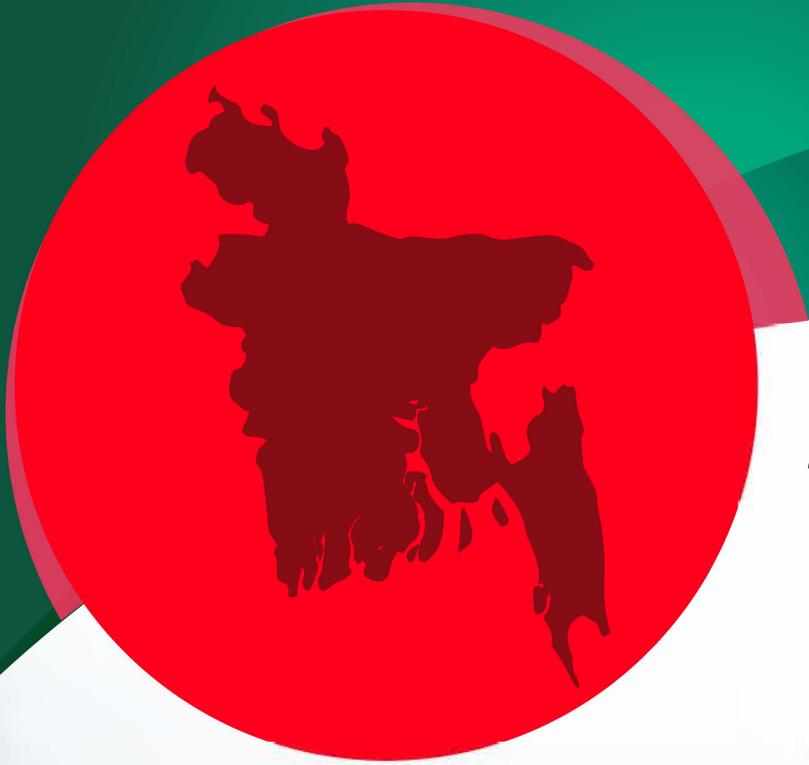


Volume 7
Number 1
Year 2005
ISSN 1529-0905



Journal of
**BANGLADESH
STUDIES**



TABLE OF CONTENTS

From the Editor	Syed S. Andaleeb	iv
 <i>ARTICLES</i>		
The Environment and Policy-Making in Bangladesh	Khorshed Alam	1
Bank Credit for the Missing Middle in Bangladesh	Abul K. Siddique	13
An Empirical Test of the Short-Term Overreaction Hypothesis Using Data from Bangladesh Capital Markets	Mohammad Musa Golam Ahmed Faruqui	29
Chittagong Hill Tracts Peace Accord in Bangladesh: Reconciling the Issues of Human Rights, Indigenous Rights and Environmental Governance	M. Ashiqur Rahman	46

FROM THE EDITOR

With this issue we begin the seventh year of publication of the Journal of Bangladesh Studies. From what began in 1999 as a tentative forum for intellectual exchange to influence policy, we feel that JBS has established a wider platform that has begun to attract the work of scholars and practitioners from diverse fields and four continents. The research articles we have received in recent times address women's empowerment and progress, NGOs and rural poverty, class structure and development, water resource management, conflict resolution in the Chittagong Hill Tracts, the Bihari conundrum, environmental issues, improving farm efficiency, making the Dhaka Stock Exchange function better, and so on. However, other vital issues such as corruption, healthcare, education, population management, crime control, commercial banking, energy policy, technology infusion, religious extremism, identity crisis, foreign policy, etc., are areas in which we maintain interest and look forward to ground-breaking articles.

Being able to attract the work of scholars from a diverse set of fields portends imminent growth of our publication and a possible need to move from a bi-annual to a quarterly journal. We are also on the lookout for a wider base of reviewers (from the present number of 70+) to assist with reviewing. Our double-blind process has been the main strength of the journal and in our quest to maintain high standards for a growing body of international readers, the manuscript acceptance rate has stabilized somewhere around 20-25%. By continuing to ensure quality, we intend to become an important repository of theory and policy related to the development strategy of Bangladesh. We hope that our contributors, readers, and reviewers will form larger networks from which innovative and path-breaking articles will come forth to provide more in-depth and provocative answers to the many seemingly intractable problems facing Bangladesh.

This issue presents four insightful articles. Khorshed Alam stresses the need to incorporate environmental dimensions and analyses in the articulation and formation of development policy. Unless today's narrowly focused policy measures incorporate environmental impacts such as air and water pollution, land degradation, loss of bio-diversity and natural resources, etc., their long term ramifications can be disastrous. Development agencies that influence, help formulate, and fund many of the key projects and are driven by *their* vision of the world (SAP, globalization, privatization, etc.) are urged to take special note of the

ideas contained in this article to incorporate environmental dimensions in their programs in greater measure. They are also urged to be more open and transparent when formulating policy for a country or a region so that their inclusion of environment dimensions can be clearly discerned. This might be done in a spirit of mutual cooperation between themselves, the government agencies, the beneficiaries, and the social night watchmen or watchdog groups to ensure that appropriate environmental protection measures have been incorporated. This would be the preferred modus operandi over the approach in which some international agencies want immunity from being held accountable for making mistakes. Demanding such immunity is antithetical to the values of democracy, transparency, accountability, and ethical norms which they and their funding countries often espouse.

Abul K. Siddique provides key insights suggesting that those enterprises that are not small enough to receive microcredit or large enough to attract commercial lenders must gain access to bank credit to advance their enterprises and, thereby, the pace of development. By their nature and to some extent by design, the micro-enterprises face limits to growth. While being able to sustain themselves based on low levels of credit injection, their capacity to grow is seriously constrained. On the other hand, the large industries, both in the public and private sectors, that have borrowed huge amounts of money from institutional lenders, have been plagued by issues ranging from corruption, loan default, labor union interference, disastrous mismanagement, political influence and the misguided policies of external bodies. It is the "middle" group that offers new hope for a more rapid path to sustained economic growth and that must somehow be able to gain access to credit. How this might be accomplished is spelled out by the author in a reasonably detailed action plan.

M. Musa and G.A. Faruqi provide empirical evidence on the inefficiencies of the capital markets in Bangladesh and reflect on how savvy investors, by manipulating prices, can "beat" the ordinary investors in such inefficient markets. This is likely to dissuade the "burnt" investors from entering the realm once again, thereby barring firms from getting a fair price on their securities. This failure to bring investors and firms together because of the inefficiencies of the capital market in Bangladesh demands further inquiry and innovative solutions from the Securities and Exchange

Commission, the policy makers, and the Dhaka and Chittagong Stock Exchanges. Unless mechanisms are in place to thwart market manipulation by shrewd investors, coupled with introducing greater efficiency in the market, ordinary investors will take their money elsewhere.

M. Ashiqur Rahman examines the on-going conflicts between the tribal people and the settlers in the Chittagong Hill Tracts that has led to violation of human rights, obstruction to sustainable development, and ecosystem destruction. In particular, he examines the “peace accord” signed in December 1997 and its salient features and observes how its “implementation” has been less than satisfactory; in some cases both inter- and intra-group discord has intensified because of lack of implementation of agreed upon measures. The need for peaceful coexistence is now an imperative, not just in the Chittagong Hill Tracts, but also on a wider scale in Bangladesh, especially between the main political parties, religious groups, socio-economic groups, genders and so on. Contentious conflict is debilitating as history has shown all along and its resolution via compromise and cooperation is essential. It is important for the government to promote harmony and mutual trust between the conflicting parties by being fair and just as the mediating party. Otherwise any accord will stand on fragile foundations, ready to degenerate into violent conflagration at the slightest tremor, especially when the balance of power is asymmetrical. The role of external forces must also be factored into the conflict and addressed in bilateral and international forums if the government is committed to de-escalating the conflict and helping the contentious

parties “share” the bounties of the region.

We continue to look for manuscripts that are innovative, insightful, and incisive, and address key development issues of Bangladesh. The articles are expected to provoke debate and challenge researchers, policy makers, development planners, international bodies, and non-government organizations by reviewing existing practices and seeking innovative solutions to bring about “real” change and “real” development. They must also seek to address and uplift conditions in the country that are most in need of change. Hence, papers that challenge the *status quo* are actively sought and deemed desirable.

I would like to take this opportunity to thank once more a wonderful team of editors and manuscript reviewers who continue to provide selflessly of their time. To a large measure the continuation and growth of JBS is the result of their diligence and hard work. Thanks are also due to Sue Pennington of the Sam & Irene Black School of Business at Penn State Erie for attending to the typing and formatting of the papers and to the occasional editors for finding the mistakes many of us make while bringing a manuscript to life.

Syed Saad Andaleeb, Ph.D.
Editor, JBS
Senior Fulbright Scholar
Professor and Program Chair, Marketing
Sam and Irene Black School of Business
Penn State Erie
Erie, PA 16563-1400, USA

THE ENVIRONMENT AND POLICY-MAKING IN BANGLADESH

Khorshed Alam

ABSTRACT

There are a variety of environmental impacts, particularly non-market related, that are still considered to be non-quantifiable and, therefore, excluded from the decision making process in many developing countries. This paper discusses the importance of incorporating these impacts into the policy-making process. Using the case of Bangladesh, it demonstrates how a failure to properly account for environmental impacts has resulted in decisions that have had negative implications for the environment and society.

Introduction

Developing countries are faced with many environmental problems. Although these problems differ from country to country in terms of scale and magnitude, some are common such as air and water pollution, land degradation, and loss of wetland and biodiversity. Some developing countries are rapidly exploiting their natural resources to increase incomes and achieve development goals, often at the cost of depleting natural resources and, to some extent, by way of degrading the environment. The issue is more complicated in the developing countries than in the developed ones in that, on one hand, development is required to address poverty, enhance per capita income and attain a better quality of life: On the other hand, the natural environment needs to be protected in a sustainable way due to the fact that a large section of the population directly depends on it for their food and livelihood. Depletion of these resources means further deterioration of their living standards and shrinking of resource stock for future use. Furthermore, limited resource endowment in these countries and competition among different uses may conflict with one another (e.g. economic growth may be seen to conflict with preservation of natural resources). Finding a delicate balance between development and conservation, therefore, is a crucial issue for developing countries.

Though considerable information now exists on the causes and consequences of the degradation of natural resources, it is still inadequate to resolve the issue of how to attain a balance between development and conservation goals. This issue has been discussed in the paper from the perspective of the importance of economic valuation in policy-making.

Many environmental problems arise in the process of production and consumption of different goods and services for a society. Any good or service, be it normal (e.g. provision of an industrial product and construction of a new road) or environmental (e.g. clean air, healthy waterways and improved riparian

buffer), either created or restored for the public, is expected to generate both market and non-market benefits. Market benefits are those kinds of benefits which have established markets or are exchanged through market mechanisms and thus have a price tag, while non-market benefits do not have any established markets and thus do not command a price. The term 'non-market' is used to cover a wide range of situations wherein "markets are nonexistent, incomplete or institutionally restrained from reflecting interaction between supply and demand" (ADB, 1999: 17). The concept, however, does not imply that the market has nothing to do with the goods and services in question. The market may provide information, but it is likely to be incomplete or indirect. In such cases, it will not reflect, if at all, the true value of the good or service. Shechter (2000) also distinguishes non-market benefits from conventional market benefits in that "their [non-market] use does not always involve market transactions. Consequently, explicit market-determined valuation, that is price, usually does not exist for them" (p: 72).

Marketed goods and services are well accounted for in the decision making process in both developed and developing countries,¹ due to the assignment of values² attached to them. However, most non-market benefits are not accounted for in the decision-making process, particularly in developing countries. Nevertheless, over the years, a wide range of economic valuation methods have been developed and applied mainly in the developed countries. These techniques are now equally applied in developing and transition economies (Georgiou *et al.*, 1997; Whittington, 1998; Mourato, 1998). Although the application of economic valuation techniques is growing in developing countries, often as part of the assessment of externally funded environmental projects (Ardila *et al.*, 1998; Russell *et al.*, 2001), it is still far from being satisfactory. Most importantly, the level of application varies across countries; some are quite advanced, while others are lagging behind. This paper reviews the role of the environment,

specifically the use and potential of non-market economic valuation, in the policy decision-making context of developing countries. As a case study, Bangladesh has been chosen for discussion. However, it has implications for many developing countries. The remainder of the paper is organized as follows: the role of the environment in the decision making process in Bangladesh is discussed in the next section. The following sections review methodological issues of economic valuation, application of non-market valuation in Bangladesh, the consequences of non-compliance with non-market benefits, and the main conclusions.

The Environment in Decision-making in Bangladesh

During the 1990s, there was considerable progress in Bangladesh regarding the formulation of environmental policies and strategies. Much of this development resulted from the signing of different International Conventions, Treaties and Protocols (ICTPs) and the overwhelming emphasis on environmental issues by the global community. So far Bangladesh has signed a significant number of ICTPs that include environmental considerations. The country, however, has implemented relatively few of its obligations under these ICTPs. Some noteworthy milestones framing policies and strategies, include: Environmental Policy 1992, National Environment Management Action Plan 1995, Environment Conservation Act 1995, Environment Conservation Rules (ECR) 1997, Environment Court Act 2000, and Environment Conservation Act (Amendment) 2002. A new ministry named the Ministry of Environment and Forest (MOEF) was established and the Department of Environment (DOE) was upgraded in 1989. Despite these achievements, little progress has been made in the area of integrating environmental concerns into policy-making.

