple of decades has occurred nearly evenly in the industry and services sectors. Services contributed particularly strongly to growth in the 2000s.

Investment, exports and imports have risen relative to nominal GDP in recent decades (Figure 3), with positive impacts on economic growth.<sup>3</sup>

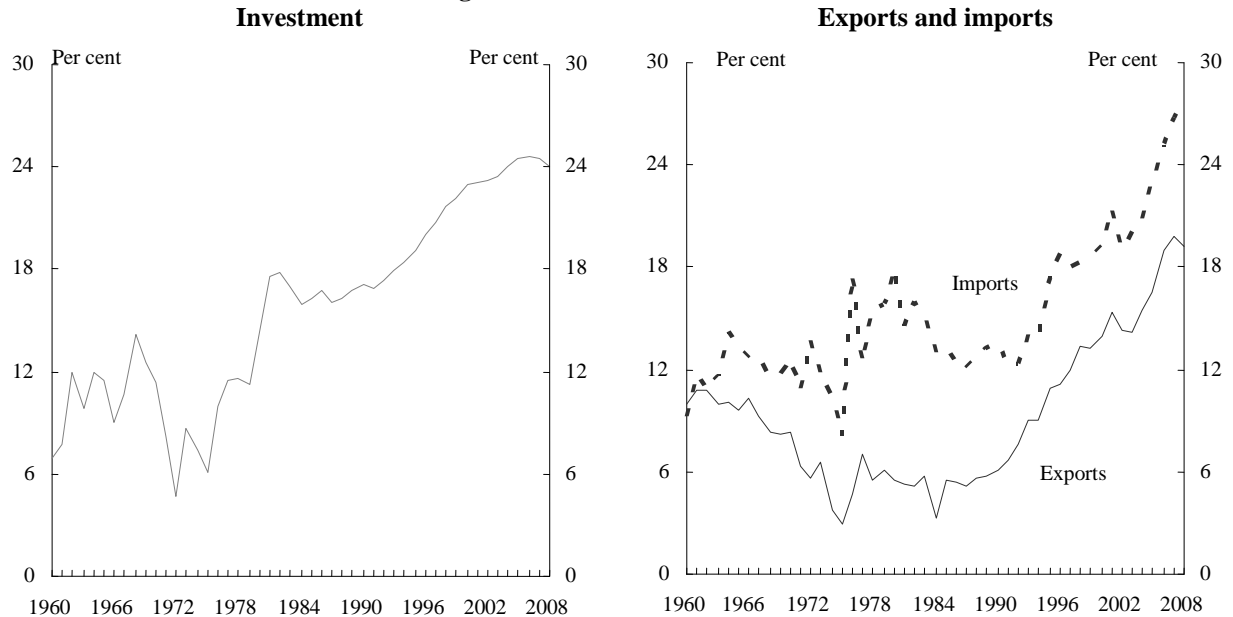
After being set back sharply during the Liberation War, investment's share of GDP rose in the late 1970s, before stagnating during the 1980s. Since the end of the 1980s, investment has risen steadily relative to GDP, albeit the pace of the rise has eased in the current decade. Higher investment-to-GDP ratio means more capital in the economy. According

**Figure 2: Growth in real GDP**



The columns represent annual growth; the dotted lines represent annual average growth over the 1960s, 1972-90, and since 1990; the thin line represents annualised growth over the previous five years.  
Source: BBS, World Bank, authors' calculations.

**Figure 3: Share of nominal GDP**



Source: BBS, World Bank, authors' calculations.

to the neoclassical growth model, capital accumulation should lead to a higher *level* of income in the steady state, whereas in some endogenous models of economic growth, capital accumulation can lead to a faster steady state *growth rate*. In either case, steadily rising investment-to-GDP ratio since the end of the 1980s, all else being equal, would have been expected to raise Bangladesh's economic growth in the medium term.

Exports fell continuously in the pre-war period relative to GDP, and exports-to-GDP ratio stagnated at very low levels up to the late 1980s. Since then, however, exports' share of GDP has risen steadily. Imports have also risen steadily relative to GDP since the 1980s. Rises in exports and imports relative to GDP in the post-1980s period should also have increased economic growth. Exporting industries need to compete in the global market, while imports

expose the domestic economy to competition from abroad. Increased competition, all else equal, should improve efficiency at the microeconomic level, which should translate into faster productivity growth at the macroeconomic level.

That is, the changing patterns of the expenditures in the economy point to the faster growth that we have observed in the post-1980s period. But the underlying stories for the economic acceleration are different. The question is: which has been more important for Bangladesh — investment-driven factor accumulation, or trade-driven productivity growth? To use words of Krugman (1994), has Bangladesh grown through *perspiration* or *inspiration*? We explore this question next.

### Decomposing economic growth

Denoting GDP by  $Y$ , population by  $N$ , and working age (those aged between 15 and 64) population as  $L$ , we can write GDP as follows.

$$Y = \frac{Y}{L} \times \frac{L}{N} \times N \quad (1)$$

Denoting lower cases as logs, taking log differences of (1) decomposes economic growth into: growth in GDP per working age person; demographic changes; and population growth.

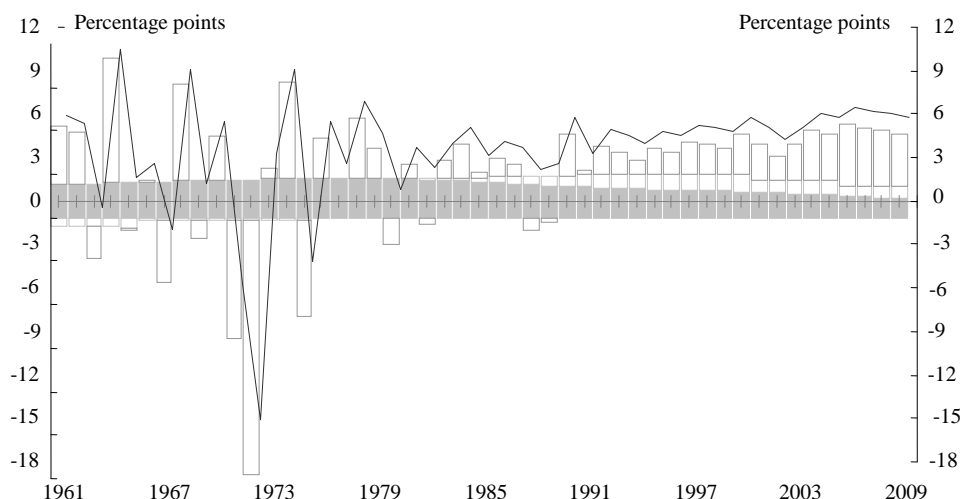
$$\Delta y = \Delta(y - l) + \Delta(l - n) + \Delta n \quad (1a)$$

Increases in any of the three components in the right-hand-side of (1a) increases GDP growth. Figure 4 shows the relative importance of each of these components over the past five decades.

Population growth has steadily slowed from around 2.7 per cent a year in the 1970s to 1.4 per cent by 2009. Changes in working age to total population ratio used make a small deduction from GDP growth in the 1960s, when the onset of the population explosion saw the number of young people (aged less than 15 years) outpacing the working age population. The reverse has been the case since the 1980s — while population growth has slowed, working age population has continued to reflect faster growth from earlier decades. As a result, changes in the ratio of working age to total population have been contributing to economic growth since the 1980s.<sup>4</sup>

Figure 4 also shows that population growth and demographic change have accounted for only a small part of the variation in GDP growth in Bangladesh over the past five decades. Bangladesh's economic growth over that period has been driven by growth in GDP per working age person. To the extent that the working age population represents the potential

Figure 4: Decomposing GDP growth



The line represents GDP growth; the grey area represents population growth; the white area represents the contribution from the change in the ratio of working age to total population; the dotted area represents growth in GDP per working age person.

Source: BBS, World Bank, UN, authors' calculations.

number of workers in the economy, we can view GDP per working age person as a broad measure of labour productivity. Figure 4 thus shows that the post-1990 growth pick up is almost entirely driven by changes in labour productivity.

Over time, labour productivity grows because of two reasons: capital deepening and growth in multi-factor productivity (MFP). If workers are given better machines and equipment — that is, if there is capital deepening — this boosts labour productivity. In addition, labour productivity also grows over time if there is an improvement in the efficiency with which capital and labour inputs are used in the production process — this is MFP growth (also referred to as *total* factor productivity, or TFP, growth). Which of these two reasons have been dominant in Bangladesh?

We explore this question by estimating a production function. Assume that in the long run, GDP is represented by a Cobb-Douglas production function, with constant returns to scale and steady, exponential technological change over time.

$$Y_t = AK_t^\alpha L_t^{1-\alpha} e^{\delta t} \quad (2)$$

As before,  $Y$  is GDP and  $L$  is labour input (working age population). Further,  $K$  is capital input,  $\alpha$  is the importance of capital in the production process and  $\delta$  is the exogenous rate of technological change.<sup>5</sup> We can rearrange (2) to express labour productivity ( $P = Y/L$ ) in terms of the capital-labour ratio ( $\Gamma = K/L$ ) and

the technology available at a point in time.

$$P_t = A\Gamma_t^\alpha e^{\delta t} \quad (3)$$

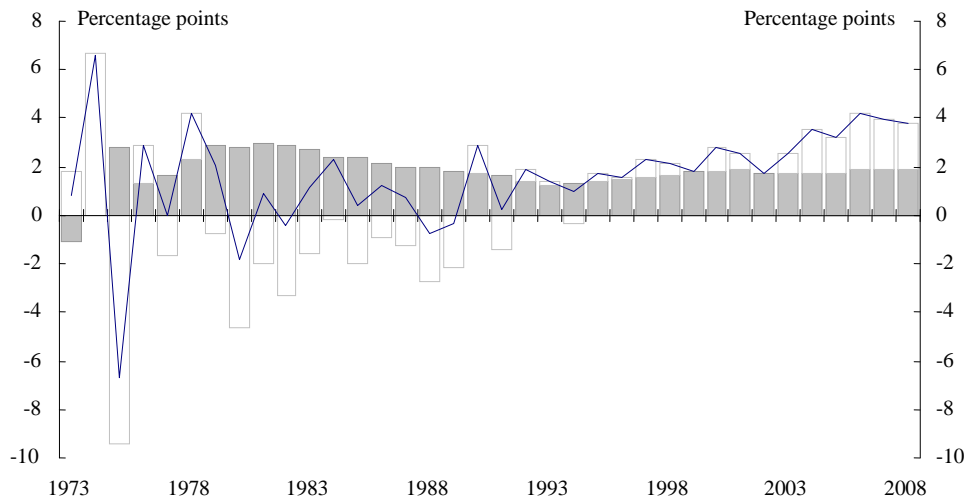
Taking logs of (3) yields a linear relationship between the log levels of output, labour, capital and technology, where  $p$  is the log of labour productivity, and  $k$  is the log of the capital-labour ratio.

$$p_t = a + \alpha k_t + \delta t \quad (3a)$$

We estimate (3a) using annual data between 1960 and 2008.<sup>6</sup> Our measure of labour productivity is GDP per working age person. We derive a capital stock series following a standard perpetual inventory method.<sup>7</sup> Capital-labour ratio is therefore the ratio of this capital stock series and the working age population. The trend rate of technological progress is represented by a simple time trend from 1960. We also use a dummy variable for 1971 and 1972 to reflect the effects of the Liberation War. Our estimate of  $\alpha$  is 0.31 — suggesting that under our assumptions, capital's share of national income is slightly less than a third.<sup>8</sup>

We interpret the residual between the observed labour productivity growth and the implied contribution of capital deepening given the estimated  $\alpha$  as growth in MFP. Figure 5 illustrates this decomposition for the post-War period. Capital deepening contributed about 2¾ percentage points a year to labour productivity growth in the mid-1970s, waning to about 1¼ percentage points a year in the late 1980s,

**Figure 5: Decomposing growth in GDP per working age person**



The line represents labour productivity growth; the grey area represents contribution of capital deepening; the white area represents multi-factor productivity growth.

Source: BBS, UN, World Bank, authors' calculations.

**Table 1: Sources of economic growth**

|            | GDP growth | Population growth | Demographic change | Contribution of capital deepening | Multi factor productivity growth |
|------------|------------|-------------------|--------------------|-----------------------------------|----------------------------------|
| 1960-70    | 3.9        | 2.5               | -0.4               | 1.8                               | 0.0                              |
| 1972-90    | 3.6        | 2.6               | 0.2                | 2.0                               | -1.1                             |
| Since 1990 | 5.1        | 1.8               | 1.0                | 1.7                               | 0.7                              |

Source: BBS, UN; World Bank, authors' calculations.

before rising to about 1¼ percentage points in more recent years. Much more interesting has been the trend in MFP, which actually fell regularly up until the late 1980s. That is, if the data are to be believed, in the 1970s and the 1980s, the efficiency with which capital and labour were employed in the economy actually diminished over time. Then, throughout the 1990s, MFP stayed broadly steady. It has been only in the past decade that MFP has been making consistently positive contribution to labour productivity growth.

That is, a turnaround in MFP growth — efficiency with which capital and labour are used in the production process — was instrumental for the post-1980s economic acceleration. A summary decomposition of annual GDP growth during three periods — pre-liberation; post-liberation period of slow growth (1972-1990); and the recent higher growth era (since 1990) — shows the relative importance of the turnaround in MFP growth (Table 1).

The finding that it was MFP, and not factor accumulation, that was the key to the post-1980s economic surge accords well with the empirical literature, which finds that MFP accounts for most of the income differences over time and across countries (Easterly and Levine, 2001). But this just puts the question to the next level: what explains the MFP turnaround?

There is one simple answer to this question. As Moses Abramovitz noted in his seminal 1956 work decomposing growth experience of the United States economy, MFP or TFP is ultimately a measure of our ignorance. And in case of Bangladesh, this could well be the reason for the apparent MFP trends.

As explained in Appendix A, our measures of GDP and capital stock are calculated from indices estimated by the World Bank. The Bank itself estimated those indices from a range of unofficial or semi-official sources, using various rules of thumbs

and statistical techniques, for the period prior to 1990. This is because the Bangladesh Bureau of Statistics official estimates of GDP and its components begin from 1990. Therefore, the observed MFP trend may simply reflect poor quality of data prior to 1990.

While data quality may well make a difference to the exact point estimates of MFP growth path, we do not think it makes a qualitative difference to the MFP turnaround story. This is because our finding is qualitatively consistent with two comprehensive surveys on Bangladesh's growth experience.

Mahajan (2005) uses a Cobb-Douglas production function. Unlike us, he 'quality adjusts' his labour input by using average years of schooling. He assumes that capital's share in national income is 0.4, and calculates an implied MFP series for the period 1981-2000. According to his calculations, capital deepening contributed steadily and increasingly to growth process — this finding is very similar to ours. Unlike us, however, he finds strong MFP growth in the early 1980. Nonetheless, he also finds steady MFP growth in the late 1990s — this is qualitatively consistent with our estimate.

Mujeri and Sen (2003) calculate a number of decompositions for the period 1981-90.<sup>9</sup> In all of their models, there is a clear turnaround in MFP growth — ranging from 0.9 to 1.3 percentage points — during the 1990s. In six of their seven models, calculated annual MFP growth is close to zero or negative in the 1980s.

Considering various estimates, we echo Mahajan (2005): *(H)igher TFP growth appears to cause faster capital accumulation, and faster accumulation appears to result in productivity gains.*

If the post-1980s MFP surge is real, then what explains it?

In addition to the growth accounting exercises, Mujeri and Sen (2003) identify four distinct periods in Bangladesh's economic history during the first three post-war decades: post-war reconstruction and recovery (1971-82);<sup>10</sup> slow growth and macroeconomic instability (1983-89); crisis-driven reforms (1990-93); and stronger economic growth and social development (1994-2000).

The authors put NGO-driven service delivery and investment in human capital as one pillar of the post-1990 growth pick up. Macroeconomic stability following the crisis-driven reforms of 1990-93, and successive governments' commitment to the continued liberalisation of the economy is the other reason suggested by Mujeri and Sen for the MFP turnaround.

Recall that trade has risen relative to GDP in the past couple of decades. Exporters need to compete in the global market, while imports expose domestic firms to international competition. Further, if international trade is linked with foreign investment, then transfer of technology from more advanced economies is another linkage through which MFP can grow. Therefore, all else equal, rising international trade should increase the efficiency with which factors of production is used in the economy.

In Bangladesh's case, rising trade in recent decades is linked with the ready-made garments industry. The inception of that industry is a classic case of technology transfer, utilisation of factors according to comparative advantage, and export-led industrialisation. And it stands to reason that increased openness has been a major factor in the post-1990 MFP turnaround.

### **Factors Affecting Growth Prospects**

In this Section, we benchmark Bangladesh's performance in the past decade against a panel of comparable countries, and then discuss policy priorities identified by previous survey articles on Bangladesh's growth experience and implied by a cross country study of economic acceleration.

#### ***How does Bangladesh compare?***

We begin exploring Bangladesh's growth potential by comparing it against similar countries. Our choice of the panel is guided by two factors: similar population size as Bangladesh — a population of between around 60 and 260 million people in 2008 (Bangladesh's population is estimated to have been

about 160 million); and similar stage of economic development — interpreted as purchasing power parity adjusted per capita incomes of between US\$1,000 and US\$10,000 as measured by the IMF, and not be a member of the OECD. The following countries fulfil both criteria: Egypt, Indonesia, Nigeria, Pakistan, Philippines, Thailand, and Vietnam. These countries make up the benchmark panel.<sup>11</sup>

Between 1990 and 2006, Bangladesh's economy grew by over 120 per cent, more than any of the countries in the panel save Vietnam (which recorded growth of over 220 per cent). However, it had been only in the past decade that Bangladesh has grown at a consistently strong pace relative to the panel (Figure 6).

Annualised GDP growth over the previous five years. The grey area represents the range in the panel. The thick line represents Bangladesh. Data begin in 1990 for Vietnam.

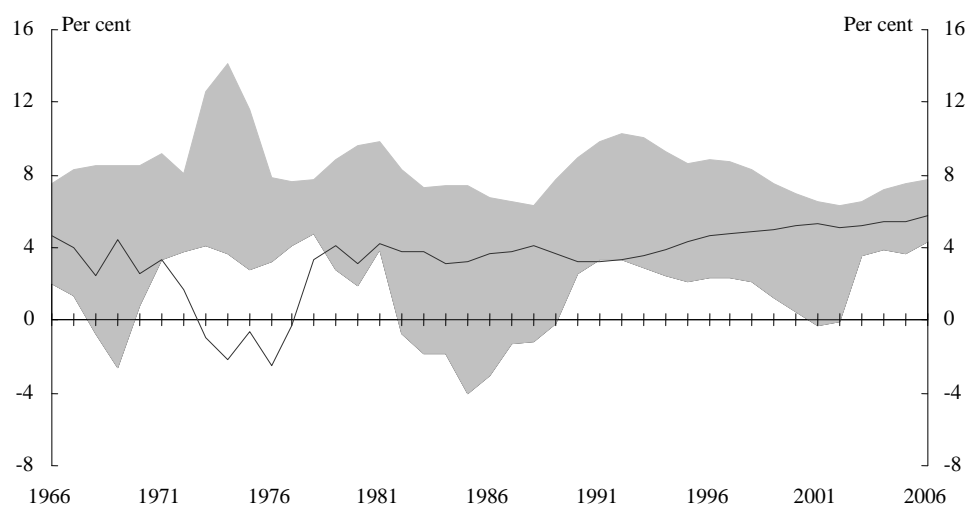
Source: World Bank, Authors' calculation.

We benchmark Bangladesh against the panel on three metrics — investment, education, and trade — that represent three standard proximate sources of economic growth: physical capital accumulation; human capital accumulation; and MFP growth driven by competition and technology transfer from advanced economies.

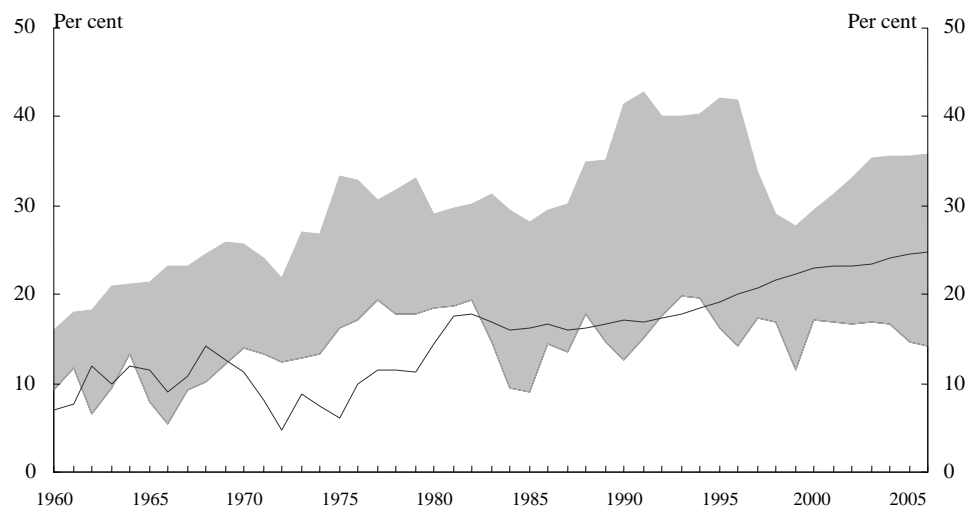
To the extent that investment reflects profit maximising opportunities by private firms or government provision of public goods, higher investment should lead to stronger contribution of capital deepening and faster economic growth. Bangladesh had a low investment-to-GDP ratio compared with the panel up until the mid-1990s (Figure 7). Even at the end of the sample period, Vietnam and Thailand were investing more than Bangladesh relative to GDP.

Human capital is an important source of growth in most endogenous models of economic growth. Education is an oft-used proxy for human capital.<sup>12</sup> In 2000, average years of schooling in Bangladesh were lower than any other country in the panel (Figure 8a) — particularly, at 1.88 years, the average Bangladeshi woman had much less schooling than her sisters in the panel.<sup>13</sup> More worryingly, Bangladesh has not been investing as much on education as most other countries in the panel during the current decade (Figure 8b).<sup>14</sup>

**Figure 6: GDP growth — Bangladesh vs the panel**



**Figure 7: Nominal investment-to-GDP ratio — Bangladesh vs the panel**



The grey area represents the panel's range. The thick line represents Bangladesh. Vietnam data began in 1986.

Source: World Bank, Authors' calculation.

There is a broad consensus that many East Asian economies achieved rapid economic growth since the 1950s by relying on exports-driven industrialisation. As discussed above, increasing trade is likely to have spurred the post-1990 MFP turnaround in Bangladesh. Nonetheless, Bangladesh was still a relatively closed economy during the first half of the current decade (Figure 9), with only Pakistan trading less between 2001 and 2006.

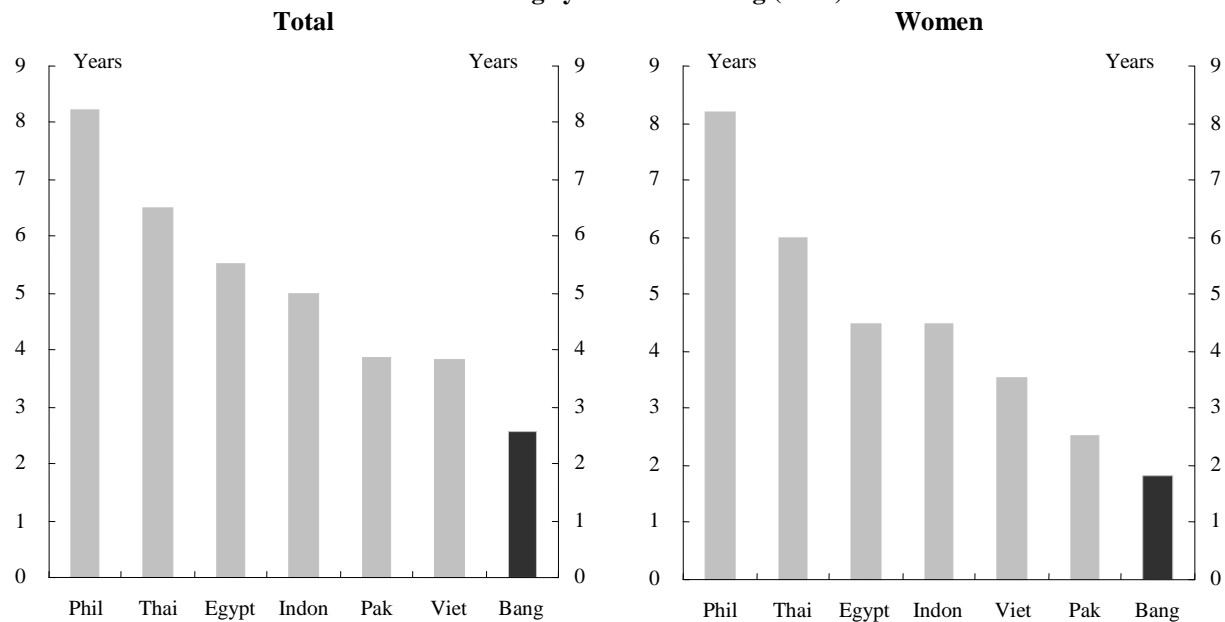
#### ***Policies that could spur another growth take off***

The above discussion suggests that Bangladesh should invest more, particularly on education, and

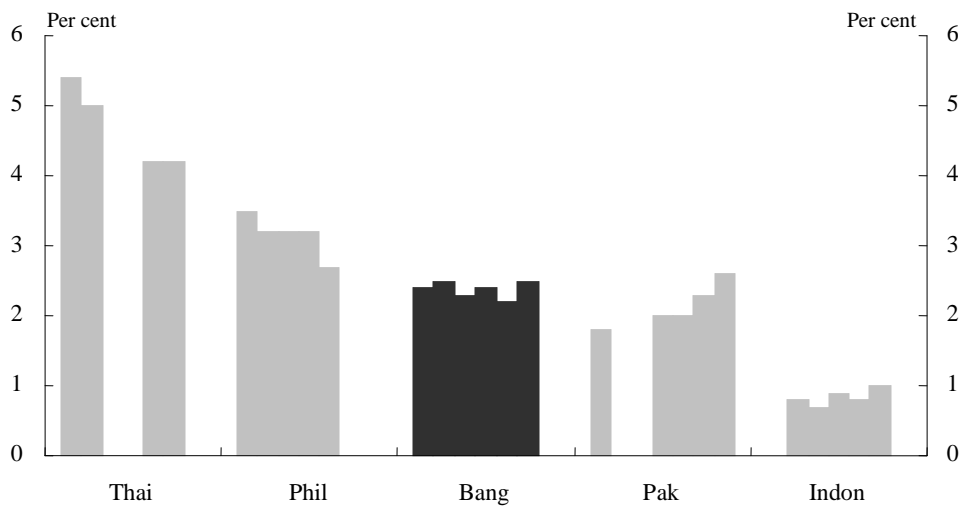
there may be a lot of gains to be had by increasing trade. However, our cursory approach does not tell us exactly how much could be gained by the marginal policy effort on either (or other unexplored) front.

To answer that question, a much more systematic analysis is required. Mahajan (2005) is one example of such an analysis. The author starts with estimating a standard specification of cross-country growth regression based on the neoclassical framework of Mankiw, Romer and Weil (1992). His data coverage is from 1981 to 2000. He adds to the basic equation a number of additional variables to proxy policy reforms in: financial sector; foreign direct investment

**Figure 8a: Human capital — Bangladesh vs the panel**  
**12a: Average years of schooling (2000)**



**Figure 8b: Public expenditure on education (percentage of GDP, 2001-06)**



Schooling data for Vietnam from 1990.  
Source: Barro and Lee (2000), World Bank.

