

# BIDS

Annual Research Programme  
2012-2013



Bangladesh Institute of Development Studies

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## Foreword

This Annual Research Programme (ARP) 2012-2013 of the Bangladesh Institute of Development Studies (BIDS) provides the highlights of the research agenda that the Institute intends to carry out during the period July 2012 to June 2013. It covers a total of 30 research studies, of which 7 studies are funded by the BIDS Research Endowment Fund (REF), while the remaining 23 studies are sponsored by government departments/agencies and national and international institutions. It may, however, be noted that this is not an exhaustive list of all research that BIDS will undertake since many other studies will be initiated during the year in response to emerging challenges and/or at the request of the government and other sponsoring agencies.

The ARP focuses on a number of major themes, such as *Agriculture, Food Security and Rural Development; Water Resources Development; Poverty and Deprivation; Growth Issues and Regional Development; Health; Manufacturing and Finance; Macroeconomic and Trade Policy Analysis; Energy Issues; Climate Change Issues; and Social Protection*. This shows the multi-dimensional nature of the proposed research agenda and the wide spectrum of research activities that BIDS needs to plan in order to meet its mandate.

This is the second issue of ARP that BIDS is publishing as a part of its commitment to establishing transparency and accountability to its stakeholders including fellow researchers and policy makers who are working toward promoting evidence based policies in Bangladesh. I would like to express my deep appreciation to all my colleagues in BIDS who have cooperated and contributed to the preparation and publication of this annual research programme. I would also like to express my deep gratitude to the Hon'ble Minister of Planning and Chairman of BIDS Board of Trustees and its distinguished members who advised BIDS to publish such a volume.

January 2013

Mustafa K. Mujeri  
Director General

## Introduction

The Bangladesh Institute of Development Studies (BIDS) is an autonomous public multi-disciplinary organisation which conducts policy oriented research on development issues facing Bangladesh and other developing countries. The mission of the Institute is to facilitate learning in development solutions by conducting credible research, fostering policy dialogue, disseminating policy options, and developing coalitions to promote informed policy making.

In its mission of building research capacity and conducting in-depth and policy relevant research, BIDS undertakes a wide spectrum of activities covering the Institute's mandate of enriching the country's policy environment, creating awareness on improving the policy responses, enhancing policy analysis and dissemination capacities, and influencing policies.

The BIDS Annual Research Programme (ARP) 2012-2013 provides the summary information on the research studies that the Institute plans to undertake during the financial year 2012-2013. The proposed research agenda covers priority issues in different aspects of the Bangladesh economy which have been grouped under various thematic areas, such as *Agriculture, Food Security and Rural Development; Water Resources Development; Poverty and Deprivation; Growth Issues and Regional Development; Health; Manufacturing Industry and Finance; Macroeconomic and Trade Policy Analysis; Energy Issues; Climate Change issues; and Social Protection.*

In addition to studies sponsored by the government ministries and agencies as well as other national and international organisations, the research agenda includes studies to be undertaken under the BIDS Research Endowment Fund (REF) which

reflects the institutional policy oriented research of the Institute identified through interactions with policy makers and civil society and other partners. This proposed annual research portfolio, however, is not complete in the sense that it may include other studies which BIDS may consider appropriate to address important developments of the Bangladesh economy during the year and priority studies requested by the government and other agencies for inclusion during the year.

BIDS will further strengthen its present efforts of concretising its long term vision for being part of a process to play a more pro-active role in shaping the future agenda in the coming days not just for the government but for everyone concerned with the theory and practice of development in general and of Bangladesh in particular. The BIDS research agenda will continue to serve the cause of sustainable and inclusive development in Bangladesh and elsewhere in the developing world.

**Studies under BIDS Research  
Endowment Fund (REF)**

## **Broad Theme: *Macroeconomic Policy Analysis***

### **Impact of Inflation on Different Household Groups in Bangladesh**

#### *Study Team:*

Monzur Hossain  
Mustafa K Mujeri  
Tahreen Tahrima Chowdhury

*Budget:* Tk. 1.0 million

*Time Frame:* January 2012–January 2013

### **Rationale and Objectives**

The rising rate of inflation in recent years has raised significant concern regarding its adverse effect on the economy, especially relating to its negative welfare consequences on different household groups including the poor. The average inflation reached 8.8 per cent in 2010/11 which further increased to 10.2 per cent in October 2011. There also exists a rising gap between food and nonfood inflation. In October 2011, average food inflation reached 12.7 per cent, while the rate of nonfood inflation was 5.6 per cent. Another feature of the country's inflation, which could have significant distributional consequences, is its difference in terms of rural and urban areas. The immediate adverse effects of higher inflation include, among others, reduced real income of the households.

The study will identify major socioeconomic groups who are most affected by the adverse impacts of inflation and recommend policy measures to protect these vulnerable groups from the hardship. Specifically, the study has the following four broad objectives:

- Analyse the pattern and characteristics of recent inflationary episode in Bangladesh and examine the underlying factors of inflationary dynamics;

- Assess the probable impact of rising inflation on poverty and professional groups in urban and rural areas and how their positions vary across the income/expenditure distribution;
- Examine the net impact of inflation on net rice producers and consumers and assess how it affects their welfare; and
- Draw policy implications and suggest measures for protecting the vulnerable populations from the adverse impact of inflation.

### **Methodology**

The focus of the study will be on identifying the household level impacts of inflation. Some non-parametric techniques including construction of CPIs for different household groups as well as estimation of Net Benefit Ratio (NBR) are the main techniques employed in this study to assess the impact of rising prices on different household groups. For analysis, price data collected by the BBS on a regular basis from different parts of the country will be used and other data such as weights and composition of households income and expenditure will be used from the data of Household Income and Expenditure Survey conducted by BBS in 2010.

### **Policy Relevance and Implications**

In the backdrop of rising inflation, it is important for the policy makers to know which poor groups of people are more affected by rising inflation and what measures can be adopted to redress their disadvantages at least partly. The persistence of inflation and inflation expectations over a sustained period underscore the need for a fresh look at the underlying monetary policy framework of the Bangladesh Bank. In particular, the apparent difficulty in curbing inflation expectations by adjusting key policy rates raises questions as



to the nature of inflation, the efficacy of the monetary transmission mechanisms as well as the necessity of further monetary and non-monetary policy initiatives.

### **Crowding In or Out? An Analysis of the Effects of Public Borrowings from Domestic Sources in Bangladesh**

*Study Team:*

Abul Basher

Tahreen Tahrima Chowdhury

*Budget:* 0.7 million Taka

*Time Frame:* January 2013-June 2013

#### **Rationale and Objectives**

The country managed to graduate to a higher growth trajectory in the recent years. GDP growth over FY2000-10 averaged a robust 5.8 per cent registering a 1 percentage point increase over FY1990-99. For the last five fiscal years, FY2008-12, average growth of GDP stood to be 6.2 per cent. Government aspires to increase it to 8 per cent by 2015 and further to 10 per cent by 2021 in its "Vision 2021" to become a middle income country within a decade. According to government's Sixth Five Year Plan (SFYP), public investment has to be increased from its current level of 3.68 per cent of GDP in FY2012 to 7.5 per cent to accelerate the GDP growth to its target level. Similarly, according to power sector master plan (PSMP) 2010, to achieve and sustain a 8 per cent growth of GDP, an annual investment of Tk. 241 billion in power sector would be required to meet the energy demand. Total investment in this sector was Tk. 72 billion in FY2012.

Congruent with the above development visions, the budget has been expansionary in recent years and deficit financing has been rising. In particular, the size of budget during the last two fiscal years grew by about 26 per

cent and deficit financing has increased from 3.7 per cent of GDP in FY2010 to 5.1 per cent in FY2012. Budget deficits are mostly financed by domestic borrowing from commercial banks as scope for concessionary external borrowing is shrinking over time. Too much dependence of the government on domestic sources for credit can potentially crowd out the private sector. Such a crowding out has become a much-talked issue in Bangladesh in recent years.

Whether public borrowings promote or hinder private investment is an empirical question. There is no defined threshold to characterise a level of public borrowing that promotes or hinders private investment. No empirical investigation has been carried out to assess the presence or significance of the crowding out effect of public borrowing in Bangladesh in recent years. This paucity also signifies the importance of the proposed study.

The key objective of the study would be to quantitatively assess the impact of public borrowing from domestic sources on the growth of the private sectors. It will empirically assess whether public borrowing depresses the growth of the private sectors by limiting the amount of loans disbursed to them. The study will also assess whether the impacts of growing public borrowings from domestic sources are instantaneous or work with lag effects. By using the available longitudinal data, the study will evaluate whether their transmission mechanism is linear or time-varying.

The study will address three specific issues: (i) evaluation of the extent to which public borrowings crowd-out private investment, (ii) assessment of the length of time that public borrowings take to impact the private investment and growth, and (iii) evaluation of whether there is any structural break(s) in the transmission mechanism of the impacts of public borrowing into the private sector and, if

yes, assessment of the relative strength of this transmission mechanism for the periods isolated by two break points.

### **Methodology**

The study will first analyse the main determinants of private investment in Bangladesh by using a structural equation. In particular, the statistical significance of private credit and loan rate will be evaluated quantitatively by using a structural model. Then the statistical significance of public borrowing on private credit will be evaluated by using another structural equation.

In addition to the above structural analysis, a vector auto regression model will also be used to determine the time required by the public borrowing to significantly affect the private investment with the help of an impulse response function (IRF).

To assess whether any structural break exists in the relation between the public borrowing and the private investment, CUSUM test will be used to identify the break points at an unknown break date. If any breaks are identified, the relative strength of the impact of public borrowing on private investment will be assessed for periods isolated by two break points.

### **Policy Implication**

To achieve its long term development objective, Bangladesh needs to accelerate investment. The private sector is envisaged to play the pivotal role to accelerate investment. The finding of this study will be very useful from government's financial policy point of view. Depending on the findings of this study, government can take an informative policy decision about how much to borrow and where to borrow from without dwarfing the private investment. Buoyed by the recent credit ranking, government is contemplating to resort to commercial borrowing from external

sources, which are going to be very costly. The findings of this study will shed light on whether such non-concessionary public borrowings are really required, or the domestic sources of credit still have room to provide more credit to government without affecting the private investment.

## **Broad Theme: Agriculture**

### **Is Growth in Aquaculture Benefiting the Poor in Bangladesh?**

*Study Team:*

Kazi Ali Toufique

*Budget:* Tk. 0.8 million

*Time Frame:* February – July 2013

### **Rationale and Objectives**

Bangladesh, like most tropical countries, derives fish from a large number of complex natural systems. The fisheries sector is endowed with more than 260 species of fish and about 56 species of prawn.

The source of fish consumed by the households has dramatically changed, particularly in the last decade. Now we produce and consume more culture (farmed) fish as against capture (non-farmed). This is the most important structural transformation that has taken place in the fisheries sector of Bangladesh. This transformation has changed the nature of livelihoods based on fisheries. We do not know how this transformation has changed the supply of nutrition to the households or the extent the poor has benefited from the growth in the production of farmed fishes.

The study analyses consumption of fishes by the households to address the following questions:

- Are the poor households benefiting from the structural transformation characterised by the

dominance of farmed species by non-farmed species?

- Are the poor households consuming more fish now as compared to the past?
- Are prices of fish becoming lower?
- What species of fish are contributing most towards consumption of fish by the poor households?
- Are relatively cheaper fishes such as Pangas or Exotic Carps increasingly consumed more by the poor?

### **Methodology**

This study will use Household Income Expenditure Survey data for 2000, 2005 and 2010 to address the research questions. The households will be categorised as extreme, moderate and non-poor. The fish species will also be categorised as farmed and non-farmed species. Some limited fieldwork will be done to collect information to validate the findings from secondary data analysis.

### **Policy Relevance and Implications**

If population growth and per capita incomes in Bangladesh increase as anticipated and growth in fish production fail to keep pace, the poorer sections of the population will be negatively affected by rising prices. The study would help the government to assess the extent of pro-poor growth in aquaculture by looking into the change in fish consumption by different poverty groups and take a more informed strategy for fisheries development.

This study will also help to understand the changes in the fisheries sector over a decade in terms of changes in species composition at the level of consumption. For example, some studies have found that consumption of small and indigenous species (SIS) by the poor has come down substantially over time. SIS is the main source of nutrient supply to the poor households particularly to those living in the flood lands. If this is the case, the government

can promote the production of SIS in fish farms and inundated rice fields.

The study will identify the species of fish most consumed by the poor. For the farmed species, the government can promote production of these species by improving its production technology or through providing financial incentives for the production of specific species or through improving the quality of hatchery fries of these selected species. On the other hand, if the poor households still continue consuming proportionately more non-farmed species, then the government can re-think about its policy towards the capture fisheries sector.

## **Broad Theme: *Health***

### **Professional Assistance during Birth, Public-Private Mix and Household Characteristics: Implications for Policy**

*Study Team:*

M Sohail

*Budget:* Tk. 1.0 million

*Time Frame:* October 2011-March 2013

### **Rationale and Objectives**

Bangladesh experienced a significant decline in maternal mortality during the last two decades. Maternal mortality declined from 570 in 1990 to 322 in 2001 and again to 194 in 2010—a 40 per cent decline since 2001. Bangladesh is, therefore, well on track to achieving the target of MDG5 by 2015. A widely acclaimed indicator used to monitor the progress in maternal health is to increase skilled assistance during delivery from 5 per cent in 1990 to 50 per cent in 2015. Skilled attendants refer “exclusively to people with midwifery skills (for example, doctors, midwives, nurses) who have been trained to proficiency in the skills necessary to manage

normal deliveries and diagnose, manage or refer complications.”

Achieving MDG5 of reduction maternal mortality ratio by 75 per cent by 2015 is heavily dependent upon access to skilled attendants for ANC, delivery care, facility delivery with EmOC services to manage life-saving maternal complications. Skilled birth attendant strategy was thus incorporated into the facility based approach of obstetric care in 2001 and 3,000 community based skilled attendants have already been trained and another 1,000 being trained annually. Fifty-nine District Hospitals, 132 Upazila Health Complexes and 70 Maternal and Child Welfare Centres have been upgraded as comprehensive EmOC facilities and another 200 facilities at the upazila and union level have been equipped with basic EmOC services.

Recently the government has introduced maternal voucher scheme for poor mothers in 53 upazilas in 41 districts of Bangladesh. Under this scheme poor mothers are identified by local committees on the basis of certain set criteria and provided with vouchers to buy maternal health care services from different selected providers or facilities in the area.

Bangladesh is passing through a transition from deliveries conducted at home by traditional birth attendants to deliveries conducted by professional attendants. The challenge is how to ensure a transition to more and more deliveries to be conducted in both basic and, if needed, in comprehensive essential obstetric care facilities by professionally trained personnel.