Two events in the late 1980s created the need for change in Bangladesh. First, after the 1987 and 1988 floods³, a multi-donor program called the Flood Action Plan (FAP) was undertaken in coordination with the World Bank. During the FAP studies, a substantial amount of information was generated that impacted variously on water resource development projects, particularly flood control, drainage and irrigation (FCDI) projects. As part of the FAP studies, the *Guideline for Environmental Impact Assessment (EIA)* was prepared in 1992 for use in ongoing and future FAP to portfolios, similar FCDI and other water management projects. As a companion to the guideline, the *Manual for*

Environmental Impact Assessment was prepared in 1995 to cover the technical aspects of EIA. These two documents are the first attempt to identify the environmental impacts of development activities in Bangladesh. They are still in use for medium and large-scale projects in the water sector. Another manual, titled *Guidelines on Environmental Issues Related to Physical Planning*, developed by the Local Government Engineering Department in 1994, is being used for small projects undertaken at the local level. Second, concern for the environment started to mount when development partners, particularly the World Bank and the UNDP, raised environmental issues in the course of implementation of various aided development projects. During the early 1990s, particularly after the Rio Summit, many donor agencies insisted on conducting EIAs for their aided projects. It was essentially the donors who inspired the application of EIAs in Bangladesh (Alam, 1996). The ECR 1997 also made it mandatory for industries in the private sector to have an EIA, and to obtain a clearance from the Department of Environment before placing a request for approval to relevant departments.

Since then, many EIAs have been conducted in Bangladesh; some are project-specific, others are general. The EIA, however, is yet to be incorporated into the formal planning process in the public sector. In 1992, the Government made provisions for 'environmental scrutiny' of all development projects, which mandates input from the Ministry of Environment and Forest during project appraisals in the Planning Commission. However, this professional judgment both at the Ministry and the DOE is limited due to the lack of appropriate skills and capabilities to examine environmental consequences of development projects (Alam, 1995; Momtaz, 2000). A major problem under the existing procedure is the lack of mandatory provision for environmental assessment. The existing project appraisal formats (Project Proforma or PP and Project Concept Paper or PCP) of the Planning Commission⁴ include a question asking for assessment of the environmental impacts of development projects. The common practice is to provide only subjective judgments in reply. The PP and PCP do not require either the identification or the quantification of environmental costs and benefits⁵.

Most importantly, the existing assessment procedures are not adequate to examine the impact of a development activity on the environment. In the best case scenario, the environmental impacts of development projects are only described or enumerated in physical terms without assigning

monetary values. This leaves the decision-maker with the unenviable task of trying to judge, for example, whether the welfare gains will outweigh the ensuing loss (i.e. cost) associated with the project. Even with the best of intentions, this becomes an intuitive process. If environmental impacts were to be valued in monetary terms, it would be easier to assign an appropriate weight to them in the decision-making process.

Being a developing country, public sector investment still plays a significant role in Bangladesh's socio-economic development⁶. The planning process of the public sector investment lacks a systematic appraisal procedure, such as the use of cost-benefit analysis (CBA), which is mostly used on an *ad hoc* basis. Current practices demonstrate many cases of project-level distortions or biases against efficient resource use and maintenance of environmental quality. This hinders the achievement of sustainable development. Some of these distortions/limitations are as follows:

- CBA is not being applied to all sectors as it is felt that quantification of environmental impacts and economic valuation of some goods and services produced by the concerned project 'are not possible'. For instance, projects in the social sector⁷ are still considered not to be amenable to economic analysis as the benefits are 'non-quantifiable'.
- In most cases, when CBA is applied, the selection of projects is predominantly based on financial appraisal, that is, on simple cash flow (e.g. projects in the agriculture sector). Less often, the selection is based on narrow economic analysis, that is, narrow in the sense of shadow pricing some inputs and not others (e.g. projects in the energy sector). In other cases, practices of project appraisal mainly focus on cost control or minimization rather than a more professional appraisal using economic techniques.
- By and large, aided-projects⁸ are appraised with greater rigor and on the basis of the donor's own methodologies. The donor's perspective, however, has the least impact on the country's public sector policy making. Projects which are financed exclusively by the government are often prepared and appraised with less technical rigor. As the World Bank put it: "[i]t is not uncommon that the selection of such projects [fully government-financed projects] is influenced by non-economic criteria" (WB, 1996: 59).

Besides involving inadequate application of economic criteria, the decision-making process is often biased due to the failure to appreciate the environmental impacts of development projects; for example:

- The environmental benefits and costs tend to be too narrowly defined in space and time (normally they exclude externalities and non-market benefits) for development projects, regardless of whether they are financed by the government or a donor.
- The environmental effects are not normally considered at the design stage of the project and only in a few cases are environmental impacts described in qualitative terms.
- Neither any scope for nor any attempt to quantify and value environmental impacts in project analysis exists in the project appraisal format in the public sector.

Therefore, the appraisal procedure used to evaluate development projects is inadequate to appreciate the scarcity values and true costs of resources, and does not take these issues into account in the project analysis. The environmental impacts of development projects are largely ignored. This leads to inefficient policy decisions with regard to project selection.

Methodological Issues of Economic Valuation

Total Economic Value

Economic value is defined by economic behaviour in the context of supply and demand. It is simply the amount of money individuals are willing to forgo (pay) in order to receive a good or service or state of the world, or the amount of money they are willing to accept in compensation for the loss of a good or service or state of the world. This sum of money is demonstrated or implied by the choices or preferences individuals make. Therefore, economic value is regarded as a measure of utility of individuals in a society through the concepts of willingness to pay (WTP) and willingness to accept (WTA) compensation. From an economic point of view, values can be associated equally with the consumption of goods and services purchased in markets as well as with the utility or satisfaction from a good or service for which no payments are made (e.g. clean air or water) or even where there does not exist any market (e.g. aesthetic beauty and cultural heritage). In this sense, anything from which an individual gains satisfaction or utility is considered to be of value, so long as the individual is willing to

give up limited resources for it (Imber *et al.*, 1993 and Binning *et al.*, 1995).

The value society places on environmental resources (i.e. non-market goods and services) depends on their different uses and services which are captured by the concept of total economic value (TEV). Based on a case of the preservation of the Osmany Uddyan in Dhaka City, this concept can be elaborated. Components of the TEV of the *uddyan* (garden) may include:

- Direct use values: values arising from consumptive and non-consumptive uses of the *uddyan* (e.g. timber value of trees and recreational values);
- Indirect use values: values arising from ecological function of trees such as the carbon storage and sequestration; and
- Non-use values: values arising from existence benefit (i.e. satisfaction from knowing that the *uddyan* exists or will continue to exist which is unrelated to residents' current and future uses), bequest benefit (i.e. satisfaction from knowing that the *uddyan* exists for the use of future generations), and option benefit (i.e. from having the option of utilising the *uddyan* at some time in the future even though no current use is made of it).

For rational decision-making, it is important to include all components of the TEV. Studies show that even in developing countries like Bangladesh, non-use values constitute a significant portion of the total value of an environmental resource (Alam, 2005). Ignorance of such values will provide misleading information to policy-making.

Valuation Methods

At the broadest levels, there are two main types of approaches that are employed to assist in valuation tasks: revealed preference technique and stated preference technique. The choice of a particular approach depends on the characteristics of the valuation problem. A wide body of literature is available today which documents these techniques and illustrates how they are related to a particular problem (Mitchell and Carson, 1989; Freeman, 1993; Pearce *et al.*, 1994; Georgiou *et al.*, 1997 and Bateman and Willis, 1999). Each of these techniques is summarised below¹ and a taxonomy of these techniques is presented in Figure 1.

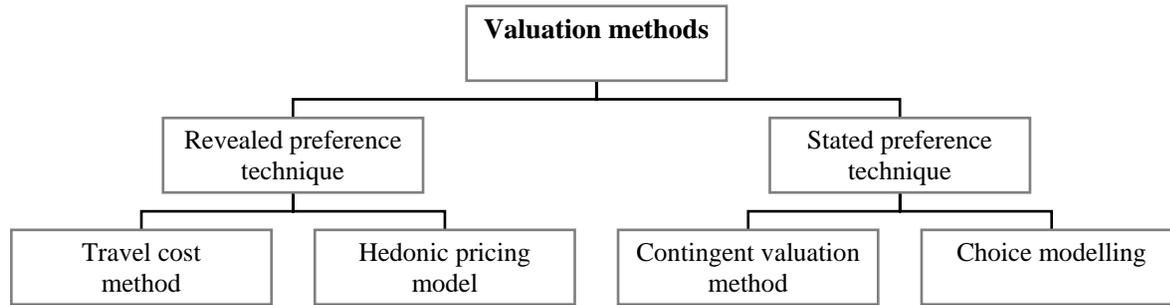
Revealed preference techniques rely on observations of actual market behaviours to make inferences about behaviour and value. Individuals respond to different types of environmental conditions by changing their behavior. These changes in behavior are often reflected in purchasing decisions, travel decisions, and recreational decisions. Economists use data on these changes to measure the value individuals place on environmental resources. The most common revealed preference techniques are travel cost method (TCM) and hedonic pricing model (HPM).

The travel cost method (TCM) estimates the value people place on recreational sites or amenities. Using travel costs as a proxy for price and number of trips as the quantity demanded, the TCM estimates a demand curve. This demand curve helps to calculate the money value individuals would be willing to pay in excess of their current travel costs for continued access to the site. This money value is known as the maximum net WTP or consumer surplus for continued access to the recreation site. Using this method, it is possible to measure the economic value of tourism and recreation resources in Bangladesh such as the Foy's Lake in Chittagong, Himchari at Cox's Bazar and Madhabkunda waterfall in Sylhet.

Hedonic pricing model (HPM) is used to capture the relationship between the bundle of characteristics a good has and its price. Its application depends on there being an observable market (such as a housing market) that might be affected by an environmental quality characteristic of interest. HPM estimates the implicit price of the characteristics of a good or service. For example, property prices may be influenced by the proximity to and quality of environmental amenities or disamenities. Air and water quality has been found to be a determinant of housing prices even in the developing countries. Where residential properties suffer from the deterioration of air and water quality in the Hazaribagh area of Dhaka City due to the externalities caused by tannery industries, HPM can be used to estimate the impact of these disamenities on the price of housing properties.

All of the methods previously mentioned rely on information about actual human behavior. However, in many cases, individuals' choices are not reflected through their behaviour. For instance, residents in Dhaka City may value the conservation of the Royal Bengal tigers in the Sundarbans or the restoration and preservation of the Mahasthangarh in Bogra, the oldest archaeological site of Bangladesh with

Figure 1: Economics Valuation Methods



immense heritage significant (i.e. non-use values), even if they do not have any intention to visit the place. These preferences are not reflected by their behaviours in the market; however, economists have developed techniques for eliciting these values using surveys wherein some form of hypothetical situation is created and participants are asked to predict their behaviour in that situation. The two most common of these techniques are contingent valuation method (CVM) and choice modelling (CM).

In the CVM, contingent on a specific hypothetical scenario and description of the environmental resource, respondents are directly asked through surveys about their WTP for an environmental improvement or their WTA compensation for the loss of a specific environmental asset. Theoretically, CVM is based on welfare economics and assumes that stated amounts (i.e. WTP or WTA) are related to a respondent's underlying preferences. CVM is the most widely used valuation technique and is capable of measuring both use and non-use benefits.

Choice modelling (CM) was developed originally in the fields of marketing and transport; however, over the years it has been applied in resource economics and health contexts. In CM, respondents are presented with several sets of resource attributes and are asked to choose their preferred option from each set. By observing and modelling how people change a preferred option in response to the changes in the levels of attributes relevant to a resource allocation decision, it is possible to determine how they trade-off between the attributes. For example, in a decision about how much payment a respondent would be willing to accept to restore riparian buffers along the waterways, relevant attributes that may emerge include percentage of river frontage covered, length of agreement and managing authority. The CM technique makes it possible to determine the relative importance of these attributes to people in making

their choices (EPA, 2003 and Rolfe *et al.*, 2004). Although CM is statistically complex and is expensive to implement, it allows the identification of the relative worth of characteristics of an environmental resource. Its application is growing both in developed and developing countries.

Benefit Transfer

Full-scale economic valuation of an environmental resource requires detailed study, often involving several methods as described above. However, due to constraints of time and financial resources to conduct a primary study, researchers often employ a benefit transfer approach to assess values in a case study of interest. Benefit transfer is an approach whereby results from one or more empirical studies (i.e. benefit estimates, functions, and/or raw data sets) are used in another valuation situation, avoiding the need for conducting primary research. However, EPA (2003) cautions that this approach could be abused if care is not taken to ensure that the scope of the original study closely matches the situation being considered.

Economic valuation techniques are being used as an input to assist governments and other decision-makers in the design of projects and programs, policies, planning exercises, environmental accounting and investment strategies. Although originally developed and widely used in western economies, its application is growing in developing countries. In the next section, an overview of the application of valuation techniques in Bangladesh is presented.

Non-market Valuation in Bangladesh: A Review

Various methods have been used in the past few decades for the valuation of non-market goods and services, both in developed and developing countries.

However, there has been surprisingly little empirical work on economic valuation of non-market goods and services in Bangladesh. There have been a few preliminary valuation exercises in the country with regard to development projects, programs or policies. Chowdhury (1999) used the contingent valuation method (CVM) to estimate the willingness to pay (WTP) of poor urban households in two slum areas in Dhaka City for public water connection (common tap for shared use). Shammin (1999) applied the travel cost method to determine people's willingness to pay for the services of the Dhaka Zoological Garden. Haque *et al.* (1997) applied the hedonic price method to estimate the loss of human health and land values due to a deteriorating environment caused by pollution from the tanneries in Hazaribagh. Alam (2002) used an extended CVM to estimate the total benefits of the cleanup of a dying river which revealed that not only a significant proportion of the residents were willing to pay for the environmental improvement, but an even larger portion was willing to contribute in non-monetary ways (mainly their time). The share of non-market benefits was found to be about 34 percent of total benefit of the cleanup. An integration of non-market benefit of river cleanup into economic analysis also reveals that the cleanup of dying rivers is not only an environmental imperative, but is also socially and economically justified (Alam and Marinova, 2003). Torero *et al.* (2003) estimated the rural households' willingness to pay (WTP) for access to public telephone services in Bangladesh and Peru applying CVM. Using both parametric and non-parametric approximations, they estimated households' WTP. The results suggest that rural telecommunications services in Bangladesh are welfare enhancing, since households' WTP are higher than the prevailing tariff rates for local, long-distance and international calls.