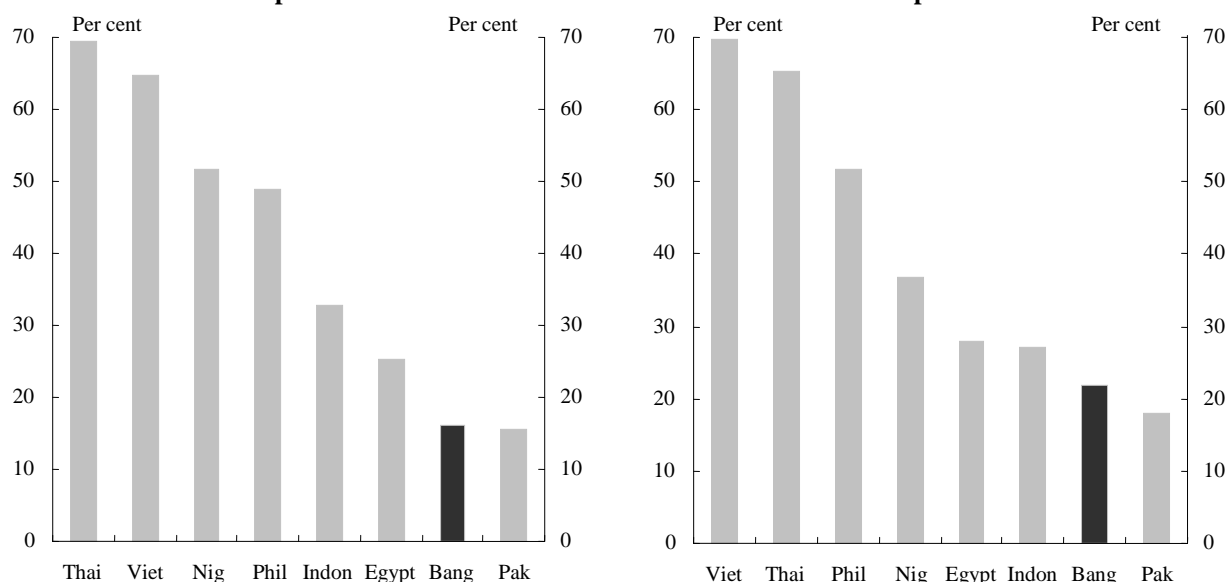
(FDI); governance and the rule of law; macroeconomic stability; and regulatory and bureaucratic hindrance against investment.

According to the author's estimates, policy settings as at the beginning of the current decade were consistent with a GDP growth of 5 to 5½ per cent a year, slightly lower than the growth rate recorded in the years since. The author identifies the following as factors holding back GDP growth in Bangladesh over the sample period held back GDP growth: failure to

benefit from global integration; a lack of financial intermediation; and poor quality of governance such as crumbling law and order or a cumbersome bureaucracy.

We have already seen that Bangladesh trades far less than many comparable countries. While FDI to Bangladesh has increased in the current decade, it remains small relative to GDP when compared with other similar economies. Further, to benefit from the technological spillovers of FDI, the receiving country needs sufficient human capital—an area where

**Figure 9: Trade's share of nominal GDP (average 2001-06) — Bangladesh vs the panel**  
Exports Imports



Source: World Bank, Authors' calculation.

Bangladesh lags behind. This would lead further credence to the view that further investment in education (and human capital more broadly) is needed.

Turning to financial intermediation, the picture becomes less clear. As shown above, the finance industry experienced rapid growth in the current decade. The sector has also shown improvements across indicators such as the ratio of non-performing to total loans or market capitalisation to GDP ratio.<sup>15</sup> To the extent that the Bangladeshi finance sector has been able to withstand the ravages of the global financial crisis, it is not self-evident that this industry is as much of a bottleneck to future growth prospects as it may once have been.

Poor quality of governance, on the other hand, is perhaps even more of a bottleneck today than it had been earlier this decade. Whether it is political instability, corruption, worsening law and order, or regulatory or bureaucratic burdens on private agents — firms and consumers alike, it is hard to imagine that things have improved in the current decade.

Ensuring political stability and good governance, along with completing structural reforms that encourage entrepreneurship and facilitate efficient resource allocations, are also key policy challenges identified by Mujeri and Sen (2003). Plus, the authors highlight policies that can assist with better realisation of the gains of globalisation, and address

rising inequality — on both counts, improving human capital development can play a key role.

However, political stability and good governance require institutional changes and cultural norms that can take many years, even generations, to become established; and investment in human capital is not likely to yield results until a new generation of better skilled workers enter the workforce. Does this mean Bangladesh is not likely to experience another sustained increase in economic growth — to, say, 7¼ per cent a year — any time soon?

Not necessarily, according to research by the Kennedy School of Government's Dani Rodrik and his colleagues. For example, Hausman, Pritchett and Rodrik (2004) look at 83 cases between 1957 and 1992 when annual GDP growth increased by at least two percentage points and the higher growth was sustained for at least eight years. What set off these economic accelerations? More investment and exports, and a competitive real exchange rate, can give a temporary boost to growth. Financial liberalisation helps for a while. A rise in the terms of trade can spur growth that quickly fizzles out. And political changes matter — turbulence is not good for a growth take-off, and movement towards democracy helps, but movement away from democracy helps even more!

Bangladesh is not in their dataset, but it is instructive

to note that Bangladesh did have a political change in 1990. Their other findings — more investment, exports, and financial reforms, appear to be consistent with what we have discussed above.

But the authors' most important finding is that the growth take-offs are not normally preceded by major economic and political reforms such as dramatic improvement in the political settings or 'shock therapy' style economic reforms. According to the authors, economic accelerations are: '*caused predominantly by idiosyncratic, and often small-scale, changes*'. And recent studies by multilateral institutions lend credence to this view (see World Bank, 2005, for example).

This may appear to give no more comfort about the prospects for a further growth spur in Bangladesh. If it is all random and essentially good luck, then that does not leave researchers or policymakers with many options. However, Rodrik and his colleagues have devised a framework that can assist policymakers with identifying possible small-scale changes that can trigger an economic acceleration. We describe this framework, and analyse its implications for Bangladesh next.

### Growth Diagnostics

We describe the growth diagnostics framework, before identifying where the biggest *bang for the buck* might be for the Bangladeshi policymakers.

#### 4A. Growth diagnostics framework

The growth diagnostics framework seeks to identify the largest constraints to economic growth such that authorities can formulate policies targeted specifically to remove those constraints. The approach was developed by Hausmann, Rodrik, and Velasco (2005) as a systematic framework to analyse and classify these constraints.

The constraints are, by definition, the results of distortions and market imperfections, driving "wedges" between the private and social values of economic activities. Following the authors, let us denote these wedges by  $\tau = \{\tau_1, \tau_2, \dots, \tau_k\}$  with  $\tau_i$  representing the distortion in activity  $i$ . Let us denote by  $\mu^s_i(\tau, \dots)$  and  $\mu^p_i(\tau, \dots)$  the net marginal valuations of activity  $i$  by society and by private agents, respectively. Therefore,  $\tau_i = \mu^s_i(\tau, \dots) - \mu^p_i(\tau, \dots)$ .

Let us denote the welfare of the average member of society by  $u$ . Then, the gain in welfare through

reducing the wedge  $\tau_j$  is given by:

$$\frac{du}{d\tau_j} = -\lambda_j + \sum_i \lambda_i \frac{\partial [\mu^s_i(\tau, \dots) - \mu^p_i(\tau, \dots)]}{\partial \tau_j} \quad (4)$$

A simple interpretation of (4) is as follows: the first term on the right-hand side is the marginal benefit of removing the wedge  $\tau_j$ ; and the second term is the marginal effect of reducing the wedge  $\tau_j$  on all other activities in the economy. If the second effect is a net reduction in distortions of other activities, then the overall welfare increases even more. If the second effect is a net increase in distortions of other activities, then the overall welfare declines, and could possibly even be negative if their effects are larger than the primary welfare gains ( $\lambda_j$ ) of reducing the wedge.

In the real world, it is difficult to accurately calculate these effects. In such a "second-best" environment, targeting the activities with the biggest distortions makes sense since the larger the value of  $\lambda_j$ , the greater the chances for net gain in overall welfare.

The growth diagnostics approach seeks to identify the biggest constraint on economic growth by attributing a slow pace of economic growth to two proximate factors that inhibit investment: (i) high cost of finance; and (ii) low private returns to investment.

These constraints emit different sets of signals. For example, if the cost of finance were the more inhibiting constraint on growth, we would expect to find high interest rates and chronic current account deficits. In such an economy, an exogenous increase in funds is likely to spur rapid investment. On the other hand, if low return to investment is the major factor constraining growth, we would expect to find low real interest rates, and an exogenous increase in funds to boost consumption, capital flight, or speculative investments (in, say, real estate) that may not add anything to the productive capacity of the economy.

The growth diagnostics approach seeks to identify the more binding constraints through analysing relevant indicators. Once the constraints with the larger "wedge" — that is, with the greater potential to yield benefits from reform — are determined, the set of possible factors behind the constraints are explored.

So, for example, high costs of finance can be due to either: (i) obstacles in accessing international finance (high country risk, high exchange rate risk, adverse investment conditions etc); or (ii) obstacles in accessing domestic finance (low savings, high collateral requirements, improper risk assessment

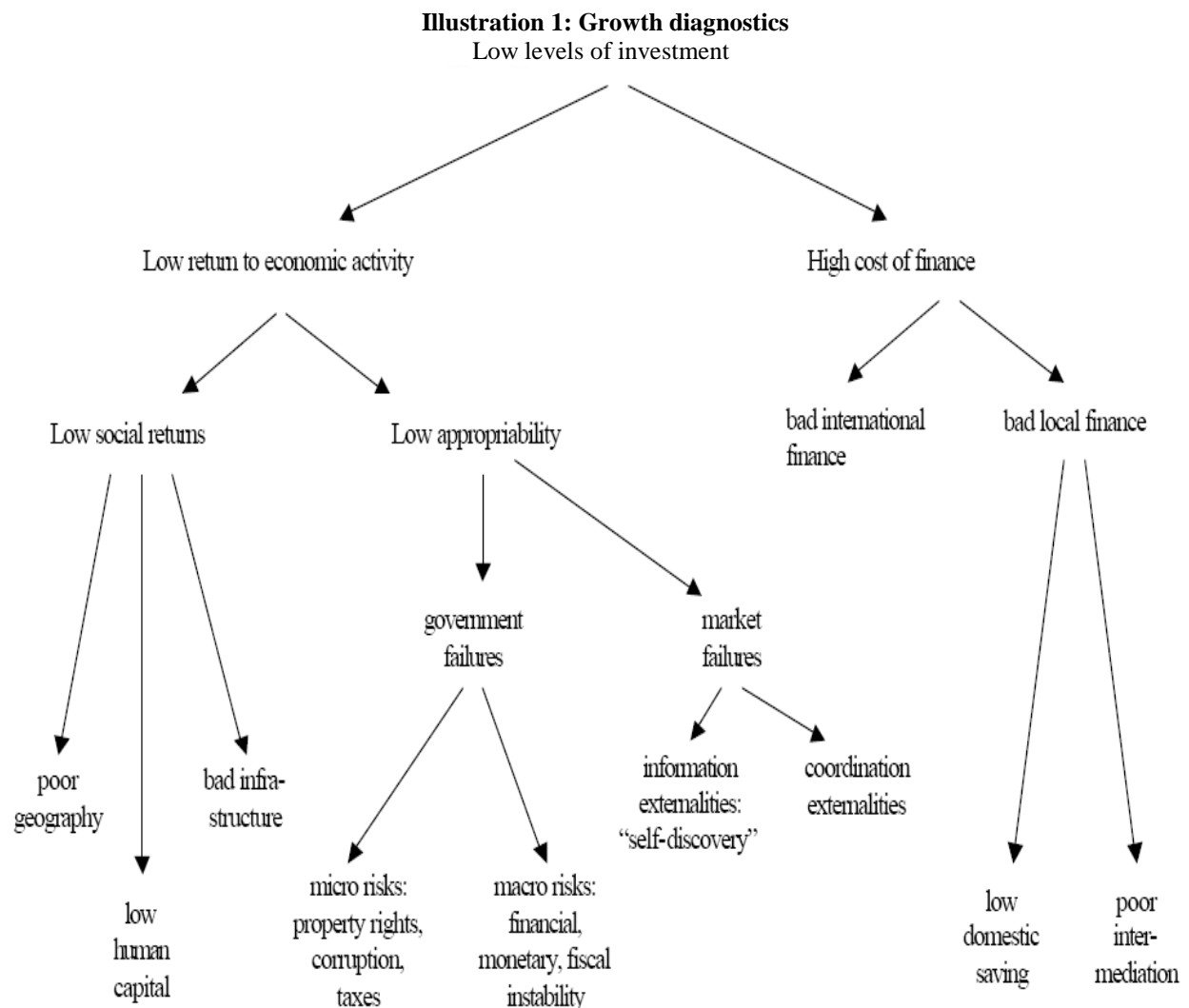
techniques, poor intermediation).

Similarly, low private returns can be caused by either by: (i) low returns to economic activity in society as a whole (in turn caused by poor geography, bad infrastructure, or low human capital); or (ii) low private appropriability of economic returns.

Low private appropriability in turn can be caused by two factors: (i) government/policy failures (macroeconomic risks associated with monetary, fiscal and financial instability; microeconomic risks such as property rights, taxes, capital-labour

conflicts); and (ii) market failures (coordination externalities; information externalities: technological spill-overs and uncertainty about the underlying cost structure of the economy).

The approach is visualized as a decision tree in Illustration 1, reproduced from Hausmann, Rodrik and Velasco (2005). Using the growth diagnostics approach, we start from the top and move downwards, eliminating possible explanations of low economic growth, through analysis of available data, in order to identify exactly the most pressing constraint on economic growth.



### *Growth diagnostics for Bangladesh*

As we have seen in Section 2A above, investment has risen steadily relative to GDP since the 1980s. And yet, as we have seen in Section 3A, Bangladesh lags behind other comparable countries in terms of investment-to-GDP ratio. There is a broad agreement amongst policymakers and researchers working on economic growth that raising investment relative to GDP should increase a country's growth path in the medium term. However, if policies to buoy investment are to succeed, policymakers will need to know what inhibits investment in the first place. Using the approach described above, we explore what constrains investment in Bangladesh, and draw possible policy lessons.

#### *High cost of finance*

Is investment in Bangladesh being constrained by high cost of finance? That is, are there investment projects that are not being financed because of a lack of loanable funds?

If this were the case, we would expect high interest rates. And yet, lending interest rates in Bangladesh have not been particularly high compared with the

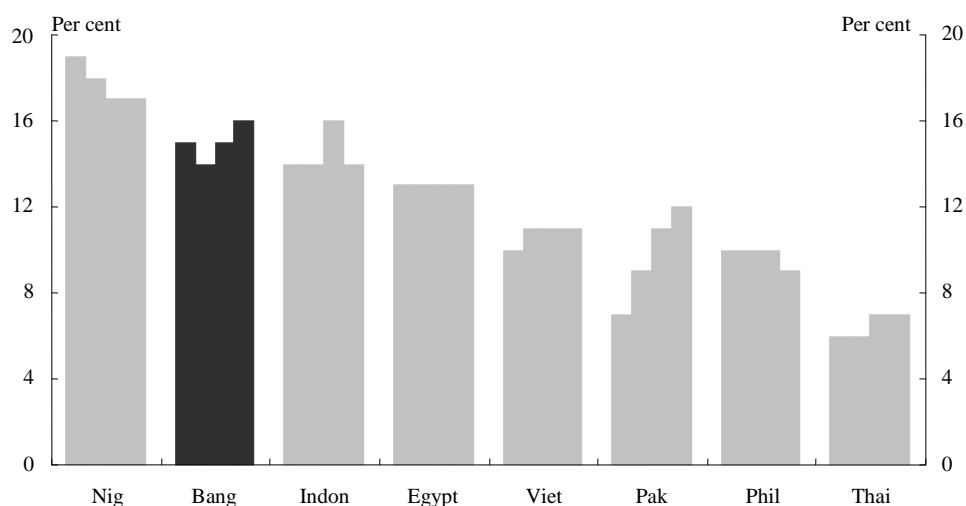
benchmark countries during recent years (Figure 10).<sup>16</sup> In addition, had the problem been a lack of domestic funds for investment, we would have expected Bangladesh to experience large current account deficits and run up foreign debts. And yet, the country's current account has been in balance on average in the decade to 2007 (before the impact of the oil price spikes were felt), while the country's external debt has fallen or remained steady relative to GDP since the end of the 1980s (Figure 11).

Of course, the fact that Bangladesh has not incurred large current account deficit is because foreign (and domestic) investors are not willing to put their money in Bangladesh. This could be because Bangladesh is not deemed creditworthy. But with no recent history of defaults or balance of payments crisis, this does not appear likely. Rather, we believe a more plausible reason is that investors — foreign and domestic — do not find sufficiently high return on economic activities in Bangladesh.

#### *Low social returns*

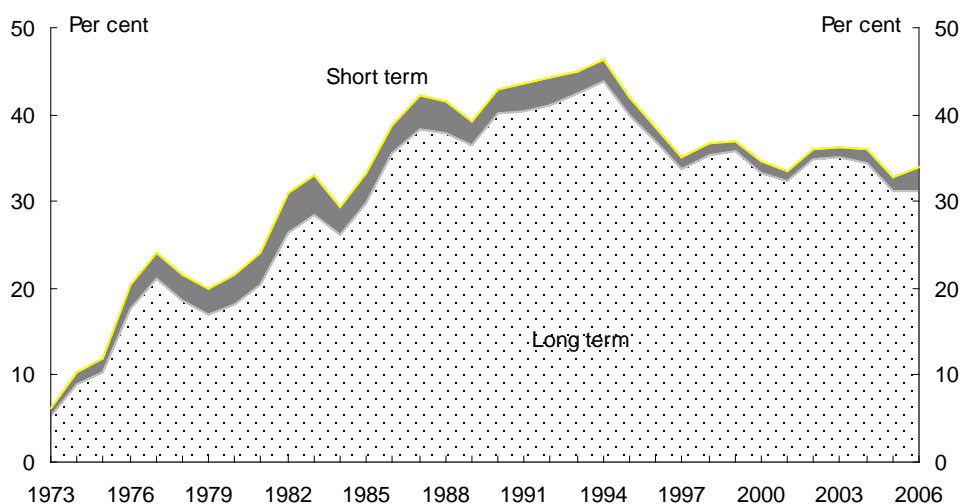
The question then is, what causes low rates of return to economic activity? One answer is that there may be low social returns.

**Figure 10: Lending interest rates**  
— Bangladesh vs the panel (2004-07)



Source: World Bank.

**Figure 11: External debt relative to GDP**



Source: CEIC Asia database, authors' calculation.

Geography is frequently considered as an underlying source of poor social return to economic activities. Geography has been shown to affect economic prosperity either directly or through their interactions with institutions governing economic activity — Sachs and Warner (1997) find tropical or land-locked countries to be more likely to have slower economic growth, while Sachs (2001) finds that tropical environments tend to have poor crop yield and worse disease environment. However, Bangladesh is neither a tropical nor a land-locked country. Situated between the economic powerhouses of India and China, it is not immediately obvious that poor geography affects returns to economic activity in Bangladesh.

Low human capital is another reason that can inhibit social returns to economic activity. As we have seen, Bangladesh lags behind comparable countries in terms of educational attainment. On some measures (such as the proportion of people with some secondary school education), not much gain seems to have been made in the 1990s. And Bangladesh has not been spending as much on education as many other comparable countries.<sup>17</sup>

With a poorly educated workforce, Bangladesh is unable to take full advantages of globalisation. Our firms are less able to adopt technologies from more advanced economies. Investors are less likely to try ventures that require specialist skills. Low human capital, it is clear, is one of the binding constraints on economic growth in Bangladesh.

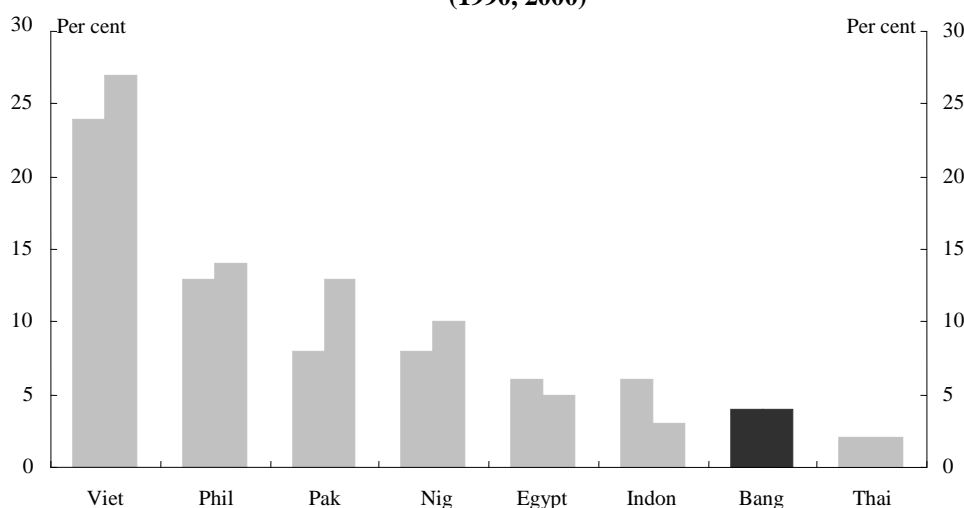
Policy conclusions here, however, are far from obvious. The link between expenditure on education

and educational outcome, and the thread connecting educational outcomes to economic growth, are complex and poorly understood. For example, despite spending less of its GDP on public education, Indonesia has attained higher educational outcomes than Bangladesh. And despite having a significantly better educated workforce, Philippines has not done any better than Bangladesh in terms of economic growth. More generally, Pritchett (2001) and Easterly (2002) show that it is far from clear that higher educational attainment will automatically lead to faster economic growth.

A lot depends on the demand for a more educated workforce. For example, in a country where there is little demand for educated workers, increasing the supply of education will likely lower the return to education. Is this likely to be the case in Bangladesh?

Asadullah (2005) finds that each additional year of schooling, on average, raises income by about 7 per cent in Bangladesh. This is similar to returns to an additional year of schooling in Australia or the United States (Miller, Mulvey and Martin 1995). To the extent that Bangladesh has a much smaller stock of human capital than these advanced economies, one might expect returns to schooling to be significantly higher in Bangladesh.<sup>18</sup> That this is not the case may be consistent with the idea that there is not sufficient demand for an educated workforce in Bangladesh. On the other hand, had there been a large excess supply of skilled labour, we would expect to see high exodus of educated people from the country. And yet, Bangladesh has experienced relatively low rates of skilled emigration compared with similar countries (Figure 12).

**Figure 12: Tertiary educated emigrants (proportion of total tertiary educated) — Bangladesh vs the panel (1990, 2000)**



Source: World Bank.

Alternatively, there may be demand for educated workers, but such demand comes from *‘individually remunerative but socially wasteful or counterproductive activities so that while individual wages go up with education, aggregate output stagnates or even falls’* (Pritchett, 1998). What kind of activities could Pritchett have in mind? Murphy, Shleifer and Vishny (1991) present a simple model in which entrepreneurial talent flows to rent seeking if that is where the returns are the highest. To the extent that a model such as this describes the Bangladeshi reality, simply raising educational attainment without reforms elsewhere in the economy may actually be counterproductive.

In addition to problems with the demand for education discussed above, there may well be problems with the ‘supply’ of education.<sup>19</sup> For example, if the education policy focuses heavily on primary education, it may result in more schools but not enough teachers.

This is not to suggest that Bangladesh should not invest more on education (or human capital more broadly). Bangladesh has far less average years of schooling than did any of the Newly Industrialised Economies of Asia in 1960, *before* their economic take off even started.<sup>20</sup> As such, it is very likely that Bangladesh needs to make significant investment on education. The crucial point here is that a lot more research is needed to understand the intricacies of education and economic growth in the context of Bangladesh. Without such understanding, there is a risk that education policies may be futile or even

counterproductive in terms of their impacts on economic growth.

In addition to low human capital, poor infrastructure might be another factor drawing back investment in Bangladesh. According to the World Bank, for example, Chittagong port — through which 85 per cent of Bangladesh’s international trade occurs — is far less efficient than Pakistan’s Karachi (Toure, 2007). Only about a tenth of the country’s roads were paved in 2003. One needs to be in Dhaka for barely a few days to appreciate the phrase ‘infrastructure bottleneck’. And whether in terms of passengers carried or goods transported, Bangladesh’s railway is far less efficient than most comparable countries (Table 2).

The situation is perhaps worse when one turns to electricity. Chronic power shortages have been dubbed as potentially a bigger threat to the country’s economy than the global financial crisis. And yet, per capita electricity consumption in Bangladesh had been lower than all comparable countries save Nigeria in the first half of the 2000s (Figure 13). As the economy grows, surely the energy shortage will only worsen unless drastic actions are taken.

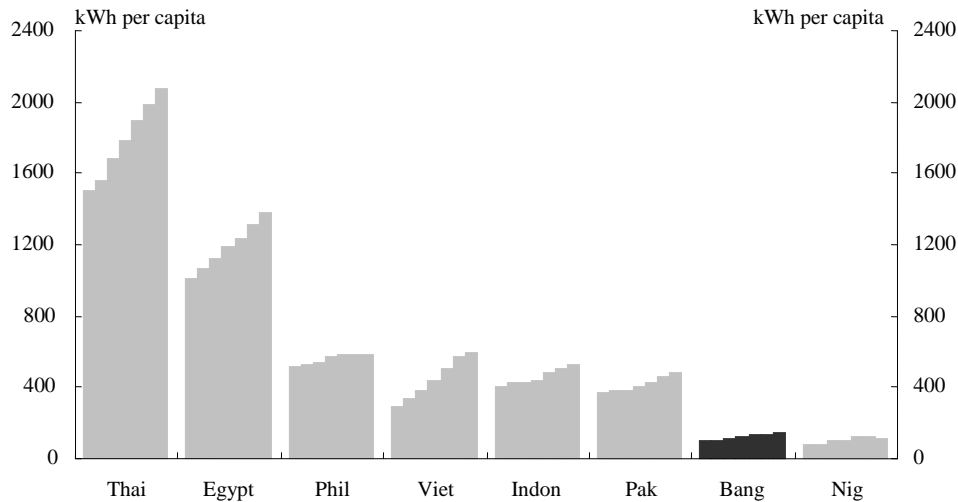
Compared with education, the nature of externalities associated with transport or energy infrastructures are much better understood. Policymakers also have a much better handle on the marginal social costs and benefits of different infrastructure projects. As such, it stands to reason that tackling infrastructure bottlenecks should be among the highest priorities of the country’s policymakers.

**Table 2: Railway efficiency — Bangladesh vs the panel**

|            | Goods transported<br>(million ton per km) | Passengers carried<br>(million passenger per km) |
|------------|---|--|
| Pakistan   | 5907                                      | 25621  |
| Indonesia  | 4698                                      | 25535  |
| Thailand   | 4037                                      | 9195   |
| Egypt      | 3917                                      | 40837  |
| Bangladesh | 817                                       | 4164   |
| Nigeria    | 77  | 174  |

Data for Indonesia and Thailand are for 2006, all others are 2007.

Source: World Bank.

**Figure 13: Electricity consumption per capita — Bangladesh vs the panel (2000-06)**

Source: World Bank.

### *Low appropriability*

In addition to possible low social returns, investment in Bangladesh could be constrained by low appropriability of private returns. Low appropriability could arise from a set of market failures as well as governance problems. We discuss both possibilities below.

Market failures hampering investment can arise out of information asymmetries or co-ordination failures. Information problems abound, for example in the small and medium sized enterprises (SMEs) sector. Many SMEs, which fail to overcome the information impediments that result in lack of access to both short-term and long-term financing, access to end markets, and supply networks, do not become fully sustainable business ventures. Similar issues might also explain why many service industries are yet to reap full benefits of digital communication. Much more research is needed to understand the nature of market failures inhibiting technology adoption or

investment at the firm or industry level.

Co-ordination externalities such as path dependency are very much present in Bangladesh. Development of the ready-made garments sector — the country's chief exports product — is a classic case of such path dependency (Easterly, 2002). However, no other product has followed as an export staple in the past decades. Of course, poor infrastructure or low stock of human capital constrains investment in new export products. Nonetheless, as we have seen, Bangladesh trades a lot less than comparable countries.