Large disparities in the maternal health care utilisation exist between the poorest and the richest population in Bangladesh. Two in three women in the highest wealth quintile receive antenatal care from qualified doctors as opposed to one in five women in the lowest

wealth group. Almost all the deliveries occur at home among the lowest wealth quintile, whereas 16 per cent of deliveries occur at health facilities among the highest wealth quintile. Wealth is also associated with the seeking of delivery care by caesarean section and delivery-related complications.

A major constraint to the use of maternal health care is the cost of delivery, especially for a complicated delivery. The costs involved in birth even in the public sector are high including charges for diagnostic tests, medications, unofficial fees, travel and food. Besides, the cost of complicated deliveries is often catastrophic. The government has therefore introduced maternal voucher scheme to assist the poor mothers in selected areas, but it has reportedly been misused by performing higher than normal proportion of caesarian sections.

The proportion of births delivered at a health facility increased from 4 per cent in 1989-93 to 15 per cent in 2002-06. The recent increase in institutional deliveries is mainly due to increase in deliveries at NGO and private facilities. Over two-thirds of the deliveries in private facilities during 2005-07 were caesarian, which indicates that obstetric surgery might have been used for exploitative purposes. However, poor women and women residing in rural areas often do not have access to life-saving surgery.

The study will examine the trend of utilisation of maternal health care services (antenatal care, delivery care and facility delivery) by source of use (public, private, NGO) and by socio-economic factors. The study will also assess structural aspects of facility quality, gaps in service quality and socio-cultural barriers.

The specific objectives of the study are:

- i. To examine the trend of utilisation of maternal health care services during

birth (antenatal care, delivery care, facility delivery) by professional attendance by source of use (public, private, NGO) and by various socio-economic factors;

- ii. To analyse the utilisation of antenatal care, delivery care and facility delivery by skilled attendance by source of use and by socioeconomic characteristics;
- iii. To assess the structural aspects of facility quality, gaps in service quality, sources of finance and socio-cultural barriers in accessing care.

## Methodology

The study will use data from the BDHS of various years to look at the trend of service utilisation by skilled birth attendants. The study will also collect information from a representative sample of 720 women from six divisions of the country. Multivariate analysis will be undertaken to understand the differentials in utilisation of skilled attendance for ANC, delivery care and facility delivery by age, family size, public-private mix, education, region, wealth strata and other relevant socio-economic variables. This information will be supplemented by the existing supply side facility and individual level qualitative information from relevant managers of health centres, influential people in the locality and women in the reproductive age group.

## Policy Implications

The study will explore the barriers faced by the households in seeking maternal health care from both demand and supply aspects of care and identify the critical aspects such as female empowerment, availability of transport, travel time, quality of care and referral in influencing professional assistance during care. It will also examine public-private mix in ensuring quality care and the relative effectiveness of both public and private

sectors in meeting the expectations of the recently introduced maternal voucher scheme in improving maternal health care. The study will therefore identify critical barriers to maternal health care and assist in formulating policies for achieving MDG5 by 2015.

## Burden of Disease on the Urban Poor: A Study of Morbidity and Utilisation of Healthcare among Slum/Pavement Dwellers in Dhaka and Chittagong City

*Study Team:*

M A Mannan

*Budget:* Tk. 0.87 million

*Time Frame:* February – June 2013

## Rationale and Objectives

In recent years, urban population is growing at an increasing rate in Bangladesh. Until 1960, only 5 per cent of the population of Bangladesh was living in urban areas. However, during the last 5 decades, the pace of urbanisation has been very high. Urban population has grown from 5 million in 1970 to 22 million in 1990 to about 52 million in 2010. The magnitude of urban population in Bangladesh (at least 50 million) is larger than the national population of many countries in the world (Australia, Canada).

The urban population is increasing at an annual rate of between five to six per cent. Accompanying this rapid pace of urbanisation, there has been a faster growth in the population living in slums and squatters. In Dhaka city, out of an estimated population of 15 million, about a 37 per cent of the population are slum dwellers. Similarly, in Chittagong city (the second largest city) also around 35 per cent of population are slum/pavement dwellers. They are in a vicious circle: too little or inadequate food, poor nutrition, polluted water and air, lack of education, poor sanitation and overall low

levels of living. Conditions such as these do not only lead to ill-health, they amount in themselves to the lack of social well-being referred to in WHO's definition of health. In reality, a slum is a swamp of mud, excrement, garbage, mosquitoes and disease. Although slum people in general suffer from ill-health, the conditions of pavement dwellers are much worse than those living in slums/squatters.

Improving the health of individuals, particularly those belonging to socially and economically disadvantaged groups, is a key objective of the Bangladesh government. Moreover, the Bangladesh government has, at various points in time, embraced the objective of promoting the health of the poor and disadvantaged in its policy statements.

In Bangladesh, very few studies have been undertaken on morbidity and health care utilization by the urban poor. There have been smaller surveys focusing on specific districts and locations. However, very few attempts have been made to study the morbidity pattern and healthcare utilisation, especially among the urban poor. We know very little about the health seeking behaviour of the urban poor and the disease burden on low-income households.

The proposed study will be undertaken to examine the pattern of morbidity and health care utilisation by the urban poor living in the slums and pavements of Dhaka city. The specific objectives are:

- To examine the access to and burden of treatment cost borne by the urban poor households;
- To compare the morbidity and health-care seeking behaviour of slum dwellers with that of the non-poor groups;
- To examine the individual and household level factors associated with health care utilisation.

## Methodology/Sample Design

The present study will explore morbidity pattern and health-seeking behaviour of the urban poor in Dhaka city, with the hypothesis that the slum/pavement dwellers are likely to suffer from higher morbidity (incidence of sickness). They are also more likely to depend on self-care and traditional treatment compared to their counterparts living in non-slum areas.

The study will be based on household survey conducted in slum and squatter settlements and non-slum locations of Dhaka city. A sample of 600 poor and low-income households living in the slum clusters and another 300 from non-slum area will be selected for the present study. As the proportion of non-slum area dwellers is much less compared to slum dwellers, a greater number of households from slums and lesser from non-slum locations will be selected in each city.

People respond to illness in diverse modalities. In general, the ways of responding to illness may be grouped into four broad categories: those provided by the sick individuals themselves or by their closest social and family network including drug sellers/pharmacy owners (self care); faith healing and traditional medicine-homeopath, kabiraj/hekim (traditional healers); qualified allopathy treatment provided by MBBS doctors and trained paramedics - both public and private (medical care); and unqualified allopath/quack/community health workers with some training in diagnosing and treating common ailment.

Information will be obtained on whether anybody in the household experienced some sort of health problems (symptoms, sickness, illness or accidents) and the type of treatment sought. The following variables will be selected for the study: type of illness, form of

health care/treatment received, reasons for opting for self-care or medical care. Data on type of health care sought will be obtained by asking the respondent about the nature of treatment measures undertaken at home or outside the home. These treatments will be subsequently grouped into three broad categories as mentioned above.

### **Data Analysis**

In order to identify factors associated with the form of illness treatment (self-care or medical care), a logistic regression model will be developed with the factors of age, sex, gender of head, place of residence (slum/non-slum), perception of the seriousness of illness (slight, regular, serious)

The type of treatment received (self-care or medical care) will be considered a dependent variable. For this study, self-care will include care provided by the person suffering from ailment or by a member of his/her family, a friend or a neighbour or a drug seller. The individuals attended by doctors, nurses, paramedics will include the category of medical care. The type of treatment received will be analysed according to the form of care.

Following a short description of the prevalence of morbidity in the sample population and the type of illness experienced, data will be analysed to identify gender and socio-economic patterns in treatment-seeking behaviour. Using logistic regression, multivariate models will then be constructed to consider factors associated with the use of self care and medical care respectively.

### **Policy Relevance**

The focus on the urban poor is especially important in the context of their large share (about 35 per cent) of the total population living in urban areas. The urban poor are disadvantaged in accessing quality health care due to their marginalised position in the

society. In order to make the existing health care delivery system more pro-poor, knowledge of their morbidity pattern and health-seeking behaviour is important. Recently, morbidity estimates have been used to assess the burden of disease.

Morbidity in general and utilisation of health services in particular (i.e. the type of treatment received, self-care, medical care) would serve as valuable information to the health planners and policy makers for designing appropriate policies to monitor, control and eradicate the diseases. It will also enable the planners and administrators to allocate resources for the urban poor—in health facilities such as hospitals, physicians, medicines, etc. and provide health infrastructure such as sanitation, drinking water and the like.

Improving the health of individuals, particularly those belonging to socially and economically disadvantaged groups, is a key objective of the Bangladesh government. Moreover, the Bangladesh government has, at various points in time, embraced the objective of promoting the health of the poor and disadvantaged in its policy statements.

The concern for health improvements, especially among the poor and the disadvantaged, whether espoused in government policies or elsewhere, stems from several considerations. One is the increasing recognition that improvements in health translate into substantial gains in economic performance and overall well-being of society. Second, good health may be considered an end in itself, irrespective of any contribution it can potentially make to enhance economic growth. Third, poor health has significant adverse implications for the economic well-being of affected households and individuals, particularly for poor households. One way by which these occurs is in the form of out-of-pocket health expenditures for diseases that

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are relatively expensive to treat. Another way in which adverse health can influence the economic well-being of affected households arises from incomes foregone on account of the morbidity (or mortality) of affected members, or taking time off from work to care for the sick.

## **Broad Theme: *Growth Issues and Regional Development***

### **Size and Growth of the ‘Middle Class’ in Bangladesh during 1990-2010: Implications for Broad-Based Growth and Development**

#### *Study Team:*

Binayak Sen  
Iqbal Hossain  
Moogdho Mim Mahzab

*Budget:* Tk. 1.0 million

*Time Frame:* October 2011-March 2013

### **Rationale and Objectives**

The research has been specifically designed to work on the emergence and development of the “new” Middle Class over the last two decades (as opposed to the “old” Middle Class of the 1950s and 1960s who had strong links with agriculture). The argument is that the emergence of a sizable Middle Class has economic implications for higher savings, productivity growth through development of new technologies, improved functions of cities, and for more broad-based (equitable) growth. Most of the previous studies in the Bangladesh context were highly concentrated on poverty reduction issues with emphasis on the moderate poor and the extreme poor. The economic Middle Class has not received much attention as a subject matter in studies of growth and distribution until recently. While this class, by definition, is located above the poverty line, it is susceptible to downward

mobility pressures. The study seeks not only to analyse the social significance of Middle Class but also its economic significance.

The key objective of the study would be to quantitatively capture the emergence and growth of the new Middle class, especially in the last two decades of economic reform and growth acceleration. This will help to address the question as to how broad-based has been Bangladesh’s economic growth in the past and what additional measures can be undertaken to make such growth process more inclusive in transiting to the Middle Income Status. Consequently, addressing the mobility concerns of the Middle class would be an important ingredient of this study. The other objective of the study would be to draw implications for developing more inclusive democracy—a factor that would be conducive to political stability and determine the political context for adopting a more equitable policy in Bangladesh.

### **Methodology**

The study seeks not only to analyse the social significance of Middle class but also its economic significance. Broadly, there will be three components in this study.

First, using a “suitable definition” of the Middle class (which itself is a subject matter of the proposed research given the wide variation in approaches to quantification of the size of the Middle class in the global literature), it will capture the size and trends of the Middle class in terms of its income share, social composition and economic profile, including skill acquisition and employment structure. These trends will be verified through alternative approaches in defining the share of the Middle Class.

Secondly, it will analyse the economic drivers that may have influenced the emergence of the “new” Middle class, with focus on higher



education, expansion of formal sector jobs, remittance, export-oriented production, NGO-led social enterprises and enhanced corporations.

Thirdly, the research will shed light on strengthening the role of the Middle class in shaping “inclusive” democracy and citizenship, which have implications for the coverage and quality of public service delivery.

### **Policy Implications**

To quantify the size and trends of the middle class during the period of 1990 to 2010 would be one of the major concerns of this study. Defining the Middle class itself would be a historical and significant landmark for Bangladesh economy and for its policy perspectives. What are the structural changes that have been occurred into this class since the 1950s and the 1960s would be another issue to be addressed. Then comes the “drivers” of Middle class, which would be identified under this study. Lastly, the political influence of the Middle class for an inclusive democracy would be tested under this study.

### **Revisiting the East-West Divide: Economics of the Spatial Gaps between the Leading and Lagging Regions of Bangladesh**

#### *Study Team:*

Binayak Sen  
 Mohammad Yunus  
 Zulfikar Ali  
 Iqbal Hossain  
 Moogdho Mim Mahzab

*Budget:* Tk. 1.0 million

*Time Frame:* October 2011-March 2013

### **Rationale and Objectives**

In recent years concerns have been voiced over the persistent gap in living standards

between the lagging and leading regions in Bangladesh. Findings based on the 2000 and 2005 HIES earlier showed a widening gap in consumption expenditure between the eastern and western parts of Bangladesh. This has come to be known in the literature as the “East-West” divide. The more recent poverty data, based on the HIES 2010, however, seem to indicate signs of moderation of the previous trend. This study attempts to understand this changing pattern of spatial inequality in Bangladesh.

The idea of persistent regional inequality can be traced back to Gunnar Myrdal’s hypothesis of “cumulative causation”, which articulated the idea of multiple equilibria based on increasing returns in the favoured region. Recent advances in new trade theory and new economic geography, which incorporated the effects of scale economies in production and marketing, lend further support to the presence of increasing returns to scale due to agglomeration economies.

Another important insight from new spatial economies is that, contrary to conventional economic analysis, human capital moves to where it is abundant, not scant, meaning that policies should not act against the market force that pulls skilled people together. According to this view, the main policy challenge in addressing spatial inequalities is to help firms and workers reduce their distance from density where the main mechanisms are mobility of skilled workers out of lagging regions, reduction of transport costs through infrastructural investments in the lagging regions and greater domestic remittance flows back to the lagging regions.

The key objective of the study is to analyse the persistence of the observed living standard differences between the leading regions and lagging regions of Bangladesh, and to suggest concrete policies to address

the “avoidable” spatial inequalities. The study will assess the relative role of Spatially-blind and spatially-targeted policies in addressing the East-West divide. In particular, the study will examine the changing spatial dynamics along the national geographic scale with specific reference to the so-called East-West divide-divergence earlier and convergence later (although the evidence is quite mixed even on the trends aspects of spatial gaps).

### **Methodology**

It is in this context of spatial policy debate the proposed study will examine the trends in inter-regional gaps within Bangladesh and the nature of economic forces that may have widened or reduced these gaps.

The study will apply the “density, distance and division” (3ds) framework to seek first a possible explanation for the observed living standard outcomes across space, with special focus on the concentration of economic activities, distribution of human capital, increased connectivity and migration and differential exposures to vulnerability.