Economic valuation studies are not only in their infancy in Bangladesh; most importantly, these studies are conducted either as part of an MS/PhD research undertaken overseas or funded by donor agencies as an obligation of their own requirements. These sporadic attempts to apply economic valuation techniques to estimate non-market benefits of environmental improvement and integrate the environmental impacts into the economic analysis still remain confined to academic exercises. Economic valuation of environmental impacts is not incorporated in the formal planning process in the country. Because of the key role of public sector policy decision making in Bangladesh, an attempt to integrate environmental considerations into the policy decision making is warranted⁹.

The non-monetization of environmental impacts means that they are either under-valued or over-valued in the decision-making process. Under-valuation occurs when environmental benefits are given little or no weight, which results in low levels of investment in many areas of the environment. For instance, there was no investment in air quality improvement in Dhaka City until 1999, although many studies described the situation as the worst in the world. Conversely, environmental benefits would be over-valued if environmental considerations are given too much weight by decision-makers, when balancing the unquantified or intangible disbenefits caused by projects against the quantified net benefits estimated in project analysis. A recent tendency that has been observed is to include an environmental component in a project in order to attract foreign aid or to get a quick approval. Such projects can divert limited resources to areas that do not provide optimal social, economic and environmental outcomes.

Furthermore, if environmental costs are neglected or ignored, the net benefits of a project tend to be over-valued. For example, traditionally in the case of flood control and irrigation projects in Bangladesh, the cost of the destruction of wetlands and floodplains have been ignored against the benefits from increased irrigable land. In the past, many projects have become 'white elephants', 'project failures', or 'development disasters' because of the failure to properly incorporate all the environmental implications (Alam, 1995; Rahman, 1995; Haque, 1998).

Therefore, the absence of (i) application of non-monetization of environmental benefit; and (ii) an integration of monetization of non-market goods and services into economic analysis, leads to resource use conflicts and its misallocation. The following section offers some examples of how a failure to appreciate non-market benefits leads to the misallocation of resources and the destruction of natural resources in Bangladesh.

Consequences of Ignoring Non-market Benefits

The consequences of failure to consider non-market benefits in policy-making have severe implications for resource allocation and its sustainable use in Bangladesh. A few examples are described below:

Destruction of Wetlands and Open Spaces

Over the past few years, particularly in Dhaka City, wetlands and open spaces such as playgrounds and parks have been converted into residential houses or

commercial enterprises. Government agencies and even the custodians of the city – Dhaka City Corporation (DCC) and Rajdhani Unnayan Kartripakkya (Capital City Development Authority/RAJUK) – are in some cases responsible for such short-sighted decisions. Some recent reports which appeared in the national daily newspapers in Bangladesh are as follows:

The Gulistan Park, one of the last remaining parklands in the Old City, is vanishing fast. The Dhaka City Corporation (DCC) has rented a stretch of the parkland for building of commercial shops... [the DCC] rented 840-square feet of land... at Tk¹⁰ 3,360 (Tk 4 for each square foot) as monthly rent on a temporary basis for commercial use (*The Daily Star*, 7.3.02).

Indiscriminate filling of Gulshan-Banani-Baridhara Lake, RAJUK's bid to build commercial structures on public parks and open spaces, and unplanned commercialization of residential plots are fast changing Gulshan Residential Model Town into an urban ghetto. The ever-shrinking silhouette of the Gulshan-Banani-Baridhara Lake snaking through the posh residential areas tells a grim story of indiscriminate land filling, resulting in possible extinction of the waterbody... At the nearby Gulshan Avenue, a playground has disappeared... At Gulshan-2 roundabout, at least three public parks have disappeared or are in the process of disappearance (*The Daily Star*, 8.3.02).

The Dhaka City Corporation (DCC) has 'secretly' revived a project to fill up a natural canal in the city's Mohammadpur area next to the martyred intellectuals' monument and build a truck terminal there. The Haikkar Khal winds its way from Turag in the northwest through Mohammadpur and joins the Buriganga River in the south. Over the years, Dhaka has already lost 22 natural canals due to similar 'mindless' decisions by the successive governments. ...The Haikkar Khal is one of the last remaining and fast flowing canals in the city, which remains 'alive' even during lean periods (*The Daily Star*, 18.8.02).

Disappearance of Chalan Beel

Since the 1960s Bangladesh has followed a policy of self-sufficiency in food production. The main strategy was to expand the irrigation network and cultivable land under crop production. To do so, many wetlands and floodplains were converted, often under the prescription of the main donor agency, the World Bank, into rice fields, ignoring the benefits of their value for maintaining ecological balance. After decades of prescriptions of such 'development', the World Bank (1997) later recognized that "[t]he habitat of fish, a major source of protein for the rural poor, is under threat from the increasing conversion of land to agricultural use. Inland navigation is hindered by blockages in the river delta" (p: 3). However, by that time, most parts of the largest wetland in the country, *Chalan Beel*, has been converted into agricultural farmland. This is not an isolated example in destroying wetlands and natural resources. The benefits of preserving floodplains and wetlands have hardly been weighed in the decision-making process against the benefits of conversion into agricultural uses which lead to massive destruction of unique natural resources in many parts of the country.

Conversion of Chokoria Mangrove Forest

Once the country was very rich with dense mangrove forests, particularly in the south and south-eastern region. In the early 1980s, the government with financial assistance from the UNDP and the World Bank undertook a program to promote shrimp farming in the coastal region. In this process, it started to lease out the second largest mangrove forest, known as *Chokoria Sundarbans* in Cox's Bazar. As a result, mangrove cover in *Chokoria Sundarban* forest declined from an area of 18,000 ha in 1976 to just 973 ha in 1988 (Hossain *et al.*, 2001). Currently, one can hardly see any remnants of mangrove vegetation in *Chokoria* largely due to conversion of forest land into shrimp farming and because of other human interventions (e.g. extension of settlement). This is an example of how forest land-use changes, ignoring its many non-use benefits (e.g. biodiversity and ecosystem functions, species loss, ability to harness cyclonic storms, and tourism and education) on the one hand and failing to foresee negative externalities, such as salinization of coastal aquifers and agricultural land, displacement and loss of employment for locals, and deterioration of law and order situation (Battacharya *et al.*, 1999), causing unprecedented harm to the unique mangrove system and creating massive socio-economic disruptions.

Misuse of Public Funds

Another consequence of the non-compliance of non-market benefits is to create further avenues for the misuse of public funds concerning development projects and programs¹¹. A failure to consider such benefits facilitates both the inclusion and termination of projects in the Annual Development Program (ADP)¹² and makes them more vulnerable to the influence of purely political considerations¹³. It creates an opportunity both for bureaucrats and the political regime to misuse public funds for 'prestige projects'¹⁴. Extensive political interference in choosing projects in the ADP also leads to inadequate spending in key areas. A case is the inadequate allocation for environmental improvement/protection projects in Bangladesh. Following the recent floods and severe water logging within Dhaka City and the overdependence on ground water sources for its municipal water supply, there was a great need to clean up the surrounding rivers, particularly the Buriganga River and to restore the encroached sections of the city canals. Such environmental improvement activities would find it difficult to pass a cost-benefit test as most of the potential benefits are non-marketable. Consequently, these areas received little allocation of public funding both from the central and local government, whilst road dividing project in Dhaka City received funding both from the donors and the government despite the alleged corruption and misuse of fund.

There are many areas where benefit estimation or monetization of non-market goods needs urgent attention for efficient allocation of scarce resources in order to facilitate the decision-making process. Trimming of ADPs is a regular phenomenon concerning project management in Bangladesh. For instance, the funding for the original ADP in 2001 was proposed to be Tk 19,000 crore, while the revised ADP was set at Tk 16,000 crore, roughly a 16 percent reduction. The downward revision of ADP funding was required for various reasons including (i) failure to mobilize internal resources, (ii) failure to mobilize external resources, (iii) external shocks (e.g. the war in the Middle East, Asian currency crisis and recession in Western economies), (iv) internal shocks (e.g. flood, cyclone and other natural disasters), (v) change of political regime, and (vi) change of priority (e.g. a shift from nationalization to privatization). Due to the non-availability of details about the projects/programs and their components responsible for such a reduction, this issue was raised with concerned officials at the Bangladesh Planning Commission in 2001 during a field visit. It was revealed that at all levels of pruning – micro (at the

agency level), meso (at the ministry level) and macro (at the Planning Commission level) – projects/programs which generate 'intangible' benefits (i.e. non-market) are usually subject to indiscriminate allocation cuts. Even at the agency-level, while making any internal adjustment, such activities are given lower priority in terms of resource allocation.

All these aspects features of non-monetization lead to misallocation of resources and, particularly, underinvestment in areas which need urgent intervention from public funds. For instance, the annual development allocation for the Ministry of Environment and Forest in 2000/01 was Tk. 26.33 crore which is only about 0.15 percent of the total allocation for the public sector.

These examples are not isolated cases. Over the years, major conflicts have been observed over the use of the country's scarce resources. Some of the most prominent disputes have centered on the use and management of water, forest, land and mineral resources. Disputes have focused on whether fragile natural resources should be allowed to be restored and preserved or be destroyed for the sake of 'development'. These disputes show that non-market benefits have not been adequately accounted for in the decision-making process. As a whole, the protection and conservation of key natural systems and important ecological functions are not considered in terms of their non-use values (e.g. these systems and functions may provide invaluable support and protection for economic activity and human welfare) in the decision-making calculus.

Conclusion

Natural resources are over-exploited in countries like Bangladesh because, *inter alia*, markets for them are imperfect in the sense that they are either missing or not fully developed. Policy decisions are also misguided as the benefits of some goods and services (e.g. environmental improvement) are non-monetized. Failing to value environmental resources properly leads to general misallocation and distortion in policy making. Consequently, although many areas of the economy deserve investment, this is not done as such investments result in non-market benefits.

The proper valuation of non-market environmental goods has significant policy implications. As many of the environmental impacts are non-market outputs, one extremely important policy measure is to ensure that, as far as possible, the 'true' economic value of environmental resources is accounted for when

making investment and environmental policy decisions. Such goods have generally been assigned zero¹⁵ or low values. The evidence of the depletion of floodplain and wetland resources in Bangladesh demonstrates that the failure to properly account for the values of environmental resources has resulted in decisions that have had negative implications for the environment and society.

Although market forces are perceived as the ruling mechanism in the sense that they will ensure “getting the prices right”, there are ample examples, particularly in the context of developing countries, where the market mechanism cannot ensure either efficient allocation of scarce resources or the protection of natural environment, specifically due to the publicness of some goods and services and externalities which lead to market and policy failure. Monetization of non-market benefits is not a decision criterion *per se*; rather assigning a monetary value will at least provide some information and will facilitate the decision-making process. As Pearce *et al.* (1994) state “... unless environmental resources are correctly priced – so as to be reflected in actual decisions – there will be distortions in the economy which will have the effect of biasing investments and policy decisions against environmental concerns” (p: 239). A failure to account for such benefits could lead to a misallocation of public funds, which is very important for the socio-economic development of these economies. Ignorance of such benefits may mean that they are either under-valued or over-valued in the intuitive decision-making process. In the developing country context, particularly in the absence of democracy and good governance, this often leads to a situation wherein coterie politics and corruption plays a greater role in policy making. Furthermore, failure to account fully for the environmental benefits means that its net economic worth is misrepresented. Continuing such practices will have long-term negative impacts on the ecology and sustainable development of the country. This policy failure can inadvertently put environmental improvement projects in an unfavorable competition for public funds with projects that are designed to produce more market oriented goods and services. Quite often restoration of ecosystems, preservation of natural resources, and development of degraded environmental resources bear the consequences. This also has an impact on future generations who may confront problems that may be costly or even impossible to resolve. Therefore, an integration of non-market values can be seen as providing important information in the planning and decision-making process in selecting optimal resource allocation in developing economies.

Acknowledgements

The author would like to thank the reviewers for constructive comments on an earlier draft.

Endnotes

1. Although prices may not reflect the “full cost” because of perverse subsidies or taxes.
2. Economic value is defined by economic behaviour in the context of supply and demand in the market. It is simply the amount of money individuals are willing to forego (pay) in order to receive a good or service or state of the world, or the amount of money they are willing to accept in compensation for the loss of a good or service or state of the world.
3. During the monsoons of 1987 and 1988, Bangladesh suffered two of the most serious floods on record. Vast areas of the country, including the capital city, were flooded to an unprecedented degree with flood levels about 1.5 meters higher than normal for a period of more than four weeks.
4. The planning process in Bangladesh is centralised. Every public sector project needs to go through an appraisal process in the Planning Commission.
5. In most cases, it is stated in the PP/PCP that there will be no adverse effect of the proposed project on the environment; rather, it will help to improve the environment.
6. The share of public investment to total investment is about 32 percent, which is implemented by different ministries and allied departments and agencies. The public investment is important for its role in developing infrastructure and bringing socio-economic development of the country.
7. It is difficult to define a social sector. Often, what is social is also economic and vice-versa. In this case, social sector includes health, education, religion, sports, culture, population and family planning, communication, social welfare, women and youth development, public administration, science and technology.
8. Aided-projects comprise both investment and technical assistance projects financed partly or

- wholly by bilateral or multilateral donor country or aid agency.
9. In recent years, the role of project appraisal has also become important due to aid fatigue for developing countries such as Bangladesh. Foreign aid has declined sharply due to new priorities of donors, rigid conditionalities, and the poor performance of recipient economies. The absence of donor vigilance may create more scope for malpractice in project selection. The judicious use of domestic resources requires more sophisticated and reliable project appraisal procedures.
 10. Taka (Tk) is the Bangladesh currency, 1US\$ = TK 60.00.
 11. Misuse of public funds would likely continue even when the environmental concerns are fully integrated in the decision-making process.
 12. Annual Development Program (ADP) is the list of public sector projects to be funded by the government in a particular financial year. Project execution starts once it is included in the ADP. After inclusion, projects may be terminated from the ADP based on the performance and other criterion set by the government.
 13. After resuming power by the new political alliance in November 2001, the Planning Commission, under the direction of the new government, took steps to cut 'unnecessary' and 'superfluous' projects off the ADP for 'saving scarce resources of the country'. The Planning Commission trimmed the ADP by Tk 3000 crore, which is about 15.80 percent of its actual allocation. As it was reported in the press (Ahmed, 2001), "Mysteriously, the government did not touch two vital heads – TK 140 crore unallocated block amount and TK 500 crore block amount – both regarded as good ground to be obliterated from the ADP without touching any real project. Politics played the trick in this regard as the government feels that funds from such block accounts can be easily diverted to politically motivated projects: (p:1).
 14. These projects are aimed at enhancing the image of the political party in power and its leaders or to provide services to particular constituencies which the concerned bureaucrats/politicians represent.