The most successful development model in the past six decades has been to rely on manufacturing exports to the developed economies, use the income generated from trade to invest in physical and human capital while importing product and process innovation to spur MFP growth, and raise living standards. And yet, it is not clear that this export-led development could be sustained in the wake of the global financial crisis. With massive budget deficits

and likely double-digit unemployment rates, protectionism in the developed world is a genuine risk. Protectionism aside, the economic recovery in the developed world is likely to be accompanied by increased household savings, and by implication, subdued consumption. This suggests that the traditional exports-led growth strategy so successfully adopted by many East Asian economies may not be available to Bangladesh. The implications for trade policy are profound. Every effort should be made, using multilateral and bilateral means, to find new export markets and maintain existing ones. And in the meantime, protectionism to shelter inefficient domestic firms should be resisted.

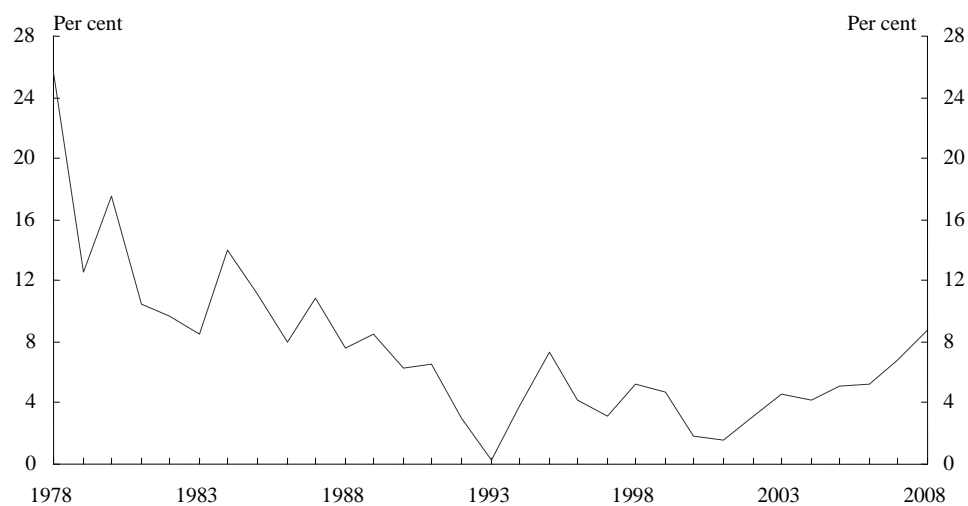
However, trade policy on its own will not be successful unless other constraints are addressed. And some of these constraints can come from governance failures. We can classify governance failures into problems of macroeconomic management and microeconomic governance. At first glance, it appears that Bangladesh has done relatively well on the former count, but the latter is a major binding constraint on investment and economic growth.

Let's start with macroeconomic management. As illustrated, not only has Bangladesh been growing faster since the end of the 1980s, growth itself has become less volatile in this period. In addition, recent rises notwithstanding, inflation in Bangladesh has been generally moderate in the past three decades (Figure 14).

High taxes may be a threat to private appropriability of economic returns. However, in Bangladesh, the opposite may be the case in the sense that the country has one of the lowest tax-to-GDP ratios in South and South East Asia. Indeed, low tax revenue is cited by successive governments as a reason to not increase expenditure on education or health. Nonetheless, despite low taxes and steady budget deficits, public debt to foreigners as a share of GDP had steadily fallen from nearly 11 per cent in 1997 to less than 6 per cent a decade later, reducing the risk of a currency crisis. Therefore, macroeconomic management does not appear to be a major threat to private appropriability to Bangladesh.

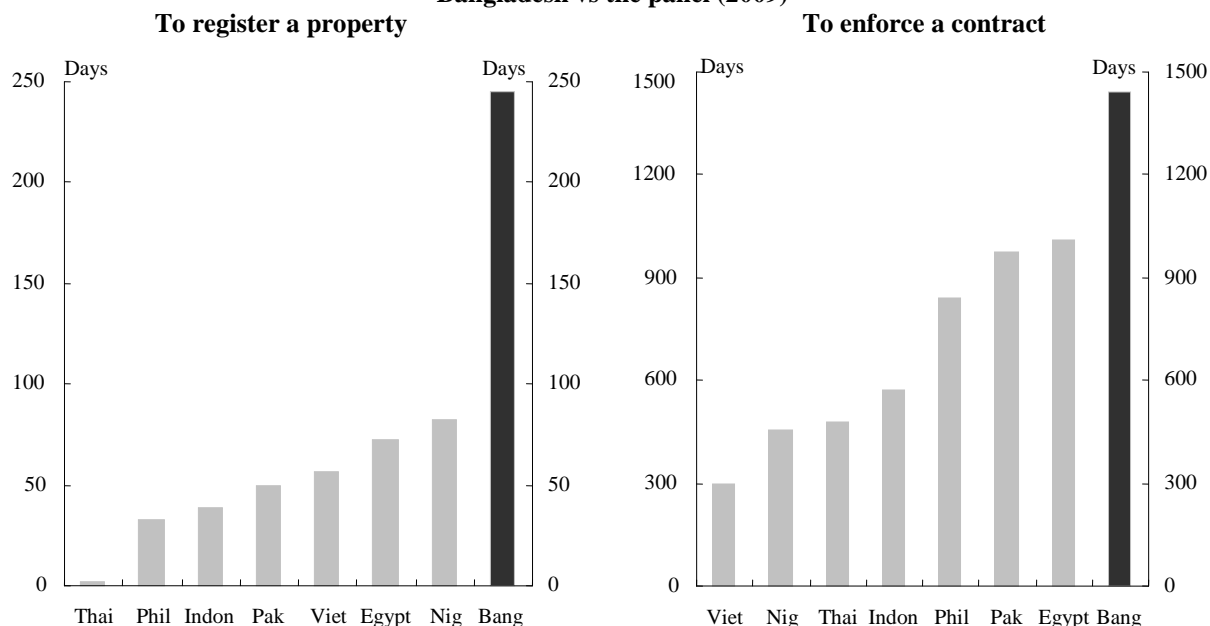
The same, however, cannot be said about microeconomic governance. Much has been said, for example, about the endemic corruption that pervades every sphere of life in Bangladesh. We do not spend any time on this issue except to note two points. First, recent experiences suggest that there is no quick fix to curbing corruption. Indeed, unless carefully crafted, anti-corruption efforts could well do more harm than good to the economy.<sup>21</sup> As such, much more research is required to design an appropriate anti-corruption strategy for Bangladesh. Second, reducing corruption would very likely raise investment and GDP growth, eliminate rent, and achieve allocative and distributive efficiency (Svensson, 2005). However, to the extent that Bangladesh has experienced steady economic growth despite all pervasive corruption, it is far from self-evident that corruption is a binding constraint on investment.

**Figure 14: Growth in GDP deflator**



Source: BBS, World Bank, authors' calculation.

**Figure 15: Days needed to satisfy regulatory requirements**  
**— Bangladesh vs the panel (2009)**



Source: World Bank.

There are, however, many other ways for the government to facilitate a business friendly economy. In 2009, Bangladesh ranked 110<sup>th</sup> in the World Bank's 'Doing Business' Index, while Thailand ranked 13<sup>th</sup>. It takes eight months to register a property, and nearly four years to enforce a contract, in Bangladesh (Figure 15).

It is likely to be far easier to simplify procedures and improve the regulatory regime than curb corruption. Indeed, to the extent that poor regulations and cumbersome bureaucracy breeds corruption, regulatory reforms may well facilitate a lasting reduction in corruption. As such, tackling poor regulatory frameworks would appear to be a sensible priority for the country's policymakers.

### Conclusion

We started this paper by observing that the Bangladesh economy accelerated around 1990 — which we showed was driven by a combination of macroeconomic stability, and openness — and then posing the question: *Is there some action the government could take that would lead the Bangladesh economy to increase its growth rate by another 2 percentage points?*

We have tried to answer this question by using the *growth diagnostics* framework developed by Dani Rodrik and colleagues. This framework is one way to systematically think about where small policy changes could make the greatest difference. As far as we are aware, ours is the first application of the growth diagnostics framework for Bangladesh.

From the growth diagnostics analysis, we have highlighted factors that act as breaks on a further sustained rise in economic growth: low levels of human capital; poor infrastructure; market failures specific to individual sectors; low levels of trade; corruption; and cumbersome regulations.

We conclude that the country's policymakers should devote their attention to: tackling infrastructure bottlenecks; open new export markets, maintain existing ones, and resist protectionism; and reducing regulatory and bureaucratic burden on the private enterprises.

Further, we argue that significant research is needed on understanding: the interplay between education and economic outcomes in the Bangladeshi context; the role of various market failures in shaping specific industry characteristics; and possible contours of a feasible anti-corruption strategy.

Needless to say, our ‘growth diagnostics’ analysis should be viewed as a preliminary first step. Much more could be done, utilising richer data sets as well as case studies. Future studies will also benefit from inputs from practitioners with in-depth country experience. And finally, further analysis should explicitly take into account distributional aspects of different policies.

### Acknowledgements

We are grateful to Syeed Ahamed, Rumi Ahmed, Pial Islam, Farida Khan, Towfiqul Islam Khan, Naeem Mohaiemen, Mustafa K Mujeri, Munir Quddus, Mustafizur Rahman and Asif Saleh for their comments and suggestions. All errors are ours, and ours alone.

### Endnotes

1. Unless otherwise stated, Bangladeshi data are for financial years that end on 30 June. All data are valid as at December 2009. Newer vintage data are unlikely to change the broad conclusions.
2. The official Bangladesh Bureau of Statistics GDP series only dates to 1990, and the apparent volatility in the data in the earlier decades may well be a reflection of poor estimates by the World Bank. See Appendix A.
3. Since prices of different components of GDP(E) typically grow by different rates, nominal shares usually provide a better gauge of their relative importance in the economy. In Bangladesh, real (1995 prices) data do not make significant difference to the investment and exports’ shares of GDP. Imports’ share of GDP using the real data was very high in the 1960s before falling sharply in the early 1970s (when import prices recorded a 16-fold increase). Real imports’ share of GDP has been similar to the nominal series since the early 1970s.
4. While this may suggest that Bangladesh has been reaping the demographic dividend of the past population explosion in recent decades, the story is more complicated. Using World Bank’s labour force data for 1980-2006, we find that contributions made by demographic change to GDP growth have been broadly offset by falls in labour force participation rate. This was particularly the case in the early 1990s, when the female share of labour force fell. This result

appears surprising in light of the rapid growth of the ready-made garments industry that heavily employs women, but may reflect a relative increase in the number of women of child bearing age during that period. That is, the same demographic change that caused positive contribution to GDP growth also partly off set that contribution by lowering participation rate.

5. The model assumes constant capital and labour elasticities of output, and constant capital and labour shares of income. The standard text book neoclassical assumptions may well be too strong for a developing economy such as Bangladesh.
6. Our interest is in the long run, particularly in the estimated co-efficient  $\alpha$  and what it implies for the relative contribution of capital deepening and MFP growth. Labour productivity and the capital-labour ratio wander over time, suggesting estimation of a short-term equation within an error-correction framework if the aim is to understand short-run dynamics of labour productivity growth. We estimate an error correction specification of the model, allowing for a trend break in the late 1980s / early 1990s. While the coefficient is positive on a trend break anywhere between 1989 and 1993, it is most significant in 1990. That is, there is clear evidence in the data that there was a trend pick up in productivity, and thus economic, growth around that time.
7. This is described in detail in Appendix A.
8. This accords well with the literature, which typically find capital’s share to be between 0.3 and 0.6.
9. These are: Cobb-Douglas functions without human capital, and physical capital’s share ranging from 0.3 to 0.45; Cobb-Douglas functions with human capital augmenting labour input in one and appearing as a separate input in another; and a translog function.
10. Pre-war GDP was not reached until 1978, and pre-war GDP per capita was reached only in 1993.
11. Mexico and Turkey have the population and per capita income in the specified ranges, but both are members of the OECD. All the countries in the panel bar Thailand are in the Goldman Sachs’

N-11 (which includes Bangladesh) grouping of emerging markets that are expected to grow strongly in the coming decades (Wilson and Stupnyska, 2007).

12. There is a lot more to human capital than education. However, for simplicity and brevity, we focus solely on education in this paper.
13. Despite having the highest educational attainment in terms of average years of schooling, Philippines has grown more slowly than Bangladesh in recent decades. We shall revisit this point in Section 4.
14. Public expenditure on health relative to GDP has also lagged behind in Bangladesh compared with the benchmark countries.
15. And reforms, such as full implementation of Basel II, have been attempted.
16. Hausmann, Rodrik and Velasco (2005) diagnose Brazil, which had lending rates of over 40 per cent during this period, to be suffering from high cost of finance.
17. Again, for simplicity and brevity, we focus on education, even though there is a lot more to human capital.
18. This assumes that education, or rather human capital, exhibits diminishing marginal return. In some models of endogenous growth, this is not the case. See Chapter 10, Aghion and Howitt (1997) for a detailed discussion.
19. Another possibility is that education is a 'signalling device' that proves innate ability, but does not necessarily increase skills. First suggested by Spence (1973), this possibility has profound implications for designing education policy. We abstract from this possibility for simplicity and brevity.
20. Newly Industrialised Economies are Korea, Taiwan, Hong Kong, and Singapore.
21. The 'law and order' approach to anti-corruption adopted by the then government led to an investment slump in 2008, when nominal investment-to-GDP ratio fell for the first time since 1991.

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## APPENDIX A: DATA

Detailed data available on request.

### National Accounts

Real and nominal national accounts are published annually by the BBS from 1990. The World Bank has a nominal level series and a real index series to 1960 that are consistent with the BBS series after 1990. We combine the World Bank and the BBS data.

### Demographic data

The United Nations Population Database (<http://esa.un.org/unpp/index.asp?panel=2>) provides total population levels annually and age-specific population levels at a five-yearly interval (which we interpolate annually).

### Capital stock

Let  $K_0$  be capital stock at time 0.  $K_0 = \frac{I}{g + \theta}$  where  $I$  is investment,  $g$  is GDP growth, and  $\theta$  is depreciation. We

calculate the capital stock using this definition, the national accounts data described above, and by assuming  $\theta=4.27$  per cent following Mahajan (2005). We grow that stock thus:  $K_t = \theta K_{t-1} + I_{t-1}$ .

### Barro and Lee (2000) dataset

This dataset is available here: <http://www.cid.harvard.edu/ciddata/ciddata.html>.

### World Bank datasets

- World Development Indicators. The data are available to subscribers. Details here:

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<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,menuPK:232599~pagePK:64133170~piPK:64133498~theSitePK:239419,00.html>

- Doing business index. Detailed data available here: <http://www.doingbusiness.org/CustomQuery/>

# Aid, Debt, and Development in Bangladesh: Synergies or Contradictions

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A. F. M. Ataur Rahman  
and  
Jesmin Rahman

## Abstract

This paper examines past and future aid allocations to Bangladesh and her debt sustainability, paying special attention to recent international debt relief initiatives and the possible fast-tracking of Bangladesh's poverty reduction strategy to achieve the Millennium Development Goals (MDGs). It shows that aid allocations as well as the donors' influence increased sharply during the 1970s, leading to criticism of aid in Bangladesh that largely remains today even though aid allocations to Bangladesh decreased in relative terms at least since 1987. Among countries with similar income per capita levels, Bangladesh currently receives the second lowest amount of aid per capita amounting to \$9. This is about one fifth of what comparable African countries receive in terms of per capita aid. While lower levels of aid imply lower external debt levels, as aid has mostly been provided via external loans, Bangladesh also substituted external borrowing with domestic borrowing and is therefore today one of the most indebted low-income countries today in terms of public debt service to government revenues.

*"Due to lack of a comprehensive foreign aid policy, the country fails to prioritize its requirement."  
Debapriya Bhattacharya (January 2, 2008)*

## Introduction

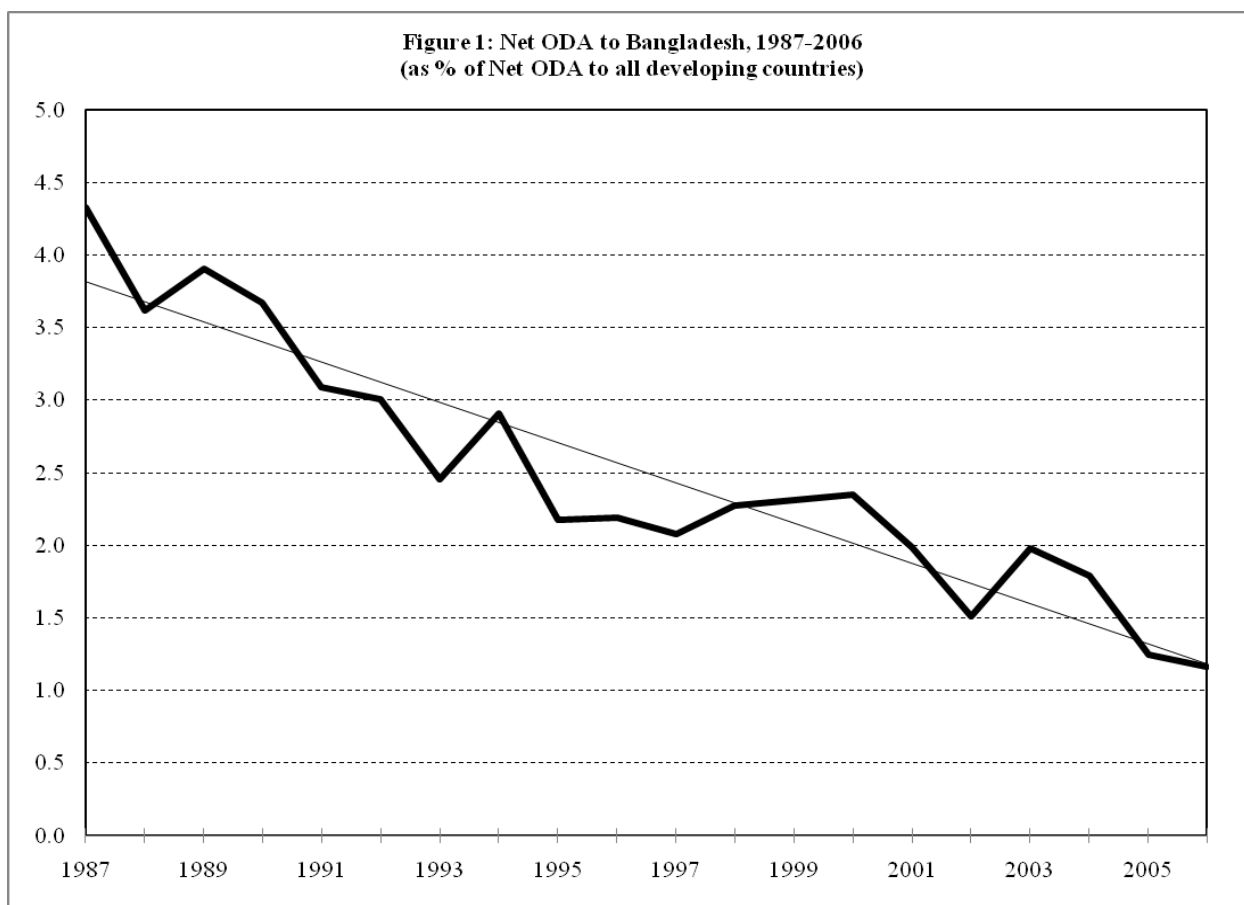
Some 30 years ago, Bangladesh was one of the poorest countries of the world. It was openly referred to as an international basket case. Today, there are some 40 countries that are poorer in terms of both income per capita and human development.<sup>1</sup> A recent World Bank (2007, p. xv) report has even stated that Bangladesh "could join the ranks of middle-income countries (MICs) within a decade (by 2016) or sometime soon after." While living conditions have improved considerably and poverty declined drastically, especially in the last few years, there are still about 40 million people living below \$1-a-day in Bangladesh and inequality is rising. There are more poor people in Bangladesh than there are in the nine Sahelian countries (Burkina Faso, Cape Verde, Chad, Gambia, Guinea-Bissau, Mali, Mauritania, Niger and Senegal).<sup>2</sup> Like the Sahelian countries, Bangladesh has been officially identified by the United Nations (UN) as a least developed country (LDC), reflecting its low income, weak human assets, and high economic vulnerability. Bangladesh is also recognized worldwide as one of the most vulnerable countries to the impacts of climate change.<sup>3</sup>

While the amount of net official development assistance (ODA) to Bangladesh was about the same as the sum of net ODA to the nine Sahelian countries

during 1972-1982 (US\$9.3 billion compared to US\$9.6 billion, respectively), Bangladesh has received less ODA than these nine Sahelian countries for every year since 1983.<sup>4</sup> From 2000 to 2006, Bangladesh received less than half of the net ODA the nine Sahelian countries received (US\$8.5 billion versus US\$19.0 billion, respectively). While debt relief—provided to most Sahelian countries, though not to Bangladesh—has contributed to the divergence in aid allocations between the Sahelian countries and Bangladesh, there remain substantial reallocations in aid away from Bangladesh even after excluding debt relief.

The dismal provision of ODA to Bangladesh compared to the Sahelian countries is not an exceptional case but the result of a steady reduction in Bangladesh's share of net ODA to all developing countries, which has decreased considerably during the last 20 years, from 4.4 percent in 1987 to 1.2 percent in 2006, see Figure 1. While it is well known that aid flows are typically highly volatile and that aid flows are declining once a country has reached a certain level of income per capita, the trend shown in Figure 1 is not due to aid volatility, nor has Bangladesh reached an income per capita level that would justify the decline in aid.

While the reduction in Bangladesh's share of ODA



had contributed to the fact that Bangladesh never defaulted on her external debt service payments, there are signs that recent changes in international aid and debt sustainability frameworks will further reduce aid allocations to Bangladesh despite its impressive record of achievement, especially in harnessing sound economic and social policies. This paper analyzes to what degree aid and debt have been--as well as might be -- helpful or detrimental to Bangladesh's development, keeping in mind that additional investments needed to achieve the MDGs in Bangladesh are estimated to amount to about US\$8 billion per year.<sup>5</sup>

With regard to aid, the paper first reviews the Bangladeshi aid impact literature and examines how the current aid allocation mechanism guided by recent debates on aid effectiveness seems to have reduced aid allocations to Bangladesh. It also details the likely negative distributional implications of recent debt relief initiatives and the Bretton Woods institutions' new debt sustainability framework on aid allocations to Bangladesh. With regards to debt, the paper analyzes the sustainability of Bangladesh's public debt and shows how the debt sustainability

framework could be enhanced to allow Bangladesh to debt-finance development expenditures on a temporary basis to achieve the MDGs if the preferable grant-financing is not provided. The paper is structured as follows. Following this introduction, the next section (Section 2) will deal with the above described aid issues, Section 3 with the above described debt issues, while Section 4 provides conclusions and recommendations.

### **Impact, Effectiveness, and Future Aid to Bangladesh**

The impact of aid has been analyzed in numerous contributions, including many concentrating specifically on Bangladesh. While there is broad agreement that aid allows a country to reduce its savings and trade gaps, at least in the short-term, the long-term impact of aid on growth is highly controversial, especially in Bangladesh. The dominant view among Bangladeshi development economists that aid has a negative impact on growth has been influenced by the fact that the inequality of economic power between the international donors and the emerging Bangladeshi government permitted the donors to impose their will on an increasingly aid

dependent country during the 1970s and 1980s.<sup>6</sup> The increasing role of the donors is reflected in Figure 2, showing the amount of net ODA provided to Bangladesh from 1971 to 1987 in billions of current US\$.

The first seminal assessment of the impact of aid in Bangladesh has been provided by Rehman Sobhan (1982). He draws a frustrated picture on the impact of aid in Bangladesh, demonstrating how aid has contributed among others to a decline in savings, a reduction in the government's incentive to promote exports, an increase in domestic capitalism, and the creation and sustenance of rural and urban elites. Sobhan's analysis has been reconfirmed by a collection of papers that had been prepared in 1984/85 by the Bangladesh Institute of Development Studies (BIDS), though the papers were formally published only a few years later in a volume edited by Sobhan (1990). Another 14 years later, the Centre for Policy Dialogue (2004) published another comprehensive review of the impact of aid in Bangladesh, reflecting that the volume, focus, magnitude, composition and operational modalities of foreign aid has undergone important changes in Bangladesh. Yet, the overall assessment of the impact of aid remained about the same. Indeed, the volume makes clear that the range of policy conditionalities imposed on the recipients has been extended to areas far beyond the traditional structural adjustment policies derived from the so-called Washington Consensus and that the reconstruction of the aid agenda has been incorporated into the design of so-called Poverty Reduction Strategy Papers (PRSP), where aid recipients are expected to assume ownership over the marriage between the Washington Consensus with the donor's newer aid priorities.

On the other hand, there is only one comprehensive review (Rahman, 1984) that comes to the conclusion that aid had an overall positive impact on growth and development in Bangladesh. Evaluating the effects of foreign aid on Bangladesh's economic development during the first decade of her existence with an analytical economic model, Rahman (1984, pp. 95-96) concludes that "foreign aid did make an undeniable contribution to the economic development of Bangladesh", though he also points out that Bangladesh's achievements "would have been far greater had government efforts in planning and resource mobilization been more adequate, consistent, and systematic."

Two other major reviews of the impact of aid in Bangladesh are largely inconclusive. White and

Dijkstra with van Donge (2003) conclude that while the donors' policy influence had a positive impact on Bangladesh's economic stabilization and liberalisation, it is difficult to trace a direct causal connection between liberalisation and growth. Furthermore, they point out that the link between poverty reduction and economic reforms pushed through by the donors is less obvious, partly as inequality has risen sharply. Quazi (2005) estimates an aid-growth model and an aid-fiscal model to quantify the effects of foreign aid on GDP growth and fiscal behavior in Bangladesh over the 1973-1999 period. The aid-growth model applies the cointegration method to a neoclassical growth model and finds that aid has marginal effects on GDP growth, but when aid is disaggregated into loans and grants, it is found that loans significantly raise GDP growth, while grants do not. The aid-fiscal model employs a non-linear simultaneous model and finds that foreign grants mostly finance non-productive civil expenditures, but foreign loans generally finance public investment projects and human capital building programs, which eventually lead to higher output growth.