### **Policy Implications**

This study is utmost important for the policy makers to address the burning issue of spatial gap between regions of Bangladesh. The above observations often lead to the claim of “spatially unbalanced growth, but spatially balanced development.” The problem is that such proposition has not been tested with historical and recent development data in the context of Bangladesh. As a result, the main policy stance on addressing the spatial gaps remains ambiguous (beyond undertaking a variety of “social safety net” for the lagging regions). The main policy dilemma here is to determine the extent to which one needs to be spatially redistributive and to analytically define what is to be counted as unavoidable as opposed to avoidable spatial inequalities.

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## **Externally Sponsored Research Studies**

## **Broad Theme: *Agriculture, Food Security and Rural Development***

### **Improving Food Security through Value Chain Management: A Study of Rice Value Chain in Bangladesh**

#### *Study Team:*

Mustafa K Mujeri  
Nazneen Ahmed  
Iqbal Hossain

*Sponsor:* International Food Policy Research Institute (IFPRI)

*Budget:* Tk. 1.9 million

*Time Frame:* October 2011-March 2013

### **Rationale and Objectives**

Food security at the individual, household, national, regional and global levels is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. As rice is the main staple, food security in Bangladesh very much depends on its adequate availability and accessibility throughout the year. Total food grain availability in 2010-11 was 9 per cent higher than that in 2009-10. There are two main concerns of the study:

- importance of rice to food security
- limitations of traditional food security policies e.g. these are costly and can distort the rice market

A competitive strategy needed policies with more reliance on market encourage private sector trade and stock management. Value chain management (VCM) improves competitive advantage of rice industry and thereby food security. VCM is the

management of all activities in production, distribution and marketing systems, improving process and relationships to support efficient development and flow of rice from producers to consumers. There are three pillars of VCM: improved efficiency, competitive advantage and business to business marketing. VCM will create opportunities and provide incentives to:

- reduce risks and uncertainties
- capture efficiencies and control cost
- respond to changing consumer demand
- lower transaction costs
- focus on agribusiness units and business to business relationships for raising return to network
- integral approach covering suppliers of inputs to consumers and vice versa

The broad objectives of the study will be to link VCM and food security and analyse whether VCM can improve competitive advantage of Bangladesh rice industry. If so, how it can be achieved in practice. It will contribute to food security policy because of link between competitive rice value chains and improved food security. Both VCM and food security have common interest in competitive advantage. To attain the above objectives, the research questions are:

Q1: What are the characteristics of the typical rice supply chains (e.g. modern, traditional and others) in Bangladesh? Examine importance of transactional and asymmetric dependence-based relationships in determining the nature of integration among key actors in the rice value chain and linkages among them.

Q2: What challenges need to be addressed to implement an effective management plan?

This may need to consider: large number of small farmers, lack of perceived need to

collaborate, strong focus on production and lack of understanding of the importance of value chain management initiatives, weakness of existing (e.g. public) processes and danger of creating management traps.

Q3: How the current trends of increasing demand for more differentiated rice following the rapid growth of supermarkets can be utilised to create more positive value chain management opportunities in the country?

Q4: Would it be beneficial for the government to move from its current “production focus” towards a more “whole chain” focus?

Q5: How small farmers are likely to benefit from any improved value created in the chain especially in the absence of collaborative supply chain relationships and exclusive dependence of small farmers on primary market agents?

Q6: What role (e.g. facilitation, education, support for the uptake of chain management practices, etc.) government can play in moving towards a whole chain orientation?

## Methodology

A multiple case study approach will be employed to study variation in rice value chains. Typical value chains will be studied to capture diversity of value chain relationships and range of product, financial and information flows within and across value chains.

Specific choice of methods will be selected to answer research questions; both quantitative and qualitative data are required. Data will be collected from two sources: primary and secondary. Primary data will be collected from field observation and semi-structured interviews with value chain participants. It is envisaged that purposive sampling method will be used to select value chain participants.

It envisaged that purposive sampling method will be used to select value chain participants. Some information will be taken from existing surveys including IFPRI 2010 survey. Both inductive analysis and marketing margin analysis will be used.

## Policy Implications

- Importance of rice to food security and the potential of VCM are the drivers of this study.
  - Analysing major variants of both modern and traditional rice value chains, the study would bring out nature of products, financial and information flows of rice value chains, nature of relationships and how consumer value created and distributed.
  - The study will also identify drivers of firms’ competitive advantage in the value chains and explore whether and how VCM can improve competitive advantage and food security.
  - It is more likely that consumer value in rice value chains is not shared equitably (most consumed by rice millers?); relationships are characterised by power imbalance (larger buyers downstream and rice millers upstream and farmers disadvantaged?).
  - As rice becomes more differentiated, importance of dependence based relationships rises; farmers’ bargaining power reduces as farmers focus on complying millers’ requirements.
  - Asymmetric dependence based relations lead to reduced farmers’ income, selling paddy on farm at low price after harvest giving no opportunity to create value beyond farm gate or postponing sale to wait for better price.
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- From food security perspective, the study would address the issue: whether better for government to adopt a whole chain perspective with a VCM orientation or continue with its current narrow production focus.
- Contribution to better policies and strategies leading to enhanced competitive advantage, adoption of specific approaches for different value chains, and development of a more value driven rice industry in Bangladesh.

### **Barriers to Development of Livestock and Fisheries Sub-Sectors**

#### *Study Team:*

Kazi Ali Toufique  
S M Zulfiqar Ali

*Sponsor:* International Food Policy Research Institute (IFPRI)

*Budget:* Tk. 2.3 million

*Time Frame:* October 2011-March 2013

### **Rationale and Objectives**

The fisheries and livestock sectors are two major pillars of Bangladesh economy and livelihoods of a large group of population of the country. These sectors are also important for food, nutrition, income, export earning, draft power, bio-fertiliser, and transport. More than 10 million people are directly depending for their livelihoods on these sub-sectors; besides, these sectors also support a large proportion of rural population indirectly. The fisheries sector is vibrant which contributes about 20 per cent to agricultural GDP and livestock sector contribution is around 12 per cent. These two sectors provide the major dietary protein.

Bangladesh is fortunate enough having an extensive and huge water resources scattered

all over the country in the form of small ponds, beels, lakes, canals, rivers and estuaries covering an area of about 4.57 million hectares, employing about 1.4 million people. The country has a coastal area of 2.30 million hectares and a coast line of 714 km along the Bay of Bengal, which offers a great potential for marine fisheries production. The livestock sector contributes largely to rural poor through income and employment generation. It offers sustained employment opportunities, particularly for the rural poor.

The potentials of the fisheries and livestock sectors are, however, not fully utilised. There are considerable opportunities of increasing productivity through scientific application of technologies and appropriate management practices.

Given the above, it is important to review the sectoral policies and management of fisheries and livestock to achieve sustainable development in these sectors. Specific research questions of the present study would, therefore, include the following:

1. What are the specific policy barriers in fisheries and livestock that are hindering the growth of the sectors?
2. What are the management and operational difficulties that the fishermen and the smallholders are facing in the sectors?
3. What are the transaction-cost barriers for commercial producers, smallholders, rural poor and women in livestock and fisheries product markets?
4. What could be the desired roles and responsibilities of the government and other stakeholders to achieve

sustainable development in the sectors?

### **Methodology**

For fisheries, both primary and secondary level data will be used to carry out the study. However, given the time and resource constraint, emphasis will be given on the secondary sources. Secondary data will be collected from the Fisheries Resources Survey System of the Department of Fisheries (DoF) and relevant other sources. Primary data will be collected from selected study sites – one from the area of capture fisheries (e.g., chalanbeel or haor areas) and another from the area of pond aquaculture (e.g., Mymensingh or Comilla). Both quantitative and qualitative data will be generated using mainly the semi-structured interviews and focus group discussions.

Similar approach will also be taken for the livestock component. Data will be collected from the Department of Livestock (DLS), other secondary sources and primary surveys as in the case of the fisheries sub-sector mentioned above.

### **Policy Implications**

There are several policy barriers that hinder the growth of the sectors e. g. policy barriers for dairy value chain development and management of public water bodies for sustainable development of fisheries and also many anomalies and barriers in the official leasing policy of water bodies along with other problems. The study will provide inputs in setting the roles and responsibilities of the government and other stakeholders to achieving sustainable development and reducing the existing problems in the sector.

### **Structure and Growth of Rural Non-Farm Sector in Bangladesh: Implications for Household Income and Employment**

#### *Study Team:*

Rushidan Islam Rahman  
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*Sponsor:* International Food Policy Research Institute (IFPRI)

*Budget:* Tk. 1.44 million

*Time Frame:* October 2011-March 2013

### **Rationale and Objectives**

The recent changes in the sectoral composition of GDP in Bangladesh have attracted attention of both researchers and policy makers. During the last two decades the share of agriculture has gone through a large decline with a corresponding increase in non-agriculture's share. Such change has also been associated with structural change in employment. Theories of economic growth usually visualise a structural change in employment and economic growth through transfer of liberalisation from traditional to modern sector. Growth of non-farm sectors in the rural areas can help reduce cost of liberalisation out-migration and can improve regional equality. Therefore, research on growth of income and employment through expansion of RNF should be a priority.

A large number of studies on RNF have focused on various research questions. Most of these are based on sample surveys which focus on selected areas/sectors and are not representative of the national picture. Changes in the share of RNF in total income and employment of households representing the national picture should be the starting point of research on RNF.

Most of the research on rural non-farm activities and on the choice between farm and non-farm activities focused on the choice of broad non-farm sector and not on the detailed sub-sectors. It must be recognised that the choice of various types of non-farm activities is likely to require a different set of qualifications and personal assets. Therefore, the present study proposes to examine the extent of expansion of different sub-sectors of non-farm activities. Moreover, the extent of self-employment compared to paid employment in non-farm sector should receive attention.

A slow growth of employment and wage rate in agriculture, high poverty incidence among casual workers and slow growth of regular employment in formal sectors led to the realisation that non-farm self-employment can offer an alternative strategy for income and employment growth as well as for poverty reduction.

The proposed study will examine the role of rural non-farm activities (RNF) from the point of view of employment and income generation for poor households. The analysis will encompass both self-employment and wage based employment with various forms of contract. An analysis of the prospects that such employment expands with the benefits flowing to low-income households requires detailed investigation of rate of return from these activities and wage rates. Therefore, the returns from various sub-sectors of RNF and wages of paid workers of these sub-sectors will be compared with wages prevailing among agricultural workers as well as among unskilled urban liberalisationers.

Previous studies have shown that RNF comprises of both dynamic and backward activities. An attempt will be made to examine how far the variation of return and wage takes place within sub-sectors and between sub-

sectors. This will reveal whether the dynamic and stagnant enterprises coexist within the same sub-sector or some sub-sectors are dynamic and others are lagging, which will have important policy implications.

Before concrete policies are adopted for promoting rural non-farm activities for poverty alleviation, one must examine whether the liberalisation force from poorer households can depend on such employment for generating sustained income above poverty threshold. There will be barriers to entry and problems of low productivity, resulting in lack of sustained and sufficient earning.

Influence of regional characteristics will be examined because RNF of various types are usually concentrated in different regions. Household Income Expenditure Surveys (HIES) provide “divisionwise” representative data. Therefore, the sub-sectorwise distribution of RNF in the divisions and the share of income and employment in the major RNF sub-sectors in each division will be traced.

## **Methodology**

The study will undertake a review of existing research focusing on the questions selected for the present study. The specific questions chosen for the proposed study will be analysed on the basis of quantitative data obtained by national sample surveys. In particular, the unit record data of HIES will be reanalysed. The quantitative data will be supplemented by case study materials collected specifically for the present study.

## **Policy Implications**

The study will highlight policies for promoting the dynamic RNF. Policies will be suggested for integrating the poorer regions and assetless households into RNF activities.



## Public Stock Policies for Improved PFDS in Bangladesh

### Study Team:

Quazi Shahabuddin  
 Mohammad Yunus  
 Sibana Shahana

*Sponsor:* International Food Policy Research Institute (IFPRI)

*Budget:* Tk. 1.5 million

*Time Frame:* October 2011-March 2013

### Rationale and Objectives

Historically, public intervention in the food grain market in Bangladesh has been quite pervasive. However, the remarkable changes in agriculture and the food economy that have occurred since independence, especially during the past two decades, lessened the need for government intervention in the market to stabilise prices. Increased domestic food grain production, lower real prices of rice, well-integrated and more efficient food grain markets, reduced seasonal price variations and trade liberalisations in the early 1990s have combined to reduce variability in supply and prices. Nevertheless, the government must provide emergency relief during periods of natural disasters, alleviate chronic food insecurity through targeted food distribution to poor households and intervene, when necessary, to stabilise market prices. To accomplish these tasks, adequate public stocks are needed for emergencies as well as for regular distribution. Moreover, the recent escalation in food prices and the increased exposure of domestic market to external shocks, the need for expanded role of government in general and for strengthening the Public Food Distribution System (PFDS) in particular have assumed greater significance in recent years.

PFDS maintains stocks in order to: (a) provide emergency relief during periods of natural

disasters, (b) alleviate chronic food insecurity through targeted food distribution to poor households, and (c) take steps, when needed, to stabilise the market price of food, especially rice. The costs of procuring, storing, managing and distributing large stock of food grains are high. So it is important that the government does not hold more food than it needs for an adequate national food reserve.

It may be emphasised here that grain reserves are costly to maintain and divert public expenditure from other investments aimed at increased agricultural production (for example, rural infrastructure and/or improved technology). Determining the minimum level of grain reserve is, therefore, very important (World Bank 2008<sup>1</sup>). Moreover, it is important to note that the same amount of grain cannot simultaneously serve the three objectives of providing an adequate safety net for the poor, stabilising market prices and providing emergency relief. There are inevitable trade-offs between the three objectives. For example, a sudden emergency may require stocks to be drawn so low that normal distribution of grain is no longer feasible and must be postponed or even cancelled or targeted to those most in need. Thus acceptable stock levels need to be analysed for each purpose, together with a review of alternative instruments available outside the PFDS (Shahabuddin *et al.*<sup>2</sup> 2009).

Bangladesh faces really difficult challenges given the way the regional and global rice markets behaved in 2007-08 and continue to behave rather erratically. There will thus be a strong political, even popular pressure to hold much larger stocks. Some will remember

<sup>1</sup>World Bank 2008, "Agriculture and Food Policy Note," prepared by Hans Jansen and Nihal Fernando, Dhaka.

<sup>2</sup>Shahabuddin *et al.* 2009, Price Support, Domestic Procurement Programme and Public Stock Management, BIDS Policy Brief No.2, Bangladesh Institute of Development Studies, Dhaka.

about Bangladesh's extraordinary vulnerability during the mid-1970s and would argue that Bangladesh should increase substantially the size of the public food stock. However, seeking greater food security in this way may not be the answer or at least the complete answer.