15. Zero price in the sense that no market place exists in which their true values can be revealed through the acts of buying and selling.

References

- Ahmed, I., (2001), "ADP Trimmed by Tk 1082.85 Cr", *The Daily Star*, November 14, Dhaka.
- Alam, K., (1995), "Sustainable Development and Environmental Impact Assessment", *Development Review*, 7 (1 & 2): 18-30.
- Alam, K., (1996), "Procedures of Environmental Impact Assessment: Bangladesh Perspective", *Development Review*, 9 (1 & 2): 41-64.
- Alam, K., (2002), "Valuing the Cleanup of the Buriganga River", in M. F. Ahmed, S. A. Tanveer and A. B. M. Badruzzaman (eds), *Bangladesh Environment*, Vol 2, Dhaka: Bangladesh Poribesh Andolon, pp: 978-91.
- Alam, K., and Marinova, D., (2003), "Government-Community-Private Partnership for Maintaining Ecological Health", in S. Karner, I. Oehme, and U. Seebacher (eds), *Proceedings of the 5th International Summer Academy of Technology Studies: Corporate Sustainability*, Deutschlandsberg, Austria, pp: 5-13.
- Ardila, S., Quiroga, R., and Vaughan, W. J., (1998), *A Review of the Use of Contingent Valuation Methods in Project Analysis at the IDB*, Washington DC: Inter-American Development Bank.
- Asian Development Bank (ADB), (1999), *Environment and Economics in Project Preparation*, Manila: Economics and Development Resource Center, Asian Development Bank.
- Bateman, I. J. and Willis, K. G., (eds) (1999) , *Valuing Environmental Preferences: Theory and Practice of the Contingent Valuation Method in the USA, EC, and Developing Countries*, New York: Oxford University Press.
- Battacharya, D., Rahman, M., and Khatun, F. A., (1999), "Environmental Impacts of Trade Liberalisation and Policies for the Sustainable Management of Natural Resource- A Case Study on Bangladesh's Shrimp Farming Industry," Geneva: UNDP.
- Binning, C., Carter, M., Mackie, K., Matthews, N., McGlynn, G., McVay, P., Palmer, D., Scoccimarro, M., and Wilks, L., (1995), *Techniques to Value*

- Environmental Resources: An Introductory Handbook*, Canberra: Australian Government Publishing Service.
- Chowdhury, N. T., (1999), "Willingness to Pay for Water in Dhaka Slums: A Contingent Valuation Study," in Q. K. Ahmad, A. Nishat, Q. I. Chowdhury, A. K. E. Haque and A. Rahman (eds), *Environmental Economics in Bangladesh*, Dhaka: IUCN, pp: 105-16.
- Environmental Protection Agency (EPA), (2003), *Environmental Economic Valuation: An Introductory Guide to Policy-makers and Practitioners*, Queensland Government, Brisbane.
- Freeman, A. M., (1993), *The Measurement of Environmental and Resource Values: Theory and Methods*, Washington DC: Resources for the Future.
- Georgiou, S., Whittington, D., Pearce, D. and Moran, D., (1997), *Economic Values and the Environment in the Developing World*, Cheltenham: Edward Elgar.
- Haque, A. K. E., Faisal, I., and Bayes, A., (1997), "Welfare Costs of Environmental Pollution from the Tanning Industry in Dhaka: An EIA Study", Paper Presented at the Mid-term Review Workshop in Yogyakarta, Indonesia, September 3-8.
- Haque, M., (1998), "Development Disaster: Looking for a Way Out", *Development Review*, 9 & 10 (1 & 2): 1-10.
- Hossain, M. S., Lin, C. K., and Hussain, M. Z., (2001), "Goodbye Chakaria Sundarban: The Oldest Mangrove Forest", *Society of Wetland Scientists Bulletin*, 18(3):19-22.
- Imber, D., Stevenson, G. and Wilks, L., (1993), *A Contingent Valuation Survey of the Kakadu Conservation Zone*, Vol 1, Reprint, RAC Research Paper No. 3, Canberra: Resource Assessment Commission.
- Mitchell, R. C. and Carson, R T., (1989), *Using Surveys to Value Public Goods: The Contingent Valuation Method*, Washington DC: Resource for the Future.
- Momtaz, S., (2002), "Environmental Impact Assessment in Bangladesh: A Critical Review", *Environmental Impact Assessment Review*, 22: 163-79.
- Mourato, S., (1998), "Economic Valuation in Transition Economies: An Application of Contingent Valuation to Lake Balaton in Hungary", in M. Acutt and P. Mason (eds), *Environmental Valuation, Economic Policy and Sustainability*, Cheltenham: Edward Elgar, pp: 15-34.
- Pearce, D. W., Whittington, D., Georgiou, S., and James, D., (1994), *Project and Policy Appraisal: Integrating Economics and Environment*, Paris: OECD.
- Rahman, A., (1995), *Beel Dakatia: The Environmental Consequences of a Development Disaster*, Dhaka: University Press Limited.
- Russell, C. S., Vaughan, W. J., Clark, C. D., Rodriguez, D. J., and Darling, A. H., (2001), *Investing in Water Quality: Measuring Benefits, Costs and Risks*, Washington DC: Inter-American Development Bank.
- Rolfe, J., Alam, K., Windle, J., and Whitten, S., (2004), "Designing the Choice Modelling Survey Instrument for Establishing Riparian Buffers in the Fitzroy Basin", Establishing the Potential for Offset Trading in the Lower Fitzroy River Research Report No 3, Central Queensland University, Queensland.
- Shammin, M. R., (1999), "Sustainable Development of Dhaka Zoological Garden: An Economic and Management Analysis," Q. K. Ahmad, A. Nishat, Q. I. Chowdhury, A. K. E. Haque and A. Rahman (eds), *Environmental Economics in Bangladesh*, Dhaka: IUCN, pp: 79-103.
- Shechter, M., (2000), "Valuing the Environment", in H. Folmer and H. L. Gabel (eds), *Principles of Environmental and Resource Economics*, Cheltenham: Edward Elgar, pp: 72-103.
- Torero, M., Chowdhury, S. K., and Galdo, V., (2003), "Willingness to Pay for the Rural Telephone Service in Bangladesh and Peru", *Information Economics and Policy*, 15(3): 327-61.
- Whittington, D., (1998), "Administering Contingent Valuation Surveys in Developing Countries", *World Development*, 26(1): 21-30.
- World Bank (WB), (1997), *Bangladesh Public Expenditure Review: 1997 Update*, Washington DC: The World Bank.

Khorshed Alam
Centre for Environmental Management, Central
Queensland University
Rockhampton, Queensland 4702, Australia.
e-mail: k.alam@cqu.edu.

BANK CREDIT FOR THE MISSING MIDDLE IN BANGLADESH

Abul K. Siddique

ABSTRACT

The contribution of small and medium industries to the growth of GDP in Bangladesh has increased in recent years. This has happened despite their lack of access to formal bank credit--sources of finance being their own savings and informal lenders. Based on two sample surveys of these industries conducted by the World Bank and other organizations, and related documents, inferences are drawn that productivity of these industries could be improved if their own savings could be complemented by borrowings from banks, NGOs, and other financial institutions in the formal financial sector. This paper also analyzes the major issues involved, reviews the successful attempts by a number of developing countries in augmenting the inflow of commercial bank and NGO funds to small and medium industries, and suggests remedial measures suitable to conditions in Bangladesh.

Introduction

The missing middle represents those enterprises that are not big enough to have access to organized formal sector bank credit and not small enough to qualify for micro credit from Grameen Bank and other NGOs. A small enterprise would typically include 3-10 workers and a medium enterprise would include 11-99 workers. A micro enterprise would include 1-2 workers. This paper intends to deal with the informal credit market faced by these enterprises and suggest ways to improve the flow of bank credit to such enterprises. The role of these enterprises in accelerating economic growth and in reducing poverty will also be discussed.

Economic growth in Bangladesh accelerated during the 1990s as compared to the 1980s. While the five-yearly average annual growth rate stagnated around 3.7 percent in the 1980s, it accelerated to around 4.7 percent in the 1990s.¹ The 1990s also witnessed a faster rate of poverty reduction as compared to the 1980s. Inference has been drawn regarding a causal relationship between the higher growth rate and the reduction of poverty in a Report commissioned by UNDP.² The same report analyses the structure and the sources of growth based on sectoral GDP growth rates. It shows that the contribution of small-scale industries was nearly as much as that of large and medium industries in the two decades. This result is achieved in spite of the well-known fact that small-scale industries suffer from a number of disadvantages including lack of access to bank credit, as compared to the large and medium industries.

While summarizing the analysis of the growth-poverty nexus, the Report states that a major force behind the reduction of rural poverty during the 1990s was the employment of unemployed labor in growing and more productive small enterprises in

contrast to the dominance of low productivity self employment in the 1980s. A major policy conclusion of this finding is that measures should be adopted to facilitate the employment of the poor in scaled up enterprises in the non-farm sector. Such measures, according to the Report, should consist of improving (1) education and skill of workers, (2) physical infrastructure, and (3) access to bank credit.

Although all the above measures are crucially important, the objective of this paper is to focus on the access to credit for small and medium enterprises (SME) with an emphasis on the "missing middle." First, the paper will discuss the current state of finance for small and medium enterprises based on available information. Next, it will discuss the sources of finance for SME in the aggregate. This will be followed by a discussion of the informal financial market and the major issues relating to SME finance. The next section will review the experiences of a number of developing countries in augmenting the flow of bank credit to SME. Then the paper will proceed to an examination of the implications for new initiatives of the findings of the two World Bank documents. The final section will provide concluding remarks and an outline of an action plan.

State of Small Industry Finance

Present Condition

Bank credit to small industries, negligible as it is, has been declining as a proportion of the sector's contribution to GDP. The proportion of commercial banks' loans to small scale industries in relation to their contribution to GDP declined from 1 percent in fiscal (FY) 87 to 0.56 percent in FY'93 and further to 0.39 percent in FY98.³ However, the micro credit NGOs appear to have maintained their group-based lending to the poor micro-entrepreneurs, many of

whom are women, as shown in Table 1.

There are more than 1500 NGOs in this field of which 600 are registered with the NGO Bureau. Recycling of lending resources in FY03 and FY04 was more than 1.5 times their outstanding loans (as of the end of June 2004).

In contrast against the above, progress in lending to SME has been very small. The Bangladesh Bank continued, as stated in its Annual Report 2004, to provide refinance facilities to the Bank of Small Industries and Commerce (BASIC). This facility was started in fiscal 1999. A sum of Taka 250 million was disbursed to BASIC in fiscal 2004. Small enterprise credit scheme for voluntarily retired officers and employees remained operational in 2004. Under this scheme, Taka 0.04 billion was provided to 3 banks as refinance up to June 30, 2004. Another scheme was designed to refinance banks for lending to agro-processing enterprises. One hundred percent refinance was available to banks for lending to these enterprises provided these are located outside divisional headquarters and the Narayanganj town. The objective of setting these locational conditions is to disperse industries outside areas of heavy concentration. The other conditions attached to the refinance scheme are that the loans have to be medium- or long-term and must not exceed Taka 50 million. This facility provided Taka 250 million up to June 2004.

Although the facility is meant for both small and medium enterprises, it is expected that the small enterprises would be crowded out because of their lack of collateral, market size, lack of contacts, and other inherent disadvantages. For small industries specifically, the Bangladesh Bank, in collaboration with the World Bank, has introduced a refinance scheme with Taka 1 billion of its own funds and U.S \$10 million from the World Bank, effective May 2004. Banks and other financial institutions will be eligible to use this facility for their loans to an enterprise with fixed assets not exceeding Taka 10 million irrespective of their location. Disbursement under this scheme did not begin in fiscal 2004.

So far as the NGOs are concerned, Grameen Bank does not lend to small and medium enterprises. BRAC has made a good beginning with disbursement of Taka 73 crore and 32 lakh under the SME scheme up to May 2003. The average loan size is Taka 3 lakh and 85 thousand with a repayment rate of 99.2 percent. ASA has also started a small enterprise lending program.

Although the intention of the refinance scheme is good, it does not address the main issue inhibiting lending to SME enterprises namely, the lack of information regarding the credit worthiness of those enterprises. For this reason, the success of the refinance scheme is likely to be limited. How to address this issue will be discussed in a later section of this paper.

Sources of Finance Coverage and Methodology

This section is based largely on information contained in a document (World Bank 2004) which uses basic data from the National Private Sector Survey of Enterprises in Bangladesh (NPSEB), 2003. This survey, covering the whole of Bangladesh, was conducted by the International Consulting Group (ICG) and Micro Industries Development Assistance Services (MIDAS). It covers all enterprises employing less than 100 workers. But in terms of size distribution, firms with equal or less than 10 workers constituted 96 percent of the sample. It does not cover mobile enterprises such as rickshaw pullers. A brief reference is made to another World Bank publication, mainly to give some idea of how the informal credit market operates for small enterprises in Bangladesh. Finally, a document by Data International (1999) is also used.