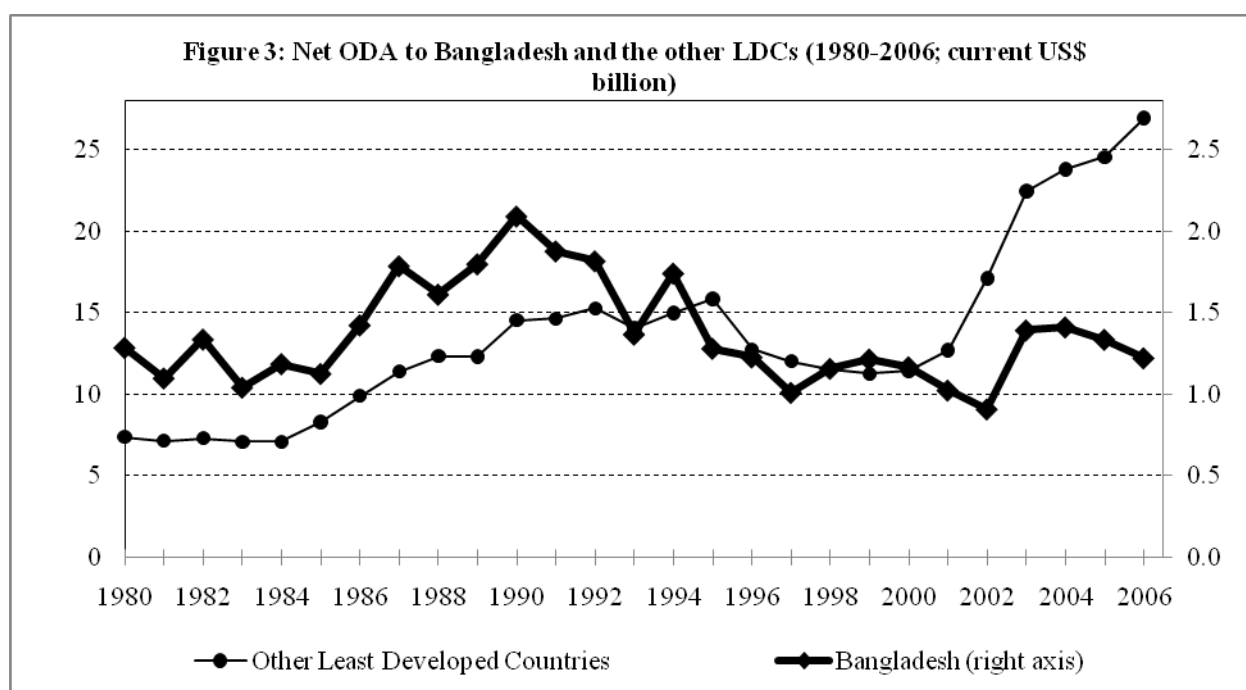
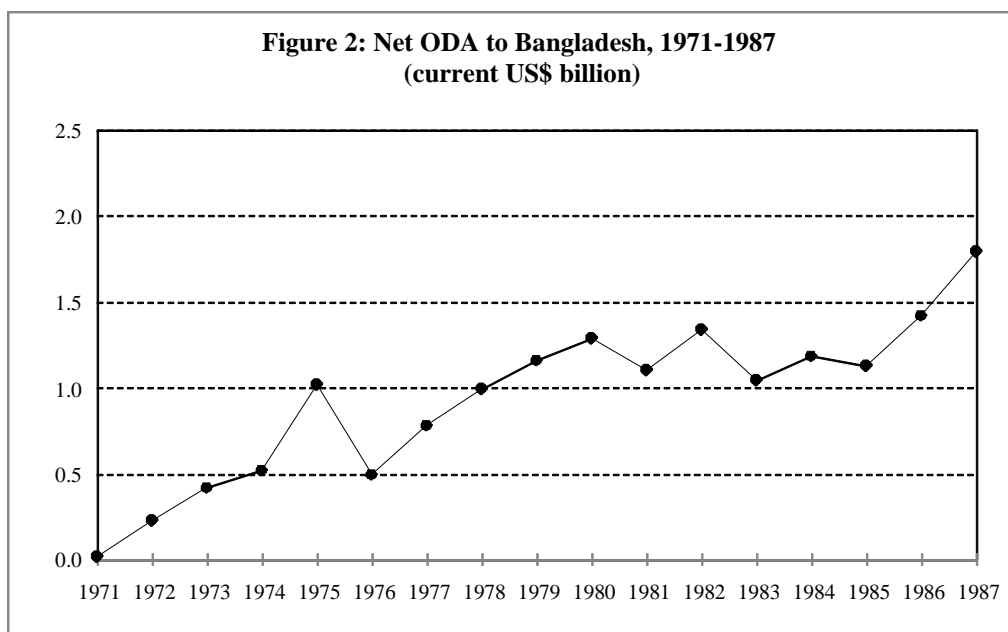
The conclusion that can be drawn from this review of the literature is that some aid provided in the past may have been detrimental to Bangladesh's development. However, important lessons have been learnt from the past and, properly provided, aid could be highly effective in reducing poverty in Bangladesh.

### *Effectiveness of Aid in Bangladesh*

We differentiate between the impact and effectiveness of aid based on the distinction that has been made in the literature, whereby the recent aid effectiveness debate focuses on (a) the allocation of scarce aid resources and (b) the capacity to absorb aid in terms of possible losses to a country's competitiveness and in terms of domestic capacity constraints.

#### *Allocation of Scarce Aid Resources*

Criticized from the right as well as from the left, aid had been falling worldwide during the second half of the 1990s. However, as Figure 3 shows, the decline in aid to Bangladesh began about 5 years before the overall decrease in aid. Even more important is the different evolution of aid provided to Bangladesh and to other least developed countries since 1999. While aid to Bangladesh continued to decrease from 1999 to 2002, it started to increase in the group of the other least developed countries. The rising gap between aid



allocations to Bangladesh and other least developed countries can be attributed to two main factors: (i) the shift of aid to the Heavily Indebted Poor Countries (HIPC), largely due to these countries' debt relief, and (ii) shortcomings in the donor's aid allocation mechanism, which will be discussed in more details in the following paragraphs.

Following the aid fatigue of the mid-1990s, the consensus grew during the late 1990s that aid can

only be effective in an enabling environment. This has been claimed and illustrated in a highly influential World Bank (1998) research report, entitled "*Assessing Aid: What Works, What Doesn't and Why*". It pointed out that aid is as much a matter of knowledge as it is about money and that aid has a large impact, but only in low-income countries with sound management. According to the report, without a reform policy, aid has little impact.

Even though Bangladesh has followed nearly all of the donors' demands in terms of economic stabilization and external liberalization, the policy dialogue has been stuck for some years with regards to reforms in the banking sector and the privatization of state-owned enterprises. Many donors also considered Bangladesh to lack respect for democratic procedures and human rights. Furthermore, Bangladesh made headlines as the world's most corrupt country,<sup>7</sup> after having been added to Transparency International's corruption perception ranking in 2001. These factors hampered the aid allocation to Bangladesh and while all Bangladeshi governments were at least formally interested in getting more aid, the majority of intellectual circles seemed either ignorant to or approving the reduction in aid flows as aid was typically associated with negative influence. Looking at Bangladesh's recent economic success, those critical of aid might even say that Bangladesh benefited from the reduced influence of the mostly western donors.

Whatever the reasons might be, it is clear that the recent aid allocation mechanism (which was supposed to allocate aid to countries that are able to reduce poverty) has been biased against Bangladesh. The degree to which Bangladesh has been discriminated in terms of aid allocation becomes clear if looking at aid provided in terms of per capita aid. First, while net ODA per capita amounted to only US\$9 for Bangladesh in 2005, it amounted to an average of \$197 (more than 20 times the Bangladeshi level) for the 37 countries with populations of less than one million. This huge discrepancy is even less comprehensible if considering that Bangladesh's 2005 gross national income (GNI) per capita (US\$470) was less than one sixth of the income per capita of these 37 small states (US\$3,055). Second, even if comparing Bangladesh with more populous countries (see Table 1), there remains a huge discrepancy in net ODA per capita levels, which—with the exception of Nigeria—is far beyond the impact of debt relief.

The conclusion that the current aid allocation mechanism is negatively biased against Bangladesh is shared by various studies. For example, Cogneau and Naudet (2007) reviewed the question of who deserves aid in which they refer to (a) the groundbreaking suggestion of Collier and Dollar (2001, henceforth CD), that aid be allocated to maximize poverty reduction and (b) their own approach that distinguishes between the impact of efforts and disadvantage. They suggest that aid should compensate for the disadvantages while

allowing efforts to be rewarded and come to the conclusion (p. 114) that “in line with CD's main results, an allocation according to equal opportunity could very well call for redirecting a large part of international aid to Bangladesh and India, where poverty is as high as in Africa.”

In addition to the negative bias against large countries, there also seem to be some problems related to the donors' assessment of recipient's performance, especially the failure to distinguish between different forms of corruption and governance deficiencies. To avoid any misunderstanding, corruption is a cancer on development. However, as Siddique and Ghosh (2007) have shown, it is possible to distinguish between ‘petty’ corruption and ‘big time’ corruption. In other words, a bribe that makes an official do ‘*what s/he is supposed to do*’ is different from a bribe that makes an official do ‘*something s/he is not supposed to do*’. To use the words of de Haan and Everest-Phillips (2007, p. 11), “donors are struggling with the potential dangers of normative approach to governance, and the use and abuse of governance indicators to justify aid allocations and aid modalities that will doubtless remain much more political.”

The principles of aid effectiveness as they are enshrined in the Paris Declaration, especially the criteria of ownership, would contribute much to make aid more effective.<sup>8</sup> However, as recent reviews have shown, the reality of aid provision lags behind its rhetoric. For example, the OECD's (2007b) Bangladesh chapter of the 2006 survey on monitoring the Paris Declaration demonstrates that while some progress has been made towards meeting the standards of aid effectiveness, significant challenges remain in Bangladesh. Similarly, the preliminary results available from an ongoing evaluation of the implementation of the Paris Declaration in Bangladesh draws an overall positive picture, though it also points out that “the main constraints for GoB to take leadership are the capacity limitations of GoB officials, rigid procedures of some development partners and reluctance on the part of some of them to change the mindset.”<sup>9</sup>

### *Capacity to Absorb Aid*

Within the last few years, the aid effectiveness literature has also included a critical debate on the macroeconomic implications of aid surges. Aid pessimists have warned that aid inflows could have systematic adverse effects on a country's competitiveness, stemming mostly from a real

**Table 1: Net ODA to all countries with income per capita levels between US\$350-US\$660 in 2005**  
(i.e., 10 countries richer than Bangladesh and 10 countries poorer than Bangladesh)

|                                     |                       |                  |  | Memorandum items  |            |
|-------------------------------------|-----------------------|------------------|--|-------------------|------------|
|                                     | Net ODA<br>per capita | Net ODA /<br>GNI |  | GNI per<br>capita | Population |
|                                     | US\$                  | percent          |  | US\$              | millions   |
| Zambia                              | 100                   | 14.2             |  | 490               | 12         |
| Mauritania                          | 61                    | 10.4             |  | 560               | 3          |
| Ghana                               | 55                    | 10.6             |  | 450               | 22         |
| Kyrgyz Republic                     | 54                    | 11.4             |  | 440               | 5          |
| Haiti                               | 52                    | 12.1             |  | 450               | 9          |
| Laos                                | 52                    | 11.2             |  | 440               | 6          |
| Mali                                | 52                    | 14.1             |  | 380               | 14         |
| Nigeria                             | 47                    | 7.4              |  | 560               | 132        |
| Papua New Guinea                    | 46                    | 6.6              |  | 660               | 6          |
| Sudan                               | 45                    | 7.1              |  | 640               | 36         |
| Benin                               | 44                    | 8.2              |  | 510               | 8          |
| Cambodia                            | 37                    | 10.4             |  | 380               | 14         |
| Burkina Faso                        | 35                    | 12.8             |  | 400               | 13         |
| Chad                                | 34                    | 8.6              |  | 400               | 10         |
| Central African Republic            | 28                    | 7.0              |  | 350               | 4          |
| Kenya                               | 23                    | 4.3              |  | 530               | 34         |
| Guinea                              | 22                    | 6.9              |  | 370               | 9          |
| Viet Nam                            | 22                    | 3.7              |  | 620               | 83         |
| Yemen                               | 14                    | 2.6              |  | 600               | 21         |
| <b>Bangladesh</b>                   | <b>9</b>              | <b>2.1</b>       |  | <b>470</b>        | <b>142</b> |
| Uzbekistan                          | 7                     | 1.3              |  | 510               | 27         |
| <b>Average excluding Bangladesh</b> | <b>37</b>             | <b>6.7</b>       |  |                   |            |

Source: Calculations by authors based on OECD (2007a) and World Bank, World Development Indicators, CD-Rom.

exchange rate overvaluation and capacity constraints, similar to what is known as Dutch disease. However, the subsequent analysis—based on African countries that experienced considerably more aid inflows than Bangladesh—came to the conclusion (see IMF, 2006, p.1) that “there is currently little evidence that large aid inflows have significantly reduced the competitiveness.” Table 1 above shows that nine countries (with comparable income per capita levels as Bangladesh) received at least 5 times more aid per GNI than Bangladesh, yet there is no evidence that any of them suffers from the Dutch disease.

The recent literature has also shown that Dutch disease effects can be minimized if governments and central banks coordinate fiscal, monetary and exchange rate policies.<sup>10</sup> Governments should try to both ‘spend’ aid in order to finance larger government programs and ‘absorb’ aid in order to import more real resources. Often, governments that receive foreign aid neither spend nor absorb it fully, defeating the basic purpose of development

assistance. Instead of adhering to restrictive macroeconomic policies, governments could target their increased spending on productivity enhancing public investment and central banks could amplify the flow of low-cost credit to stimulate private investment. Unlike in cases where a central bank attempts to avoid a depreciation of the currency, it usually has ample means to prevent an exchange rate appreciation. It is difficult to see why Bangladesh, which has a large pool of highly qualified economists and a record of good macroeconomic management, would be unable to absorb much larger aid inflows.

Looking at the impact of aid on inflation, it is important to take other factors that influence inflation into account. For example, given that aid increases are many times based on the provision of emergency aid in the aftermath of natural disasters (like floods, droughts, cyclones) that typically have a negative impact on subsequent harvests, it is not surprising that there is some correlation between aid inflows and accelerated inflation, including in Bangladesh.

Another concern frequently raised is that aid-receiving countries face domestic capacity constraints to effectively use aid increases. However, these capacity constraints can be minimized by removing specific supply bottlenecks, like lacks of infrastructure and skilled personnel. Again, public investment can play a central role in this effort.

#### *Future Aid Allocation in Bangladesh*

Preliminary estimates for 2007 indicate that the share of aid allocated to Bangladesh has further decreased, possibly dropping below one percent of net ODA to all developing countries. Aid flows to Bangladesh may increase temporarily in 2008 due to the provision of emergency aid after cyclone Sidr hit Bangladesh on November 15, 2007; yet, the financial implications of recent debt relief initiatives are likely to cause a further decline in aid allocations to Bangladesh. This section provides some calculations of possible reductions in future aid flows to Bangladesh based on the costs of recent debt relief initiatives and the allocations of these costs according to benchmarks provided by Gunter, Rahman and Wodon (2008). They calculated how much the recent debt relief initiatives (including HIPC, post-HIPC Paris Club, and the Multilateral Debt Relief Initiative) will cost (see Table 2 above) and then allocated these costs to each country based on four benchmark scenarios. The four benchmark scenarios (see Table 3) reflect the four possible combinations derived from the answers to two major questions: 1.) is debt relief additional to donors' traditional aid budgets?,<sup>11</sup> and 2.) will donors make reallocations of their traditional aid budgets to HIPC due to debt relief provided to them?<sup>12</sup>

We simplify the scenarios here by assuming that debt relief will—in the long run—not be additional, that the costs of the three debt relief initiatives are equally distributed over 40 years (in reality they are hump-shaped), and that the concessionality level of the cancelled debts is 40 percent. This would imply that Bangladesh's aid levels would decrease between zero and US\$580 million for every year over the next 40 years. The case of zero costs for Bangladesh would imply that the donors would deduct all debt relief costs from the HIPC's traditional aid; the US\$580 million aid reduction per year to Bangladesh would reflect the case in which the donors would deduct all debt relief costs from the non-HIPC's traditional aid. Assuming that the costs of the recent debt relief initiatives will be shared equally among HIPC and non-HIPC, would imply that Bangladesh's future aid would be reduced by US\$265 million a year.

Alternatively, we could assume that bilateral debt

relief will be additional and fully used for debt relief, but that multilateral debt relief will due to the “pay-as-you-go” reimbursement mechanism not be additional. This case would imply that Bangladesh's future aid would be reduced by US\$354 million a year if the costs of multilateral debt relief are financed from reductions in aid to the non-HIPCs, or US\$177 million a year if the costs are shared equally among HIPC and non-HIPC. To summarize, the impact of recent debt relief initiatives is likely to amount to a reduction of about 15-50 percent of Bangladesh's current aid levels.

Finally, the amount of aid effectively allocated to Bangladesh will also be influenced by the joint World Bank–IMF debt sustainability framework (DSF),<sup>13</sup> which determines the degree to which IDA provides its aid in terms of loans or grants:

- countries assessed as having a low risk of debt distress will receive their assistance via loans,
- countries assessed as having a medium risk of debt distress will receive their assistance split between loans and grants, and
- countries assessed of having a high risk of debt distress will receive their assistance via grants.

Though the current aid statistics do not differentiate between aid provided via concessional loans or grants, the effective amount of aid provided depends on terms it is provided. Given that developmental loans have typically a grant element of about 50 percent, any aid provided via concessional loans is effectively only half of the aid provided via grants. Yet, IDA's modified volume approach (see IDA 2004) applies an only 20 percent upfront volume discount on grants, with the argumentation that a higher volume discount could hamper these countries' prospects of achieving the MDGs. While correct, it ignores the negative distributional implications this approach has for countries that will receive IDA's assistance in forms of loans, as is the case with Bangladesh.

### **Debt Issues**

#### *Current Trends in Bangladesh's Public Debt<sup>14</sup>*

As Figure 4 shows, in 1993, Bangladesh's total public debt (TPD) amounted to 725 billion taka. Ten years later, in 2003, it had more than doubled to 1.53 trillion taka, and another 3 years later, it reached nearly 2 trillion taka. Looking at these trends seems to indicate that Bangladesh's TPD will be unsustainable in the long-run.

**Table 2: Gross Benefits of HIPC, Post-HIPC Paris Club, and MDRI Debt Relief**  
(in US\$ millions, 2004 NPV terms, based on 30 HIPCs that reached the enhanced Decision Point by end-December 2006)

| Country                     | Bilateral HIPC DR | Multi-lateral HIPC DR | Total HIPC DR | Post-HIPC PC DR | Total MDRI DR | Overall Total DR |
|-----------------------------|-------------------|-----------------------|---------------|-----------------|---------------|------------------|
| <b>Sum of 30 HIPCs</b>      | <b>18,608</b>     | <b>20,471</b>         | <b>39,079</b> | <b>13,336</b>   | <b>34,064</b> | <b>86,479</b>    |
| <b>Sum of non-LDC-HIPCs</b> | <b>5,510</b>      | <b>4,511</b>          | <b>10,021</b> | <b>4,625</b>    | <b>6,715</b>  | <b>21,361</b>    |
| Benin                       | 92                | 236                   | 329           | 171             | 832           | 1,332            |
| Bolivia                     | 519               | 1,119                 | 1,639         | 634             | 1,407         | 3,679            |
| Burkina Faso                | 101               | 596                   | 696           | 20              | 966           | 1,683            |
| Burundi                     | 119               | 707                   | 826           | 8               | 110           | 944              |
| Cameroon                    | 1,047             | 406                   | 1,453         | 2,782           | 1,037         | 5,272            |
| Chad                        | 40                | 159                   | 199           | 37              | 900           | 1,137            |
| Congo, Dem. R.              | 3,846             | 2,594                 | 6,440         | 904             | 1,091         | 8,435            |
| Congo, Rep.                 | 971               | 118                   | 1,089         | 1,902           | 89            | 3,079            |
| Ethiopia                    | 693               | 1,560                 | 2,253         | 647             | 2,557         | 5,457            |
| Gambia, The                 | 21                | 64                    | 85            | 16              | 314           | 415              |
| Ghana                       | 986               | 1,048                 | 2,033         | 744             | 3,056         | 5,834            |
| Guinea                      | 256               | 409                   | 665           | 380             | 1,185         | 2,230            |
| Guinea-Bissau               | 253               | 255                   | 507           | 20              | 185           | 712              |
| Guyana                      | 246               | 424                   | 670           | 43              | 198           | 911              |
| Haiti                       | 116               | 20                    | 136           | 81              | 227           | 444              |
| Honduras                    | 255               | 421                   | 676           | 916             | 1,123         | 2,714            |
| Madagascar                  | 565               | 462                   | 1,026         | 704             | 1,909         | 3,639            |
| Malawi                      | 286               | 877                   | 1,162         | 118             | 988           | 2,269            |
| Mali                        | 200               | 456                   | 655           | 219             | 1,462         | 2,336            |
| Mauritania                  | 312               | 452                   | 764           | 141             | 673           | 1,578            |
| Mozambique                  | 1,526             | 946                   | 2,472         | 102             | 1,617         | 4,190            |
| Nicaragua                   | 2,533             | 1,381                 | 3,915         | 387             | 842           | 5,143            |
| Niger                       | 265               | 405                   | 670           | 108             | 836           | 1,614            |
| Rwanda                      | 66                | 675                   | 741           | 17              | 459           | 1,216            |
| Sao Tome & Prin.            | 35                | 85                    | 120           | 3               | 65            | 189              |
| Senegal                     | 253               | 355                   | 609           | 639             | 1,908         | 3,156            |
| Sierra Leone                | 293               | 408                   | 701           | 55              | 323           | 1,079            |
| Tanzania                    | 1,131             | 1,199                 | 2,329         | 707             | 3,060         | 6,097            |
| Uganda                      | 214               | 1,003                 | 1,217         | 97              | 2,628         | 3,942            |
| Zambia                      | 1,370             | 1,633                 | 3,003         | 735             | 2,015         | 5,752            |

Source: Adapted from Gunter, Rahman and Wodon (2008) Table 1.

However, expressing Bangladesh's TPD as percent of GDP (see Figure 5), provides a different picture as Bangladesh's TPD has actually decreased from 58 percent in 1993 to less than 47 percent in 2006. Furthermore, the picture improves further if looking at the trend of the ratio of nominal TPD to government revenues (see Figure 6), which has decreased from 638 percent in 1993 to 438 percent. The only worrisome part is that the share of the domestic public debt continues to increase, which is even more reflected in terms of interest payments as

percent of government revenues, see Figure 7.

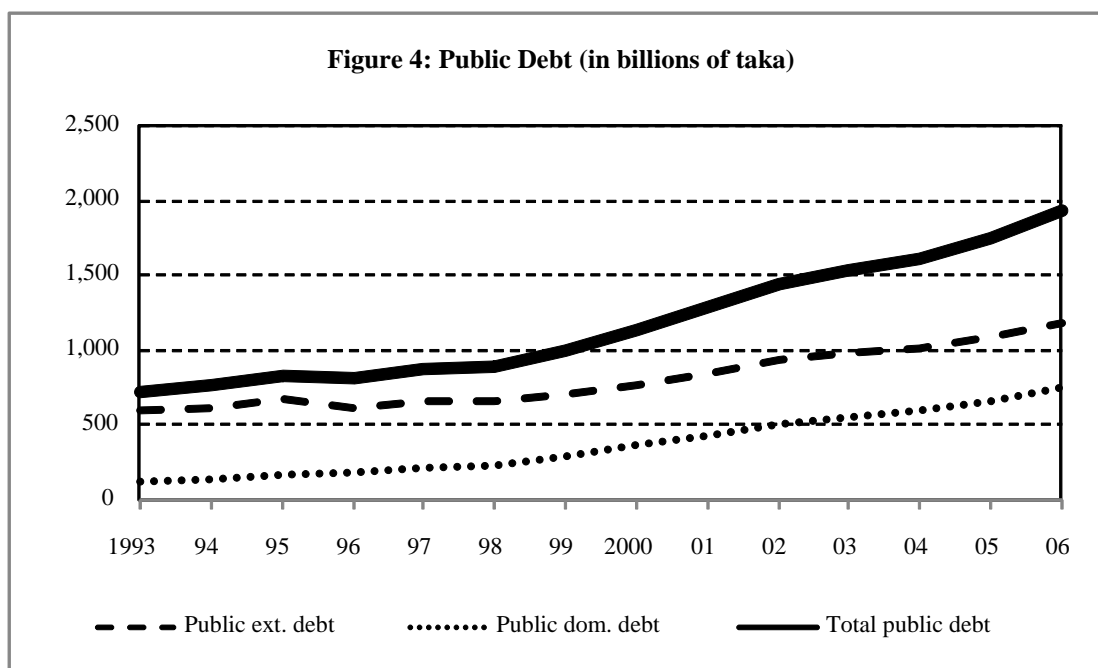
#### ***Future Debt Sustainability under Alternative Macroeconomic Scenarios***

In order to assess Bangladesh's future debt sustainability, we make use of a debt projection module developed by Gunter, Lopez, Ramadas and Wodon (2002) to simulate the evolution of Bangladesh's debt from FY2006-FY2021, based on initial conditions and projections for government

**Table 3: Four Benchmark Cases for the Distribution of the Costs of Debt Relief**

|  |  | Question Two: Will donors make reallocations of their traditional aid budgets to HIPC's due to debt relief provided to them? |  |
|--|--|--|--|
|  |  | zero reallocation of the HIPC's traditional aid  | full reallocation of the HIPC's traditional aid                                    |
| Question One:<br>Is debt relief additional to donors' traditional aid budgets? | full additionality in creditors' resources | <b>Benchmark Case 1</b><br>HIPC's gain, while there is no impact on the non-HIPC's   | <b>Benchmark Case 2</b><br>Non-HIPC's gain, while there is no impact on the HIPC's |
|  | zero additionality in creditors' resources | <b>Benchmark Case 3</b><br>HIPC's gain, while the non-HIPC's lose  | <b>Benchmark Case 4</b><br>No impact on either HIPC's or non-HIPC's                |

Source: Adapted from Gunter, Rahman and Wodon (2008), Table 3.



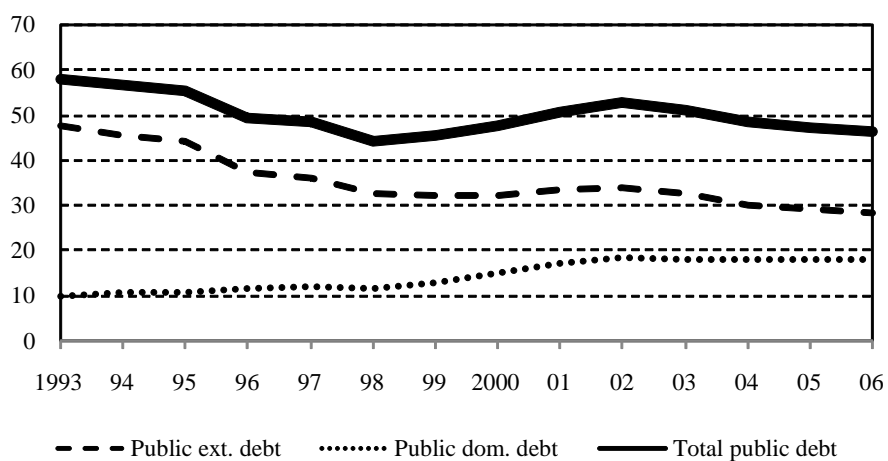
expenditures, government revenues, and some other parameters. Reflecting the fact that a country's debt sustainability cannot be determined by one specific indicator, the module adopts a flexible approach to debt sustainability by providing the module's user with various options on how to define debt sustainability. We limit the analysis here to Bangladesh's fiscal sustainability;<sup>15</sup> hence, we include all public debt (domestic and external) and exclude all private debt. Given that Bangladesh has considerable amounts of both concessional external and non-concessional domestic debts, we calculate the debt stock indicators in net present value (NPV) terms. We first analyze Bangladesh's fiscal public debt sustainability under three different

macroeconomic scenarios and then simulate the sustainability of Bangladesh's fiscal debt for two alternative financing scenarios of an ambitious government-led investment strategy to achieve the MDGs.