Proper management of public stock is essential for the improved effectiveness of PFDS. As mentioned earlier, the government has to maintain rolling stocks to cater to the routine needs of the PFDS including safety net programmes and open market sales, as well as maintain buffer stocks for emergency distribution in times of natural disasters. This calls for careful planning and management of the amount of grains to be stocked and distributed, and for the establishment of storage facilities and the improved monitoring of existing storage quality.

No attempt will be made here to estimate the optimal foodgrain stock since this would involve the development and operation of a dynamic programming model for foodgrain sector to carry out optimisation exercise as Goletti *et al.*<sup>3</sup> (1991) and Goletti and Rich<sup>4</sup> (1998) did earlier. However, a comprehensive and rigorous analysis of costs and benefits of alternative PFDS stock options will be conducted in this study to examine what feasible options the PFDS have in order to meet its objectives in a cost-effective manner. This would contribute towards better management and improved effectiveness of PFDS in Bangladesh. Needless to add, apart

from analysing alternative PFDS stock options, proper management of public stock also involves, among others, analysis of stock movement, stock rotation and storage as well as transit losses.

## Methodology

The methodology in exploring alternative stock options based on costs and benefits of PFDS will essentially adopt the approach followed by Dorosh *et al.*<sup>5</sup> (2004). This is basically premised on the fact that although the GoB financial accounts of the PFDS record the receipts and outlays of the Ministry of Food, these accounts record only financial flows at "book values" of the commodities and do not include adjustments for changes in prices due to market conditions and/or stock quality. Assessing costs and the size and distribution of PFDS benefits requires an accounting system that values grain at market prices. In other words, since benefits to consumer depend on market price and the quality of grains that they receive, proper assessment of costs and benefits of PFDS needs to be based on an accounting system which adjusts for these factors. More specifically, the financial accounts of GoB for PFDS will be analysed, following the above approach, in order to (i) estimate various cost components, (ii) estimate consumer and producer subsidies, (iii) determine cost-effectiveness levels of public stock and distribution, and (iv) suggest options for improving the efficiency of the system.

## Policy Implications

- Proper management of public stock is essential for improved effectiveness

<sup>3</sup> Goletti, F.R., R. Ahmed and N. Chowdhury 1991, Optimal Stock for the Public Foodgrain Distribution System in Bangladesh, Working Paper No. 4, Food Policy in Bangladesh, International Food Policy Research Institute.

<sup>4</sup> Goletti, F. and K. Rich 1998, A Pleasing Tool for the Management of Foodgrain Stock in Bangladesh, FMRSP Working Paper. Food Management and Research Support Project-International Food Policy Research Institute, Dhaka.

<sup>5</sup>Dorosh, P., Q. Shahabuddin and N. Farid 2004, "Price Stabilization and Food Stock Policy", Chapter 3 in *The 1998 Floods and Beyond: Towards Comprehensive Food Security in Bangladesh*, Edited by P. Dorosh, Carlo del Ninno and Q. Shahabuddin, The University Press Limited and International Food Policy Research Institute.

of PFDS. This calls for careful planning and management of the amount of grains to be stocked and distributed, for the establishment of storage facilities and for improved monitoring of existing storage quality.

- A comprehensive and rigorous analysis of costs and benefits of alternative stock options will be conducted to examine what feasible options PFDS has in order to meet its objectives in a cost effective manner. Needless to add, public stock management policies also involve, among others, analysis of stock movement, stock rotation and storage as well as transit losses and how to minimise these losses.
- One important indicator of efficient stock management would be a good balance between actual stock of food grains and a carefully estimated budgetary target of stock at a specific point of time. However, the target itself may require revision because of unforeseen events such as natural disasters.
- The direct costs of increased distribution are clearly shown in government accounts. However, the costs to consumers of quality deterioration of PFDS food grains are not accounted for. Closer attention should be paid to the quality of food grains in storage and the link between the size of the stock and the amount of distribution needed to rotate stocks.
- The role and effectiveness of food-based safety net programmes need reevaluation, keeping in view such considerations as whether greater use of cash-based transfers is warranted and whether targeting effectiveness and flexible use of

stocks can be improved. Early Warning Information System, both within the country and regionally/globally, to anticipate and prepare for possible future food price hikes and volatility needs to be strengthened.

- The potential trade-offs between different uses of public stocks for regular distribution, emergency distribution and price stabilisation need to be further analysed. Also, since PFDS is costly, the possibilities for balancing distribution through priced and non-priced channels should be further explored.

### **Farmers' Supply Response to Price and Non-Price Factors in Bangladesh**

#### *Study Team:*

Mohammad Yunus  
Quazi Shahabuddin

*Sponsor:* International Food Policy Research Institute (IFPRI)

*Budget:* Tk. 1.383 million

*Time Frame:* October 2011-March 2013

### **Rationale and Objectives**

Bangladesh has undertaken trade liberalisation including agricultural liberalisation since 1986 in the hope that reforms emphasising price incentives will encourage producers to respond. Significant progress made so far includes devaluations of taka and adoption of flexible exchange rate regime, as well as decontrol of agricultural prices, especially input prices, and reduction of tariffs. The rationale behind agricultural liberalisation is that the biases against agriculture discourage production so that reforms introducing price incentives will encourage producers to respond.

However, the reforms seem to have introduced greater uncertainty into the domestic market, given increased price volatility in the global market. Besides, Bangladesh agriculture remains exposed to the vagaries of nature (variability in monsoon rainfall during the Kharif-1 and Kharif-2 seasons). This study therefore models supply responses in Bangladesh agriculture that include the standard arguments as well as price risk.

Previous studies have tended to model supply response based on the assumption of perfect knowledge and information about price and production (Rahman<sup>6</sup> 1986, Alam<sup>7</sup> 1992, and Yunus<sup>8</sup> 1993). Less attention has been paid to capturing the impact of risks and uncertainty on agricultural production and supply response in Bangladesh agriculture. The proposed study will incorporate these risk factors in the model.

As the nature of market and non-market factors adds to risk and uncertainty in farm decisions, the study would aim at modeling the production and supply response in Bangladesh agriculture by including both the standard arguments and risks. The study attempts specifically to:

- Determine whether Bangladesh agricultural supply is price and price risk responsive;
- Examine the aggregate and sub-aggregate and selected individual crop

supply responses of Bangladesh agriculture to price and price risk; and

- Evaluate the impact of structural breaks on Bangladesh agricultural supply response.

## Methodology

The data would be collected from various secondary sources, including BBS, Bangladesh Bank, and would be analysed using standard cointegration and vector correction models. The analysis will begin with examination of the time series properties of the variables used and their order of integration determined using augmented Dickey-Fuller (ADF), Phillips-Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) unit root tests.

If the null of non-stationary cannot be rejected, then a variable contains unit roots and hence it is not stationary. If its first difference is then tested and found stationary, it is I(1). Given that a variable X is I(1), the analysis proceeds to test for cointegrating relationship. If cointegration exists, error correction model is estimated. If not, the analysis continues with ADL modeling of the supply response.

The study would look into own price effect, yield effect, real exchange rate effect, risk effects and institutional effect. The coefficients of own price and yield are expected to be positive. It is expected that the movement of the real exchange rate would capture the substitution effects in both production and consumption (between traded and non-traded goods such as export crops and food crops or between food imports and domestic production). It is difficult to make an assumption about the signs of the coefficient since the impact of changes in real exchange rate would be mixed for exportable cash crops and food imports. The coefficient of the risk variable is expected to be negative as farmers

<sup>6</sup>Rahman, S. H. 1986, "Supply Response in Bangladesh Agriculture," *Bangladesh Development Studies*, Vol.14, No.4.

<sup>7</sup>Alam, Shamsul 1992, "Have the Supply Responses Increased for the Major Crops in Bangladesh?" *Bangladesh Development Studies*, Vol.20, No.1.

<sup>8</sup>Yunus, M. 1993, "Farmers' Response to Price in Bangladesh," *Bangladesh Development Studies*, Vol. 21, No.3.

are generally assumed to be risk averse. To capture the effects of the regime change, dummy variables (both additive and interactions with relevant explanatory variables where the slope may change) will be introduced.

### **Policy Implications**

If farmers are price responsive, i.e., if the price elasticity is greater than one, then it can be used to design effective agricultural policy. Thus the findings of the present study are expected to aid policy makers and concerned authorities to take necessary steps that would lead to agricultural sustainability of the country.

## **Broad Theme: *Water Resources Development***

### **Bangladesh: Integrated Water Resource Assessment**

#### *Study Team:*

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M Asaduzzaman  
Mustafa K Mujeri

*Sponsor:* AusAID-CSIRO

*Budget:* AUD 120,000

*Time Frame:* October 2011-September 2013

### **Rationale and Objectives**

Water resources are under great stress in Bangladesh, with floods in the monsoon season, shortage of surface water in the dry season, arsenic contamination of shallow groundwater, salinisation of both surface and groundwater in the coastal zone, and difficulties with meeting demand in many urban centres. The increasing population and economic development in Bangladesh will increase the demand and the competition for water resources, exacerbating an already difficult situation. To add to the difficulties,

changes in water quality and quantity are also expected as a consequence of climate change. Currently, there is no country-wide integrated assessment of water resources in Bangladesh or the interactions between water resources, their management and social and economic well being.

The aspects related to surface water uses and availability are well studied and modeled but information about ground water resources is still scarce and fragmented. Little is known about the interactions between surface and groundwater systems, the capacity of aquifers to sustain greater levels of use and the impact of climate change on the overall water availability in Bangladesh.

From a socio-economic perspective, there is a reasonable body of mostly localised work on aspects of how the surface water and groundwater are managed today, how this management is impacting livelihoods, and how these resources could be managed in the future to promote an efficient, sustainable and equitable use of scarce water resources. Little has been done to understand social and economic impacts of water resource management at system scale accounting for cross-sectoral and competing demands (e.g. agriculture and urban water use).

The research aims to develop an integrated water resource assessment to provide a national overview of the resource, the impacts of development and climate change on both surface water and ground water resources. It will assess the way impacts will affect the poor and the vulnerable, the amount of water that could be sustainably supplied to the different economic sectors such as agriculture, fisheries, industry and navigation, as well as to the population for drinking and sanitation purposes in order to promote economic growth and improve livelihoods of people.

## Methodology

In the above backdrop, the research is multi-disciplinary in nature, bringing together hydro-logical, hydro-geological, socioeconomic, climate change, social trend and other data in an integrated framework.

Therefore, the study will undertake an integrated approach through a) surface water assessment, b) groundwater assessment, and c) socio-economic assessment. The socio-economic assessment involves examining socio-economic aspects. The integration will involve modeling macro-level and micro-level water demand and use in Bangladesh, that is, it brings together supply and use information assembled in the surface water and groundwater assessments, and models the changing patterns of use and demand with increasing population and economic growth.

The study will assemble a range of socio-economic data, including population, population growth, population structure (gender, age), income classes, access to water and sanitation, water use by sectors (including urban and industrial), and anticipated growth of sectors. The data will be obtained as far as possible at a spatial resolution of the district or, preferably, upazila level. Water demand by economic sectors including agricultural, industrial, urban and rural will be assessed through the customisation, validation and application of an existing computable general equilibrium (CGE) model.

## Policy Implications

The information generated will help Bangladesh to develop policies for equitable and efficient allocation and use of water in future. One of the major contributions of this research is related to identification of potential hotspots where there is high risk of contamination by saline intrusion or polluted surface waters, and where there is high risk of

lack of access to safe drinking water and irrigation water in rural areas.

The research is also expected to contribute to capacity building of Bangladesh organisations on climate change impact assessment, groundwater assessment, and integrated water resources assessment.

## Broad Theme: *Manufacturing and Finance*

### Productivity and Efficiency of Rice Mills in Bangladesh: Economic, Social and Food Security Implications

#### *Study Team:*

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Nazneen Ahmed  
Moogdho Mim Mahzab

*Sponsor:* International Food Policy Research Institute (IFPRI)

*Budget:* Tk. 3.36 million

*Time Frame:* August 2011-March 2013

## Rationale and Objectives

In Bangladesh, the contribution to GDP of agriculture has fallen substantially over time. Yet, in absolute terms, it has increased from Tk. 448.34 billion to Taka 701.96 billion i.e., by more than 56 per cent at 1995/96 prices. Crop cultivation has kept its share in the overall agriculture at around 55-56 per cent over this period. Rice dominates all other crops accounting for around 65 per cent of the area under crops. The output of rice has increased from about 12 to over 30 million metric ton over the period of the late 1970s to end of the first decade of the 21<sup>st</sup> Century. This means that the demand for processing rough rice i.e., paddy has increased very significantly over time.

Paddy may be dehusked and bran may be removed in several ways. There are or were two basic manual methods, hand pounding using a pestle and a mortar, or using *dhenki* (in which the pestle is iron tipped and fixed to a foot-operated long and thick pole), the mortar being a lined hole in the ground. The *dhenki* used to be the traditional milling tool in Bangladesh but has likely been replaced with more mechanised means over time as the total amount to be milled has risen sharply. The mechanised means now come in the form of a variety of machines operated by diesel or electrically driven motors along with various separating tools for the rice and husk and bran at different stages of operation. Then there is the pre-milling parboiling which may or may not be integrated with the actual milling. There is also a bewildering array of rather small, practically portable husking machines which are used by villagers. So at one end there is the traditional *dhenki* which is almost but not yet out of the scene and on the other spectrum is the large automatic rice mills which demand a ready supply of paddy for continuous operation. Yet, all are preceded by rather inefficient parboiling system wasting energy. In any case, the productivity, technical efficiency and scale economics of these technologies are likely to be vastly different with major implications for the country. The rationale of the study involves:

- Rough rice/paddy produced in 1970 was 17.2 million metric ton which has risen to 45-46 million metric ton in 2010—a huge leap. In terms of demand for processing this needs faster technology.
- Technical efficiency in milling and the technology in use are major factors behind productivity and hence should be investigated to understand the productivity behaviour over time as well as processing capacity.
- Characteristics and capacity under different technology and their relative significance in terms of total processing.
- Auto large mills are reportedly fewer than others but have much larger capacity and higher productivity with potential monopoly in rice market and monopsony in paddy market. Thus having potential destabilising power and control over market intermediaries as often alleged.
- Stock behaviour of auto mills and others as well as networking with marketing agents and sellers of paddy may help explain paradox of rising price of rice despite high production levels.
- The hypothesis may be that due to higher productivity and capacity auto rice millers need to stock paddy more than others.