An Analysis of Information from the World Bank Documents

According to the Data International 1999, all industrial surveys carried out in recent years show that one of the severest constraints faced by SMEs is lack of access to credit. The document also states that focus group discussions with business people and bankers confirmed that access to credit is a more acute problem for SMEs. But this document was unable to provide any quantitative information on SMEs of access to credit from formal and informal sources. Data relating to this issue are now available from World Bank (2004) sources as shown in Table 2.

In this table, figures on formal sources are overstated because of the large amount of micro-credit provided by NGOs to 1-2 person micro enterprises, which should not be classified as SME credit. As a result, informal and "none" are probably being understated. Another noteworthy feature of the table is that metropolitan areas received the highest proportion of informal credit (32.9%) indicating that these areas have the highest concentration of SMEs. The most credit starved is the peri-urban area because this is not rural where most of the NGO credit is concentrated.

The crucial nature of access to finance is underscored again by the data on constraints to entry and operation of SMEs as shown in Table 3.

It is clear that financing fixed and working capital was a problem for a very large proportion of the respondents. What is more surprising, however, is that about 35 percent of the sample had no problem at all; not only in finance but also in a about a dozen other problem areas. This sounds unconvincing in view of general observations and widespread complaints about electricity, marketing, government regulation, and technical problems. A possible reason could be that many entrepreneurs did not want to state their problems for fear that this would attract government attention with regard to taxes and proper registration, and make their lives more difficult. It is well known that many small enterprises are not registered and do not pay any taxes.

Further analysis of the entrepreneurs reporting finance as the crucial problem indicates that an overwhelming majority of the entrepreneurs (89 percent) identified lack of investment funds or fixed capital finance as the biggest problem for starting up a firm and about 60 percent pointed to lack of working capital as the most important problem in operating a firm.

A break-down into sectors indicates that complaints about access to finance were greater from firms engaged in services, trade, and manufacturing. Small firms complained more compared to micro-firms probably because the latter had access to NGO loans. Medium enterprises also complained less than the small ones. This confirmed the widely held view about the “missing middle” regarding access to credit. Although complaints reached their peak with firms having 4 workers, dissatisfaction with access to finance remained strong with firm size up to 10 workers, after which the intensity of complaints became less strong. In other words, firm size was correlated significantly with the entrepreneurs’ satisfaction with the availability of finance.

Application of econometric analysis showed that the probability that an enterprise graduates from a micro enterprise to a small or medium enterprise depends significantly on education, availability of family labor, skill, profit prospects, prior experience, and access to formal bank loans.⁴ Since an examination of various factors other than formal bank loans, mentioned above, are beyond the scope of this paper, the main thrust here is how to make formal bank credit available to the small and medium enterprises.

Another related finding of the same World Bank document (World Bank 2004) is that the predominant reason for permanent closing of an enterprise is financial. More than half of the firms failed because they ran out of money and loans were not available from any source. This is shown in Table 4.

Since formal bank credit is not available to small firms to any significant extent, as shown in Table 2, they are obviously dependent on informal market loans, although at very high interest rates and with other stringent conditions. But no information on the functioning of the informal market is available except in a World Bank 1994 document. Although the source is dated, it is unlikely that the basic conditions have changed significantly because the NGOs give only micro credit to one/two person enterprises, classified by the World Bank (2004) as formal bank loans. It may, therefore, be useful to briefly examine the findings of the World Bank (1994).

Operation of the Informal Financial Market

As there is considerable diversity in small scale enterprises ranging from grocery stores, catering, and print shops, to small engineering workshops, so is there a great deal of variation in the sources and amounts of finance and interest rates charged or other terms and conditions involved⁵. A short summary of the financing picture is as follows:

In general, credit is provided by informal lenders who may be friends and relatives, by mahajans who are intermediaries with trade and / or production relationships with enterprises, and by traditional money-lenders. A great variety of financing arrangements are involved. The most common sources of initial capital were the owner’s own savings and loans from friends and relatives. Loans from friends and relatives are mostly interest bearing loans and their repayment record is good. This underlines the importance of information flows between the borrower and the lender as well as familiarity of the lender with conditions and the environment surrounding the activities of the enterprises.

For working capital, the most important source appeared to be trade finance, the enterprises taking advances from wholesalers and mahajans. There are also instances of enterprises giving credit to retailers, reflected in consignment sales and accounts receivable. Trade credit is mostly self-liquidating, since the next consignment will not be supplied

unless the previous consignment is paid for.

As there is seasonal variation in business activities, amounts of credit and interest rates charged also vary. Interest rates of 30-40 percent per annum in lean periods and 120-240 percent per annum in peak periods such as Ramadan and the two Eids have been reported in World Bank 1994. Although higher seasonal demand for credit is quite predictable, supply does not increase in proportion to demand because of the inelastic supply of credit in the informal market. The inelastic supply is caused in turn by the restricted entry of new money lenders in the market because of high transaction costs and inadequate information. Even in the formal inter bank call money market in Dhaka, the interest rate shoots up during the Ramadan and Eid seasons in spite of supply of additional funds by the Bangladesh Bank through the commercial banks. However, the rate settles down to a more normal level in a few weeks. In the informal market also the excess demand is of a short duration. Since producers of sarees or other Eid-related products charge much higher prices in that period and the loans they take are of short duration, they can afford to pay higher interest out of higher profits.

Cash sales result in discounts to the buyer that implies liquidity premium. Sales on credit are charged higher prices with implicit interest rates that may be significantly higher than market rates. In general, moneylender rates were reported in the range of 60-120 percent per annum.

Credit recovery problems related mostly to the retail sector. Some retailers are not scrupulous in their dealings. Their problems also relate to the strong competition they face in selling their products.

Most small enterprises do not have written accounts. But this does not cause problems to lenders as long as they are able to observe the market conditions and the activities of the enterprises frequently.

Differences between the operation of the formal and the informal credit markets can be illustrated diagrammatically as in figures 1 and 2 shown.

In Figure 1, the supply curve(SS) is completely inelastic and the demand curve(DD) is less inelastic. The interest rate fixed by the monetary authorities is r_2 but the market clearing equilibrium interest rate is r_1 . Since supply is at d^* , the interest rate r_2 creates excess demand equal to $d_1 - d^*$. This means bankers

can choose borrowers who can offer suitable collateral and are more credit worthy. Small borrowers cannot offer collateral and are crowded out.

In Figure 2, both supply and demand curves are inelastic. The interest rate r_1 is the market clearing equilibrium rate, but since demand for loanable funds is at d_1 , the actual interest rate is r_2 . This creates excess supply $d_2 - d_1$. This happens because, in an oligopolistic market where entry of new lenders is restricted by high transaction cost and lack of information, the money lender who is an oligopolist, faces an inelastic demand curve. His supply curve is also inelastic. In this situation, he maximizes profit by restricting supply and charging an interest rate r_2 , which is higher than the equilibrium interest rate r_1 .

Major Issues Relating to SME Credit

Following the phenomenal success of the micro credit movement spearheaded by the Grameen Bank and the BRAC models, the question that has been raised is whether the same model could be replicated in extending credit to SMEs. If practicable, why has this not happened so far. While the Grameen Bank remains dedicated to the present concept and its scope of activities, BRAC has made a good beginning in extending credit through a full service bank called BRAC Bank.

It is not difficult to see that the micro credit model, depending as it does on the formation of small groups with group and individual responsibility for each loan given to a group member, with necessary peer pressure for and close monitoring of loan recovery, is not easily applicable to SME credit. In the latter case, it is not practicable to apply the same modus operandi because the enterprises are more in competition with each other, more heterogeneous in terms of activity, personnel, other resources used, financing needs and marketing of products. A familiar one-to-one lender-client relationship is more appropriate in this case, although the lender could be an NGO, a bank, or any other financial institution.

This brings us to the important question: What type of organization is more appropriate for lending to SMEs? In principle, any financial institution with the necessary resources and skills should be able to do it, as long as some basic issues are resolved. The most important issue is that the institution concerned should have access to information regarding the credit-worthiness of the potential borrower. The

reason why no financial institution is coming forward to take on this task, on any significant scale, is that this information is not available. The cost of collecting such information is almost prohibitive for any individual institution operating in the market place. We will revisit this issue while evaluating the experiences of a number of developing countries that dealt with this problem.

The second issue relates to the availability of land and houses owned by potential borrowers as collateral for financial institutions. At present, because of outdated land laws, titles to such assets are often disputed. Understandably, these disputed assets are not acceptable as collateral. Thus reforming land laws and implementing them expeditiously would unlock unused wealth that would facilitate the supply of start-up and working capital for many potential entrepreneurs.⁶

Another important issue is the monetary policy stance of the authorities. If they are too cautious and over-react to an even mild rise in prices, the overall liquidity situation would tighten. If that happens, financial institutions would be discouraged rather than encouraged to lend to SMEs because of the higher risk and larger transaction costs involved. A reasonably accommodative monetary policy stance need not conflict with the Bangladesh Bank's responsibility for inflation control, as long as fiscal deficit is kept within reasonable bounds. This should help the SME sector from being crowded out.

NGOs and other non-bank financial institutions would have to use innovative methods for deposit mobilization, as BRAC has started doing. Depending on grants and subsidized loans would not be enough for the additional task of lending to SMEs. They might also consider issuing bonds to tap the resources of insurance companies, pension funds, and the savings of higher income groups. That resource constraint is a major problem for NGOs in expanding their activities, is clearly stated in a paper by Yunus (2004).⁷

What organizational forms are potential candidates for financing SMEs? It is often suggested that Savings and Loan Associations may be a possibility. These institutions have been traditionally used for housing finance. They prospered for sometime in industrial countries and made valuable contributions in mobilizing savings particularly of the middle class. But because of a weak regulatory framework, there were serious episodes of misuse of funds and major

liquidity and solvency crises, paralyzing these institutions in several countries at different times in the last twenty years. Furthermore, industrial countries have found other innovating ways of financing real estate, such as mortgage backed securities, so that Savings and Loan Societies have been marginalized. In developing countries, these institutions have not been used on a significant scale either for housing or for any other purpose. Thus it has very little chance of success with regard to financing the SME sector.

Another possibility is Micro Credit Banks. This idea is centered on setting up tiers of small banks. Some of these banks would have jurisdiction in Upazilas, the next would be district micro banks, and the top tier would be national micro credit banks. Different tiers would require different types of licenses that would give them power to transact business in the administrative unit for which it has been given license. A Upazila Micro Credit Bank could mobilize deposits and give loans only in the upazila for which it has been granted license and not in the entire district. Only the national micro credit banks could transact business anywhere in the country. But the requirement of capital and other resources would be much higher for such banks and the license fee would be much higher too.

Given the nature of these institutions, their deposit base would be small and their capacity to finance small enterprises would also be limited. They would also pose serious regulatory problems, whether the regulatory organization is the Bangladesh Bank or a separate autonomous institution.

Banks similar to micro credit banks were in operation in Bengal during the British days. They were localized banks, although there was no official restriction on their area of operation, and were called nonscheduled banks. Their history is marked by many crises and some failures. Some of them survived until the early years of Pakistan, but only with special assistance from the State Bank of Pakistan, which kept them going because of fear that if one bank failed, there would be a ripple effect on the whole banking system, shaking public confidence in banks. In view of this, they were eventually absorbed in other banks or were gradually wound up. Thus this form of organization also does not appear appropriate for financing SMEs.

Cooperative banks could also be considered as possible candidates. The checkered and unsuccessful

history of these banks in the sub-continent in the British days and in the early days of Pakistan is well-known. A widely accepted conclusion about these banks is that they were often formed and controlled by vested interests with inactive members who did not understand or participate in what was going on. It was a dismal story of exploitation and eventual failure. The Data International (1999) shows inter alia that small enterprises, unlike their larger counterparts, were unable to form any effective business organization. About the National Association of Small and Cottage Industries of Bangladesh (NASCIB), the report had the following to say "Despite being the major organization in the Small and Cottage Industries sector, NASCIB has not succeeded in supplying its members with adequate information regarding investments, raw materials, export, import, technology, patents, etc, and has no comprehensive data bank."⁸

In view of these observations, it would be unrealistic to expect small enterprises to form and operate cooperative banks successfully. Also, as the history of the cooperative movement shows, any organization imposed from above does not generally succeed.

A more appropriate form of organization will suggest itself after we consider the experiences of a number of developing countries in financing small enterprises in the next section. As will also be seen later, a financial institution is likely to be more successful in financing small enterprises when it is not restricted geographically or to micro credit only, but allowed to cater to all sections of potential clients.

Finally, it is necessary to consider the effect of corruption on credit to SMEs. There is no quantitative study on this subject, but Data International (1999, Section 3, pp. 18-21) states, on the basis of its observations and discussions with focus groups, that illegal payments and kickbacks are quite common particularly in loan programs and funds earmarked for priority sectors. Small enterprises often do not get these loans even after paying bribes and spending time and energy. To retain and operate a small business, the owner has to pay toll to maastans (hoodlums). To the extent these practices are prevalent, the situation is economically inefficient, and socially and morally unacceptable.

Developing Countries' Experiences in Augmenting the Flow of Credit to Small-scale Enterprises

Before proposing measures to improve the flow of bank credit and NGO finance to small-scale and medium enterprises in Bangladesh, it may be expedient to review a few examples of developing countries trying to achieve the same objective.⁹

Ethiopia

A large gap has existed between demand for and supply of finance to small-scale enterprises notwithstanding financial reforms since the early 1990s. Formal Micro Finance Institutions (MFIs) started emerging only in 1995. There are 19 MFIs registered with the National Bank of Ethiopia (NBE) and they cover only a small proportion of the population serving both low-income households and small enterprises. So far, 15 percent of poor rural households have been served. Deposits with MFIs accounted for less than 1 percent of deposits with commercial banks and credit provided by them was equivalent to about 2 percent of the credit provided by the commercial banks.