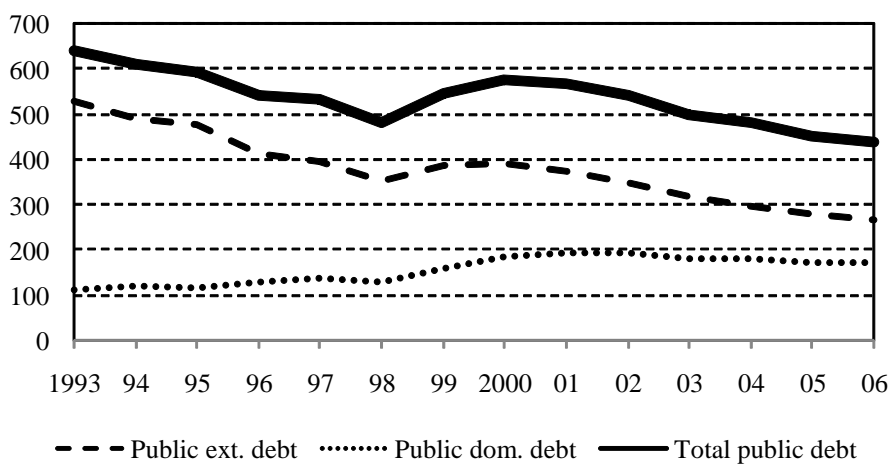
#### *Alternative Macroeconomic Scenarios*

The three alternative macroeconomic scenarios constitute (i) a baseline scenario based on historical values, (ii) a relatively arbitrary pessimistic scenario, and (iii) a relatively arbitrary optimistic scenario, whereby we always provide simulations for Bangladesh's NPV public debt-to-GDP ratio, the NPV public debt-to-revenue ratio, and the public debt

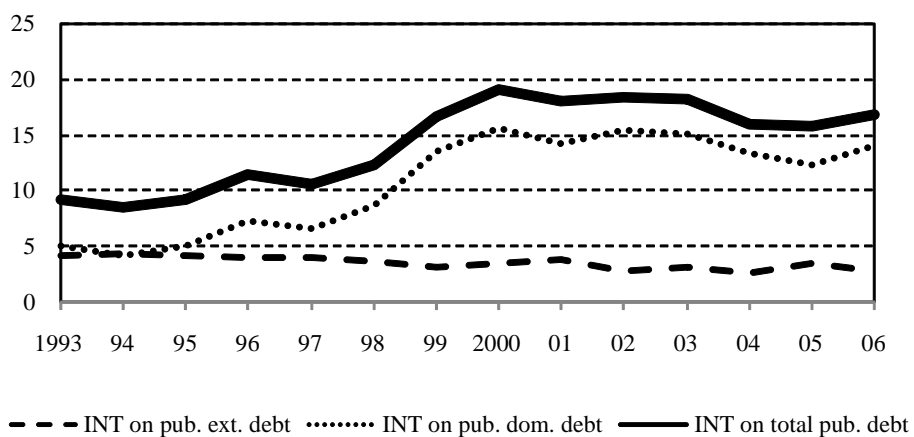
**Figure 5: Public Debt (as percent of GDP)**



**Figure 6: Public Debt (as % of Gov. Rev.)**



**Figure 7: Interest Payments (as % of Gov. Rev.)**



**Figure 8: Initial conditions and baseline macroeconomic scenario assumptions**

|                              |                             |                   |                                  |                     |                   |                          |                          |
|------------------------------|-----------------------------|-------------------|----------------------------------|---------------------|-------------------|--------------------------|--------------------------|
| Initial Value                | Public Ext. Debt            |                   | Nominal GDP                      | Initial Value       | Grants            | Exports                  | Excha. Rate (T/\$)       |
|                              | Stock                       | Int. Pay.         |                                  |                     | 0                 | 10,526                   | 67.2                     |
|                              | 17,701                      | 186               | 61,893                           |                     | 0                 | 17.7                     | 9.4                      |
|                              |                             |                   |                                  | Growth (t15)        | <b>0</b>          | <b>8.3 (h)</b>           | <b>5.0 (h)</b>           |
| Value (FY06)<br>alue (FY21)  | Discount rate (%)           | Interest rate (%) | Inflation rate (%)               | Real GDP growth (%) | Rev. to GDP (%)   | P.Spe.to GDP (%)         | Average Maturity (years) |
|                              | <b>5.0</b>                  | 1.05              | 7.2                              | 6.6                 | 10.7              | 12.1                     | 15                       |
|                              | <b>5.0</b>                  | <b>1.05</b>       | <b>5.3 (h)</b>                   | <b>5.7 (h)</b>      | <b>15.7 (h)</b>   | <b>17.1</b>              | <b>15</b>                |
| Initial Value                | Public Dom. Debt            |                   | Interest on Public Domestic Debt |                     |                   |                          |                          |
|                              | 11,265                      |                   | 932                              |                     |                   |                          |                          |
| Value (FY06)<br>Value (FY21) | Share of Dom. Financing (%) |                   | Interest rate (%)                |                     | Discount rate (%) | Average Maturity (years) |                          |
|                              | 64                          |                   | 8.27                             |                     | <b>8.27</b>       | 3                        |                          |
|                              | <b>64</b>                   |                   | <b>8.27</b>                      |                     | <b>8.27</b>       | <b>3</b>                 |                          |

Source: Calculations by authors based on IMF (2007). All data is in millions of US\$ unless otherwise indicated. Please see endnote 16 for further explanations.

**Table 4: Alternative Assumptions under Different Macroeconomic Scenarios**

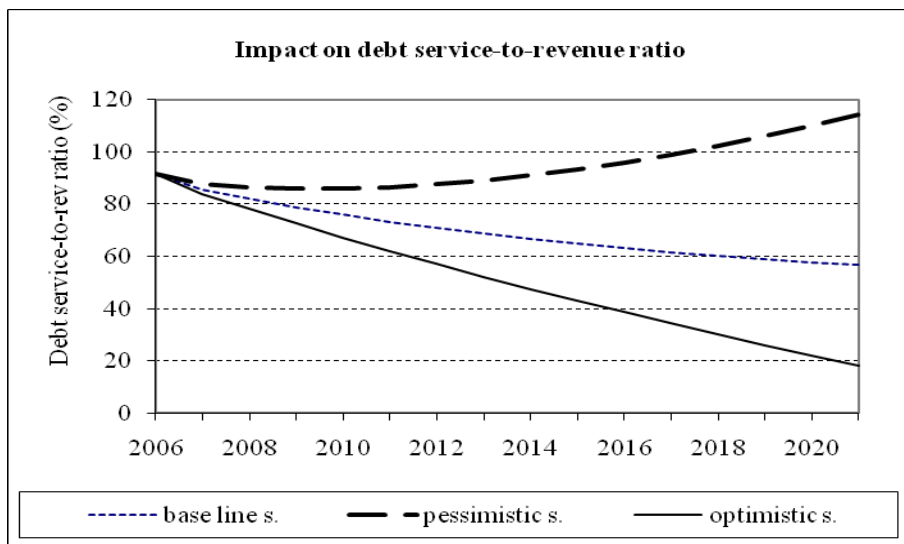
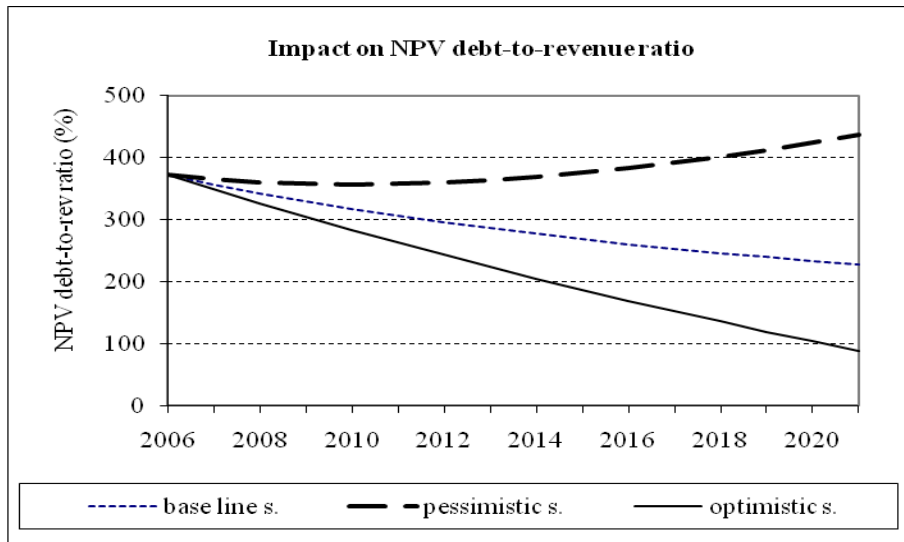
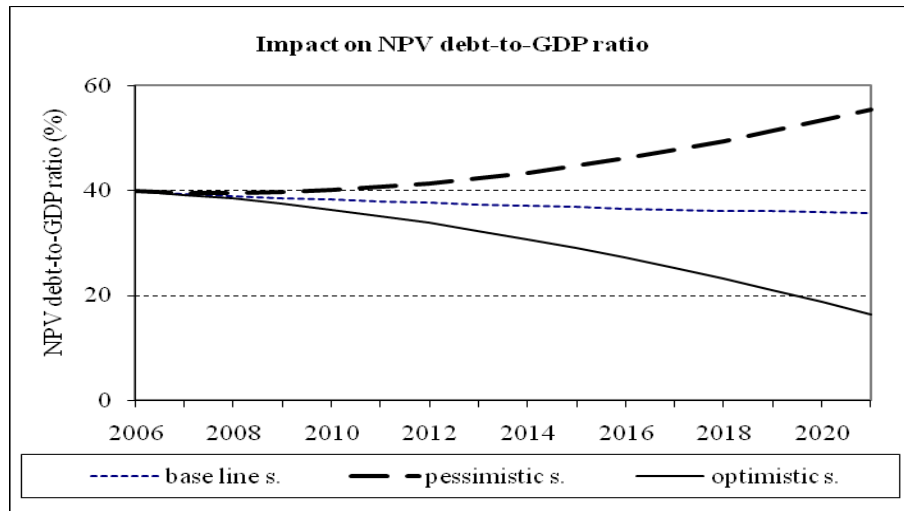
|  |             | baseline scenario | pessimistic scenario | optimistic scenario |
|--|-------------|-------------------|----------------------|---------------------|
| <b>GDP growth rate (%)</b>                     | <b>FY06</b> | 6.6               | 6.6                  | 6.6                 |
|  | <b>FY21</b> | 5.7 (h)           | 3.7                  | 7.7                 |
| <b>Exports growth rate (%)</b>                 | <b>FY06</b> | 17.7              | 17.7                 | 17.7                |
|  | <b>FY21</b> | 8.3 (h)           | 4                    | 12                  |
| <b>Inflation rate (%)</b>                      | <b>FY06</b> | 7.2               | 7.2                  | 7.2                 |
|  | <b>FY21</b> | 5.3 (h)           | 7.3                  | 3.3                 |
| <b>Exchange rate depreciation (%)</b>          | <b>FY06</b> | 9.4               | 9.4                  | 9.4                 |
|  | <b>FY21</b> | 5.0 (h)           | 6                    | 4                   |
| <b>Share of priority spending to GDP (%)</b>   | <b>FY06</b> | 12.1              | 12.1                 | 12.1                |
|  | <b>FY21</b> | 17.1              | 17.1                 | 17.1                |
| <b>Share of government revenues to GDP (%)</b> | <b>FY06</b> | 10.7              | 10.7                 | 10.7                |
|  | <b>FY21</b> | 15.7 (h)          | 12.7                 | 18.7                |

service-to-revenue ratio. The actual initial conditions for FY06 and the baseline macroeconomic scenario which is mostly based on an indicator's historic averages (h) of FY02-FY06 are provided in Figure 8.<sup>16</sup>

The parameter values for the pessimistic and optimistic scenarios are arbitrarily set simply for illustrations for how sustainable Bangladesh's fiscal debt is under different macroeconomic scenarios;

they are not based on any probability, predications or value judgment. The point is to have some comparisons to the baseline scenario, though the relative changes across indicators (see Table 4) are based on basic macroeconomic theory, that is, the pessimistic scenario shows lower GDP growth combined with lower export growth, higher inflation rates, a higher exchange rate depreciations, and lower shares in government revenues to GDP; and similarly, the optimistic scenario shows higher GDP

**Figure 9: Results of the baseline, pessimistic, and optimistic scenarios**



growth combined with higher export growth, lower inflation rates, lower exchange rate depreciations, and higher shares of government revenues to GDP.

### *Results*

The results for these three scenarios are graphically presented in Figure 9, showing the three different evolutions of the NPV debt-to-GDP ratios, the NPV debt-to-revenue ratios, and the debt service-to-revenue ratios for each of the three scenarios, clearly reflecting the baseline, pessimistic, and optimistic scenarios. The different results for each of the three fiscal debt sustainability indicators are due mostly to the change in the GDP growth rates and the change in the revenue to GDP ratios. The changes in inflation rates and depreciation rates influence the results only marginally. The change in export growth rates has no effect on these three indicators, though it has a major impact on external debt sustainability indicators (see Gunter 2008).

### *Discussion*

We limit our discussion here to two important points. First, comparing the results with other low income countries, Bangladesh is actually one of the highest indebted countries in terms of both NPV debt to government revenues and public debt service to government revenues.<sup>17</sup> Most of studies analyzing Bangladesh debt sustainability<sup>18</sup> as well as most international comparisons focus incorrectly on either external debt (leaving out domestic debt) or on public debt-to-GDP levels. The exclusion of domestic debt and the wrong focus on public debt-to-exports or public debt-to-GDP is partly due to data constraints and partly due to a fundamental misconception. As has been explained in more details in Gunter (2003 and 2007), since the public debt will need to be paid by government revenues, the public debt-to-government revenue ratio is the most appropriate indicator to analyze a country's public debt sustainability. The only reasons why Bangladesh did not qualify for HIPC debt relief are due to a) Bangladesh's substitution of external debt with domestic debt (which started in the early 1990s), and b) the HIPC framework's focus on external public debt sustainability.

Second, as the pessimistic scenario (the bold dashed lines in Figure 9) shows, relatively small deteriorations in the macroeconomic scenario can easily threaten Bangladesh's fiscal sustainability. Keeping in mind that Bangladesh is a highly disaster prone country and that disasters are likely to increase due to climate change, the cancellation of

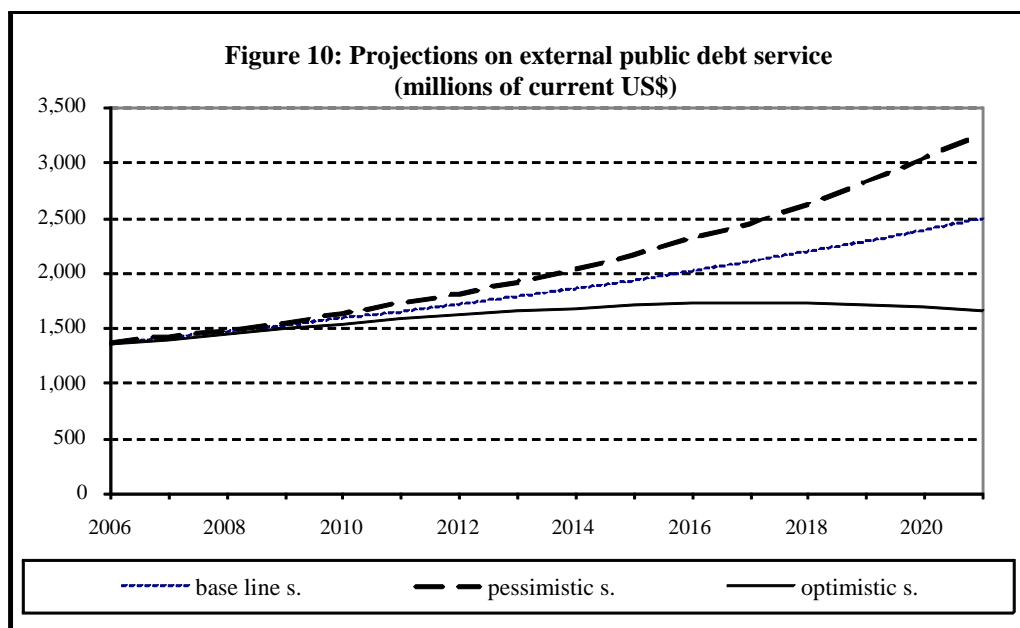
Bangladesh's external public debt would not only serve as a shock absorber but also allow Bangladesh to use its scarce resources to achieve the MDGs. While Bangladesh is unlikely to face an unsustainable debt in macroeconomic terms, if approaching debt sustainability from a human and social development perspective, Bangladesh's debt is no sustainable simply because Bangladesh has more urgent needs to reduce poverty than to make external debt service payments amounting even in the optimistic scenario to more than US\$1.5 billion every year over the next 12 years (see Figure 10).

Indeed, given that total public debt service payments amount currently to about 100 percent of government revenues, it is clear that these debt service payments can only be made as old debt is replaced by new debt, i.e. principal as well as interest payments are mostly covered by new loans. The cancellation of Bangladesh's external debt would also be justified based on equity issues as considerable amounts of debt have been canceled under recent debt relief initiatives to less poor and less indebted countries if defining poverty and indebtedness more appropriately, see Gunter (2003 and 2007).<sup>19</sup>

### *Debt Sustainability Versus Development*

This section analyzes the implications on debt sustainability if Bangladesh would initiate an ambitious government-led investment strategy targeted at eliminating poverty, accelerating broad-based sustainable development, and preparing the country for the negative implications of climate change. We use the MDG-costing as an approximation of the costs for such a strategy, which as mentioned above, has been put at US\$8 billion per year. There obviously are many assumptions and uncertainties related to this figure, yet, we will use it for illustrative purposes and apply it over the whole 15-year projection period of the debt projection module.

In terms of government spending, the US\$8 billion annual investment strategy would imply an initial increase in the share of the primary spending to GDP of about 13 percentage points. With optimistic GDP growth rates of about 8 percent per annum and an initial GDP of about US\$62 billion, the 13 percentage points increase in primary spending to GDP would fall to a 5 percentage points increase in primary spending to GDP in 2021. Given that the share of primary spending to GDP amounts currently to 12.1 percent of GDP, the share of primary spending including the investment strategy would slowly decrease from 25.1 percent of GDP in the initial year



to 17.1 percent of GDP at the end of the projection period in 15 years.

#### *Alternative Financing Scenarios*

Given the limitations Bangladesh faces to raise revenues to finance such an investment strategy (reflected in an accelerated increase in the percentage of revenues to GDP), most of these expenditures would initially be covered by loans and grants, whereby we consider two illustrative scenarios as follows:

- i. the debt scenario assumes that the resulting financing gap in the government's budget would be covered exclusively by debt financing (keeping the shares of external and domestic financing unchanged);
- ii. the grant scenario assumes that half (US\$4 billion) of the annual costs would be covered by external grants provided by Bangladesh's development partners, while the other half would be debt-financed (keeping the shares of external and domestic financing unchanged).

While such an ambitious investment strategy would obviously affect all other macroeconomic parameters, we limit the parameter changes to GDP growth, inflation, interest rates, exchange rate depreciation, and the share of government revenues to GDP (see Table 5). These parameter changes are once again not based on any estimation, predication or value judgment, but simply chosen for illustrative purposes, though keeping some basic macroeconomic theory in

mind.

#### *Results*

The simulation results provided in Figure 11 below show that Bangladesh would obviously experience a significant increase in debt, but that—at least for the parameters chosen—the debt ratios would start to fall (i) after about 10 years under the debt scenario, and (ii) after about 7 years under the grant scenario. The three graphs of Figure 11 also show that at the end of the projection period (FY21), debt ratios would remain considerably above the initial values under the debt scenario, while they would come down to the initial levels under the grant financing strategy.

#### *Discussion*

While a much more detailed analysis would be needed to draw detailed policy conclusions, the simulations seem to indicate that some acceleration of Bangladesh's development strategy might be considered as long as the increase in debt levels is clearly limited and temporary. The problem is that there are no clear criteria of what constitutes an acceptable increase in debt levels for any given country. Recent empirical work has shown that debt distress levels are lower for countries that have better policies and institutions compared to countries that have worse policies and institutions, whereby the quality of policy and institutions has been determined by the World Bank's country policy and institutional assessment (CPIA). While there remain doubts about the appropriateness and objectivity of the World

**Table 5: Alternative Financing Scenarios of a Government-led Investment Strategy to Achieve the MDGs**

|  |             | <b>baseline<br/>scenario</b> | <b>all debt<br/>scenario</b> | <b>50% grant scenario</b> |
|--|-------------|------------------------------|------------------------------|---------------------------|
| <b>GDP growth rate (%)</b>                             | FY06        | 6.6                          | 7.6                          | 8.6                       |
|  | FY21        | 5.7 ( <i>h</i> )             | 5.7 ( <i>h</i> )             | 5.7 ( <i>h</i> )          |
| <b>Exports growth rate (%)</b>                         | FY06        | 17.7                         | 17.7                         | 17.7                      |
|  | FY21        | 8.3 ( <i>h</i> )             | 8.3 ( <i>h</i> )             | 8.3 ( <i>h</i> )          |
| <b>Inflation rate (%)</b>                              | FY06        | 7.2                          | 9.2                          | 8.1                       |
|  | FY21        | 5.3 ( <i>h</i> )             | 5.3 ( <i>h</i> )             | 5.3 ( <i>h</i> )          |
| <b>Exchange rate depreciation (%)</b>                  | FY06        | 9.4                          | 11.4                         | 10.4                      |
|  | FY21        | 5                            | 5                            | 5                         |
| <b>Share of priority spending to GDP (%)</b>           | FY06        | 12.1                         | 25.0                         | 25.0                      |
|  | FY21        | 17.1                         | 17.1                         | 17.1                      |
| <b>Share of government revenues to GDP (%)</b>         | <b>FY06</b> | 10.7                         | 13.7                         | 13.7                      |
|  | <b>FY21</b> | 15.7 ( <i>h</i> )            | 15.7 ( <i>h</i> )            | 15.7 ( <i>h</i> )         |
| <b>Grants to the central government (US\$ million)</b> | FY06 level  | 0                            | 0                            | 4,000                     |
|  | FY06 growth | 0                            | 0                            | 0                         |
|  | FY21 growth | 0                            | 0                            | 0                         |

Bank's CPIA, there is broad agreement that better policies and better institutions lower the risk of a country to face debt distress. This broad agreement on the linkage between policies and debt distress has been operationalized in the joint World Bank–IMF debt sustainability framework (DSF) to determine country-specific debt-burden thresholds.

However, the DSF makes no adjustments in a country's borrowing constraints due to development achievements. In other words, the DSF does not contribute to reducing the tension between (a) debt-financing national development strategies to achieve the MDGs and (b) maintaining debt sustainability. Given this shortcoming, Gunter (2007) has suggested to adopt a new MDG-consistent debt sustainability concept, which would allow a country to increase its borrowing limits within certain limits as long as it makes progress with achieving the MDGs. The basic rationale behind the MDG-consistent debt sustainability is that progress made towards achieving the MDGs can be considered an asset for an economy, similar to the asset of having good policies and institutions. The econometric evidence for the appropriateness of such an MDG-consistent debt sustainability concept has been provided by Gunter, Rahman and Shi (2009).

For example, a country that has achieved universal primary education is likely more debt sustainable than a country in which only 50 percent of children go to school. Hence, instead of linking borrowing

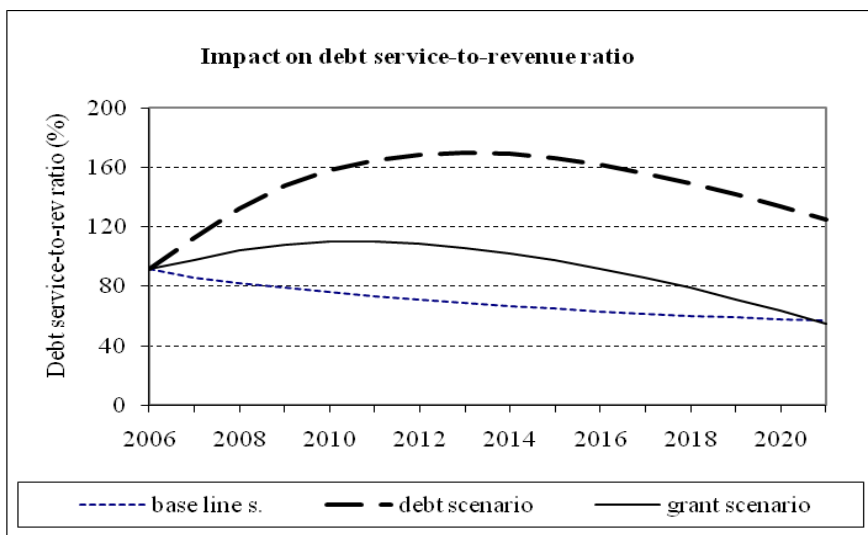
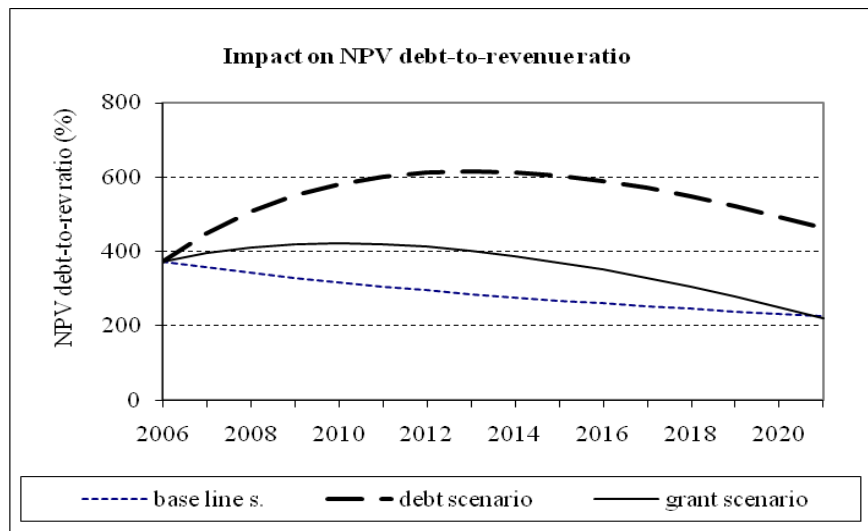
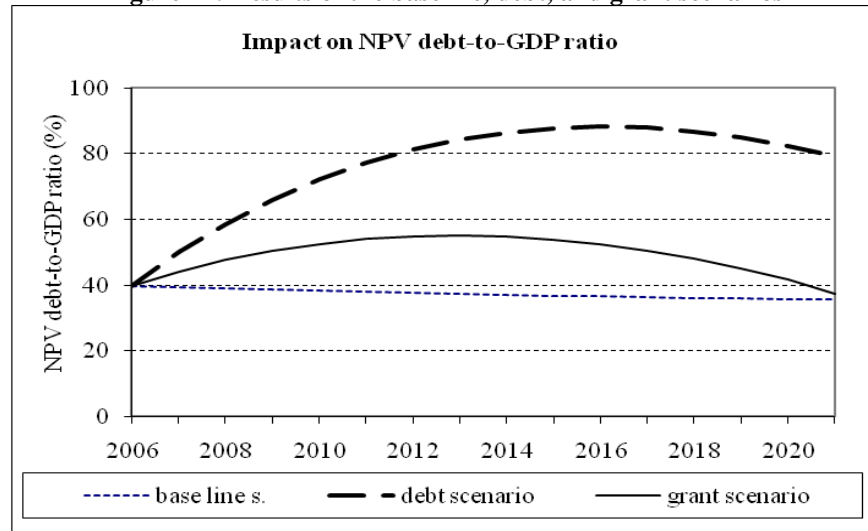
limits to possibly biased assessments of a country's policies and institutions, the linkage to MDG achievements would be more objective. Bangladesh could use the fiscal space that is provided by switching to an MDG-consistent debt sustainability concept, which would allow Bangladesh to accumulate a) new debt in the amount of US\$9.9 billion in the first year of the investment strategy, and b) additional new concessional loans in the amount of about US\$1.1 billion a year, while following the debt path of the baseline scenario, that is, reducing her MDG-consistent NPV debt to GDP ratio from 40 percent in FY06 to 35.7 percent in FY21.

### Conclusions and Recommendations

First, we have shown that the share of aid allocations to Bangladesh has fallen considerably over the last 20 years, from 4.4 percent of all ODA provided to all developing countries in 1987 to 1.2 percent in 2006, and possibly even below 1 percent in 2007. Both, the reduction in aid flows as well as not having used the aid received in the most effective way imply that Bangladesh paid a high price in terms of foregone development opportunities.

Second, while the switching from external financing to domestic financing improved Bangladesh's external debt sustainability, it also implied that Bangladesh missed to qualify for any of the recent debt relief initiatives and is therefore today one of

**Figure 11: Results of the baseline, debt, and grant scenarios**



the highest indebted LDCs, especially if measuring indebtedness by the NPV debt to government revenues and by public debt service to government revenue ratios. Furthermore, while Bangladesh is likely to remain debt sustainable if Bangladesh continues to grow at current rates, the servicing of Bangladesh's public debt implies a high fiscal burden for decades to come. Indeed, considering debt sustainability from a human development approach, Bangladesh's debt is clearly not sustainable.

Third, as was shown with the pessimistic scenario, slightly less favorable macroeconomic circumstances than what Bangladesh is currently experiencing could seriously threaten Bangladesh's long-term debt sustainability. Furthermore, debt sustainability would also be compromised if embarking on an ambitious public-investment-led poverty elimination strategy, unless at least half of these investments would be covered by grants.

Fourth, even with a significant share of such an investment strategy covered by grants, all debt ratios would increase on a temporary basis, and unless debt sustainability is defined with an MDG-consistent debt sustainability concept, it is unlikely that there would be sufficient domestic as well as external support for an accelerated poverty reduction strategy. Hence, there is need to undertake more empirical research on MDG-consistent debt sustainability such that the concept can be applied to satisfy both a sustainable debt as well as achieving the MDGs.