## Methodology

To fulfill the scope of the work, the following activities need to be undertaken:

- Literature review both related to Bangladesh and similar major rice producing countries.
  - Analysis (including econometric) of available statistical materials particularly relevant CMI/SMI data for the years 1995/96, 2002/03 and 2005.
  - Analyse the information from the 2010 IFPRI household survey if it has information related to household processing of rice.
  - Consultation with various groups of rice millers (of all categories including members of Rice Millers Association) as well as experts in technical aspects of rice milling for understanding the array of technology available and used in the country
-

including their technical and economic characteristics, spatial distribution and growth over time.

- Draw a suitable sample of rice millers of various categories and also households engaged in home-based processing and conduct suitable survey for necessary quantitative and qualitative data.
- Statistical and econometric analysis of survey information.
- Efficiency estimation provides an indication of the per centage by which potential output could be increased in relation to the corresponding production frontier.
- Technical efficiency for the  $i$ th firm is defined as the ratio of observed output to potential maximum output; So the coefficient of technical efficiency lies between 0 and 1.
- As production frontier cannot be observed directly, techniques have been developed to estimate efficiency.
- Parametric approach (frontier analysis- deterministic as well as stochastic).
- Non-parametric approach (Data Envelope Analysis).
- Assessment of results from various above analyses and other information for policy related to rice milling keeping in view the objectives of economic efficiency, social desirability and food security including nutrition.

### Policy Implications

This study will reflect serious policy issues once it is done. The issue of food security is in line with behaviour of rice millers. To understand how the rice millers behave will be an important task to comply under the study. The total number of rice millers, their stocking behaviour and the differences in the

technologies among different rice mills will be the highlight of the study. To capture the monopsony and monopoly behaviour of the rice millers if any will be studied under this research. One, thus, needs to understand the dynamics of moving from traditional to modern rice milling, the productivity, costs, and stock behaviour which have major implications for rice price, employment (including for female) and national food security.

### An Evaluation of the Operations of the Equity Entrepreneurship Fund (EEF)

#### *Study Team:*

Zaid Bakht  
Monzur Hossain

*Sponsor:* Bangladesh Bank

*Budget:* Tk. 1.5 million

*Time Frame:* October 2011- December 2012

### Rationale and Objectives

The traditional source of term lending in Bangladesh since the Pakistan days was development finance institutions (DFIs). During the early 1980s the DFIs indulged in extensive term lending motivated more by political patronage distribution and collusion between borrowers and agencies rather than by the soundness of investment proposals. As a result, these institutions ran into huge amounts of loan default and became virtually defunct once aid agencies cut off the flow of fund for further disbursement of term loan. The vacuum in term financing continued for some time until the early 1990s, after which the nationalised commercial banks (NCBs) sharply raised their level of term loan. The explosive growth of term lending by the NCBs was fraught with two critical problems. The main source of fund for these term lending was the bank's own loanable fund based on the deposits with the banks. This means that the banks were borrowing short and lending long—a nonviable arrangement for long term financing. Secondly, the quality of the loans



suffered from the same types of problems as were observed in the case of the DFI lending. It is not surprising, therefore, that the number of non-performing loans of the NCBs started piling up quite rapidly.

The virtual demise of the DFIs and stricter control on term lending by the NCBs have nearly starved the private sector of Bangladesh of institutional credit in recent years. The experience of the 1990s has proved that commercial banks in Bangladesh are inappropriate replacement of the DFIs for meeting the country's potential demand for term loan financing. A number of investment companies that came into existence to cater to this need totally failed to realise their statutory objective because of their limited capacity to mobilise funds and their conscious choice to operate as quasi-commercial banks. The growth of the stock market and the inflow of FDI have also been grossly inadequate to make up for the short fall in institutional finance. This deficiency in term finance was largely responsible for the persistence of high interest rate and consequent adverse effect on the growth of the private sector.

Clearly, there is need for new institutional initiative to resolve the problem of term finance in Bangladesh. With this concern in mind the government introduced the "Equity Development Fund" in 2000-01 with a budget of Tk. 100 crore. Later, in 2001-02, it was renamed "Equity Entrepreneurship Fund" and initially its purview was limited to food processing and agro-based industries (excluding the conventional sub-sectors such as rice/flour milling, fishing trawler, cold storage, etc.) and IT sector. Since its inception, Bangladesh Bank has handled the fund through the Investment Corporation of Bangladesh (ICB).

There are no interest charges and the fund is disbursed on profit sharing basis for eight

years. The entrepreneur makes available 51 per cent of the total project cost and the government provides the rest 49 per cent as equity. The entrepreneurs are required to buy back the government share in four steps within this period. The total project cost including net working capital of the project will have to be of minimum Tk. 0.50 crore for both IT and agro-based industries and maximum of Tk. 5.00 crore for IT industries and Tk. 10.00 crore for agro-based industries.

Up to the end of FY2011, a total of Tk. 573 crore has been invested out of the fund in 284 projects, of which 248 were agro-based industries while 36 belonged to IT sub-sector. In FY2011, the size of the sanctioned fund was Tk. 300 crore. Recently the ICB has proposed expansion of the coverage of the fund and a fresh sanction of Tk. 500 crore for FY2012 has been sought.

The broad objectives of the study will be to critically review the past operations of the EEF for assessing the following:

- How successful has the EEF been in meeting its prime objectives of raising investments in the two most promising sectors in Bangladesh, namely IT and agro-based industries?
  - How efficient has the operation of the fund been?
  - What factors contributed to its success and what factors hindered its performance?
  - In what ways should the arrangements of the fund be modified to improve on its performance?
  - What new sectors should be brought under the purview of the fund?
  - What should be the medium term growth projection of the fund?
-

## Methodology

The study will involve both primary data collection and desk based research. The existing secondary data available with ICB and Bangladesh Bank pertaining to the enterprises will be compiled and supplemented with a brief questionnaire survey of all enterprises under EEF. A scientifically drawn sample of 40 enterprises from agro-based industry and 20 enterprises from IT industry will then be subjected to in-depth interview to elicit detailed information on issues delineated under the scope of the study. In addition, perception surveys will be carried out of selected stakeholders including entrepreneurs in the same industry but outside the EEF. The data collected will be analysed using standard statistical tools of bi-variate and multi-variate analysis.

## Policy Implications

Given that the EEF has been around for nearly 10 years now, it is high time that a comprehensive review of the operations of EEF is undertaken and decisions regarding future course of EEF operations should be made based on the outcomes of such review. The present proposal has emanated from such a concern.

## Broad Theme: *Macroeconomic and Trade Policy Analysis*

### Impact Assessment of Development Paradigms and Related Policies: Analysis with Dynamic CGE Modeling

#### *Study Team:*

Nazneen Ahmed  
Moogdho Mim Mahzab  
External researchers

*Sponsor:* Food and Agriculture Organisation (FAO)

*Budget:* BDT 1.0 Million

*Time Frame:* July 2011-December 2012

## Rationale and Objectives

The study aims to provide long term policy assessment to some critical development issues for Bangladesh through the use of dynamic CGE model to support the government policy making process. A complete dynamic CGE model is intended to develop with the latest Social Accounting Matrix (SAM) of Bangladesh. Broad topics like food security, poverty and inequality, employment, investment, external sector and assessment of the five year plan would be brought under the investigation of this study.

As mentioned, this exercise is mainly an outcome of the training on CGE held at Rome, Italy in the FAO headquarter. There will be two more country papers of Kenya and Burkina Faso along with Bangladesh. As CGE has become an instrumental tool for economists to analyse the general equilibrium, this study aims to develop a compatible model of Bangladesh economy with the help of the SAM in MPSG format of CGE modeling. This study aims to reveal the dynamics of the following issues with the help of CGE modeling:

- Achieving the target GDP growth rate of 8 per cent within 2015 and 10 per cent within 2021.
- Ensuring food security while supporting the agriculture.
- Employment generation by expanding manufacturing activities.
- Enhancing export earning, remittance earning, import revenue and FDI, through appropriate policies.
- Augmenting public and private investment for sustainable and pro-poor growth.
- Reducing income inequality with growth.

## Methodology

As the objective suggested, the model will be developed in dynamic CGE format. The new MPSG version will be adopted for the model. A team guided by a national expert is working with the model. The Social Accounting Matrix, which is the base of the analysis, has been adopted in 27 by 27 matrix form. To build the dynamic model, the team is going through trial and error. This CGE model will be a milestone for the researchers for coming researches. The following procedures are aimed under the study:

- Adapting standard SAM to MPSGE form (use either country model if available or use FAO provided model as a basis);
- Selecting the elasticities and other parameters (either own estimation or borrowing);
- Plug the SAM into the model;
- Selecting the policy issues and reflects those in the model;
- Running the model for performing simulation and sensitivity analysis (Matching the theoretical aspect with the analytical framework);
- Interpretation of results with logical explanation of the issues;
- Proposing policy measures (Consistent with the model);
- Illustrating the limitation of the model.

## Policy Implications

This study will be significantly influential for the policy makers as it will clearly show the pros and cons of decisions and their results for Bangladesh Economy. The results that will be obtained from the model will shed light on the issues of government's tax policies, external sector policies, subsidies and inflation

issues. These are very important for the policy makers to design beneficial policies for the country.

## Trade Pattern and Trade Policy in Bangladesh

### *Study Team:*

Monzur Hossain  
Narayan Chandra Nath

*Sponsor:* International Food Policy Research Institute (IFPRI)

*Budget:* Tk. 1.4 million

*Time Frame:* July 2011- March 2013

## Rationale and Objectives

Analyses of trade pattern and trade policies are important to pinpoint the areas of deficiencies of current trade and work out necessary corrective measures for desirable changes in the trade pattern and trade development. This kind of study has not been conducted with rigor in the past. Necessity of this study has arisen to respond to the changing needs of post-global meltdown. It is also important in the context of evolving opportunities of increasing global and regional integration and changes in the demand structure of the country.

The specific objectives are to:

- Analyse evolving market and trade opportunities in the region and the world that can enhance development in Bangladesh;
- Highlight the state of exports and imports of Bangladesh with their changes;
- Calculate revealed comparative advantage (RCA) indices and market share of major exports products;
- Review present export incentive regimes for export development and study the impact of studies;

- Calculate systematic comparison of effective rate of protection (ERP) at international level and regional level (SAARC) or at the level of same category of countries;
- Analyse the trade problem related to food security;
- Address the issue of rationalisation of tariff structure and non-tariff measures;
- Identify the direction towards which policy challenges and changes can emerge for facilitation of trade in Bangladesh.

## Methodology

With a view to assessing the current state of trade in Bangladesh some conventional trade related indices like RCA, ERP and Herfindahl-Hirschman concentration ratio will be estimated.

### *Exploring evolving market and opportunities*

In this stage, Balassa's RCA (Revealed Comparative Advantage) indices for different products and markets will be estimated with conventional formula.

### *State of trade and trade policies*

In this step, change in the volume and composition of trade, spatial distribution of trade, concentration of imports and exports, trade liberalisation policies and incentive structure will be overviewed to assess the state of trade.

### *Role of incentives and rate of protection*

Effective rate of protection (ERP) will be calculated. Nominal and effective rates of protection will be estimated and export demand function will be assessed to analyse impact of policy incentives.

## Policy Implications

The analysis will provide inputs to understand the changing pattern of trade regimes in the

country and help identify the opportunities and policies that would create a more facilitating trade regime for Bangladesh.

## Broad Theme: *Energy Issues*

### Productivity and Efficiency of Solar House Panels in Bangladesh: Economic, Social and Food Security Implications

#### *Study Team:*

Mohammad Yunus  
M Asaduzzaman  
A K Enamul Haque  
A K A M Azad

*Sponsor:* World Bank

*Budget:* US\$ 147940

*Time Frame:* September 2011-December 2012

## Rationale and Objectives

The general lack of access to electricity imposes limits on the prospects of growth and increased welfare. The positive relationship between electrification and growth is well-known in the literature and has also been investigated in the Bangladesh context. It is also generally well-known that access to electricity raises household welfare in several ways. Furthermore, it should be kept in mind that access to electricity itself is a major indicator of progress in achievement of the MDGs. The continued rise in the access to electricity therefore should be a major development target on counts of growth, increased welfare and quality of life as well as achieving MDGs. The question is if the rate of growth in generation of electricity is slow, and the pace of rural electrification and its quality is lackluster, what may be the way out. Herein lies the importance of the solar home system.

Sunlight combines two types of energy, light and heat. Both may be utilised, directly or

indirectly, by converting them into electricity which may then be supplied to entities such as households or firms to be utilised as they see fit. Bangladesh being a tropical country receives bright sunshine throughout the year, the potentials for use of solar energy have been deemed to be very substantial. Not just that, there are also ideas that the solar electricity may actually be supplied through the normal grid. The engineering details of the direct and indirect use of solar energy will be discussed at a later stage. For the time being it may simply be noted that one particular technology, solar photovoltaic, has become popular the world over for providing electricity to households and enterprises in remote and off-grid areas. Bangladesh is no exception.

The study will assess the impact of the solar home system spanning from the benefits of extended lighting to reduced indoor air pollution and gauge the size of the potential market for solar home and efficiency of service delivery mechanism of the partner organisations of the IDCOL.

## Methodology

As no baseline data are available for the adoption of the SHS in Bangladesh, the three contending non-experimental methods available for its impact evaluation include instrumental variables (IV), regression discontinuity design (RDD) and propensity score matching (PSM) methods. It may be noted that programme placement, the choice of villages, is endogenous in that the treated villages must be off the grid in order for the POS to sell a particular system and receive refinancing and subsidy from the IDCOL. However, once a PO or a number of them are located in a particular location, all of the households are eligible to purchase a SHS if they wish so.

It may be noted that the POs are responsible for designing and delivering various packages

of the SHS. This evaluation will provide accountability of IDCOL and the POs to donors and the government. Unlike the outcome evaluation that would be invoked in assessing the impacts on the households, process evaluation verifies what the programme is and whether it is being implemented as designed based on empirical data. To that end, four categories of process evaluation questions will be asked in this exercise.

**1. Issues at the PO Level:** What proportion of those who might purchase the SHS from that particular PO actually purchased it? Has the PO served the intended clients? What were the socioeconomic and demographic characteristics of clients? What were the characteristics of those who dropped out?

**2. Treatment Process at the PO Level:** By what route did clients purchase SHS from the vendor? What actually happened to clients in delivery of services and was that intended?

**3. Issues at the Region/System Level:** How many SHS vendors exist in the region? How many clients are served by each PO in a year? Are there differences in the types of clients served at each PO?

**4. Treatment Process at the Region/System Level:** Are different POs aware of one another? Is their interaction best characterised through cooperative or non-cooperative game-theoretic framework?

In addition to that some of the households do not purchase the packages on offer at the current pricing structure. It may be assumed that some of the households would never purchase SHS at any positive price level. But this is a very strong assumption. It is highly likely that more and more of the hitherto unwilling households would purchase SHS as the offer price for a package decreases. This proposition can be tested by appealing to the

Willingness to Pay Principle (WTP). Thus, the size of the market in a village would be the cumulative total of users and aspirants at different price levels. However, SHS is a distant inferior substitute of grid electricity. Thus, the potential locations of SHS are those localities (be they are regions or villages) that are unlikely to be electrified in the near future. The size of the market would be the number of such localities (to be collected from the REB) times the cumulative number of users at different price levels.