The sector is growing steadily but not rapidly. Competition is rather limited as two MFIs account for 90 percent of the deposits, 76 percent of the outstanding portfolio, and over 83 percent of the total clientele. They are nearly as large as the smallest commercial banks.

Regional governments are the major owners, although local NGOs and individuals are also in this business. Foreign ownership is prohibited. Because of high initial expenses, they charge high interest rates, but loan recovery is generally high.

The NBE is the regulator. There are regulations regarding deposits and loan sizes. If deposits of an MFI reach Br 1million (around US\$120,000) it is required to re-register with the NBE. Similarly there is a limit on loan size to an MFI. These restrictions are aimed at ensuring safety and stability in operation, but a consequence is that more successful borrowers are being discouraged by these restrictions. There is no noteworthy innovation in procedures and products to initiate and invigorate the bank's relationship with small-scale industries.

Zambia

The Government played a leading role in providing finance to small and medium-scale enterprises. One of the approaches was the credit guarantee scheme, under which the Bank of Zambia (BOZ) guaranteed a large proportion of private loans to micro-enterprises. The experiment did not succeed because commercial banks were not enthusiastic about it as they had very little information about the prospective clients and lending in such cases involved high risk, and transaction costs.

The financial liberalization of the early 1990s facilitated the growth of MFIs. The process was also helped in 1997-98 partly by the failure of some commercial banks followed by the consolidation of the banking industry between 1994 and 2001, a process that made the remaining banks more willing to lend to small clients. Moreover, international donors also became more active in this area about the same time. The U.K. government and the European Union helped in the development of two large MFIs, which were also very successful.

The spread of the MFIs are limited in Lusaka and the copperbelt, while the larger rural areas remain under-served. There is no reliable data on their financial performance.

Regulatory framework for the MFIs is in the process of development by BOZ. Meanwhile the authorities are tolerating some illegal practices. For example, up to 50 percent of the loan amount is being treated by MFIs as equity contribution (forced saving).

Zambia may be regarded as a good case of NGO-assisted development of MFIs. It is expected that the present contribution of international donors will help BOZ to develop the necessary regulatory framework that should stimulate further development of these institutions for financing small and medium-scale enterprises.

Indonesia

Unit Desa System(UD) or Village Bank System, the Indonesian rural finance program, is a good example of successful institutional credit to small industries. It is an integral part of the Indonesian Agricultural Bank, the Bank Rakyat Indonesia, but the UD has a high degree of autonomy in formulating and administering operational policies.

The UD system depends on village agents with local knowledge and access to information about borrowers. These agents are effective in monitoring borrowers' progress in utilization of loans and in enforcing loan contracts. Under this system, borrowers are also required to provide references from a prominent person in the local community. Most loans are without collateral on the assumption that local reputation is a dependable asset. Various incentive schemes such as interest rebates are also used to encourage timely loan repayments.

The UD has also developed a whole range of other financial services such as convenient banking hours, attractive savings accounts, a friendly interface, unconstrained withdrawals, and a number of incentives including bonuses and raffles. As a result, the UD System has attained financial self-sufficiency and started generating operational surplus within a few years of its inception.¹⁰ It gathered strength even during the 1997-98 Asian financial crisis. Currently, the UD System has a network of about 3,700 small village banks.

The major factors responsible for the phenomenal success of the UD System are as follows:

1. The scope of the village banks was wide enough to include all kinds of rural activities and a clientele of different income classes through the development of a variety of financial products.
2. Its flexible saving services contributed largely to highly successful deposit mobilization outcomes. This made it largely independent of state or other donor funds.
3. Only a one-time capital subsidy is available when branches are opened, to assist with equipment and set-up costs.
4. The profitability of a branch is highly emphasized. A salary structure has been devised in order to ensure that loan officers monitor borrowers, with penalties for default. This is done through relatively low base salary for staff, but accompanied by large potential incentive payments, and prospects for promotion are linked to branch profitability.

Peru

Peru is an interesting example of how the application of new technology and information enabled a commercial bank and some other micro-lenders to be immensely successful in lending to small enterprises as well as consumers. The technology consisted essentially in computerizing the timely payment of

Value Added Tax (VAT) data. This information was put on line by SUNAT, the Peruvian Tax Authority, enabling the commercial banks and other micro-lenders to use the information in determining the credit worthiness of prospective borrowers.

A spillover effect of this development has been the evolution of an active credit information system. The SUNAT data were packaged in a more easily accessible format by a private company. Subsequently, three credit bureaus have been established following the compulsory release of the credit histories of bank customers (as required by Bank Superintendent).

The availability of VAT information has helped Banco del Trabajo, a commercial bank, in entering the micro-finance market successfully. Now it focuses exclusively on small borrowers. About half of its portfolio consists of loans to small enterprises. Interest rates charged are between 40 and 50 percent—about 3-3 1/2 times the Central Bank discount rate (14 percent). The Banco del Trabajo has developed separate computerized credit scoring models for micro enterprise loans and other loans. These models enable the bank to process loan applications in 48 hours and also predict quite accurately the probability of repayment of the loan. Default rates are below 4 percent. All loans except real estate loans are unsecured. To ensure repayment, all loans include life insurance on the borrowers.

The bank intermediates between regions and income groups. It mobilizes deposits primarily from urban areas, while its lending is mainly in the rural areas. Its depositors are in the middle-to high income groups, while its borrowers are in the lower income groups.

Chile

A highly innovative approach to induce commercial banks to provide loans to small enterprises was made by the Chilean Social Investment Fund (CSIF) in 1993. The CSIF devised market-based subsidy to help commercial banks overcome the barrier of high transaction costs in micro lending. A half-yearly auction was established inviting the banks to bid on per loan subsidy. The winning banks would be those that would offer the largest number of micro loans for the smallest subsidy.

Starting with only one participant bank, currently there are four large banks with extensive retail operations, actively participating in the scheme. They

provide loans to about 100,000 small enterprises with a total portfolio of about US\$ 100 million. The progress of the project becomes clearer from the fact that when the auctions began, the subsidy was US\$ 240 on loans that averaged approximately US\$ 1,200 in size, but the subsidy had been bid down to US\$ 80 by the year 2000. About one third of the small enterprises in Chile are customers of these banks. The risk to the banks is small because these loans account for less than 5 percent of their assets.

There is a ceiling on interest rates in Chile. In the absence of the ceiling, the subsidy could have fallen further. Recovery performance of loans appears to be good. The supervisory responsibility for the scheme is left mostly with the banks by the Chilean Banking Superintendent because of good performance by the banks. Also, an attractive feature of this program is that the banks provide a full range of services including insurance. Since small enterprises are often unable to provide the extensive documentation that is normally required, the problem is solved by classifying these loans as consumer loans, which do not require such extensive documentation.

Implications of the Findings of World Bank 1994 and World Bank 2004

A major finding of the 1994 document is that initial capital of the small enterprises in Bangladesh was financed largely from own savings and, to some extent, by borrowing from friends and relatives. About 80 percent of investment costs reported by the 365 sample enterprises was financed by own savings, without any significant variation in the case of most industries. The 2004 document lends support to this finding. Quantitative information bearing on this is given in Table 3 of this paper. Also see end note 5 for some variation in the pattern. It appears that over 53 percent of the SME experienced severe problems in start-up capital and another 44.3 percent had financing problems with regard to current operations. The reason why these figures are lower than the 1994 figures is that the 2004 figures includes medium enterprises and NGO lending to micro enterprises (1-2 persons enterprise) who were in a better position with regard to financing. Further analysis showed that of those who had severe financial problem, 89 percent complained about initial capital finance and 60 percent experienced problem with regard to working capital.

This finding has tremendous implications for the productivity of resource use in a society where the

savings rate is low. It is clear that a large number of enterprises had serious difficulties in obtaining initial capital for start-up. This implies that many potential entrepreneurs could not get the initial capital and had to wait and save the money before they could start-up because saving is time consuming. This is inexpedient and wasteful. If a substantial proportion of the initial capital were available from financial institutions, the number of new enterprises would have multiplied and the output of small industries would have increased at a faster rate. This is particularly true of the last 10 years when the demand for the products of these enterprises has been increasing at a faster rate.

Another major finding of the World Bank (1994) is that the interest cost of borrowed funds in the case of initial capital has been mostly in the range of 50-120 percent per annum. Similar rates have prevailed in the case of expansion finance as well. This is largely due to the high risk associated with these enterprises in the perception of the potential lender, caused in turn by the lack of information about the borrower. An implication of this is that if information flows could be improved through new institutions, procedures, and practices, the potential lender would get a better idea about the credit-worthiness of these enterprises. As a result, banks and other lenders in the formal sector would enter the market, increasing competition, increasing availability of bank credit, and reducing high interest rates. This is evidenced by the experiences of Indonesia and Peru (see preceding section).

Since the World Bank 2004 deals not only with finance but also with the whole gamut of other problems faced by SME, it could not pay attention to the interest rate question. The 1994 World Bank document shows that interest rates prevailed in the range of 50-120 percent per annum. The reason for this has been mentioned in the preceding paragraph and illustrated in Figures 1 and 2(See section on Operation of the Informal Market and the end of the paper for the figures).

An Outline of an Action Program

It would appear from the foregoing analysis that the start-up of small enterprises and their expansion could be expedited and multiplied if their own savings and the resources available from friends and relatives could be supplemented by lending from commercial banks and other institutions in the formal financial market including the NGOs. But the fact

that these institutions have not so far shown any interest in participating in this process and even the small enterprises have been shy of approaching them, would indicate that without the active role of a catalytic agent, no meaningful partnership between the two parties could be initiated.

The initiatives that could be taken in this regard may be inferred from the experiences of the three developing countries discussed earlier. Ethiopia and Zambia were discussed in that section only to show why they failed, while the other three countries succeeded. The reasons for the failure lay in their inability to devise an appropriate organization with dynamic leadership, inability to introduce the right incentives and penalties as well as innovative procedures and practices.¹¹ In contrast, the case of Indonesia-the UD or the village banking system-appears to be particularly relevant for Bangladesh, with all the attributes mentioned above that are needed for success. In addition, some elements from the successful Peruvian and the Chilean experiments could be tried in augmenting the flow of funds from the formal financial market to the small-scale and medium industries.

In Bangladesh, the commercial banks have not felt the need to take the additional risk and higher set-up and transaction costs involved in financing small-scale industries mainly because they have been earning handsome profits from their traditional business operations. The nationalized commercial banks are an exception because of their well-known problems. However, more recently, deposits of banks are growing much faster than their lending as the growth of the agricultural sector and the agro-based industries have accelerated. The rapid growth of workers' remittances has also helped. From 1999 through 2003, deposits of commercial banks increased 78 percent while their lending increased only 55 percent, creating large liquid balances that did not earn any income or rather low income from treasury bills. The excess liquidity is computed at about Tk. 94 billion, which constitutes 34 percent of total liquidity of Tk. 275 billion at the end of October 2004.¹² Thus, circumstances are now more favorable for commercial banks to look for non-traditional lending opportunities. However, a major inhibiting factor is the commercial banks' perception of the risk of default on the part of small and medium industries. As this problem has been addressed effectively in several developing countries, this can be done in Bangladesh too.

The following paragraphs outline the steps that need to be taken in this regard:

- a. With moral suasion from the Bangladesh Bank and active participation of the profitable commercial banks, the Grameen Bank, BRAC, and other major micro-lenders, who have accumulated considerable experience and mobilized financial resources, a new bank similar to the Indonesian UD banking network could be established. The new bank's major objective would be to lend to small industries for initial capital, expansion capital, as well as working capital. At the same time it would have the freedom to lend to other clients, medium or large, engaged in agro-based trade and industry. This would broaden its scope of operation and improve its chances of success.
- b. This bank would be fully autonomous and would be managed by a managing director and a Board of Directors appointed by the Bangladesh Bank and other banks and NGOs contributing to its capital and providing its managerial and other operating staff. For initial capital, international donor assistance may be available.
- c. In addition to lending facilities, the new bank should develop a full range of other financial services including insurance. Other services should include flexible savings schemes, convenient banking hours, a friendly interface, unconstrained withdrawals, and a range of incentives including bonuses and raffles. Life insurance could be made a requirement for the eligibility of borrowers.
- d. In contrast to the passive attitude of the traditional bank branches in rural areas, the new bank branches would actively mobilize deposits and borrow from commercial banks in urban areas that have surplus funds. This would enable them to lend to small and medium industries and other clients, performing in the process a useful financial intermediation function between urban savers and rural industrial borrowers.
- e. When new branches are established, they would get a one-time capital subsidy to assist with equipment and set-up costs. No ongoing operational subsidy would be available. It is expected that, like the Indonesian UD System, the new bank would be profitable in a short period. In order to ensure profitability, a system of rewards and penalties should be instituted. Staff salaries and a salary structure should be designed to ensure that the loan officers follow-up on borrowers, with penalties for default. The base salary for staff should be relatively low, with large incentive payments based on performance. Prospects for promotion should be linked to branch profitability.
- f. In order to put together a band of highly motivated workers, candidates should be sought out from all banks and NGOs with relevant experience and the will to work in this area. In this regard, the BRAC Bank model could be used.
- g. In addition to regular staff, the bank could appoint agents, if necessary, from among the existing operators in the informal credit market, such as money lenders, mahajans, and the so-called friends and relatives, who would be remunerated on the basis of work done. Since they have been dealing with small industries for a long time, they would be helpful in providing information on the operational situation, market condition, loan repayment record, etc., of the small industries. In some cases, they could help in the recovery of doubtful or bad loans. How effectively they could be used would depend on the quality of management. More importantly, it would be essential for the loan officers and the branch managers to maintain contact with the borrowers as well as potential borrowers and other lenders in the area. Under no circumstances should control be relegated to the ad hoc agents, if appointed. In addition, the BRAC Bank's recent experience could provide useful insights for the proposed institution.
- h. In appraising creditworthiness of the potential borrower, the Bank staff could look into the record of timely payment of land tax by the credit applicants. All land-owners with minor exceptions pay this tax and are given tax payment receipts when the payments are made. In addition, the bank could look into VAT payment records, which are available with the National Board of Revenue (NBR). These could be computerized, put on line and put in diskettes and sold in the market. The Bank would need to have a permanent and close liaison with the NBR. In the past, a wrong selection of borrowers resulted in large losses for some banks. If the procedures suggested above are followed, such losses could be avoided.
- i. As the new bank gathers experience and succeeds in attracting participation of commercial banks and NGOs, it would create new demand for financial information and help in the development of a private market for financial information as in Peru. Land tax and VAT payment records could be marketed in

diskettes for the benefit of lenders, as mentioned before.