Fifth, though White and Dijkstra with van Donge (2003, p. 65) have warned that "a further reduction in aid to Bangladesh would lead to lower imports, and would bring about higher inflation and higher interest rates would probably also reduce growth," aid flows to Bangladesh continued to decrease in recent years. Taking recent changes in international aid and debt frameworks into account, aid to Bangladesh may likely continue to decrease in the future. Worse, most of the aid may not be provided as grants, unless more emphasis is put on fiscal implications of Bangladesh's debt. Hence, more efforts are needed to increase as well as to improve the provision of aid to Bangladesh and to increase the share of grants.

Sixth, taking Bangladesh's record of achievement into account, Bangladesh should be "fast-tracked" for a rapid scale-up of aid, whereby the development agenda and development policies need to be designed based on a broad majority of domestic stakeholders. As Levy (2007, p. xxxii) has pointed out, "Bangladesh is perhaps the best-known example of a country with relatively weak perceived control of

corruption, but strong performance on policies and on poverty reduction." Furthermore, Levy (p. xxxv) stresses that "development partners need to take the different government trajectories into account and to engage, on a long-term basis in strengthening lagging elements of the governance system." Lessons of experience show that when reforms are imposed from abroad, even as a quid pro quo for aid, they are not sustainable. This is an important lesson that has now become well-accepted in the donor community, though it will obviously take more time until donors and recipient countries fully adhere to this lesson.

Seventh, while aid critics refer to the non-robust association between aid and growth, the UN Millennium Project Report (2005, p. 41) pointed out that there are a variety of explanations for non-robust association between aid and growth. For example, given that food aid is usually given in the midst of deep crises, "a regression of economic growth on food aid would tend to prove (erroneously) that aid causes output to decline, instead of the correct conclusion that an output decline (caused by drought, for example) causes emergency aid to raise!" Taking recent efforts of making aid more effective into account, we should be more optimistic that aid can be effective as well as work together to make it more effective, instead of continuing to be pessimistic about the impact of aid.

Eighth, while aid critics have voiced concerns about negative macroeconomic implications of a scaling up of aid, experience has shown that there is no evidence for such concerns for low-income countries. The way forward is twofold. First, minimize possible future Dutch disease effects by spending aid on productivity enhancing public investment and by central banks providing the flow of low-cost credit to stimulate private investment that usually takes care of the absorption component in the current account. Second, minimize domestic capacity constraints by removing specific supply bottlenecks, e.g., lack of infrastructure or skilled personnel. Again, public investment can play a central role in this effort.

Finally, none of the above recommendations imply that Bangladesh should emphasize aid over trade. There is no doubt that the elimination of current trade restrictions on Bangladeshi exports will benefit Bangladesh much more than any increase in aid. However, the important point is that aid and trade are not excluding each other but can instead be mutually enforcing Bangladesh's broad-based sustainable development.

## Endnotes

1. Based on the Human Development Report 2007/2008, Bangladesh ranks 140<sup>th</sup> among 177 countries for the Human Development Index and 138<sup>th</sup> among 174 countries for PPP-adjusted income per capita. There are three countries (Afghanistan, Liberia, and Somalia) for which these statistics are not available, though it is clear that they are worse than for Bangladesh.
2. While the poverty rate is today higher in the nine Sahelian countries than in Bangladesh, their population is only about half of that of Bangladesh's population. See U.S. Agency for International Development Fact Sheet of August 2005:  
<http://www.usaid.gov/press/factsheets/2005/fs050803.html>.
3. For example, based on Akram, Mahmud and Iftekharuzzaman (2007), a need assessment by leading ministries estimated that US\$2.2 billion will be needed to cover the damages caused by cyclone Sidr.
4. Unless otherwise noted, all data relating to net ODA, gross national income (GNI), GNI per capita, and net ODA/GNI is taken or calculated from the OECD (2007a) and Roodman (2008).
5. Based on UN Millennium Project (2005) calculations, average investments needed per person over a ten-year period (2006-2015) to meet the MDGs amount to US\$1047, of which current spending (including grants and loans) cover less than half, leaving a MDG financing gap of US\$587 over a ten year period, or about US\$59 per year and per person. Hence, additional investments needed per year to achieve the MDGs in Bangladesh would amount to about US\$8 billion, which is nearly 7 times the aid level Bangladesh currently receives (US\$1.2 billion in 2006). It should be stressed that the funds for such a nearly 7 times increase in aid levels to Bangladesh as well as for similar increases to other needy countries would be easily available if the international donor community would make good on the long-standing goal of providing 0.7 percent of GNI as aid.
6. See Faaland (1981).
7. The headlines typically ignored that Transparency International (TI) ranked only 91 countries and that TI stressed that the result for Bangladesh needs to be viewed with caution as there were only three independent survey sources available for Bangladesh, with each of it yielding very different results.
8. What began as efforts to harmonize aid and aid policies at the turn of the Millennium was then extended to also include efforts to improve the alignment of aid at the High-Level Forum in Rome in early 2003. Furthermore, a new institutional architecture, coordinated by the OECD DAC Working Party on Aid Effectiveness and Donor Practices has then emerged at the Paris High Level Forum in March 2005 to the so-called Paris Declaration on Aid Effectiveness, which centers on improving the effectiveness of aid via five key dimensions: ownership, aid alignment, aid harmonization, managing for results, and mutual accountability.
9. See Natural Resources Planners Ltd. (2008), page 7.
10. See for example McKinley (2005).
11. It is important to stress that these two cases of additionality should not be confused with the question about the additionality of DR for a DR receiving country. The question of the additionality of DR for a DR receiving country can only be addressed properly after taking possible reallocations in traditional aid into account. The cases of zero and full additionality of resources by creditors determine the total aid envelope, of which a part will be provided in terms of DR and the other part in terms of traditional aid.
12. There are two extreme answers to this question: Zero reallocation of the HIPC's traditional aid is defined as donors continuing to give the same amount (not necessarily the same share) of traditional aid to HIPC's as before providing DR, independently of whether DR is additional or not. Full reallocation of the HIPC's traditional aid is the opposite of zero reallocation. When fully reallocating the HIPC's traditional aid, donors would subtract the exact amount of DR from the HIPC's traditional aid. Hence, in this case, DR cannot be additional for the group of HIPC's; it may however be additional at the aggregate level (in terms of aid and DR to all aid recipients). As will be shown below, the case of

full reallocation of the HIPC's traditional aid does not necessarily imply that the aid provision to non-HIPCs will increase as that depends on the degree of additionality at the creditors' level.

13. See IMF and IDA (2005).
14. Unless otherwise noted, all data for this section has been taken from three IMF Country Reports and/or their corresponding Statistical Annexes for Bangladesh, see IMF (1998), IMF (2003), and IMF (2007). Fiscal data refers as reported in IMF Country Reports to central government operations, which excludes grants that are provided directly to sectoral ministries as well as some debt to public corporations. The inputs and results of this section are consistent with the excellent analysis provided by Islam and Biswas (2006) who provide further details on the sources of Bangladesh's debt but limit their debt sustainability analysis to the debt to GDP ratio.
15. A more detailed analysis of Bangladesh's debt sustainability is provided by Gunter and Rahman (2008).
16. All initial values as well as all values for  $t_0$  are based on actual data for FY06, except the discount rates, which are set at 5% for the external debt and equal to the public debt interest rate for the domestic debt in order to avoid any distortions in the NPV calculation. The values for  $t_{15}$  are either based on historical averages of FY02-FY06 or set equal to the  $t_0$  values in cases where historical data is not easily available, except the primary spending to GDP ratio for FY21, which is consistent to the revenue to GDP ratio for FY21 set 5 percentage points higher than the FY06 values. The increase in the revenue to GDP ratio reflects the historical trend of FY02-FY06, where the revenue to GDP ratio increased by about 1.6 percentage points, hence 5 percentage points over a 15 year time period.
17. While the full extent of Bangladesh's relative high debt-to-government revenue ratios will only become clear once the 2007 debt data (i.e., post MDRI) is available for similarly poor countries, the conclusion can already been drawn by comparing the ratios of external to domestic public debts of Bangladesh with those of the African HIPCs, see Table 10 of UNTAD (2004).
18. See International Monetary Fund and International Development Association (2008); Islam (2007); Islam and Biswas (2006); and Prasad, Velandia-Rubiano and Kanani (2008).

19. These include the HIPC Initiative, post-HIPC Paris Club debt relief, and Multilateral Debt Relief Initiative (MDRI), whereby the MDRI has been based on the human development approach to debt sustainability as it provided 100% debt relief on certain debts of MDRI eligible countries.

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# **Regimes of Environmental Regulations and Governance: Opportunities and Challenges for Shrimp Aquaculture in Bangladesh**

M. Saidul Islam

## **Abstract**

The emergence of certification regimes—largely known as privatizing environmental governance—has given rise to new realities for agro-food producers. While the new regimes offer both possibilities and opportunities for a sustainable agro-food system, the producers are confronted with various challenges. Field research on Bangladesh shrimp aquaculture shows that despite various improvements to mitigate human and environmental externalities over the last two decades, the sector still faces numerous challenges locally and globally. The key challenges the industry is facing are the campaigns of some NGOs, non-tariff barriers, labor practices, maintaining shrimp quality, corruption and malpractice, and viruses and other natural calamities. Commercial shrimp production generates substantial revenues and foreign exchange, as well as employment for millions in Bangladesh. The study suggests that despite facing various challenges, there exist enormous prospects and possibilities for a sustainable shrimp culture in Bangladesh. In the era of environmental certification and market competition, if Bangladesh fails to act, it actually acts to fail.

## **Introduction**

Because of globalization of the agro-food system, developing nations are orienting their production to meet global needs. As a result, many local agricultural systems in developing countries are increasingly linked to global commodity chains/networks that generate complex intersections and sometimes tensions between the local and the global (Islam 2008a). Cultured shrimp—promoted largely by the FAO and similar other institutions as an alternative to replacing protein loss due the exhaustion of global fisheries—is one such example. Commercial shrimp is one of the major high-valued transnational agro-food commodities, which over the last three decades has become a major global industry; it is regarded as the pinnacle of the blue revolution's achievement (Public Citizen 2005). The global shrimp trade is valued at more than US\$ 10 billion annually (Roheim 2004:277) at the farm gate, and more than 60 billion at the point of retail (EJF 2003). Shrimp as a commodity is generally treated differently from other agricultural products because, among other reasons, “it is not part of the agricultural negotiations of the World Trade Organization” (Roheim 2004:275). It is therefore treated more as an industrial product. Thailand and China produce almost 50 percent of world's supply of shrimp, while other developing countries including Bangladesh supply rest. Shrimp and prawns account for just 6.4 percent of the volume of the world fish trade but about 20 percent of its value (OECD 2003). In 2004, the total global production of shrimp that brought a turnover of US\$ 9.7 billion reached 6 million tons, of which aquacultured shrimp was 2.5 million tons

(OCED 2006).

The coastal zones of some tropical countries, including Bangladesh, dominate the production of commercial shrimp, while exporting to the United States, Europe, Canada, Japan and other wealthy countries. For many developing countries, including Bangladesh, shrimp has become a major source of foreign exchange and has integrated often previously marginal coastal communities into high value commodity networks (Vandergeest et al. 1999; Islam 2009). However, the producing countries are facing increasing challenges in international trade, particularly concerning “quality.” Among the recent transformation of the global agro-food system, quality rather than price or quantity has become the basis around which production, commodities, and markets are increasingly organized (Busch and Main 2004; Henson and Reardon 2005). Traditionally, government agencies had the responsibility for monitoring food safety standards and other food quality attributes. However, the recent emergence of privately regulated supply chains organized more around principles of “quality” has precipitated a shift in governance which Busch and Bain (2004:337) term “the private regulation of the public.” While previous “quality” assurance was confined only to HACCP (hazard analysis critical control point) manual, recent developments have extended quality assurance to traceability<sup>1</sup>, environmental sustainability, labor rights, and community-based resource management in production sites. As major buyers such as Wal-Mart, Darden and Lyons have recently committed to buying only certified” seafood, including farmed shrimp, it is anticipated that other

buyers will also follow the same path and a major portion of shrimp production will soon come under the certification umbrella (Wal-Mart 2006; Vandergeest 2007). This conspicuous trend poses both opportunities and challenges. It offers an opportunity to develop more sustainable aquaculture; however, the producers who fail to meet the shifting privatizing regulations will eventually lose out in the market.

Though Bangladesh contributes to around 5 percent of the world shrimp production, the item is the second largest industry in the country next to garments (USAID Bangladesh 2006). Bangladesh, in fact, enjoys an advantageous natural setting for shrimp culture. While subsistence fishermen have caught shrimp in Bangladesh for hundreds of years, the beginning of the present shrimp culture dates back to the late sixties (Islam 2008a, 2009). Since the 1980s there has been a dramatic increase in shrimp farming, especially in the coastal areas where this has been termed as the “blue revolution” (Deb 1998). The Department of Fisheries (DoF) estimated that there are approximately 270 thousand hectares of coastal shrimp farms producing an average of 80 thousand metric tons of shrimp annually. Experts estimate that the volume can be raised up to 300 thousand tons through, among other measures, proper utilization of shrimp-fry. The FishSite (January 20, 2008) revealed that Bangladesh’s shrimp exports continue to be the country’s second largest foreign exchange earner, earning US\$515 million from exports during the fiscal year of July 2006-June 2007. Though the Bangladesh government was hoping to earn over \$1.5 billion from shrimp exports annually by 2010, the sector has failed to meet that target as various challenges continue to confront the industry. Given this background, the paper has three objectives: (a) to elucidate the emergence of privatizing environmental governance—also known as environmental certification; (b) to examine the challenges that Bangladesh shrimp aquaculture is facing in the context of this new governance; and (c) to devise some pragmatic solutions or policy recommendations for the Bangladesh shrimp sector not only to survive but also to thrive in the global competitive shrimp markets.

The next section describes the methods and procedures of data collection. The third section delineates the regimes of regulations and governance in Bangladesh shrimp aquaculture, which have significantly shaped and affected the sector. In the context of the processes and practices of shrimp

farming in Bangladesh, particularly the extent to which the country is complying with the international codes of conduct (i.e., certification schemes), the paper then pinpoints the key challenges that the nation’s shrimp industry is facing in the era of certification. The paper concludes by providing some suggestions with broad development implications for Bangladesh.

## **Methods and Procedures**

From May 2005 to August 2006, an extensive field research was conducted in Bangladesh involving a triangulation of methods: semi-structured in-depth qualitative interviews, focus group discussions, and ethnography—both local and global—substantiated by secondary sources. A combination of methods was deemed necessary in order to gain a broader and a deeper understanding of shrimp culture in Bangladesh. Secondary sources included journals, books, national newspapers, internet search, government reports, and publications by local and international NGOs. A follow-up study was recently conducted (December 2009—January 2010) to see any recent changes in the industry.

### ***Qualitative Interviews***

In-depth qualitative interviews and ethnography (local) were conducted in 3 districts of the greater Khulna region: Satkhira, Bagerhat, and Jessore. The sample size was 9 shrimp farmers (with at least 10 years of farming experience), 9 villagers, 6 government officials, 6 processors, and 5 NGO workers, for a total of 35 respondents. Snowball sampling was employed to find the respondents. All respondents were carefully selected with the consultation of local NGOs and District Fisheries Officers (DFOs) and, therefore, identified as the “key informants” for interview. Alongside an ethnography (direct observation and informal meetings with different stakeholders), in-depth semi-structured qualitative interviews were also conducted with the processing workers, with an emphasis on gender and labor relations, in the Greater Khulna region. Four factories were randomly selected out of 35 factories operating in the Khulna region. One person (owner/manager) from each factory management (a total of four) was interviewed based on prior appointment, whereas 4 male permanent workers, 5 female permanent workers, and 9 female casual workers were interviewed after locating them in the nearby villages. Interviews were conducted in a conversational mode; each lasted for 2 to 4 hours.

**Table 1: Focus Groups Interviews**

|    | Type   | Number | Place       |
|----|--|--------|-------------|
| 1. | Fry catchers   | 12     | Mongla      |
| 2. | Fry traders  | 9      | Mongla      |
| 3. | Fry hatchery owners (Six of them have shrimp farms)                          | 7      | Shyam Nagar |
| 4. | Five Shrimp traders and three Middlemen                                      | 8      | Faqirhat    |
| 5. | Women workers in shrimp ponds  | 12     | Shyam Nagar |
| 6. | Upazila Fisheries Officers   | 5      | Faqirhat    |
| 7. | Informed people (hotel managers, local businessmen, teachers etc.)           | 10     | Faqirhat    |
| 8. | Informed people (Two college professors, and six human rights/NGO activists) | 8      | Shyam Nagar |
|    | Total  | 71     |             |

This allowed for rapport and trust to develop between the interviewer and the respondents, as well as flexibility in exploring emergent themes. These respondents spoke with relative authority on the subject matter.

### ***Focus Group Discussions***

Among the farming areas in three districts, three sub-districts (*Thana*), namely, Shyam Nagar (Satkira), Mongla (Khulna), and Faqirhat (Bagherhat) were randomly selected, and a series of focus group discussions were conducted with representatives from key nodes of the shrimp commodity chain as well as informed people living in the shrimp farming vicinity. Though considerable research was already conducted earlier, the researcher felt it would be helpful to ask group members “who are acute observers and who are well-informed” (Blumer 1969:41) some specific questions on shrimp farming and emerging regulations that might have significant implications for the industry. Table 1 illustrates the focus group interviews.

### ***Local and Global Ethnography***

In order to explore the relationship between global regulations and local practices, the research used in-depth qualitative ethnographic techniques in an attempt to decipher the current and emerging challenges affecting the shrimp industry. Locally, in-depth participant observations formed a foundational database. This ongoing process afforded continuous insights into the way the industry is shaped by both local and global processes.. During the ethnography, along with direct participant observation, the researcher continued to talk to the local people until

no new or additional information was being generated. Secondly, documents were collected from many different sources including but not limited to the Ministry of Fisheries and Livestock, NGOs documents on shrimp farming, and Sangram Archival Library in Dhaka. At the global level, the author participated in the World Aquaculture Society (WAS) Meeting (September 25—29, 2009) held in Veracruz, Mexico, and the Shrimp Aquaculture Dialogue (ShAD) in Jakarta (March 9—10, 2010), organized by the World Wildlife Fund (WWF) and the Ministry of Marine Affairs and Fisheries, Republic of Indonesia. Both meetings provided the author with important insights about the current contours and future trends of the global shrimp industry and their implications for Bangladesh.

### ***The Recent Follow-up Research***

The recent follow-up research (December 2009—January 2010) containing interviews and conversations with some officers in the Department of Fisheries, Bangladesh Frozen Foods Exporters association (BFFEA), and NGOs as well as some researchers with similar interests allowed the author to decipher whether new changes and challenges have emerged in the commercial shrimp industry. Taken as a whole, these data sources provided a robust and in-depth understanding of complex issues and questions regarding global agro-food system and their implications for the Bangladesh shrimp industry.

### **Regimes of Regulations and Governance**

#### ***The HACCP Regime: From Public to Private Regulation***

The Bangladesh Standard and Testing Institute

(BSTI), a public certification agency of the Bangladesh government, used to certify Bangladeshi shrimp before it was exported (FAO/WHO 2004; Islam 2008a). However, because of global competitive pressures for “quality shrimp,” pressures that are coming from buyers as well as environmental groups, the form of regulation has shifted from the public to the private sector. The European Union buyers imposed a ban on shrimp exports from Bangladesh in 1997 because of what they called “sub-standard products.” At the same time, other big buyers, such as the United States and Japan, created pressures, via the commodity chain, for using a private system of regulations called the hazard analysis critical control point (HACCP) to maintain shrimp freshness and quality (Pokrant and Reeves 2003).

The HACCP system has a long history of development and evolution. The current global food safety system (Table 2 below), under the auspices of the United Nations, began in 1945 with the organization of the Food and Agriculture Organization. The General Agreement on Tariffs and Trade (GATT) concluded in 1947 and included provisions for countries to apply measures necessary to protect human, animal, or plant life or health. Several GATT stipulations were that measures adopted by an individual country must not unjustifiably discriminate between countries where similar conditions prevail, and must not act as disguised restrictions on international trade (Sperber 2005). After that the HACCP system took a long path of evolution until, in 1997, it reached the “Codex document on HACCP principles and application,” which is briefly described in Table 2 below.

While the early HACCP system was quite simple and consisted of only three principles, the modern HACCP is built upon seven principles (Table 3). These requirements of the United States and Japan,

and later those of the EU buyers, led Bangladesh to restructure its institutions and management practices in order to use seven principles of HACCP. The ban was lifted when government agencies succeeded in satisfying buyers.

As pressure was channeled from the buyers through the commodity chain to implement the HACCP, many shrimp factory owners in Bangladesh renovated their facilities and converted them into modern plants. The Bangladesh government established an institution, known as Fish Inspection and Quality Control (FIQC) under the Department of Fisheries (DoF), Ministry of Fisheries and Livestock. The FIQC has three stations, and all are, as the DoF claimed, equipped with modern laboratory facilities and technical personnel. As summarized from Chowdhury and Islam (2000), activities and restructuring measures taken by the government of Bangladesh to meet the HACCP system include the following:

- Fish and Fish Products (Inspection and Quality Control) Rules of 1989 were amended in 1997 based on the HACCP system required by the buyers.
- More than 24,000 field-level people were trained on post harvest handling, transportation, hygiene and sanitation.
- Raw material suppliers of the processing plants have been brought under compulsory registration.
- Follow-up training programs on the HACCP were arranged for the personnel of fish processing plants.
- Quality of water and ice in the fish processing plants have been standardized.
- Infrastructural facilities of fish processing plants have been renovated and modified in accordance with the HACCP system.
- Concerned authority has been strengthened with proper laboratory facilities and other logistical support.

**Table 2: Evolution of the Global Food System Under the United Nations**

| <b>Year</b> | <b>Evolution of organizations/ bodies</b>                             |
|-------------|---|
| 1945        | Food and Agriculture Organization (FAO)                               |
| 1947        | General Agreement on Tariffs and Trade (GATT)                         |
| 1948        | World Health Organization (WHO)                                       |
| 1963        | FAO/WHO Codex Alimentarius Commission (CAC)                           |
| 1994        | Agreement on Application of Sanitary and Phytosanitary Measures (SPS) |
| 1995        | World Trade Organization (WTO)  |
| 1997        | Codex Document on HACCP principles and application                    |

Source: Sperber (2005: 506).

- The government formed a supervisory audit team to monitor the work of the competent authority.
- The government also acted to (a) improve quality of fish and shrimp raw materials through monitoring and motivational work on post-harvest handling and transport, (b) provide reasonable assurance that fish and shrimp used as raw materials were free from chemical contaminants, environmental pollutants and toxins through frequent monitoring, (c) apply appropriate steps for quality assurance by implementing quality management program based on HACCP principles, (d) control and assure the quality and safety of products through such tools as plant and process inspections, (e) provide certificate for exportable lots after physical and microbiological tests of the products, and (f) achieve and maintain a high standard of quality in all activities related to laboratory work and field inspection.

By 2000, fifty-eight licensed factories had developed HACCP-based quality assurance protection (QAP) manuals. The factory personnel started implementing the HACCP system in their respective plants by following sanitation standard operating procedures (SSOP) and good manufacturing practice (GMP) (Chowdhury and Islam, 2000). There are also extensive plant and pre-shipment inspections from time to time. Though all these are significant steps towards ensuring quality seafood, the implementation of all involves a huge cost which is not borne by the buyers. What is clear is how government agencies remain central in implementing, subsidizing, and organizing compliance with so called private standards. Though the regulations were private, the government agencies had the responsibility of implementing them.

### ***The SSOQ Regime: From Public to Private Governance***

The traditional role of the government agencies in maintaining quality and certifying shrimp following the HACCP manual precipitated a further shift from a public to a private form of governance, with the emergence of a third-party certifier. The Shrimp Seal of Quality (SSOQ) was established in Bangladesh in 2002 (SSOQ 2002; Gammage et al. 2006), and in February 2005 it began certifying the shrimp processors and hatcheries in Bangladesh for the first time, albeit on a limited scale. With the aim of what it called “fetching premium prices in the international frozen food market” (The Independent, February 18, 2005), the SSOQ aimed at certifying shrimp on the basis of five factors: (a) food safety and quality assurance, (b) traceability, (c) environmental sustainability, (d) labor practices, and (e) social responsibility (SSOQ, 2002). All are among the key issues of concern for the environmental groups, labor rights movement, and finally the buyers, such as Wal-Mart, Darden and Lyons (Vandergeest 2007).

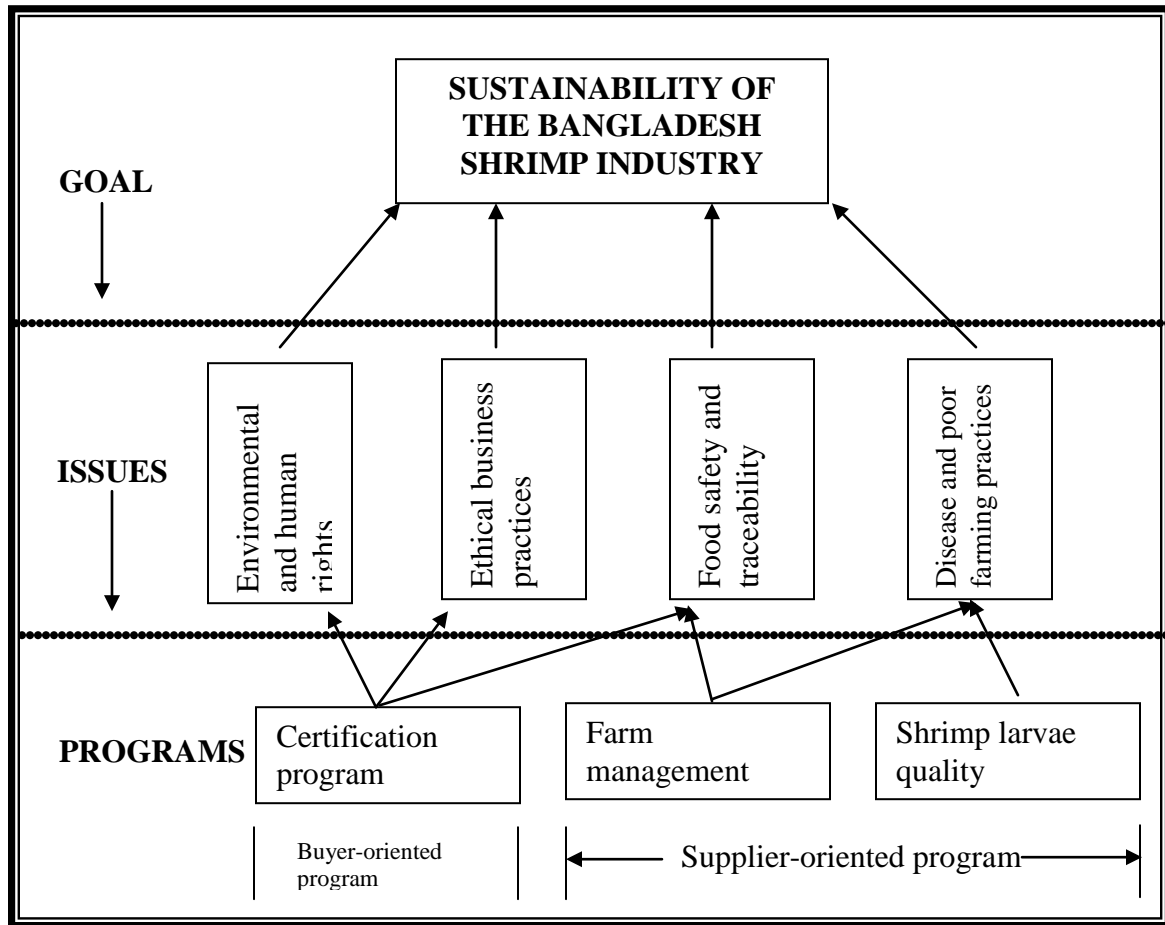
The stated objective of the SSOQ program is to achieve a sustainable improvement in the volume and value of Bangladeshi shrimp exports. The SSOQ aimed at intervening in the shrimp farming sector by introducing what it called “Better Management Practices,” (BMP) (see Bene 2005) and improving the quality of the primary input, shrimp larvae. The SSOQ introduced a program to certify shrimp producers (including processors, farmers, transporters, and potentially hatcheries as well) with the aim of creating a stable supply of quality shrimp from reliable suppliers for the export market (Qudir and Kabir 2005). Figure 1 outlines the mission and program of the SSOQ:

**Table 3: Evolution of HACCP Principles**

| <b>HACCP principles, 1972</b>   | <b>HACCP principles, 1997</b>  |
|---|--|
| 1 Conduct hazard analysis<br>2 Determine critical control points<br>3 Establish monitoring procedures | 1 Conduct hazard analysis<br>2 Determine critical control points<br>3 Establish critical limits<br>4 Establish monitoring procedures<br>5 Establish corrective actions<br>6 Establish verification procedures<br>7 Establish record keeping procedures |

Source: Sperber (2005: 506).