### **Policy Implications**

Subject to the performance of the SHS based on the various criteria, its further potentials need to be known with some kind of certainty. A market survey to assess the future potentials needs to take into account not simply the theoretical limits, but also practical factors such as growth in income of households, the need for higher levels of energy that may be demanded over time and also the expansion of the normal rural electrification system in the country. Once done, such an assessment will guide to the investment needs and associated supplementary activities.

### **Fossil Fuel Subsidies Reform in Bangladesh**

#### *Study Team:*

Mustafa K Mujeri  
Tahreen Tahrima Chowdhury  
Siban Shahana

*Budget:* Tk. 0.5 million

*Time Frame:* November – December 2012

### **Rationale and Objectives**

The Government of Bangladesh, like governments in many other countries, has used subsidies for decades as an important policy instrument to promote a wide range of social and economic objectives. The

government provides subsidies in a number of areas including agriculture, petroleum products, electricity, health, education, and food. Subsidies have wide-ranging impacts on the distribution of wealth within a country, economic growth, and the environment. They are, therefore, of vital interest to all citizens. Too often, however, there is little public awareness or discussion of subsidy policies.

The focus of this guide is energy subsidies, which receive the largest share of the subsidy bill in Bangladesh. Bangladesh started subsidising the retail prices of different energy products following the country's independence in 1971. Initially, when fuel prices were low, energy subsidies were more affordable, although they still came under criticism for their distorting effect on the economy. Today, however, with soaring global fuel prices and rapidly rising demand for fuels, these subsidies take a heavy toll on government finances.

This guide is intended to help citizens understand energy subsidies in Bangladesh. It discusses the size of these subsidies to different energy types, the parts of society that benefit the most, and how they affect the country's economy and environment. It also highlights the process of reforming energy subsidies drawing on the experience of Bangladesh and other developing countries.

### **Methodology**

The study is based on some qualitative work using relevant data and literature review. The study focuses on the direct impact of energy-subsidy on different income groups considering their consumption patterns. However, indirect impacts are not considered in view of the limited scope of the study.

### **Policy Implications**

The government has repeatedly expressed its strong desire to rationalise fuel prices and

reduce subsidies to promote an efficient and sustainable development process in the country. The implementation of the policy, however, has not been smooth. The country's Sixth Five Year Plan (2011-2015), adopted in 2010, recognises that "a part of the reason for the past lack of investment in power is poor pricing policies that kept the publicly owned electricity industry in constant deficit and kept away private investment." Although price adjustments of fossil fuels in Bangladesh are done by the Bangladesh Energy Regulatory Commission (BERC), a statutory body, it does so mostly on an ad hoc basis. The prices often fail to recover immediate costs with no scope to support expansion and development.

The government's policy maintains that electricity should be treated as a private good and its price must reflect its cost of production and a fair return on investment. This will ensure efficient use of electricity along with generating adequate surplus for reinvestment. The strategy aims to achieve social objectives like reaching out to the poor and the rural communities through cross-subsidisation and explicit budget subsidies. In this context, proper pricing of power based on good international practices has been identified as a key area of policy reform for the Sixth Plan.

Subsidy reform can be designed and implemented in a way that minimises the negative impacts on poor households. Different policies have been used by countries around the world to ease the transition away from fuel subsidies. The policies can be grouped into two categories: those that provide assistance to poor households and those that help the broader community to understand and support reform. The best chance for successful reform (which can be defined as the long-term elimination of subsidies with minimal negative impacts) requires a comprehensive strategy drawing on a range of transitional support policies.

Research into the nature of the subsidy, how its costs and benefits are distributed and identification of those most likely to be impacted by its removal will help design the reform strategy.

The way in which subsidies are eliminated can also ease the transition to market prices and build public support for reform. Good practice includes a clear communications campaign, stakeholder consultation, transparency about fuel prices, a gradual phase-out of subsidies and monitoring of the impacts of implementation with adjustments, if necessary.

## **Broad Theme: Governance Issues**

### **Baseline Study on Upazila Governance**

#### *Study Team:*

Monzur Hossain

Badiul Alam Majumder

#### *Sponsor:* UNDP

*Budget:* Tk. 2.48 million

*Time Frame:* September –December 2012

### **Rationale and Objectives**

Being an integrated local governance framework, Upazila must ensure an improved governance to become an active and vibrant Local Government Unit bringing all service providers at Upazila level under the accountability framework of Upazila and create a mechanism of participatory, democratic and accountable body. With this aim, the Upazila Governance Project (UZGP) has started in 14 selected Upazilas in 2012. Within the project framework, conditional fiscal transfers will be made to the selected Upazilas. It is therefore important to assess the pre-project governance and development conditions in the project Upazilas as well as non-project Upazilas to make a final impact

assessment at the middle or final stage of the project.

The broader objectives of the baseline survey are to:

- collect baseline information regarding different aspects of governance situation at the Upazila level,
- generate a set of benchmarks that will help monitor and measure the success of UZG project in terms of pro-poor service delivery and MDG targets, and
- create a benchmark to assess the possible scope for and impacts of the Upazila Governance Project.

## Methodology

The key component of this study is to conduct a survey on the baseline indicators on governance, development plans and budget of Upazilas as well as citizen's perception towards governance and functions of Upazila Parishads. For this purpose, a survey was conducted on a representative sample of Upazila Parishads as well as citizens of the selected upazilas.

## Policy Relevance and Implications

Public service delivery arrangements in Bangladesh in general remain highly centralised. The low level of fiscal decentralisation and complex process of fiscal transfers and development project implementation often hinder growth prospect of the country. Fiscal decentralisation could enhance effective utilization of fund if properly designed and monitored. Performance-linked funding mechanism is an efficient mode of fiscal decentralisation. In this context, the Upazila Parishad Governance Project (UZGP) has been initiated in 14 Upazilas on a pilot basis for the period 2011-2016 with an aim to provide performance-linked fiscal facilities. The project is expected to contribute to

making Upazilas an important local government unit in promoting local democracy and ensuring efficient delivery of basic pro-poor social services. The baseline survey in the project and non-project upazilas will help assess the impact of the UZGP project in the subsequent evaluations.

## Baseline Study on E-Upazila Initiatives

### *Study Team:*

Monzur Hossain  
M Asaduzzaman

### *Sponsor:* Katalyst

*Budget:* Tk. 1.48 million

*Time Frame:* April-September 2012

E-upzilla, an ICT-based innovative programme of Social Development Foundation (SDF) under its Social Investment Program Project II (SIPP-II), focuses on providing ICT based social services to escalate the living standard of rural people, especially those from extremely low income groups. It is expected to have direct and positive effect on the economic development of the community by providing necessary information to the target groups (farmers, students, health system, public services, etc.) in a convenient and affordable manner. Since February 2011, SDF has started E-Upazila ICT Pilot Project in Jamalpur Sadar Upazila in Jamalpur district focusing to expansion of ICT platform in rural areas, particularly to the poorest of poor in the society. Out of 209 villages in Jamalpur Sadar Upazila, SDF started implementation only in 89 villages and now SDF intends to expand ICT pilot project areas gradually. In view of the innovative features of the pilot project, baseline survey would be essential before starting the pilot project in full swing.

The baseline survey is necessary to develop an in-depth understanding of available ICT services with infrastructure that help the



community for strengthening of education, health, agriculture, etc. services in rural areas. The baseline study will be conducted to document critical variables related to the present phenomena and lay the benchmark for undertaking impact evaluation at the end of project implementation. The overall objective of the baseline survey is therefore to assess the pre-project conditions in the project area in regard to the ICT scenario of 89 SIPP villages in Jamalpur Sadar Upazila.

The specific objectives of the baseline survey are to:

- Assess the ICT knowledge, available services and exploit status especially to the hard core poor and poor members of the community;
- Determine the access of ICT services and taking maximum benefits by using this platform;
- Examine the skill of the youth on ICT and diversify uses for their employment;
- Examine the available services that could accommodate and affordable to the hardcore poor members of the society;
- Examine the role of ICT for socio economic development;
- Determine the key indicators for monitoring and impact evaluation.

## Methodology

Mainly sample survey is used for the baseline study in addition to conducting a good number of FGDs and KIs. The required sample size is estimated to be around 600. It was thus decided to collect information from 600 households from the treatment area. Considering time and resource constraints, 150 households from control area were also surveyed. As the target populations are the members of SDF who are either poor or hardcore poor, sample households consist of

both hardcore poor and marginal poor with a ratio of 1:3.

## Policy Implications

Three issues have emerged in this study to run a successful telecentre to meet the demand for e-services of the rural poor people. These are:

1. *Building awareness*: Building awareness about digital services and their utilities is pertinent for effective utilisation of e-services. Most of the rural people are not aware of vast applications of mobile phone services, internet and computer applications. Without creating proper awareness of these services, it will be difficult to attract people to telecentres;
2. *Cost-effectiveness of services*: The second most important issue is cost-effectiveness of e-services, which includes optimal distance of telecentres from the locality and pricing of services;
3. *Proper training facilities*: Most of the respondents are willing to take training of computers and internet use and they are also interested to train their children. For this purpose, availability of skilled trainers is important. It has been revealed that there are lack of trainers in the locality, which needs to be urgently met. Some trainer creation programmes can be undertaken from the pool of trainees before starting the pilot project. Trainer and operators must be aware of the needs of stakeholders as well as the respected/dedicated websites or e-services available to meet the demands.

## **Broad Theme: *Education and Training***

### **Effectiveness of Training and Academic Programmes of BIBM**

#### *Study Team:*

Monzur Hossain  
Mustafa K Mujeri  
Tahreen Tahrima Chowdhury

*Budget:* Tk. 2.80 million

*Time Frame:* January –June 2013

### **Rationale and Objectives**

The Bangladesh Institute of Bank Management (BIBM), registered under the Societies Act 1860, was established in 1974 with the primary focus on providing training to the bank officials in Bangladesh in order to strengthen and update their skill. In the beginning, BIBM concentrated on training to the entry level officers. However, with the passage of time it assumed the responsibility of imparting training to the mid and senior level officials of the banking sector. In 1997, BIBM entered into education programme offering a post graduate programme in bank management—the MBM. Initially, the programme was conducted during day time. Later on, responding to the demand from in-service professionals, evening MBM programme was also launched.

The evaluation will cover the period 1974-2011 with a view to reviewing functional activities of BIBM namely training, education, research and consultancy. The evaluation will include stakeholder consultation, review of training materials and assessing their usefulness/appropriateness in the face of the changing needs of the financial sector, perception survey of trainees on the effectiveness of training programmes, evaluation of capacity of trainers at BIBM in

terms of their teaching, research and consultancy.

The specific objectives are to:

- assess the suitability of BIBM's training programmes in augmenting professional quality of the bankers and the changing needs of the financial sector;
- evaluate the effectiveness of such programmes on the professional career of trainees;
- assess the usefulness and current contribution of BIBM's post graduate degrees, e.g. MBM;
- assess the capacity of BIBM faculties in terms of teaching quality, research activities, and consultancy;
- suggest recommendations and actions on streamlining the activities of BIBM and indicate how BIBM can perform as a dynamic institution for meeting the challenges of the evolving financial sector of the country.

### **Methodology**

Methodologies include Perception Survey of trainees, Key Informant Interviews (KIIs) of different stakeholders, such as Bangladesh Bank officials, commercial bank officials, academicians, and other stakeholders and Focus Group Discussions (FGDs).

### **Policy Relevance and Implications**

The evaluation will help the BIBM—the only specialised institute of this kind, to update its training programmes and materials and assess their usefulness/appropriateness in the face of the changing needs of the financial sector of Bangladesh. A strong BIBM will contribute to the development of an efficient and effective financial sector.

## **Broad Theme: *Health***

### **Public Service Delivery Systems in Bangladesh: Governance Issues in the Health Sector**

*Study Team:*

M A Mannan  
Badrunnesa Ahmed  
Siban Shahana  
Rumana Huque

*Sponsor:* The Asia Foundation

*Budget:* Tk. 4.71 million

*Time Frame:* April 2012–February 2013

### **Introduction and Rationale**

Health is universally regarded as an important index of human development. Ill health is both the cause and effect of poverty, illiteracy and ignorance. In recent years, Bangladesh has achieved significant progress in health and population indicators. A major objective of policies and programmes in the Health, Nutrition and Population (HNP) Sector of the Government of Bangladesh (GoB) is to reduce morbidity and mortality and to improve access to public health facilities, especially for the poor, women and children. In Bangladesh, primary health care services have been pursued mainly through supply-side interventions. However, despite the presence of a well-established service delivery infrastructure and various measures taken so far, the utilisation of services is still poor. Evidence suggests that poor governance in the health sector is negatively influencing service delivery mechanism, which, in turn, results in low utilisation of public facilities. Non-availability of drugs and commodities, discrimination against poor, imposition of unofficial fees, lack of trained providers, weak referral, feedback and monitoring systems, unfavourable opening hours and interdepartmental difficulties contribute to low use of public facilities in Bangladesh A

number of other factors including inadequate participation of civil society in decision-making process and non-coordination between the central and local level also adversely influence the service delivery mechanism. In this context, this study aims to document and analyse the existing public health service delivery system of the Ministry of Health and Family Welfare (MOHFW) of Bangladesh, and to identify the technical issues involved in the service delivery, process. The study will assess the governance issues in the health sector, which adversely affect efficient health care delivery including the extent of staff absenteeism, leakage in the distribution of medicine and other supplies, lack of public participation in decision-making process, non-coordination between the central and local level and inadequate communication of local level organisations with Parliament. The proposed study will be undertaken to provide information to the Members of Parliament (MP), planners and policy makers, and to contribute in improving their capacity in the areas of policy development, legislation, oversight and representation in order to improve the efficiency with which they play their roles in public health care services, particularly at the district level and below.

### **Objectives**

The purpose of the study is to inform Members of Parliament (MPs), ministry officials, officials of relevant government departments and other stakeholders about governance issues in the health sector, so as to help MPs take effective oversight action and represent the interests of citizens in Parliament based on the research findings, and incorporate the findings in policy discussions in relevant Parliamentary Committees. The specific objectives are to:

- (1) Identify and prioritise a comprehensive list of governance issues/risk areas within the health

- sector (i.e. non-availability of drugs and commodities, patients not getting the drugs even if available, imposition of unofficial fees, etc.);
- (2) Describe and analyse the processes of corrupt practices in the public health facilities (i.e. staff absenteeism, private practice during office hours, etc.);
  - (3) Evaluate the impact of these practices on the clients/patients and recommend policy actions to correct unauthorised/corrupt practices with regard to staff non-attendance/absenteeism, unofficial fees obtained from patients and pilferage of drugs and other supplies at the public health facilities;
  - (4) Assess the level of patient satisfaction by type of health facility (district, upazila, union).
  - (5) Recommend specific areas where MPs need to maintain strict oversight and outline an oversight maintenance scheme.