- j. Some rating agencies have recently started operation in Bangladesh. If they could examine the credit worthiness of small enterprises and rate them accordingly, it would go a long way in inducing the commercial banks to lend to small industries. As the World Bank 1994 and 2004 show, the loan repayment record of small and medium enterprises is very good with a very small default rate.

The approach suggested above would provide a pioneering service by removing obstacles in the way, particularly the supply of information through the market, for appraising credit worthiness of potential borrowers. The informal market is potentially large and expanding. There is room for many other institutions to participate and increase competition in the rural financial market. As a result, interest rates will come down and terms and conditions of loans will ease, as compared to those of the money-lenders. The suggested plan, if implemented, would constitute a significant step in integrating the formal and the informal financial markets.

References

- Bangladesh Bureau of Statistics. (1999-2000) Preliminary Estimates of Gross Domestic Product.
- Bangladesh Bureau of Statistics. (2000-2001) National Accounts Statistics, Gross Domestic Product.
- Chaves, R. and C. Gonzales-Vega. (1994) "Principles of Regulation and Prudential Supervision and their Relevance for Micro enterprise Finance Organizations" in *The New World of Micro enterprise Finance*, ed. By Maria Otero and Elizabeth Rhyne (West Hartford, Connecticut: Kumarian Press)
- Daniels, Lisa. (2003) National Private Sector Survey of Enterprises in Bangladesh. Report written for the UK Department for International Development, U.S. AID, Services Agency for Development Cooperation, and Swedish International Development Cooperation Agency, Dhaka.
- Data International. (1999) *The Small and Medium Enterprise Sector in Bangladesh*, Dhaka, Bangladesh.
- Fidler, Peter, and Julia Paxton. (1997) "An Inventory of Micro finance Institutions in South Asia" World Bank Working Paper, January.
- Hardy, Daniel C, Holden Paul, and Prokopenko, Vassili. (2002) "Microfinance Institutions and Public Policy" IMF Working Paper, WP/02/159, September.
- International Monetary Fund. (2004) *International Financial Statistics*, October.
- Osmani, S. R., Mahmud, Wahiduddin, et al. (2003) *The Macroeconomics of Poverty Reduction: The Case Study of Bangladesh*, UNDP, Dhaka, Bangladesh.
- Rashid, Salim. (2003) "Bangladesh Poverty: The Need for a Big Push, *Journal of Bangladesh Studies*, Vol.5, No 2.
- Siebel, Hans Dieter, "Agricultural Development Banks: Close Them or Reform Them?"
- Stiglitz, Joseph. (1993) "The Role of the State in Financial Markets." *Proceedings of the World Bank Annual Conference on Development Economics*.
- World Bank. (1994) *Small Firms Informally Financed: Studies from Bangladesh*.
- World Bank. (2004) *Promoting the Rural Non-Farm Sector in Bangladesh*, October 7. Report No. 29719-BD.
- Yunus, Muhammad. "Group-based Savings and Credit for the Rural Poor: The Grameen Bank in Bangladesh." In *Group-based Savings and Credit for the Rural Poor*. ILO, Geneva.
- Yunus, Muhammad. (2003) "Expanding Micro Credit Outreach to Reach the Millennium Development Goal- Some Issues for Attention", Paper presented at the International Seminar on Attacking Poverty with Micro credit, organized by PKSf in Dhaka, January 8-9.

Endnotes

1. Bangladesh Bureau of Statistics, Preliminary Estimates of Gross Domestic Product 1999-2000; Final Estimates of Gross Domestic Product, 1998-99, and National Account Statistics: Gross Domestic Product, 2000-

- 2001.
2. S.R.Osmani, Wahiduddin Mahmud, et. al. *The Macroeconomics of Poverty Reduction: The Case Study Bangladesh*, UNDP, Dhaka, 2003.
 3. Same as Table IX.2, p105.
 4. World Bank, 2004, page 55
 5. In some small industries such as brass handicrafts, bamboo handicrafts, ready-made garments for local sale, credit needs were minimal, because the value of fixed and working capital was small. These were financed from the entrepreneur's own resources, except for seasonal foot wear manufacturers who borrowed significant amounts from the informal market. Some ready-made garments and handicraft producers were financed by NGOs. The Rickshaw Assembly Garages also did not need much financing. In contrast, the Small Engineering Workshops, Electrical Goods Makers, Building Materials Supply Shops, Specialized Silk Weaving, Household Plastic Goods, etc, were more dependent on informal sources of financing. For further details, see World Bank, *Small Firms Informally Financed: Studies from Bangladesh*, 1994.
 6. This issue is discussed in Salim Rashid, "Bangladesh Poverty: The need for a "Big Push" in *Journal of Bangladesh Studies*, (2003) Vol 5, number 2, page 10.
 7. "Expanding Micro credit Outreach to Reach the Millennium Development Goal- Some Issues for Attention" paper presented by Muhammad Yunus at the International Seminar on Attacking Poverty with Micro credit, Dhaka, January 8-9 2003.
 8. Data International, *A Profile on Business Association and Chambers Representing Dynamic Growth Sectors*, Dhaka, Bangladesh, September 1999, pp10-12
 9. This review is based on information borrowed from Daniel C. Hardy, Paul Holden, and Vassili Prokopenko, "Micro finance Institutions and Public Policy", IMF Working Paper, WP/02/159, September 2002.
 10. Seibel, Hans Dieter, "Agricultural development Banks, Close them or Reform them" *Finance and Development*, vol. 37, June 2000, pp.45-48
 11. The Karmasangsthan Bank has not been doing well for similar reasons mentioned in the section on Developing Countries' Experiences and in the concluding section. The reasons for the failure of Ethiopia and Zambia on the one hand, and the success of Indonesia, Peru, and Chile on the other, are discussed in those sections. The concluding section explains clearly what is needed to induce the reluctant commercial banks and NGOs to participate actively in the process. The new institution proposed is very different from the Karmasangsthan Bank. For reasons explained in the concluding section, the proposed institution is expected to play a catalytic role in enabling other institutions to enter this field of activity.
 12. Bangladesh Bank Governor in an interview with UNB, Dhaka, published in *The Daily Star*, December 4, 2004. The Governor urged the banks to find ways of utilizing these excess funds. As mentioned earlier, a necessary condition for the success of such initiative is that monetary policy should not be changed abruptly through large-scale sterilization or neutralization of liquidity.

Acknowledgements

The author wishes to thank the two anonymous reviewers of an earlier draft that was presented at the ASSA Annual Meetings 2005, AEDSB Session, for their very helpful comments and also the Editor for the useful suggestions he made. The author alone is responsible for the remaining errors and omissions.

Table 1. Micro Credit Operations of the Grameen Bank and Large NGOs.
(Billion Taka)

	FY02	FY03	FY04
Disbursement			
Grameen Bank	14.2	18.8	23.4
BRAC	15.7	18.6	23.3
ASA	15.2	20.9	26.1
Proshika	4.1	3.8	3.2
Total	49.2	62.1	76.0
Recovery			
Grameen Bank	15.2	16.8	19.8
BRAC	17.5	18.8	23.2
ASA	11.9	18.5	23.0
Proshika	4.0	4.4	3.9
Total	48.6	58.5	69.9
Outstanding loans	34.3	40.7	49.9
Loans overdue	2.1	2.1	2.4
Overdue as% of Outstanding	6.1	5.2	4.8

Source: Bangladesh Bank Annual Report, 2004

Table 2. Access to Credit, 2003 Regional Distribution

	Rural (in percent)	Other Urban	Peri-urban	Metropolitan	Total
<u>Sources</u>					
None	41.3	47.0	54.6	49.1	43.7
Informal	22.2	20.1	27.2	32.9	23.7
Formal*	24.6	20.0	9.9	11.0	21.5
Both	11.9	12.0	8.3	7.1	11.1

*Formal includes micro-credit to one-man enterprises by NGOs.

Source: World Bank staff estimates based on National Private Sector Enterprise Survey of Bangladesh, 2003.

Table 3. Constraints to Start-Up and Operation of SME

<u>Problems</u>	<u>Relative importance</u> (in percent)	
	<u>Starting up</u>	<u>Current operation</u>
Finance	53.4	44.3
Tools/Machinery	0.3	0.5
Market	2.9	15.1
Government/ Regulatory	0.6	0.9
Shop/Rental space	1.8	1.9
Input	0.2	1.2
Transport	1.1	2.2
Labor	0.4	0.7
Utilities	0.4	1.2
Technical	1.2	0.3
Miscellaneous	2.0	3.4
Agriculture	1.0	1.6
No problem	34.8	26.8

Source: NPSEB 2003

Table 4. Reasons for the Failure of Firms
(percent of firms)

<u>Reasons</u>	
Financial	52.4
Marketing	10.7
Personal	22.9
Shop/Space	1.8
Input	1.5
Management/technical	1.4
Government	4.4
New employment	3.3

Source: World Bank 2004 p. 57

Figure 1
Bangladesh: Formal Credit Market (illustration)

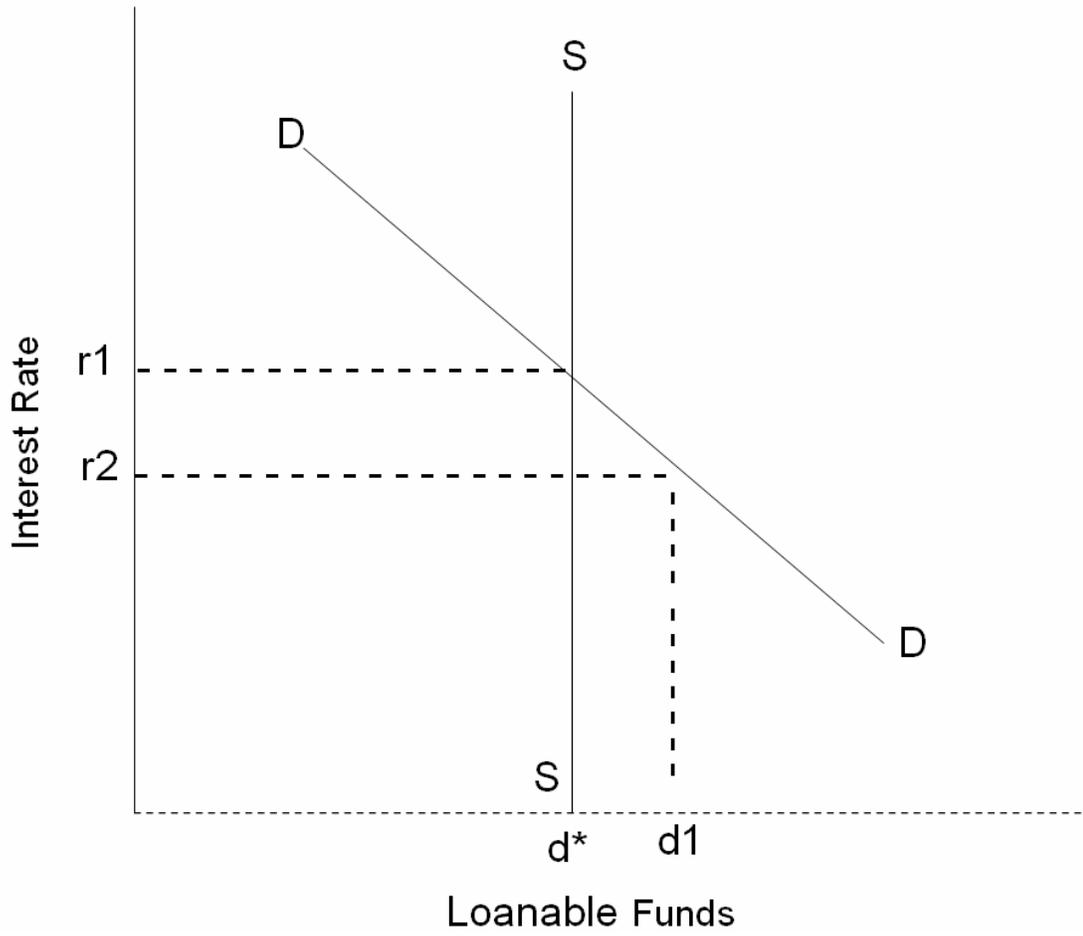
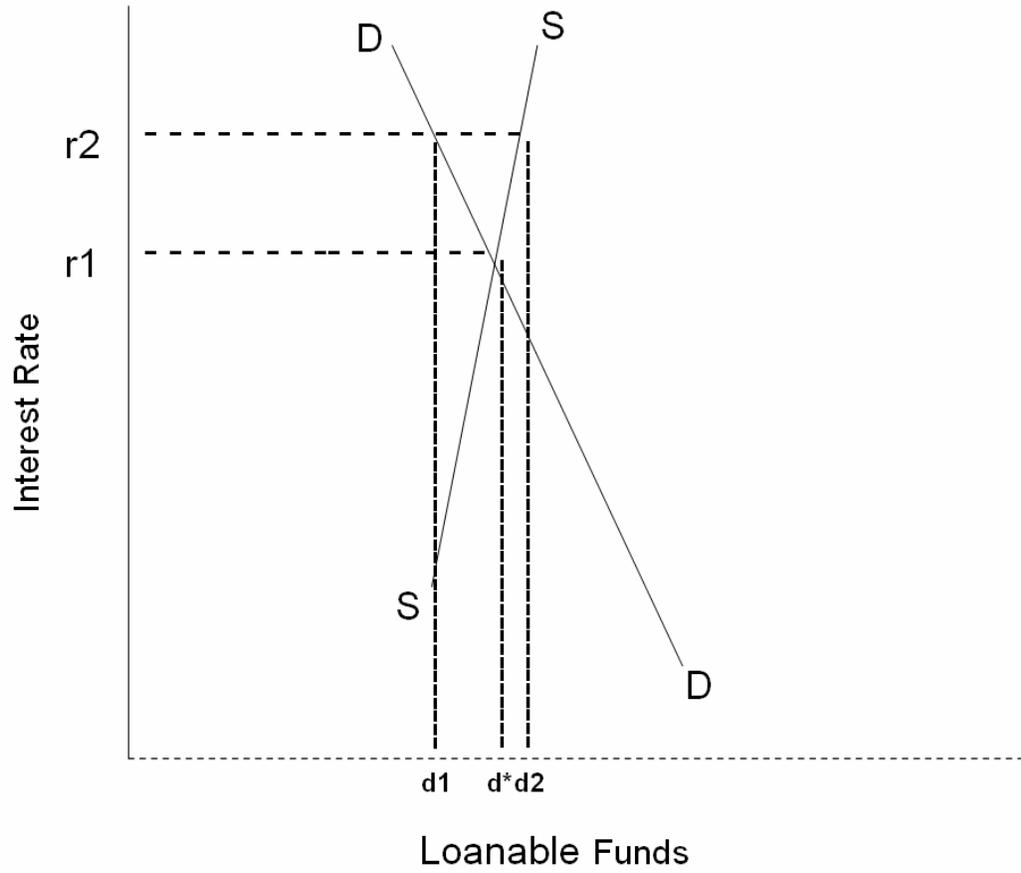