Figure 1: The SSOQ's Mission and Program



Source: Gaillard and Quader (2004: 6).

The SSOQ formed an alliance with the Global Aquaculture Alliance (GAA) and its formed organization Aquacultural Certification Council (ACC). The SSOQ subsequently incorporated the ACC standards into its own codes. Other important global stakeholders, such as the World Wildlife Fund (WWF) and the Network of Aquaculture Centres in Asia-Pacific (NACA), also became strong allies of the SSOQ. After getting global stakeholders on board, the SSOQ started organizing seminars, symposiums and conferences in a bid to convince local stakeholders to work with it, since it faced resistance from the DoF as well as some exporters. After launching the *Seal of Quality Newsletter*, the SSOQ formed the Bangladesh Shrimp and Fish Foundation (BSFF) as well as the Bangladesh Shrimp Development Alliance (BSDA) to unite the industry and to bring all stakeholders together under a united platform (see Khan 2005; Gaillard and Quader 2004; Qudir and Kabir 2005). No resistance, however, was found from the farmers and small traders because

among other reasons, they knew very little about all these technical issues, though they expressed mixed reactions when they were told about this recent development in the Bangladesh shrimp aquaculture.

As the study found, the international buyers in the chain support this regime for two main reasons. First, unlike in the past, governments are now widely seen as lacking sufficient management capacity to implement and enforce detailed environmental regulations (Vandergeest 2007). Second, lead firms need to maintain consumer trust in consuming shrimp, trust that has already been damaged by a network of environmental groups working at scales ranging from local to global. At the international level, environmental groups and consumers increasingly demanded that shrimp be produced in compliance with recognized codes of conduct regarding food safety, human rights, fair labor practices and environmental protection. The concerns manifested themselves in a number of ways. Export-

oriented shrimp industries witnessed demands for traceability as a means of improving food safety. Concerns were also raised regarding human rights in shrimp farming areas. Issues that were problematized by environmental groups concerning shrimp aquaculture in Bangladesh include illegal land grabbing; use of forced and child labor; community access rights to land, water, and other resources; and the respect accorded to the livelihoods, cultures, and religions of the various communities in the area. These concerns were raised in both national and international arenas (see EJF 2003; Bene 2005; Gammage et al. 2006; Islam 2008b).

The activities of the Environmental Justice Foundation (EJF)<sup>2</sup> are an important example. In May 2002, the EJF visited Bangladesh to conduct research on the shrimp industry. Its primary interest was, as quoted by Gaillard and Quader (2004:4), “to investigate the claims of environmental and human rights abuses associated with the shrimp industry.” The EJF was looking for local stakeholders, primarily NGOs, “to offer training and link them with international media to gain support for their causes” (p. 4). The EJF worked with a local NGO in the Khulna Region, Nijera Kori (NK), which has a long history of contesting the shrimp industry. The NK was advocating a suspension of all shrimp-supporting activities sponsored by the government and various donors. In particular, the NK had been lobbying to freeze any farming activities in an area noted for violence reputedly related to the shrimp industry.

The conflict between hatchery operators and sellers of wild fry, as well as the destruction of mangrove forest in Bangladesh, also became contentious issues in the anti-shrimp campaign. In the aftermath of the white spot virus, farmers became increasingly dependent on wild fry, which they preferred because they were more resistant to disease. Wild fry were typically farmed when they were older and larger and had greater resilience in regard to the elements. Farmers were willing even to pay a premium for wild fry. The collection of wild fry, however, was an environmental concern because it resulted in significant losses to biodiversity. In the late 1990s environmental groups estimated that “over 90 billion seeds of other species were caught and discarded annually during the collection of shrimp fry” (quoted in Gaillard and Quader 2004:4). Though this number might be an exaggeration, it became an important issue for the environmental groups, which subsequently caught the attention of several

international organizations and interest groups. Meanwhile under the pretext of environmental concern, the hatcheries, which were suffering financially, lobbied the government to ban the collection of wild fry. Although such a ban was enacted in 2000, lack of enforcement and the preferences of farmers resulted in continued collection of wild fry. As mangrove forests in Sundarban remained an important source for shrimp fry, collection of fry disturbed the biodiversity of the forest. “Wild fry did decline, however, as a percentage of total fry sold to farmers, but nonetheless 2003 figures indicated that approximately 40% of the fry used by farmers was from wild sources” (Gaillard and Quader 2004:4). Therefore, “loss of biodiversity” remained an arguable and politically effective issue for environmental groups and NGOs for their campaign against shrimp aquaculture in Bangladesh.

As the campaign of environmental groups moved from local to global, it created concern among consumers about shrimp. The campaign threatened the lead firms’ shrimp business. As direct pressure came from the commodity chain, Bangladesh also moved to restructure and institutionalize its environmental and social policies and practices towards an “environmentally sound and socially responsible shrimp culture.” Despite the efforts made by government and other industry participants following buyers’ requirements, the industry as a whole still faced significant challenges as the campaign continued by raising novel issues such as traceability and the government’s inability to manage the environment. This situation, coupled with buyers’ tightening grip on chain governance to ensure their *desired* “quality” despite market fluctuation as well as changes in the local political atmosphere in Bangladesh, paved the way for a third-party certifier. As Vandergeest (2007:1162) reports, “the environmental and social controversies surrounding shrimp are an opportunity for retailers who are seeking a competitive edge in relation to product quality and corporate image.” It was in this context that the Agro-based Industries and Technology Development Project (ATDP)<sup>3</sup> developed the concept of a Shrimp Seal of Quality (SSOQ) program. In short, through their influence on buyers, environmental groups cleared the ground for the emergence of a third-party certifier. As the SSOQ assumes an independent power, I argue that cultured shrimp is governed not only by buyers but also by a third-party certifier, as well as other NGOs.

## **Challenges Facing the Bangladesh Shrimp Industry**

### ***Environmental movements against aquaculture***

Since the early 1990s, numerous researchers and local and international NGOs voiced their concerns and expressed mounting criticism over social, economic, and environmental consequences of commercial shrimp production.<sup>4</sup> They argued that industrial shrimp farming has caused social dislocation, ecological damage, and environmental destruction that is arguably worse than that from many earlier Green Revolution technologies. Some of the most serious environmental problems they indicated include the destruction of coastal wetlands, water pollution, disruption of hydrological systems, introduction of exotic species, and depletion and salinization of aquifers. They also claimed that one of the most critical social problems identified by the local people as part of the expansion of the Blue Revolution is the loss of communal resources—including mangrove areas, estuaries, and fishing grounds—that they depend on for both subsistence and commercial economic activities. Commercial shrimp farming has displaced local communities, exacerbated conflicts and provoked violence involving property and tenant rights, decreased the quality and quantity of drinking water, increased local food insecurity, and threatened human health. In 1997 the WWF, for example, documented,

... in many locations commercial shrimp farming has devastated fragile coastal ecosystems, causing mangrove destruction, coastal erosion, pollution of surface and ground-waters including salinisation of vital coastal freshwater aquifers, and in some cases introduced exotic species. The few cost-benefit analyses performed to date have indicated that the cost of natural resource depletion and environmental damage far outweighs the direct economic returns from the industry. ...Shrimp aquaculture, as currently practiced in many areas, provides a striking example of unsustainable use of natural resources for export markets. As well as seriously damaging the environment, it also undermines food security at the local level and reduces prospects for future development and poverty alleviation. The industry has triggered serious social conflicts in some locations by

marginalizing village communities and the poor. In many cases, while a few individuals benefit from this industry, many more see their livelihoods and local environment damaged and destroyed. (WWF, 1997)

All these reports on environmental and social setbacks escalated a conflict between the proponents and opponents of industrial shrimp farming. Gradually the conflict transcended local and national arenas. These tensions and conflict subsequently gave rise to the formation of environmental and peasant-based NGOs opposed to shrimp farming, while industry groups sought to counter the claims and campaigns of the resistance coalition. All these problems generated resistance from villagers, rice farmers and NGOs. The resistance ranged from street protests to violent confrontations between the shrimp cultivators, mostly outside entrepreneurs, and the local people. Studies in Bangladesh conducted by Manju (1996), Nijera Kori (1996), and later on (Tutu 2004) documented that the confrontations resulted in adverse law and order situations, violence, serious human rights violation and even deaths. However, the local administration, police and other law enforcing agencies in almost all cases, as their studies claimed, sided with the shrimp cultivators vis-à-vis the evicted local people. Many small farmers became landless.

NGOs such as Nijera Kori, Coastal Development Partnership (CDP), and UBINIG started working to create awareness among the people with regard to the negative consequences of shrimp industry (Pokrant and Reeves 2003). This negative image of shrimp culture is still mounting. The study shows that while there were instances of severe environmental and social damages in the early years of commercial shrimp in the 1970s and 80s, the recent improvements in Bangladesh are also substantial. Nevertheless, most of the global stakeholders still have negative images of Bangladeshi shrimp, images which have been propagated by some NGOs including Nijera Kori and Environmental Justice Foundation (EJF). In order to promote the real and positive images of Bangladesh shrimp and fish industry, both the industry and the Department of Fisheries need to engage not only with these NGOs, but also with other stakeholders in order to move towards a sustainable shrimp culture, which

**Table 4: Environmental and Social Impacts and Interventions**

| Practice/ Actions  | Consequences for Development  | Environmental and Social Impact   | Intervention Recommended   |
|--|---|---|--|
| Land lease by outside entrepreneurs  | Use of land only to maximize short-term profit without concern for long-term sustainability | a. Deforestation<br>b. Destruction of mangrove eco-systems (biodiversity)<br>c. Destruction of alternative source of livelihoods  | a. Ensure participation of the stakeholders in the management of shrimp farming and stricter implementation of existing laws<br>b. Introduce zoning and declare certain parts of the country to be shrimp-free area                      |
| Lease of government ( <i>khas</i> ) land for shrimp culture                                | Traditional rice culture replaced by shrimp culture   | a. Disentitlement of landless<br>b. Intensification of poverty<br>c. Prevalence of environmentally unfriendly practices<br>d. Gradual degradation in the quality of land and soil-nutrient resulting from accumulation of salts affecting rice production | a. Enactment of laws ensuring participation of landless people in any use of <i>khas</i> land<br>b. Develop land use policy and environmental guideline for shrimp culture<br>c. Develop optimal practices for rice-shrimp mixed culture |
| Salt water penetration within embankment for substantial period                            | Increased salinity in the area  |   |  |
| Use of extensive methods of shrimp cultivation causing inundation of large tracts of land. | Large area remaining under water for substantial period of time                             | a. Destruction of homestead cultivation, fruit orchards<br>b. Rupture in the subsistence cycle  | a. Encourage semi-intensive method of cultivation<br>b. Zoning and area mapping  |
| Indiscriminate shrimp fry collection   | Destruction of fish biodiversity and increased exploitation of preferred species            | Over fishing  | Develop shrimp hatcheries  |

is environmentally friendly, socially responsible, culturally sound, and economically and technologically viable.

From the early 1990s to the present, research conducted on Bangladesh shrimp farming (e.g., Nijera Kori 1996; Manju 1996; Rahman 1995; Ahmed 1996; Deb 1998; Battacharya et al. 1999; Islam 2002; Metcalfe 2003; Alam et al. 2005; Ali 2006; Haque 2004; USAID Bangladesh 2006) have focused—apart from various gains—on a range of environmental and social concerns of commercial shrimp. The major environmental concerns generated by certain practices of shrimp farming in Bangladesh and the interventions recommended by this research are summarized in Table 4.

While Bangladesh has seen significant progress in terms of alleviating the worst human and environmental abuses surrounding commercial shrimp (Islam 2009), both the progress and

implementation are very slow. Negative environmental and social impacts of shrimp aquaculture still continue albeit on a lesser scale. The recommended interventions have not been adopted and implemented fully and on a timely fashion. With many novel challenges (discussed below) being added up with previous unresolved problems, the current shrimp culture has become even more complex and vulnerable.

#### ***Non-Tariff Barriers***

Many developed and some developing countries have been offering special preferential market access schemes to least developed countries (LDCs). While these schemes have lowered tariff barriers for most of the agricultural products exported by the LDCs, non-tariff barriers (NTBs) remain a major constraint to LDCs exports (Deb 2007). For example, it has been calculated that Bangladesh and Cambodia, even though they have duty-free access to the EU market,

**Table 5: Major Categories of NTBs**

| <b>Categories</b>   | <b>Description</b>   |
|---|--|
| i) Quantitative restrictions and similar specific limitations                           | Quantitative restrictions (QRs) are implemented through various actions such as import quotas, export quotas, licensing requirements for imports and exports, voluntary export restraints, prohibitions, foreign exchange allocation restrictions, surrender requirements, import monitoring, temporary bans to balance trade, discriminatory bilateral agreements, counter trade, domestic content and mixing requirements, mandatory certification, and allocation process for quantitative restriction. |
| (ii) Customs procedures and administrative practices                                    | Several customs procedures and administrative practices such as customs surcharges, decreed customs valuation minimum import prices, customs classification procedures, customs clearance procedures, minimum custom value, excises, and special customs formalities like stamping often create barriers to trade.   |
| iii) Non-tariff charges and related policies affecting imports                          | Imports may also be affected by various policies and non-tariff charges such as special sales taxes, variable levies, border tax adjustment, value added tax, antidumping and countervailing measures, cash margin requirements, and rules of origin.  |
| (iv) Government participation in trade, restrictive practices and more general policies | Governments often provide subsidies and other aids, participate in state trading, and designate goods subject to specialized management by line ministries. In addition, state procurement policies, tax exemptions for critical imports, and single or limited number of channels for imports of food and agricultural products can act as non-tariff barriers.   |
| (v) Technical Barriers to Trade   | Governments, on various grounds, often set standards such as health and sanitary regulations and quality standards, safety and industrial standards and regulations, packaging and labeling regulations, advertising and media regulations. These technical requirements can also act as non-tariff barriers to trade.   |

Source: Deb (2007).

faced NTBs equivalent to an average tariff of 5.65 per cent and 7.66 per cent, respectively in 2001 (Brenton 2003). Non-tariff barriers (NTBs) or measures (NTMs) generally refer to any measure other than tariff which restricts or distorts trade. While various classifications of NTBs exist (see UNCTAD, 1994), trade policy researchers often describe NTBs under five major categories: (i) Quantitative restrictions and similar specific limitations, (ii) Customs procedures and administrative practices, (iii) Non-tariff charges and related policies affecting imports, (iv) Government participation in trade, restrictive practices and more general policies, and (v) Technical Barriers to Trade (see Table 5 for details).

#### ***Quality: Freshness and Credence***

Maintaining quality as required by the buyers remains a crucial challenge for Bangladesh shrimp aquaculture. Despite various policies and programs, Bangladesh still lacks modern testing facilities, research technologies, and qualified technicians. In 1997 the EU imposed a ban on shrimp imports from Bangladesh because of the following quality problems:

- Exported shrimp did not retain the desired level of freshness. Salmonella, E-coli and

other harmful bacteria and germs were found at an alarming rate in the shrimp. These germs attacked the shrimp through animal waste and polluted water.

- Flies; mosquitoes or bodies of other insects; hairs of dogs, cats, cattle, goats or mice; feathers of chickens and ducks; bamboo sticks; leaves; jute fibers and sand were found in the shrimp.
- Pieces of iron and glass, sticks of coconut and other unacceptable things were found in the shrimp bodies.
- Bodies of the shrimp became soft, spongy or bruised; color of the shell changed or became black; shell was broken or became soft or meat hung from the body.
- Shrimp of the grade lower than what was referenced on cartoons were sent. Also weights were lower than what was written on the cartoons.
- Besides, if the shrimp was found to contain any trace of insecticides or antibiotics, the product would be treated as poisonous (Karim 2000).

Bangladesh shrimp sector had to pay a huge price for its “sub-standard” shrimp. Cato and Subasinge (2003) estimate that the cost for plant upgrading in

Bangladesh shrimp industry to implement HACCP manual was \$18 million. Additionally, the annual recurring costs to maintain HACCP programs and meet international standards are \$2.2 million for the industry and \$225,000 for the government. As the study found, while the Bangladesh shrimp sector made impressive progress in terms of upgrading its plants to ensure freshness and taste as required by the buyers (discussed before), the same malpractices still remain in certain factories. On the other hand, other “credence”<sup>5</sup> qualities have been added in the era of certification such as ensuring traceability, conforming to prescribed labor and human rights, and producing commodity in an environmentally and socially just manner. This research along with Alam et al. (2005) show that there is a wide gap between the quality required by the buyers and the prevalent qualities of the Bangladeshi shrimp. The country still lacks proper plans and policies to cope with the shifting demands of the global markets. Where policies are in place, lack of implementation and enforcement as well as serious shortage of technical experts are seriously obstructing the industry to meet the “quality” required by the buyers.

### ***Gender Issues and Labor Standards***

One of the components of the certification schemes is that shrimp should be produced in a manner that does not violate human and gender rights and should adhere to local and international labor standards and regulations. It has been found, however, that the production and processing of shrimp in Bangladesh is highly feminized and negates local and international labor regulations. The research found that the *feminization* of the workforce in the shrimp processing factories is characterized by the *marginality* of females, who receive lower wages and social prestige than their male counterparts. The female workers are largely concentrated at unprotected nodes of the local supply chain, which are flexible, part-time, temporary, casual, and informal, without an employment contract or its associated rights (Islam 2008b).

Some factories have many permanent workers with no legal and written appointments. Most of them are appointed orally. In these factories, most permanent workers do not have any extra rights such as bonus or health insurance, and their salary ranges from US\$ 1 to 3 per day. Many of them work at least 12 hours each day, but on paper 8 hours of work is shown. During peak seasons, they often have to work more than 12 hours. The reasons behind an oral contract, as

the study found, are: (a) to deprive them from other facilities, such as health and other social protection and (b) to keep them in such a position so that they cannot take any legal action/claim. Casual workers are more vulnerable. They cannot claim anything as they do not fall within the legal framework of “worker” according to Bangladesh labor law and work under third-party contractors who also exploit them.

Apart from lower wages, the study found that the female workers in the processing factories suffer from various illnesses such as fungal infection, cuts and bruises in their hands. The females often work in unhygienic working conditions. There is no regulation of occupational health and safety in the factories. In the case of any work-related accidents, the female labors are not covered by any insurance policies. They rely on the mercy of their employers. On very rare occasions, they are compensated with a mere one-off payment for a workplace accident. There is no provision for sick or maternity leave. Most employers operate on the basis of “no work, no payment.” While the HACCP training modules recommend the use of gloves, the study found that workers are only given gloves during the final stage of packaging. Management mentioned that the female workers are reluctant to use gloves because they slow down the work. However, one worker reported otherwise, stating that “We want gloves, but it is not provided to us as it slows down the work and involve a little cost for them.”

As there is an apparent gap between labor standards in certification regimes and actual labor practices in the production and processing segments of the chain, Bangladeshi shrimp is becoming unpopular among the consumers, and hence many buyers feel reluctant to purchase them. This one of the reasons why Bangladeshi shrimp has about 10 per cent lower price/value in the global markets. During the WAS Meeting 2009, a US consumer reported, “I used to eat Bangladeshi shrimp. After I saw a report in CNN, I stopped buying.” On compliance with local and international labor rules and standards, a local production manager revealed, “We do not follow any labor rules, though we have them on paper.” Sometimes officers from the Ministry of Manpower come to inspect shrimp processing factories. Most of them are also corrupt. “They [the officers] become very vocal at the very beginning, but upon serving cold drinks and giving cash money [bribe], their voice becomes very soft” the production manager added. Though this scenario is not prevalent in all

processing factories, and there are various signs of progress in recent days, gender and labor issues still remain crucial for the Bangladesh shrimp sector.

### ***Corruption and Malpractices***

During this research, owners/ managers of processing factories were reluctant to disclose any information, and most of their answers were very selective, positive and diplomatic. After long assessment and critical scrutiny, various practices of corruptions, discrepancies, and abnormalities were found. Most factories maintain ideal paperwork for inspection that may not correspond to the actual practices. For every container, a sample of shrimp is to be tested in Singapore as recommended by the EU delegates who visited the factories in October 2005. With one test result, some factories sometimes sell few more containers by duplicating the test result. It was found that in order to get government subsidy, some factories generate fake paperwork.

“Pushing water or other substances into the shrimp’s body to increase weight still remains a common practice in processing factories” claimed a factory worker. “We do not do it for every shrimp. Let’s say, we push water into 10 kilos of shrimp and mix them with 500 kilos so that it cannot be detected. By pushing water, the weight of one kilo shrimp can go up to one kilo and 100 grams” he continued. Some factories manipulate the weight of the processed shrimp to get more revenue. “Often, on a box that has 1.5 kilos of shrimp, we write 1.8 kilos” revealed a processing worker, “since shrimp is frozen with water, it’s difficult for the buyers to measure the actual weight” he added.

According to government regulation, after processing shrimp has to be boxed with the factory’s label. However, very few factories were found to practice this regulation. “Buyers send us the type of box (size, color and written labels on it), and we prepare it accordingly here. It saves buyers from extra cost of re-packaging” said a manager, “Since shrimp goes in big containers, the government officials cannot detect this malpractice. If it is known, a little bribe solves the problem,” he continued. Though these are not a common phenomenon in all factories, few malpracticing factories are damaging the whole industry. The government agencies not only lack a serious mechanism to curb such corruption and malpractices, ironically sometimes the government officers themselves indulge in and sustain such practices for individual gains.

### ***Viruses and Other Calamities***

One of the major challenges facing the industry is a widespread viral disease that has been responsible for declining production since the early 1990s of the marine shrimp known as “Black Tiger,” or “Bagda,” which dominates the export market. The other main variety of Bangladesh shrimp is actually a giant fresh water prawn known as “Galda,” which is immune to this viral disease. The Bagda proliferates in tidal basin areas along the Bay of Bengal coastline in brackish water, while the Galda can flourish farther inland in ponds. The disease known as White Spot Syndrome Virus (WSSV) was detected through tests in a laboratory set up by the SSOQ program. The tests found the incidence of WSSV at over 70 percent (Gillard and Quader 2004). Although WSSV is harmless to the human consumer, it cuts down shrimp production in the farms drastically. This virus has been affecting the industry for years; however, a full control mechanism has yet to be developed. This makes the industry extremely vulnerable and many farmers have become destitute and bankrupt after being affected by this virus.

Currently Bangladeshi shrimp exporters, already hit by the global economic crisis, had temporarily stopped shipping fresh water shrimp after a harmful drug was found in some shipments. The voluntary six-month suspension was imposed after European Union (EU) nations returned 50 container loads over the past months because tests showed traces of the banned antibiotic nitrofurantoin. In the first nine months of the current fiscal year 2009-2010, shrimp shipments slid 13 per cent to US\$ 356 million. The exporters have asked the government to bail them out, saying the livelihood of many of the country’s 1.5 million farmers are at stake. It is estimated that over 50,000 farmers in the impoverished nation of 144 million people would be affected by the export ban (FIS Singapore 2009). Though the ban has been temporarily eased, the trouble still remains as the source of this harmful drug has yet to be traced.

Almost every year, various natural disasters also seriously affect the industry. The FishSite (January 20, 2008) revealed that nearly 400,000 shrimp farmers face an uncertain future two months after Cyclone Sidr struck Bangladesh’s southwestern coastal belt. Some 6,000 shrimp farms and hatcheries in the four southern districts of Satkhira, Khulna, Bagerhat and Patuakhali were washed away. In Morrelganj, Sharankhola and Mongla sub-districts of Bagerhat District, over 90 percent of some 5,000

shrimp enclosures were destroyed by the cyclone. Farms in the affected region are well-known for their Black Tiger shrimps that grow in salt water and are cultivated on 130,000 hectares of land, while freshwater shrimps are cultivated on another 40,000 hectares of land. “We have suffered an estimated loss of about \$36 million,” said Kazi Belayet Hossain, president of the BFFEA in the capital, Dhaka. Individual shrimp farmers, many of whom lost everything and were already heavily in debt, now face a particularly bleak future, with many wondering how they will care for their families. Extremely poor, many had borrowed money from shrimp exporters and need to repay them. “We need interest-free bank loans so that we can provide more loans to the farmers,” Belayet Hossain said, adding that the government should also offer direct support to the farmers immediately. “Bagda is doing well, though sometimes it is severely affected by natural disasters such as Sidr and Aila. It’s a huge problem. We are poor and are gradually building our industry by combining all of our limited effort and energy. When it develops a bit, the natural calamities wash it away. It’s a great tragedy for us” laments another officer at DoF.

### *Other Challenges*

Apart from all these pressing problems, the study found that lack of hatcheries, low productivity, high price for shrimp feed, lack of government loans, lack of technical help, rural tensions on water management, land grabbing, refusal to pay lease money, shrimp theft and various other forms of corruption are among the major problems. The study also found that there is an apparent tension between the Department of Fisheries and the SSOQ. As the SSOQ adopted codes from the ACC, the SSOQ would have a lot more clout. However, as the tension between the Department of Fisheries and the SSOQ persists, it hinders a sustainable future for the Bangladeshi shrimp. Bangladesh will continue to get lower prices in the world markets unless and until it’s shrimp is certified by a trusted private certification agency. Though some private certification schemes such as Global Gap is working on a very limited scale, development of full-fledged private certification regimes in Bangladesh is very unlikely because of the resistance from DoF and BFFEA. The resistance comes largely because of power-tension where both organizations do not want to surrender their long-exercised power to the private agencies.

### **Conclusion, Discussion and Recommendations**

The study presumes that third party private certification will operate fully in the next few years following a trend of the global agro-food system in which a trusted label of quality matters more than anything. While a third-party certification regime is still in its nascent stage, my investigation suggests the following significant points which have important implications for the Bangladesh shrimp industry as well as other agro-food and export-oriented industries:

- As issues of quality, environmental sustainability, traceability, social responsibility etc. have become an integral part of global agro-food system, buyers are tightening their grip on the commodity chain. This however creates a paradox: actors closest to the buyers are often privileged, while others in the chain including small producers are feared to be precluded or marginalized.
- Along with Humphrey and Schmitz (2001), the study suggests that the greater the extent to which the lead firm specifies non-standard parameters, the greater is the likelihood that it will also have to arrange for enforcement, carrying out this activity directly, or contracting others to do it. The emergence of a third-party private certifier is a clear indication of this tendency that will play a pivotal role on buyers’ behalf sidelining but paradoxically engaging the government/public agencies.
- The emergence of third-party certifiers, which Busch and Bain (2004) call “the private regulation of the public,” is a new feature in the global export-oriented industries. There is some incentive for lead firms to shift parameter setting and enforcement from their own to the third-party certifiers. This process, however, shifts the burden from buyers to the supplier, as the costs of this certification are normally borne by the supplier, not the buyer. Therefore, the new certification regime will again privilege the buyers and leave the producers/suppliers with new costs, responsibilities as well as vulnerabilities.
- Previously it was argued that as the competence of the suppliers/producers increases, chain governance through the

buyers can be expected to loosen, provided that increasing competence of suppliers is accompanied by the emergence of local agents who can monitor and enforce compliance with general or buyer-specific standards (Humphrey and Schmitz 2001). However, shifting regulations and the emergence of a third-party certifier have diminished this possibility. As the lead firms have a growing tendency to opt for linkages to fewer and larger suppliers to ensure traceability, it leads to a significant shift in governance: more tightening grip and direct control of the commodity chain by the lead firms, while leaving a significant part of governance to the private certifiers.