## Methodology

In an attempt to address the research questions from various perspectives, the study methodology will focus on obtaining inputs from three categories of study population at different levels.

The first group will include policy makers at the apex bodies and programme managers/decision makers in the health sector (i.e. officials from Directorate General of Health Services/MoHFW, Chief of Procurement, Civil Surgeons, etc.). The second group will comprise service providers such as doctors, nurses, pharmacists, technicians, store keepers, accounts clerks, etc. working at the facilities. The third group will consist of recipients of services/patients

(both in-and-out) attending public facilities for health care.

The study will consist of two phases. In the first phase, a literature review of all relevant documents related to corruption and governance in the health sector will be conducted. A comprehensive list of such risk areas will be identified and prioritised. The methodology for initial assessment would include secondary data analysis, key informant interviews and other means of empirical data collection. In the second phase, the study will be based on primary data collection and interviews with patients visiting district hospitals (DHs), upazila health complexes (UHCs) and Union Health and Family Welfare Centres (UHFWCs).

Information to be obtained from the patients (both in-and-out) will include availability of doctors/providers, responsiveness of providers in terms of respect for dignity, right to privacy, supply of drugs, cost of treatment, and prevalence of unofficial payments as well as level of consumer satisfaction.

Two district hospitals will be selected randomly from each of the seven divisions of the country. This will give a total of 14 district hospitals (DH). At the second stage, all the upazilas in the sample districts will be listed and two upazila health complexes (UHCs) will be selected randomly from each district (i.e. at total of 28 UHCs). At the third stage, one Union Health and Family Welfare Centre (HFWC) from each union will be selected at random (i.e. a total of 28 HFWCs). Thus, a total of 70 facilities (14 DHs, 28 UHCs and 28 UHFWCs) from 7 divisions will be covered for the study purpose.

A number of (in-and-out) patients from each of the selected health facilities will be interviewed. An estimated number of 560 inpatients and 1,260 outpatients will be covered during the course of fieldwork.

Information will be obtained on cost of health care, satisfaction derived from services and barriers faced in accessing services. In addition, information will be obtained from service providers (covering all the sample DHs, UHCs and HFWCs) on supply of MSR, constraints regarding hospital management and improving efficiency of service delivery and related aspects of quality of care.

### **Policy Implications**

Health care provision involves a complex series of transactions between health service providers and consumers. Good governance and management of these transactions are essential to ensure that the right services are delivered to the right people at the right time and at the lowest possible price. It follows, therefore, that poor governance negatively impacts service delivery. Essentially, it is the poor and vulnerable members of society who are particularly prone to the largest burden of cost and poor service delivery.

The main purpose of this study is to assess whether the general perception that public health facilities suffer from staff absenteeism, widespread prevalence of unofficial payments and inadequate supply of MSR can be substantiated. Bangladesh government spends substantial amounts of money on health services; nonetheless, dissatisfaction is frequently expressed over the performance and quality of these services. Staff absenteeism, charging of unofficial fees and lack of MSR supply have long been discussed as impediments to effective public health services.

In order to be effective, health care delivery systems have to be more accountable, responsive and able to reach the very poor, and these are the areas where MPs need to play more active role in strengthening monitoring and supervision efforts including

strict oversight role. In order to improve the efficiency with which MPs can actively participate in the areas of policy development and representation, efforts should be made in enforcing existing laws or in formulating pragmatic rules and policies directed towards more and better service delivery in health sector. The findings of the study will help planners and policy makers to design appropriate policies to address the governance issues in the health sector.

### **Impact Evaluation of Strengthening the National Menstrual Regulation (MR) Program in Bangladesh**

#### *Study Team:*

M A Mannan  
Zahedul Islam  
Humayra Ahmed  
Rumana Huque

*Sponsor:* Policy and Operations Evaluation Department (IOB), Ministry of Foreign Affairs, the Netherlands.

*Budget:* Tk. 4.99 million

*Time Frame:* May 2012-February 2013

### **Introduction and Overview**

One of the important goals of Health, Nutrition and Population Sector Programme (HNPS) of the government of Bangladesh has been to improve the health and family welfare status of the most vulnerable groups—women, children and the poor. However, Bangladesh has achieved a significant progress in health and population indicators over the last few years (due to increased access to health and FP services) through a combination of facility level, community and household level service provision strategies. The fertility transition is already underway in the country and the success of the immunisation programme is most impressive, including reductions in infant and child mortality. The contraceptive

prevalence rate has already reached more than 50 per cent level. Despite these improvements, the levels of maternal and neonatal mortality are still very high in Bangladesh. The maternal mortality ratio (3.0 per 1000 live births) is one of the highest in South Asia and in the world outside Sub Saharan Africa.

In Bangladesh, unsafe abortion is one of the leading causes of maternal death. The recent report of Directorate General of Health Services (DGHS) 2007 estimates approximately four million unwanted pregnancies annually in Bangladesh, of which 25 per cent are estimated to be attributed for terminations. The Maternal Mortality Survey 2001 indicates that illegal terminations due to unsafe practices account for 15 per cent of maternal deaths. The latest Bangladesh Maternal Mortality and Health Service Survey (BMMS) 2010 indicates that maternal deaths due to legal abortions have declined from 5 per cent of MMR in 2001 to 1 per cent of MMR in 2010. However, the number of illegal and legal MRs underreported is very high and implicates that the mortality and morbidity could be much high. While termination of pregnancy is legal only to save the life of the pregnant woman, there is an increasing demand for pregnancy termination despite a steady increase in contraceptive use rate.

A special project, “Strengthening of National Menstrual Regulation Programme for Reduction of Maternal Mortality and Morbidity in Bangladesh” was launched in 2008. With financial support from the Embassy of the Kingdom of the Netherlands a Challenge Fund of US\$ 2,73 million was established to fund innovative project proposals from NGOs working in MR related areas, research institutions and interested parties on a competitive basis. In collaboration with the

Directorate General of Family Planning (DGFP), the MR project was implemented and coordinated by WHO Bangladesh as the dedicated Management Agency (MA), which used to manage the project including all liaisons, technical and supervisory aspects. The MR Project is jointly supervised by WHO and DGFP. However, many women currently coming for MR have already tried other methods or have waited too long, until a pregnancy could no longer be denied.

As a result of project activities, women’s access to safe services has significantly increased however; gaps in equitable access and quality of care still persist. With financial support from the Netherlands Ministry of Development Cooperation and in partnership with the Government of Bangladesh and MR NGOs, the World Health Organization (WHO) launched the initiative “Strengthening of National Menstrual Regulation Programme for Reduction of Maternal Mortality and Morbidity in Bangladesh” in 2008 through the MR Project.

The project addresses four closely inter-linked components:

- Component 1: Scaling-up delivery of quality MR services;
- Component 2: Generating rights-based demand from underserved women for quality MR services;
- Component 3: Improving the knowledge/evidence base; and
- Component 4: Strengthening the policy response.

The MR Project was implemented in six of seven divisions of Bangladesh. The activities were implemented across 36 Upazilas in 16 districts. However, the present impact study

will be limited to project areas of Sylhet division that are being implemented by Marie Stopes Clinic Society (MSCS) and Family Planning Association of Bangladesh (FPAB).

## Objectives

The main purpose of the proposed impact study is to assess whether and to what extent the implementing agencies (i.e. MSCS/FPAB) have achieved their desired objectives and goals as reflected in their proposal.

## Specific Objectives

The specific objectives of the evaluation are:

- (1) To assess the appropriateness, effectiveness and efficiency of the activities implemented under the MR project;
- (2) To identify the barriers for women to access and utilise reproductive health services including Family planning and MR;
- (3) To identify constraints and other factors hampering the effectiveness of MSCS' and FPAB's approach related to introduction and implementation of MR.

## Study Focus

The proposed evaluation will attempt to assess accessibility and quality of services delivered by FPAB and MSCS. In this context, the impact study will analyse physical dimensions in accessing care and the perception and opinion of clients regarding relative quality of care. This analysis will help to understand the differences in the utilisation and client satisfaction by socio-economic characteristics of users (rich/poor, educated/illiterate) and by type of project (FPAB, MSCS).

## Methodology

### Study design

The study will consist of two phases. In the first phase, a literature review of all relevant documents will be conducted. In the second phase, the study will be based on primary data collection through:

- Household survey
- Exit survey of MR clients
- Key Informant Interview (KII)
- Focus Group Discussion
- Discussion with different stakeholders (relevant agencies/organisations);
- Case study

## Policy Implications

With financial support from the Embassy of the Kingdom of the Netherlands, a project was launched in 2008 titled "Strengthening of National Menstrual Regulation Programme for Reduction of Maternal Mortality and Morbidity in Bangladesh." The present evaluation will show how far the project has been successful in increasing access to services for unwanted pregnancy and the prevention of unsafe abortion, especially for poor and underserved women in rural, urban and hard-to-reach areas of Bangladesh. The study will identify critical barrier in accessing MR services and will assist programme managers and policy makers in designing appropriate policies for improving maternal health.

### **The Stakeholder Consultation for the Annual Program Review (APR) 2012 of Health, Population, and Nutrition Sector Development Programme (HPNSDP, 2011-2016)**

*Study Team:*

Zulfiqar Ali  
Wajid Hasan Shah  
Iqbal Hossain

*Sponsor:* The World Bank

*Budget:* Taka 2.5 million

*Time frame:* August 2012–May 2013

#### **Rationale and objectives**

The overall objective of health, population and nutrition sector development programme is to achieve sustainable improvement in the health, nutrition, and reproductive health including family planning, particularly of vulnerable groups covering women, children, the elderly and the poor. It is, therefore, important not only to monitor the progress of HPNSDP implementation in general, but also to assess whether and to what extent the benefits are reaching the target beneficiaries, particularly the women and the poor. The Annual Program Review of the Health, Population and Nutrition Sector Development Program (HPNSDP) is a management instrument, designed for both the Government of Bangladesh (GoB) and the Development Partners (DPs) to monitor progress in the implementation of the programme and to verify that the management and policy responsibilities are met. In order to provide inputs to the APR process, stakeholders' views on HPNSDP in general and public health service delivery in particular are very important in order to enhance the equity, efficiency and effectiveness of the public health care services. Given the above, the main objective of the stakeholder consultation process is to elicit views on service delivery

and utilisation from various stakeholder groups including academicians and civil society organisations. For the current stakeholder review, focus is placed on health service utilisation.

#### **Methodology**

The stakeholders' views have been elicited through a participatory evaluation process including focus group discussions (FGDs) and regional and central workshops. A review of existing evidence has also been collated in this respect. Based on the reviews, FGDs and workshops, a Stakeholder Consultation Report is being prepared under the study.

#### **Policy Relevance and Implications**

It is expected that the study will contribute significantly to review the sector programme, especially from the point of view of health service utilisation in the country and suggest changes, if any, to make the programme more effective and pro-people.

### **Broad Theme: Poverty and Deprivation**

#### **Joint MFS-II Evaluation of Selected Dutch Funded Projects in Bangladesh**

*Study Team:*

Zulfiqar Ali  
Zahedul Islam Chowdhury  
Iqbal Hossain

*Sponsor:* University of Bath, UK

*Budget:* Taka 8.5 million

*Time frame:* July 2012 – June 2015

#### **Rationale and objectives**

MFS II is the 2011-2015 grant framework of the Dutch Ministry of Foreign Affairs for Dutch NGOs, which is directed at achieving a sustainable reduction in poverty. MFS II-funded organizations support a wide range of



development activities of a large number of Southern partner organizations in over 70 countries. The overall purpose of these joint MFS II evaluations is to account for results of MFS II-funded or co-funded development interventions implemented by Dutch NGOs and/or their Southern partners and to contribute to the improvement of future development interventions.

The country study for Bangladesh is led by a team from the University of Bath, INTRAC and the Bangladesh Institute of Development Studies. The research team focuses on three key areas: achievement of MDGs, capacity development and strengthening civil society. The evaluation is structured around three key activities: a baseline assessment between July and December 2012; top-up visits around September of 2013; and a final follow-up assessment around September 2014.

### **Methodology**

The research team uses a combination of quantitative and qualitative methods, tailored to meet the demands of the three research components. The primary focus of the research is to evaluate impact and this includes linking impact to costs in order to assess efficient or cost effectiveness. The research team is committed to a participatory process and therefore works with partner NGOs to develop relevant indicators and assessment techniques.

### **Policy Relevance and Implications**

The study is expected to assess the impacts of Dutch funding on the lives and livelihoods of target beneficiaries in Bangladesh. It is also expected to contribute to have more efficient projects funded by Dutch in the country in the near future.

## **Unpacking and Analyzing the Census and Other Data Sets for Evidence Led Equity-Based Policy Analysis and Advocacy on Children and Women in Bangladesh**

### *Study Team:*

Zulfiqar Ali  
Mustafa K Mujeri  
Zahedul Islam Chowdhury  
Iqbal Hossain

*Sponsor:* UNICEF

*Budget:* Tk. 8.7 million

*Time frame:* July 2012 – June 2013

### **Rationale and Objectives**

Development with equity is one of the key principles of the Convention on the Rights of the Child (CRC) and other international human rights instruments. The countries which have ratified the CRC are obliged to ensure that children realise their rights with equity. However, even after 22 years of CRC ratification, the issue of inequality remains a grave concern globally. Millennium Development Goals (MDG) 2010 Review Summit recognised the success in some of the targets of the MDGs, but expressed concern over inequality as the success was uneven among regions and between and within countries.

Availability of surveys, studies, research and censuses is an essential element of policy analysis. In Bangladesh, there are a number of surveys—for example, Population Census, BDHS, MICS, HIES—relevant to the socio-economic rights of children and women in Bangladesh. But the data of the surveys are not appropriately used for policy analysis, particularly for equity analysis. The Government of Bangladesh has recently completed the 2011 Population and Housing Census and validated. Census data is a vital source for development planning and policy.

Therefore, this has created a greater scope for equity based policy analysis and advocacy for reducing inequality.

A disaggregated profile of the groups of people, under consideration with an Equity Atlas using census indicators for different levels, for divisions to upazillas in Bangladesh is envisaged. The Atlas shall profile the inequities and vulnerabilities such as education attendance and achievements, youth and adult literacy, youth marriage, water and sanitation and housing characteristics, amongst others. The Profile and the Atlas shall also include tables, graphs and maps for clarity and appeal to a variety of audiences. The rankings will be based upon a composite deprivation index.

### **Methodology**

The study is being carried out using mainly the secondary data, particularly of those collected by the Bangladesh Bureau of Statistics (BBS). The data sets that are being considered for the study include, among others, the Population Census, HIES, SVRS and MICS. Relevant other survey data will also be used as required and available.

### **Policy relevance and Implications**

The study is expected to have important policy implications as it will produce equity atlas, pockets of social deprivation and sector specific policy briefs on education, health, water and sanitation, and social protection. The study will also try to engage policy makers in the discussion in order to secure their commitment and action to address the policy recommendations.

## **Broad Theme: Social Protection**

### **Assessing the Performance of FFW, TR and VGF Programmes**

#### *Study Team:*

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Siban Shahana  
Mitali Parvin

*Sponsor:* Disaster Management and Relief Division (DMRD)

*Budget:* Tk. 8.76 million

*Time Frame:* May 2012–January 2013

### **Introduction and Overview**

Bangladesh has done remarkably well in improving its social indicators in many respects. Achievements include substantial improvement in infant and child mortality, increasing the national literacy rate, improving school attendance and reducing the rate of population growth. Although the incidence of poverty is declining, it is still high both in terms of absolute number and as proportion of total population. According to HIES 2010, 31.5 per cent of the population live in poverty, while 17.6 per cent live in “extreme poverty” measured in terms of those living below the lower poverty line. The estimates also show that more than three-fourths of the extreme poor (around 30 million) can be categorised as hardcore poor who are chronically underfed and highly vulnerable possessing virtually no asset except their own labour. These hardcore poor groups are extremely difficult to reach through standard development programmes. Aside from low income, many of the poor households in Bangladesh suffer from vulnerability in income and welfare due to low human capital

accumulation, ill health and chronic illness, seasonal unemployment, and other unforeseen disasters. Additionally, Bangladesh is prone to natural disasters at regular intervals and past experience shows that these disasters cause many vulnerable households to fall into poverty and poor households into deeper poverty.

Over the years, the government has undertaken various development activities to mitigate the sufferings of the destitute people. The ultimate aim of these programmes is to enhance food security, increase income and productive capacity and support increased household welfare. However, in view of the large heterogeneity among the poor and their differential capacity to participate and benefit from such programs, many of the extreme poor groups largely fail to benefit from many of these developmental activities initiated by the government. In view of these realities, the development of adequate social safety nets has been an important element of the poverty reduction strategy of the Government of Bangladesh.

Safety nets are formal and informal ways of protecting people from destitution. Formal safety nets include various transfer programmes designed to play both a redistributive and risk reduction role. The traditional role of safety nets is to redistribute income and resources to the needy in society, so that the impact of poverty is reduced. A more recently identified role of safety nets is to help protect individuals, households and communities against income and consumption risks. The existence of a large number of extreme poor population and the precarious conditions of the ultra poor all add up to a compelling case for safety nets to be a critical priority area for public policy. The need for targeted safety net interventions to improve the food security and livelihoods of the extreme poor therefore remains strong.

With a view to ensuring food security and social safety nets for the poor, various safety net programmes are being implemented by Disaster Management and Relief Division. Among the safety net programs, FFW and TR are the most important programs whose prime objective is to construct and maintain rural infrastructure through creating employment opportunities for the poorest in lean period of the year. These programs also aim to reduce poverty and vulnerability of the people which is one of the electoral mandates of the present government.

### **Objectives**

The focus of the proposed study is to provide an assessment of the performances of three safety net programmes being implemented by the Ministry of Food and Disaster Management (DRM)—Food for Works (FFW), Test Relief (TR) and Vulnerable Group Feeding (VGF).

These programmes are implemented with twin objectives—to provide wage employment and food security and to create durable community, social and economic infrastructure.

The main purpose of the present study is to examine the process of targeting, selection and benefit distribution associated with the FFW, TR and VGF programmes. The goal is to enhance the contribution of these programmes to improving food security and reducing poverty. The specific objectives of the study are to:

- Review the targeting, selection and disbursement process of FFW, TR and VGF programmes;
- Provide a comprehensive analysis on different aspects of the program design and implementation process of the selected programmes including

beneficiary selection, targeting efficiency and leakage in distribution.

- Identify the extent of leakage and other weaknesses in the programmes with a view to drawing necessary policy implications;
- Draw appropriate lessons for necessary adjustments for improving the efficiency and effectiveness of these programmes.

## Methodology

Various safety net programmes are expected to bring tangible and direct benefits to the vulnerable groups through cash or in-kind transfers. However, their effectiveness to reduce poverty and deprivation is adversely affected because of inefficiency and corruption associated with selection of beneficiaries and disbursement of benefits. The issue of leakage is important in this respect.

**Inappropriate targeting:** Inclusion of the wrong person or exclusion of the right person in the programme, which is a major concern with most SNPs.

**Leakage:** Leakage is commonly reported but seems more prevalent in kind-mediated programmes compared with cash-mediated ones.

**Weak institutions:** Programme delivery remains weak due to weak institutions, especially government institutions at the local level.

The sample for the proposed evaluation will be multistage, stratified and based on random clustering. It is intended to give representation of the seven divisions, and sample upazilas within the divisions, for rural sites. As the FFW and VGF have exclusive focus on rural areas, the sample for FFW and VGF will be limited to rural areas only. But the TR programme also

covers municipal areas in addition to rural sites, so the sample for TR will cover both urban and rural areas.

For the rural sample, upazila representation will be chosen rather than attempting to represent all 64 districts, or even to represent greater districts, because the upazila level is a functional unit for the safety net programmes. The sample design will allow results to be analysed at national, divisional and upazila levels. A further advantage is that it will allow upazila level findings to be analysed according to hard to reach categories. This can make a meaningful contribution to stakeholder participation including the MPs at local level and local level planning. The sample will provide reliable rural, divisional/regional estimates.

## Data Collection Instruments

In the pursuit of satisfying the objectives, the study will employ a three-track methodology:

1. The first track will consist of analysis of available statistics on programme content, allocations and coverage from the following sources:
  - Government documents/reports;
  - Documents/reports of donor agencies;
  - Evaluation/study reports.
2. The second track will consist of interviewing programme beneficiaries. It needs to be emphasised here that FFW and TR are self-targeted programmes open to anyone who is willing to do the manual work at the given wage rate. The data collection activities will be carried out through a set of structured questionnaire schedules canvassed among wage employment beneficiaries (WBs) of FFW and TR, and beneficiaries of VGF.

The study will use both qualitative and quantitative information with major emphasis on the following:

- (i) which types of interventions/programmes are more likely to suffer from selection bias?
- (ii) which types of interventions (upazila-wise or constituency-wise) are more likely to suffer from leakage at the point of the distribution?
- (iii) what are the factors responsible for bias in the selection of beneficiaries under the three programmes, and leakage in the distribution, as well as the steps needed for making the process transparent and fair?

### **Policy Implications**

There is a dearth of good quality programme evaluations that can provide focused policy suggestions for improving programme design and implementation arrangements to enhance efficiency and effectiveness of these programmes. The efficiency of the safety net programmes must improve, especially given the backdrop of declining commitments of resources by donors. In particular, it is necessary to reduce system leakage and improve targeting in order to realise greater benefits from the existing social safety net programmes. In other words, the design and impact of individual programmes need to be carefully considered before scaling them up or even retaining them. The present evaluation would assess the performance of FFW, TR and VGF programmes in terms of their overall objectives, design, types of beneficiaries, and problems/difficulties in their implementation, and would suggest policy measures for improving the efficacy of these programmes.

### **An Evaluation of the Old Age Allowance Programme of the Government of Bangladesh**

#### *Study Team:*

Sharifa Begum  
Binayak Sen  
Kazi Saleh Ahmed

*Budget:* Tk. 4.57 million

*Time Frame:* April 2012 - April 2013

#### **Rationale**

Bangladesh in recent decades has experienced a drastic decline in fertility, substantial reduction in population growth rate and a significant improvement in mortality. These demographic dynamics leading to the population age structural changes have been causing an increase in the older population both in terms of share and absolute figure. According to the UN population projection, older people in the country will keep on increasing throughout the present century and such increase will be very rapid during the next 2-3 decades. This demographic phenomenon known as population ageing has profound policy implication, particularly in developing countries where the system of elderly support such as pensions or social services have remained yet un or underdeveloped. In these countries, the population ageing places the issue of old age poverty and vulnerability at the forefront of developmental agenda and the obvious policy imperatives that face these countries are to establish and strengthen the old age social protection. This becomes necessary not only to ensure the welfare of older people but that of the entire society as well. The government of Bangladesh in 1998 introduced an allowance programme for the country's poor older people with an aim to transfer cash assistance to them so that the old-age vulnerabilities and insecurities are reduced, if not remove totally. This programme has

undergone several modifications and expansions since introduction and currently 24.75 lakh poor older people benefit from it.

However, it is by now known that such safety net programmes although aimed at bringing tangible and direct benefits to the vulnerable groups of population through cash or in-kind transfers, the effectiveness of them to alleviate poverty and deprivation of the vulnerable sections get adversely affected sometimes by inefficiencies, malpractices, abuses, corruptions, etc. that often associate implementation/administration of these programmes. As a result, most of the programmes suffer from insufficient coverage, inappropriate targeting, leakage of resources, malpractices, etc.—eroding the programme benefits.

The old age allowance programme of Bangladesh although introduced in 1998, and now claims to be one of the largest cash transfer programme in the country, has remained yet a less studied one. This has left a serious knowledge gap about the coverage, implementation and the final outcome of the programme in terms of impact, etc. if there is any, out of this huge government revenue expenses on the programme.

## Objectives

In this backdrop, the present study aims to conduct a comprehensive evaluation of the Old Age Allowance Programme that has been in operation since 1998. The study would pursue three broad objectives viz., (a) to assess the programme coverage achieved so far and understand the inclusion-exclusion errors in beneficiary selection; (b) to review the programme operation/implementation in order to understand the efficiency and appropriateness of programme administration; and finally (c) to under the impact of the programme that it has been rendering on the lives of older people and their families.

## Methodology

The study would be prepared using primary information from a representative sample survey of both beneficiaries and non-beneficiaries. The 16 districts from 7 administrative divisions would be selected randomly for data collection and a number of districts from each of the division is selected using divisional population as the weight. The survey will cover both rural and urban areas and necessary primary information will be collected in two phases: in the first phase, a census of the older people aged 60+ will be conducted and in the second phase, a detailed questionnaire will be administered among a sample of 3,000 older people selected from first phase of elderly census.

In addition to the surveys among older people, interviews will be conducted among few key personnel, such as the chairperson of the Union Parishad, member of the selected rural 'wards', union social worker and upazila social service officer in rural areas and mayor/chairperson of the municipality/city corporation, ward commissioner, urban social worker and district social service officer in urban areas. Also, qualitative information will be collected both from beneficiaries and non-beneficiaries through Focus Group Discussion.

## Policy Relevance

As evident in the above description, the study is expected to find ample relevance in the policy-making, particularly relating to the country's old age allowance programme. The findings shall be able to shed light on the extent of additional expansion that the programme would need to bring all eligible elderly under the programme and resource requirement for the programme. The study also by reviewing the programme

implementation should be able to identify laps and gaps in the programme implementation/administration and should be able to suggest needed modifications or redesigning of the programme to make it more effective and elderly friendly. Also, the investigation on the impacts of the programme may feed the policy-makers about the need and adequacy of such help to the poor older people and may give an opportunity to assess the benefit of it at the receiver level.

## **Broad Theme: *Climate Change Issues***

### **Estimating Cost of Food Security in the Context of Climate Change**

#### *Study Team:*

Mustafa K Mujeri  
Quazi Shahabuddin  
Tahreen Tahrima Chowdhury  
Siban Shahana  
Md Shamsuddoha

*Sponsor:* IUCN

*Budget:* Tk. 2.43 million

*Time Frame:* December 2012–July 2013

### **Rationale and Objectives**

Food security is the condition in which all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life. It encompasses three major dimensions—the availability of, access to and utilisation and nutrition of food. So, food security is dependent upon (i) agricultural production, food imports and food aid, (ii) employment opportunities and income earnings, intra-household decision making power and resource allocation, and (iii) sanitation and health care practices. Food

security, thus, is a multi-dimensional development issue that requires cross-sectoral and integrated interventions.

The objectives of the research are:

- (1) Assess/estimate financial implication of adaptation to climate change in relation to food security;
- (2) Identify priority actions to enhance food security in the country to feed into policy and strategy documents of the government;
- (3) Provide a baseline or benchmark for the negotiation team for international climate change negotiations with a position paper on financing needs for CC adaptation; and
- (4) Support the decision makers on financial allocation for development activities.

### **Methodology**

The study will focus on the estimation of adaptation cost related to food security sector. This will entail identification and estimation of cost of programs necessary to make food available, increase food accessibility and food utilisation.

In other words, the study will focus on the following issues:

- Review of existing agricultural technologies and available technical solutions to tackle climate change impacts;
- Estimate projected financial requirements to adapt the water management system to respond to farmers' needs, promoting sustainable

- agriculture in the context of climate change;
- Identify adaptive strategies in the fisheries and livestock sector and estimate cost for adaptation;
  - Review and analyse Government of Bangladesh's capacities to monitor and promptly and effectively deal with environmental risks and prices volatility;
  - Identify measures to improve and protect livelihoods of socio-economically vulnerable populations and estimation of projected costs;
  - Analyse present public food distribution system and make recommendations to build climate adaptive PFDS and increase capacity of PFDS to respond to shocks.

National Extension Policy, Livestock Sector Road Map, Fisheries Sector Road Map, National Disaster Management Plan and Health, Population and Nutrition Sector Development Programme (HPNSDP).

The study will be done through involving stakeholders from government, research organisations, particularly NARS institutions, universities and others.

An inter-ministerial team will be formed under the leadership of MoEF to assist and provide policy guidance for the study. The study team will visit different stakeholders listed above for initial discussion and inputs. Smaller sub-component/sector of the study will be identified for commissioning to third party.

### **Policy Implications**

The study is expected to contribute to various food security related policy frameworks undertaken by the government focusing climate change as a major component of food security. The study could make substantial addition as well as improvement of the already existing policy documents such as the National Seed Policy, Flood Action Plan,

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**T**he BIDS Annual Research Programme (ARP) 2012-2013 provides an overview of the research studies that the Institute plans to undertake during the financial year 2012-2013. The proposed research agenda covers priority issues in different areas of the Bangladesh economy which have been grouped under 14 thematic areas, such as Macroeconomic Policy Analysis; Agriculture; Health; Growth Issues and Regional Development; Agriculture, Food Security and Rural Development; Water Resources Development; Manufacturing and Finance; Trade Policy Analysis; Energy Issues; Governance Issues; Education and Training; Poverty and Deprivation; Social Protection; and Climate Change Issues.

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