- Brands and label play an increasingly important role in enterprise strategy. Humphrey and Schmitz (2001:27) suggest that “branding and chain governance tend to go together.” This is true in case of Bangladeshi shrimp. Price and demand of shrimp in the global market largely depend on what particular agency certifies it. Shrimp in Bangladesh is still largely certified by the “Inspection and Quality Control Division” of the government and therefore gets lower price in the global market as this public agency is not a renowned certifier that the consumers can trust. The SSOQ scheme that incorporated many codes from Aquaculture Certification Council (ACC) argues that it can increase the price up to 10 percent for Bangladeshi shrimp in the global market as it has a trusted label. However, this private scheme is almost dead due to, among other reasons, the resistance from and non-compliance of DoF and BFFEA.

Despite policy recommendations as well as policy adoption, traces of some of the previous challenges affecting the industry still persist because of lack of implementation. While the government of Bangladesh made significant progress in implementing some of the suggested solutions, there is much more to do effectively and efficiently. The study estimates that Bangladesh can sustainably earn about US\$2 billion yearly from its shrimp industry. While many neighboring countries such as China, Thailand and India are genuinely working with pragmatic plans and policies to capture the lucrative shrimp markets, Bangladesh—despite having enormous prospects—is now grappling to survive

with numerous problems and malpractices. As issues of quality, environmental sustainability, traceability, social responsibility etc. have become an integral part of the global agro-food system, buyers are tightening their grip on the commodity chain. Consequently, actors closest to the buyers are privileged, while others in the chain including producers are precluded or marginalized. Bangladesh has yet to fully harvest the opportunity by addressing and following the trends of the current global agro-food system.

Experience shows that the role of global trade standardization regime sometimes exacerbates growing poverty and insecurities in the developing countries. Stiglitz and Charlton (2005) show that standard economic assumptions are wrong when it comes to many developing economies. The pace at which poorer nations open their markets to trade should coincide with the development of new institutions — roads, schools, banks and the like — that make such transitions easier and generate real opportunities. Since many poor nations cannot afford the investments required to build these institutions, rich nations have a responsibility to help. Without these institutions in place, trade by itself can do more harm than good. This is one of the reasons why the shrimp sector in Bangladesh is helping only a fortunate few. According to Stiglitz and Charlton (2005), every developing country that has succeeded in achieving rapid growth has protected its market to some extent until it was ready to dismantle trade barriers. China’s growth, for example, escalated in the 1970’s, before it lowered its barriers. For making shrimp profitable to all social strata including small- and medium-scale farmers, Bangladesh has a somber lesson to learn here.

The study provides the following recommendations for the Bangladesh shrimp industry. First, the negative image of Bangladeshi shrimp is still mounting. Despite making recent improvements, most of the global stakeholders still have negative images of Bangladeshi shrimp. In order to promote a positive image of the Bangladesh shrimp and fish industry, both the industry and the DoF should not only engage with the NGOs, but also with other global stakeholders. Representatives from BFFEA should attend important international forums like WAS annual meetings, Boston Seafood Show, and many other regional meetings not only to promote Bangladeshi products but also to establish a sustained business relationship. The WAS meetings and similar other meetings are attended by, among others, various technical experts and scientists. Bangladesh

can take crucial technical help and lessons from the experts to combat various problems including white spot virus that have significantly affected the Bangladesh shrimp industry.

Second, the industry as well the government should take lessons from other countries to know how they have managed to deal with and eventually solve similar problems. Third, for academic and industry purposes, many researchers in different parts of the world are conducting studies on various dimensions of the industry. The government and the private sectors should reach out to these researchers and understand the “pulse” of the industry in the context of the neoliberal restructuring of the global agro-food system. Fourth, the WWF has been organizing a series of dialogues to come up with standards. Bangladesh, being one of the top producers of commercial shrimp and other fish species, must play a vital role to serve its best interests. In the global agro-food system, private certification is becoming a norm. Giant buyers have already committed to buying only privately certified seafood and other buyers are increasingly moving in this direction. Bangladesh must engage with different private certification schemes including Aquaculture Certification Council (ACC), Global GAP, International Social and Environmental Accreditation and Labelling Alliance (ISEAL), and WWF to get the best price of its shrimp. Fifth, there are many global NGOs (like Oxfam Novib) which are looking for partners to work with in order to address various problems facing the industry. Bangladesh can find out and work with its supportive partners both locally and globally. Finally, missing one opportunity does not mean there is no other to avail. Bangladesh should be abreast of the shifting regulations governing the industry, global market trends, power dynamics, global commodity networks, and so on. Evidence shows that in the era of globalization, producers with higher levels of knowledge and information are more privileged than those with less knowledge and information.

In sum, the Bangladesh shrimp sector needs immediate policies, programs as well as proper implementation and enforcement mechanisms to establish research institutes to study intensive shrimp culture, increase productivity, and invent cures for viruses. There is also a crying need to establish more hatcheries to supply shrimp-fry to the farmers at a lower cost; to provide loans for the farmers; to create a shrimp-friendly environment; to adhere to the ACC standards or other trusted labels; to remove

corruption and various other malpractices; to adhere to quality standards—both freshness and credence—as required by the buyers; to negotiate and consult with NGOs who are opposing shrimp culture; and to be abreast of the shifting regulations. While some policies are in place; they lack effective implementation and execution at all levels of the production and value chain. Serious shortcomings of the testing facilities in the country and the qualification of the technicians need greater attention and investments from the government and the international bodies. If the nation fails to protect this sector in a sustainable manner, both the environment and millions of employment opportunities will be at stake. The shrimp markets will not wait for Bangladesh to recover and repair itself, but move on to other sources for their supplies. For commercial shrimp farming, the country has already paid huge environmental and social costs in the past; it cannot afford to pay any more by losing its global markets.

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### Endnotes

1. For example, upscale supermarkets in Western Europe wished to purchase shrimp that could be traced from their frozen food sections all the way back to the hatchery through the entire value chain. Insuring such traceability required complex paper trails which were difficult to fashion in the long, weakly integrated shrimp value chain present in Bangladesh.
2. The EJF is an activist organization based in the United Kingdom that researched and exposed environmental issues.
3. ATDP is an agribusiness assistance project of the

Government of Bangladesh and is funded by the U.S. Agency for International Development (USAID) (Gaillard and Quader, 2004).

4. For details, see Clay (2004), Boyd and Clay (1998), Shiva (1995), Philips et al. (1993), CAP (1995), Clay (1996), Sernbo and Kloth (1996), WWF (1997), Vandergeest et al. (1999), Scott (2000), Nijera Kori (1996), Manju (1996), Ahmed (1996), Deb (1998), Battacharya et al. (1999), Islam (2002), Metcalfe (2003), Alam et al. (2005), Ali (2006); and Haque (2004).
5. The “quality” now includes both “experience” characteristics, such as freshness or taste, that can be detected directly by consumers after purchase, and “credence” or non-material characteristics that cannot be detected by consumers, such as the environmental and ethical conditions of production (See Vandergeest 2007).

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# Reforming Capitalism to Better Serve the Poor: The Next Big Ideas

Munir Quddus

## Abstract

Given capitalism's near-death experience from the 2008-2009 global financial crisis, there has been a ferment of ideas on how to reform the economic and financial systems and to improve their effectiveness in addressing some of the major problems the global society faces today. This article discusses new ideas that have been presented to reform free markets and capitalism to make these less prone to periodic crisis and, importantly transform them into more effective instruments in the war on poverty. These ideas range from Bill Gates' thoughts on "Creative Capitalism" to Muhammad Yunus' notion of "Social Business." The primary focus of this paper is on ideas discussed by Yunus in his recent book, *Building Social Business: The New Kind of Capitalism that Serves Humanity's Most Pressing Needs*.

## Introduction

The unprecedented financial meltdown that rocked the global economy in 2008-2009 created much angst among captains of businesses, political leaders, academic scholars and thinkers on how to save capitalism and prevent future crises. The shock waves from the meltdown of the financial markets threw the United States economy into a tailspin causing massive unemployment, negative economic growth, trillions of dollars lost in pensions, savings and incomes, and catastrophic cutbacks in state budgets across the nation. Some have appropriately called this the "Great Recession." The pain has been sufficiently widespread to create a strong sense that we must learn the right lessons from this crisis and implement policies to prevent a repeat of the crisis. In addition to the concerns about short-time stability, citizens from all walks – citizens, politicians, business leaders and scholars – are asking pointed questions about the long-term performance of free markets and capitalism in dealing with major issues faced by humanity. Is capitalism the right economic model for the 21<sup>st</sup> century and beyond? Can we do better than what we have achieved, since over a billion people are still mired in extreme poverty? If free markets are the best mechanism to allocate resources, can we improve the current system that has frequently led to bubbles and busts? Despite its vaunted successes in creating unprecedented wealth for nations and people across the globe, what explains the dismal failure of capitalism and free markets to solve problems of extreme poverty and structural underdevelopment? How can we reform and rebuild the capitalist economies so that forces of free markets work not just for the rich and the wealthy, but are able to reach deep down to empower the billion-plus citizens of planet earth who survive on less than a dollar-a-day?

## Rebooting Global Capitalism – New Ideas

Fortunately, every crisis has a silver lining. Captains of business and industries, politicians, ordinary citizens and scholars across the globe jolted by the crisis have begun a much needed conversation. How do we reform capitalism preserving its best features, but eliminating its worst? Some of these ideas have great potential on how to reform capitalism as we understand and practice it today. The conversation at the political level has already resulted in major policy changes such as the Financial Reform Bill passed by the US Congress on July 15, 2010.<sup>1</sup> The critics may describe this legislation as tinkering at the margins which may or may not reduce the risks of future crisis, but others believe this is significant. In the long run, some of these ideas may completely change the face of the free market and what we call mixed economies. Already, a host of new forms of businesses have been established in the United States and other parts of the world with core mission, philosophies and strategies different from the traditional for-profit and non-profit institutions.

## Creative Capitalism - Bill Gates:

In a series of speeches and interviews, Bill Gates, one of the world's most successful technology entrepreneurs and more recently a philanthropist, has challenged his fellow entrepreneurs to move beyond the current models and interpretations of markets to consider new "creative" forms of capitalism. According to Gates, the next improved version of capitalism should be more tolerant and accepting of businesses created specifically to solve society's problems, and not just to make money for the company's owners and shareholders. Speaking in Davos in early 2008, Gates called for "creative capitalism," a system that will serve not just the rich, but also the poor. He said while capitalism historically has been "responsible for the great

innovations that have improved the lives of billions...to harness this power so it benefits everyone, we need to refine the system.”<sup>2</sup>

In an article published in *TIMES*, Gates wrote, “It is mainly corporations that have the skills to make technological innovations work for the poor. To make most of these skills, we need a more creative capitalism...we need new ways to bring far more people into the system – capitalism – that has done so much good in the world.”<sup>3</sup>

Fortunately, creative capitalism is already a fact of life in many free market economies in the developed and developing world. Gates gives the example of cell phones, a relatively new technology, whose explosive growth has resulted in much good for the low-income and poor in the Third World rural communities. He cites the example of Kenya where cell phones have revolutionized the lives of the farmers. He could have easily cited the case of Bangladesh where Grameen Phone pioneered the use of mobile phones by farmers and residents in the rural communities that has today changed the face of communications in Bangladesh.

As another example of creative capitalism, he discussed the RED campaign where companies such as Gap, Hallmark, Dell Computers and Microsoft sell RED branded products donating a portion of the profits to fight AIDS and improve lives of the poor. The campaign initiated by rock star, Bono, has so far generated over \$100 million to combat the spread of AIDS, malaria, and getting life-saving drugs to more than 80,000 poor citizens in Africa, and assisting 1.6 million get tested for AIDS.

Gates points out that the idea of creative capitalism is not new. However, it is a new perspective that leads to questions such as, “how can we most effectively spread the benefits of capitalism and huge improvements in the quality of life it can provide to people who have been left out.”<sup>4</sup>

Gates believes the world is getting to be a much better place to live because of the spread of capitalism and democracy. He agrees that there are two great drivers of human endeavor throughout history - self-interest that Adam Smith wrote about, and the desire to care for others. Modern capitalism is based mostly on the pursuit of self-interest, and unfortunately seems to have forgotten the second significant motivator for human action. This effectively shuts out more than a billion people in the world who are unable to participate in markets for lack of income. Governments, charities and NGOs

are working to take care of the “other half.” However, progress is slow, and they need help to bring millions more into the fold of markets and capitalism. Creative capitalism can be the answer. He cites the example of Microsoft that spent nearly \$3 billion in cash and software to help bridge the so-called digital divide to increase access of the low-income to the Internet. This was old fashioned corporate philanthropy that has many limitations. Today corporations have come to the realization that it is more effective to use the time and talent of their employees to solve the problems faced by the world’s poor.

How can governments help? By creating incentives for the private firms to do good. For example, in the United States, the FDA has introduced a policy where it will afford “priority review” for a pharmaceutical company’s drugs, if the company is also engaged seriously in bringing to the market a “neglected” drug that benefits the poor. This priority review could result in hundreds of millions in additional profits for the company, and is a great incentive for the pharmaceutical industry to help resolve some of the health care challenges faced by the poor in low-income nations.

Another example from the private sector is that of Sumitomo Chemical which shared proprietary technology with a Tanzanian firm to support the production of millions of inexpensive mosquito nets to stave off malaria.

In summary, Gates believes that with creative capitalism we have a win-win scenario. Doing well and doing “good” are not in conflict. One reason it makes sense for the companies to be involved in social projects is because it helps attract and retain younger talented labor force that seem to have a strong commitment to a broader mission, not just making profits.

### **Compassionate Capitalism - Jack Kemp and Christophe Crane**

According to Kemp and Crane (2003) compassionate capitalism can be defined as “venture capital energizing the spirit of entrepreneurship among working poor.”<sup>5</sup> They believe micro-financing is an important tool, a proven weapon in the battle against poverty through free markets. They are also convinced that the legal framework and property rights are important, and this has been one of the greatest failings (and opportunity) for the less developed countries. They quote the economist Hernando De Soto, President of the Institute of

Liberty and Democracy in Peru, who believes a working legal system that protects the property rights of not only the rich, but also the poor, and courts that protect the interests of the poor, are essential institutional reforms for compassionate capitalism to flourish.

The authors discuss an NGO called *Opportunity International* started in 1971 by a retired CEO Al Whittaker, who decided the best way to assist the poor is to empower them with credit to start small businesses. Each year the NGO issues hundreds of millions in credit with the target of issuing two million such loans in 2010. This story seems similar to that of the Grameen Bank in Bangladesh whose success today has spawned hundreds of micro-credit and micro-finance organizations across the globe.

The author's write, "...a new pathway of possibility for building new wealth emerges through the creation of new marketplaces, the acquisition of property and the rise of home ownership – from South Central Los Angeles to Kabul, Afghanistan and from Baghdad to Accra, Ghana."<sup>6</sup>

Certainly, there are other definitions of compassionate capitalism. The idea is not new and has an intellectual history. Adam Smith who is universally recognized as the founder of modern capitalism also authored *The Theory of Moral Sentiments* in which he discussed in detail the human characteristic he called "sympathy."<sup>7</sup> He believed that this emotion has been a major driving force throughout history, perhaps even more effective than self-interest, in driving human actions and improving people's lives.

After the recent economic crisis, increasing number of academics and business leaders are discussing Compassionate Capitalism in annual meetings and conferences. Business faculty at Babson College have organized annual forums with leaders from finance and industry and academe to exchange ideas on how to move towards a model of capitalism where its sharp edges are somewhat softened.

### **Social Business – Muhammad Yunus**

One of the most interesting thinkers and a successful activist in the global crusade against poverty is the Bangladeshi economist, Muhammad Yunus. The professor-turned-banker, who shared the 2006 Nobel Prize in Peace with his organization, the Grameen Bank, has recently published his third book, *Building Social Business: The New Kind of Capitalism that Serves Humanity's Most Pressing Needs*. Although, he had developed several important ideas earlier, the

new book includes a fascinating description of his efforts over the past two years in implementing the "Social Business" model in Bangladesh to improve the lives of the poor.

This paper reviews some of the exciting experiments that Yunus and his team are conducting using the concept of social businesses in Bangladesh. The core mission of each new company is to improve the standard of living of the poor in both rural and urban areas. Yunus finds a corporate partner, usually a multi-national company with global credentials, for each new enterprise. These case studies have great power. If these models can be incubated successfully in Bangladesh, they can be transplanted in other parts of the world to improve the lives of the poor citizens.

Yunus is perhaps the world's best known anti-poverty crusader. His new book is a manifesto for those who care deeply about solving the world's big problems – poverty, illiteracy, malnutrition, and global warming. The book is replete with ideas on how to create income and wealth for the betterment of the world's poor. Yunus presents a message full of hope and optimism. The book is a call for citizens, organizations, and nations to dream individually and collectively but act proactively to eradicate poverty. The same approach can be used to overcome other big challenges that threaten to undermine human progress and prosperity. How can we eliminate poverty and related problems that have bedeviled human society for centuries? The book presents a blueprint for "Social Business," the new business organization designed to improve the conditions of the poor in a sustainable way.

Yunus first presented the concept of Social Business in his 2008 book, *Creating a World Without Poverty*.<sup>8</sup> In the new book, he builds the case that Social Business would be an excellent addition to the array of anti-poverty weapons. The new business model would complement the much celebrated micro-finance in the war against global poverty, and other challenges that threaten peace and prosperity. Yunus has been remarkably successful in building partnerships to build workable prototypes of Social businesses in various sectors of the economy. His partners (fellow venture capitalists) include some well-known global multinationals – Intel, Addidas, Viola, and Danone, in addition to "action tanks" like the Grameen Action Lab (GCL), and even a few Universities.

Social Business is not a socialist concept; rather it's an idea that complements and strengthens capitalism and free market economies. The goal is to fulfill the

true promise of capitalism as conceived by Adam Smith, who believed that the power of human ingenuity as manifested in the entrepreneurial spirit would create unprecedented wealth and prosperity not just for a few, but for all humanity. The driving force for this wealth creation is not just “self-interest,” a concept Smith discussed in his book, *The Wealth of Nations*, but also “sympathy” for fellow men, a concept discussed in Smith’s earlier work, *The Theory of Moral Sentiments*. Smith notes that humans have an inherent desire to care for fellow humans, and seeing others better off gives them pleasure and happiness.<sup>9</sup>

In a similar vein, Yunus argues that if the profit-motive was the sole driving force in modern society... “there would be no churches or mosques or synagogues, no schools, no art museums, no public parks or health clinics or community centers...there would be no charities, foundations, or non-profit organizations.” (Page: xvi). The near exclusive emphasis on the role of profit-maximizing individual and business in the creation of wealth has done much harm to the theory and practice of capitalism. This has led to faulty models and a distorted economic infrastructure that is prone to recurrent crisis. The global financial debacle, coming on the heels of food and energy crises, is only the latest manifestation of this history.

Unless this error is corrected and humans are recognized as multi-dimensional actors who are driven by both selfishness and selflessness – the crises will recur and the problems continue to compound. The world needs alternate business models, coexisting and complementing each other – the traditional for-profit businesses created and run for personal gain and the social businesses designed to serve the greater good of society. Just as governments have supported profit-maximizing businesses with tax breaks and other incentives, social businesses which have the potential for solving many societal problems must also be supported.

In a thoughtful and timely critique of the contemporary interpretation and practice of capitalism, Yunus builds on Smith’s ideas presented in the *Theory of Moral Sentiments*, first published in 1759. Smith reportedly considered this work superior to his famous book, *An Inquiry into the Nature and the Causes of the Wealth of Nations*, published in 1776, which established his reputation as the father of modern capitalism. Yunus harkens back to Smith’s notion of “sympathy” as a powerful force that molds individuals and nations. History demonstrates that the desire to help others, to do

“good,” is as strong a driver as self-interest in creating wealth and solving society’s major problems.

The book on social business is a sequel to his previous books - *Banker to the Poor*, published in 1998, and, *Creating a World Without Poverty*, published in 2007.<sup>10</sup> The new book describes his life and work in the years since he received the Noble Peace Prize in 2006. In presenting the 2009 Presidential Medal of Honor to Muhammad Yunus, President Obama described his lifework as follows:

“With his belief in the self-reliance of all people, Professor Muhammad Yunus has altered the face of finance and entrepreneurship. As an academic, he struggled with pervading economic theories and their effects on the people of his native Bangladesh. Yearning for a new way of lifting people out of poverty, he revolutionized banking to allow low-income borrowers access to credit. In the process, he has enabled citizens of the world’s poorest countries to create profitable businesses, support their families, and help build sustainable communities. In doing so, Muhammad Yunus has unleashed new avenues of creativity and inspired millions worldwide to imagine their own potential.”

In the first book, *Banker to the Poor*, Yunus traced the story of his life, how he studied economics to become a professor, left academia to become a social activist, and eventually founded the Grameen Bank (GB). The unique institution he established to attack a root cause of poverty – lack of access to credit – in his native Bangladesh, is considered one of the great success stories of the 20<sup>th</sup> century in the war against poverty. From modest beginnings, the GB today has grown to become a giant institution that has disbursed over \$10 billion in small loans to more than 8 million borrowers, largely women, who employ these micro-loans for start-ups to raise their household incomes and break the cycle of poverty. Micro-finance has spread across the globe, and one can now find micro-finance organizations in almost every continent, with not only the NGOs but also the for-profit banks adopting it.

In the book, *Creating A World Without Poverty*, Yunus first presented the concept of a Social Business (SB) as an alternate form of business, a hybrid between the traditional for-profit private business and non-profits. A Social Business is a private company, which will earn profits on its

product and services, but the owners and investors would not earn dividends. The core mission of a SB will be to help the poor. To do this over the long run, they must be run like a business, earn profits, that will be ploughed back to grow the business. This approach is superior to philanthropic organizations in a number of ways. Since the firm operates like a private business it has greater stability and sustainability than a charity. Second, the beneficiaries preserve their dignity and self-respect when they pay for a service, something that cannot be said for those who receive charity. Lastly, because a SB earns a profit, it must be run efficiently like a business, or go bankrupt. Even though much conceptual and experimental work was needed, Yunus in his characteristic optimistic manner proclaimed that the idea of the SB has the potential to transform capitalism and lift millions from the ranks of poverty.

In the sequel *Building Social Business*, Yunus further refines the concept of Social Business, discusses a number of case studies of Social Businesses that he has been directly involved with – Grameen-Danone yogurt factory in Bogra, the Grameen-Viola dedicated to make available clean drinking water to the rural poor, the Grameen-Addidas which is mission driven to make affordable shoes available to million of poor, and the Grameen-Intel project created to improve the health of the poor, especially women through application of modern information technologies.

The jacket describes the contents: “Yunus shows how social business has gone from being a theory to an inspiring practice, adopted by leading corporations, entrepreneurs, and social activists across Asia, South America, Europe and the US. He demonstrates how social business transforms lives; offers practical guidance for those who want to create social businesses of their own; explains how public and corporate policies must adapt to make room for the social business model; and shows why social business holds the potential to redeem the failed promise of free-market enterprise.”

The advantages of social businesses are described as, “By harnessing the energy of profit-making to the objective of fulfilling human needs, social business creates self-supporting, viable commercial enterprises that generate economic growth even as they produce goods and services that make the world a better place.”

The 256-page book is full of ideas on how thousands

of social businesses can be set up in every possible sector across the world. There is a “how to” chapter where he discusses the steps one must take to start a successful Social Business. His counsel for the enterprising social business owners is to start with a list of ideas. To pick an idea preferably in one’s own field of expertise, take small steps to gain experience and confidence, learn from mistakes in a pilot project, and make the necessary adjustments to be successful on a small scale. Once this is achieved, scale up the project making sure that the model remains sustainable and faithful to the core mission. He suggests Social Businesses can be introduced in areas such as planting trees, turning waste into energy, providing improved health care to the poor and elderly, and influencing cultural norms to remove barriers that keep women and the poor back.

Yunus discusses the recent growth of SBs around the globe, especially in Europe. The new Yunus Centre based in Dhaka, Bangladesh, acts as a clearing house for ideas and helps implement SBs throughout the world. The Grameen Creative Lab (GCL) based in Germany, is an “action tank.” The unique body operates as a social business, and offers services to other corporations and organizations interested in setting up their own SB units. Education and dissemination of ideas is an important catalyst to spread the concept and encourage more individuals to start their own social businesses to improve the society. Universities and “action tanks,” can play an important role. Institutions, globally, have stepped forward to expand the concept of SB through research, development and education. For example California State University Channel Island has established a Social Business Center and Glasgow Centennial University has started several partnerships with Grameen for mutual benefit of the residents of Glasgow and Bangladesh.

The success of Grameen-Danone story is important since it was billed as the world’s first SB experiment. The CEO of Danone, a French multinational, first approached Yunus to see if they can develop a partnership to help the poor. The idea of setting up a small production unit in rural Bangladesh to produce and sell nutrient fortified yogurt for children in poor households evolved. Since the construction of the innovative factory the company has seen good and bad days. On the production side, everything worked as planned. However, on the distribution side, there were many unexpected challenges. First, there were the global food and energy crises that led to substantial increase in the cost of energy and raw materials. Second, the global financial and economic crises negatively impacted incomes and demand.

Third, the ranks of the sales force, “Grameen ladies” did not increase as planned, hindered by cultural norms. The decision to raise price to cut losses led to lower demand and further losses. A new management team was brought in that took a number of steps including a culturally sensitive training program for the all-women sales force, reducing the package size, and selling the product at a higher price in Dhaka for a larger margin. As a result the demand has picked up substantially and production has reached the break-even point.

Yunus recommends that we “imagine” the most desirable future, and take action to “create” this future. Instead of being passive observers of history, he recommends that we make history. The ability of humans to create and to innovate is infinite. He points out that problems that look intractable – poverty, malnutrition, poor health – have already been solved in many parts of the world! The task at hand is to extend these solutions to the rest of the world.

In an article published in the *Christian Science Monitor* Yunus wrote, “this new perspective will move us one step closer to bringing all people into prosperity, and one step closer to a world without poverty.”<sup>11</sup>

Yunus keeps the best for last. In a chapter titled, “The End of Poverty: The Time is Here,” he recommends creative thinking and bold action to conquer global poverty. He shares his description of the desired future - a peaceful world where no one is poor or hungry and the talent and energies of all people are harnessed to create wealth and prosperity for all people and nations. Nothing about poverty and other endemic challenges are beyond the abilities of modern societies. The only force that prevents us from conquering poverty is the limitation in our intellectual concepts, our thinking, and our actions. Yunus argues that if we are able to dream of a poverty free world, we can get there by using a wide variety of businesses possible in a capitalist economy -- social business, for-profit business, and non-profits -- and leveraging the awesome power of science and technology. Indeed, during our lifetime, we can send poverty to museums, where they will serve as a warning to future generations that unless we remain vigilant, poverty would return.

### Concluding Remarks

The ideas in Muhammad Yunus’ new book are in line with what is being said by supporters of creative and compassionate capitalism. There is a general sense

that it is time for capitalists to be more creative and imaginative in finding ways to serve societal goals and the public good, while enriching their shareholders.

Will these new ideas help change capitalism to improve the lives of the world’s poor? This remains to be seen. Critics have pointed out that some of Yunus’s ideas are untested, and others impractical.<sup>12</sup> Reviewing his 2007 book, Bylund and Mondelli (2009, p. 127) write, “...the book presents a number of interesting ideas, but leaves the reader with only limited guidance as to whether these ideas are realizable.” In his defense, Yunus has been forthcoming in his writings that much work needs to be done to create the legal and policy infrastructure that will give social businesses the same advantages the for-profits have enjoyed for decades.

People interested in reforming capitalism, including Gates and Yunus, are fundamentally optimists who are appealing to the higher values of caring and sympathy that all humans possess. Significantly, these thinkers are also successful entrepreneurs who have made their mark in the world of business and industry. They both have shown an inclination to believe in their own ideas, and take calculated risks to demonstrate that these concepts and models are workable.

It is refreshing to see new ideas coming forth from the political world, the social sector, and the business world to reform capitalism so that it fulfills the promise of creating wealth and prosperity not just for a few, but for *all* citizens of the world.

### Endnotes

1. Dennis (July 16, 2010)
2. Yunus (2008)
3. Gates (2008), page 1
4. Gates (2008), page 1,2
5. Kemp and Crane (2003), page 1
6. Kemp and Crane (2003), page 2
7. Smith (1984 reprint)
8. Yunus (2007); Quddus (2007)
9. Smith (1984 reprint)
10. Yunus (1998), Quddus (1999)
11. Yunus (2008)
12. Bylund and Mondelli ( 2009)

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