Figure 2
Bangladesh: Informal Credit Market (illustration)



Abul K. Siddique
Former IMF Staff
6904 Seven Locks Road
Cabin John, MD 20818
abulsiddique@yahoo.com

AN EMPIRICAL TEST OF THE SHORT-TERM OVERREACTION HYPOTHESIS USING DATA FROM BANGLADESH CAPITAL MARKETS

Mohammad Musa and Golam Ahmed Faruqui

ABSTRACT

This paper presents an empirical test on short-term overreaction in Bangladesh Capital Markets. By observing the behavior of the daily average market-adjusted excess returns (ERs) and holding period average market-adjusted excess returns (ARs) following both positive and negative events, this paper presents empirical results that are consistent with the implication of the overreaction hypothesis (OH). This paper also presents evidence that statistically significant holding period average market-adjusted returns (HARs) can be earned on zero-investment portfolios formed following event days by taking short positions on firms experiencing positive events and long positions on firms experiencing negative events. The magnitudes of the HARs on zero-investment portfolios are quite large. Even after adjustment for transaction cost and risk, the zero investment portfolios will provide large positive returns to the investors. A market that allows investors to earn large positive returns duly adjusted for transaction cost and risk is not even-weak-form efficient. Therefore, this study provides evidence that Bangladesh capital markets both overreact in the short run and that they are not even-weak-form efficient.

Introduction

In their seminal paper, DeBondt and Thaler (1985, 1987) provide a very strong case and also empirical support for what has become established in financial literature as the overreaction hypothesis (OH). Citing theories and evidences from behavioral psychology, they contend that investors do not always follow Bayes' rules of assuming information. Instead, investors put much (perhaps too much) weight on recent information and rely heavily on their prediction of future price. They overreact to both good and bad news. Overreacting to good (bad) news, they push up (down) the prices of stocks above (below) the level of prices justified by the information. The new prices cannot be sustained in the long run, as they are at variance with equilibrium prices. Therefore, prices following good (bad) news move down (up) to reflect their new equilibrium levels, creating predictable patterns in the price of securities. The OH, as such, implies that post-positive average market-adjusted returns (ARs) and holding period average market-adjusted returns (HARs) will be negative and post-negative event ARs and HARs will be positive. DeBondt and Thaler also contend that the magnitude of overreaction will be directly proportional to the degree of information and, as such, the overreaction should be at the same level for both positive and negative news.

DeBondt and Thaler provide empirical evidence for their hypothesis based on the performance of all stocks traded in both the New York Stock Exchange (NYSE) and the American Stock Exchange (AMEX). Over a period of 60 months, they formed their 'winner' portfolio with 35 best performing firms and

their 'loser' portfolio with 35 worst performing firms. By calculating the average monthly return subsequent to the portfolio formation period, they documented that their 'winner' portfolio becomes loser and their 'loser' portfolio becomes winner¹ over the test period of 36 months. Documenting the difference in systematic risks of the winner and the loser portfolios during pre- and post-formation periods, Chan (1988) contends that DeBondt and Thaler's results can be attributed to their mismeasurement of risk.² Zarowin (1990) provides evidence attributing DeBondt and Thaler's results to the 'size' effect.³ However, strong support for the OH is documented in studies conducted by Howe (1986), Atkins and Dyl (1990), Corrodo and Jordon (1993), Ketcher and Jordon (1994), and Musa⁴ (1995).

It was a long-held belief, supported by empirical studies, that security markets were by and large efficient. It was contradicted for the first time by the OH. The OH hits the efficient market hypothesis (EMH) at its core. According to the EMH, because investors make rational choices and capital markets are by and large competitive, prices fully and immediately reflect all available information. The EMH, as such, implies that securities' past prices and returns should not exhibit any predictable patterns. Therefore, in an efficient market, no investor can earn abnormal returns employing trading rules using information available after compensating for risk and transaction costs. The OH counters the EMH, contending that investors do not always make rational decisions. Rather, because investors overreact to news, security returns can be predicted using the past history of their own returns, which is inconsistent with the even-weak-form of market efficiency.⁵

Perhaps, in an attempt to salvage the EMH, Brown, Horlow and Tinic (1988) advanced yet another hypothesis called “the uncertain information hypothesis” (UIH). The UIH retains the core foundation of the EMH by assuming that investors in capital markets are rational decision making agents.⁶ According to the UIH, although the investors are able to identify the direction of any news, they are unable to ascertain accurately the exact impact of the news. The investors are, however, able to form the conditional distribution of the uncertain outcomes of news. They can also accurately estimate the expected value of the conditional distribution. Because the outcomes are uncertain immediately after the release of new information, investors have to assume additional risk if they invest in securities experiencing news and, as such, would require additional premiums in order to be compensated for taking this additional risk. Therefore, investors set prices below the expected value of the conditional distribution of possible outcomes of news. As the uncertainty about possible outcomes dissipates, prices rise to new equilibrium levels. For this reason, according to the UIH, after both positive and negative events, both the ARs and HARs will be positive.⁷ Brown, Horlow and Tinic tested their hypothesis on the largest 200 S&P 500 firms. Using a threshold return of $\pm 2.5\%$ to identify events, they found support for all the implications of the UIH. Brown, Horlow and Tinic (1993) confirmed their earlier results by finding that post-event cumulative average abnormal returns (CARs) are positive (negative) for events that reduce (increase) uncertainty.

Brown, Horlow and Tinic’s (1988) results are also consistent with the core implication of the UIH. By using a monthly threshold AR of $\pm 2.5\%$ to identify events, they find that after positive events, monthly ARs are not significantly different from zero. After negative events, monthly ARs are positive and statistically significant.⁸ Results inconsistent with Brown, Horlow and Tinic’s (1988, 1993) studies can be found in studies conducted by Atkins and Dyl (1990), Corrado and Jordon⁹ (1993), and Musa¹⁰ (1995, 1997). It may be mentioned here that the UIH and the OH offer the same implication for negative events. Both imply that the post-negative ARs and HARs will be positive. However, they differ when it comes to positive events. While the OH implies that post-positive event ARs and HARs will be negative, the UIH implies that the post-positive event ARs and HARs will be non-negative.

This paper presents an empirical study to examine if Bangladesh capital markets overreact in the short-run. Daily returns on stocks that are traded in the

Dhaka Stock Exchange (DSE) are used. Forty-seven trading days were randomly selected from all trading days between January 1, 1999 and December 31, 2002. For each of the selected days, three stocks were picked that experienced the largest price gains (losses) to form this study’s positive (negative) event sample. Pooling together the stocks on the event day, ARs and HARs were calculated during pre- and post-event days. The empirical evidence provided in this paper shows that post-positive event ARs and HARs are negative, whereas post negative event ARs and HARs are positive. The results are, as such, consistent with the OH, and not with either the EMH or the UIH. The evidence supports the fact that even an ordinary investor can capitalize on information of short-term overreaction of Bangladesh Capital Markets. It is, however, interesting to note that the magnitude of short-term overreaction is huge. About 70% of positive-event-day price increases are shed within 20 trading days following the event day. On the other hand, more than 100% of post-negative-event day price loss is recovered within 20 trading days subsequent to the event day. This may indicate that event day price movements are not supported by information of substance. Rather the movements may result from rumors, or excessive demand and supply pressure. This paper also reports the results on zero investment portfolios formed on event days and one day after event days. The results show that zero investment portfolios formed on event days earn a whopping 38.86% return on the average for investors for a holding period of 60 trading days. However, if the portfolios are formed on day $t=+1$ (i.e. one day after event days), the holding period average market-adjusted return reduces substantially to 15.68%, which is still a considerably high return for a holding period of 59 days.¹¹ Risk premium and transaction cost can not possibly explain this huge amount of positive return on zero-investment portfolios. This, therefore, suggests that the level of market inefficiency in Bangladesh is very high.

However, there is one caveat. The way the sample is drawn, it is highly likely that the firms in the sample are overwhelmingly small capitalization firms with large volatility in returns. Not only is the risk of small firms large, but the stocks of these firms suffer from a considerable degree of illiquidity.¹² Therefore, before generalizing the results reported in this paper, further investigation is warranted to delineate the impact of firm size and other known anomalies on the results.

The remainder of this paper proceeds as follows. The next section outlines the test of hypotheses of the study. The following sections describe the data and methodology used in the study (also discussed in this

section is the event selection procedure), the empirical results, and the implications of market inefficiency in Bangladesh and what policy makers should do to achieve a reasonable level of efficiency. The concluding section offers recommendations for future research.

Testable Hypotheses

The conventional wisdom is followed here. Regarding the behavior of securities' returns over time, the status quo still is that the market is at least even-weak-form efficient. This means that there should not be any perceptible pattern in securities' daily ARs and HARs. Therefore, for post-events ARs and HARs, we will the following hypothesis will be tested:

$$H_0: \text{ARs} = 0$$

$$H_1: \text{ARs} \neq 0$$

and

$$H_0: \text{HARs} = 0$$

$$H_1: \text{HARs} \neq 0$$

If testing rejects the null hypothesis, it would be concluded that evidence is not consistent with even-weak-form market efficiency. However, if post-positive-event ARs and HARs are found to be negative and post-negative event ARs and HARs are found to be positive, then the evidence will support the OH.¹³

Data and Methodology

Data

The data are collected from two different sources. For information regarding the firms that experience the largest price increases or decreases included in the sample, consult the business section of the widely-publicized daily newspaper *The Independent*. The business section of *The Independent* provides information on the top 10 losers and winners on the basis of price changes during the previous trading day. The top three winners in the positive events sample and top three losers in the negative event sample are identified. Closing prices were collected on the selected firms from trading day -21 to trading day +20. From these daily closing prices, the daily returns on the sampled stocks were calculated. Also, all share prices indices (ASPI) of the Dhaka Stock

Exchange (DSE) were collected for the corresponding trading days. From these indices, the daily returns on the market portfolio were calculated.¹⁴ Information on these closing prices and the DSE ASPI was collected from the computer readable file maintained by the DSE.

Event Identification and Event Selection

The Atkins and Dyl (1990) procedure was used to identify and select events. First, 47 trading days were randomly selected from all the trading days of the sample period that started on January 01, 1999 and ended on December 31, 2002. For each of the 47 trading days, the business section of *The Independent* in which the top 10 price winners and losers of the previous trading days are mentioned were consulted. The top three price winners and losers were selected each day to include in the positive and negative event day samples.¹⁵ The number of stocks in each of the positive and negative event samples is 141.

Methodology

Irrespective of the actual days of occurrences of the news, all stocks in the positive (negative) event sample are pooled together and aligned based on the event day. The event days are marked as $t = 0$. The post-event trading days are marked as $t = +1, +2, +3$, etc. and pre-event trading days are marked as $t = -1, -2, -3$, etc. Here day $t = +1$ will read as the first trading day following the event day and $t = -1$ as one trading day before the event day, and so on. The ARs from $t = -10$ to $t = +20$ are calculated. HARs are also calculated for different pre- and post-event holding periods. To calculate AR on day t , start by calculating day t abnormal return on security j in the sample type s , U_{jst} , using equation (1) below:

$$U_{jst} = r_{jst} - E(r_{jst}) \quad (1)$$

In equation (1) above, r_{jst} , and $E(r_{jst})$ stand for security j 's day t realized return and expected return, respectively. Note that there two types of samples – positive and negative – in this study. $E(r_{jst})$ is calculated using an appropriate return-generating model. Finding an appropriate model to compute expected daily returns is a challenging task. The most frequently used model in event studies like this one was the single index market model. However, because of the low explanatory power of the market index model,¹⁶ researchers from time to time tried alternative models to compute expected returns. The use of a size-adjusted model is common today. According to this model, the day t simple average return of a portfolio of similar size firms (measured

by market capitalization) are taken as $E(r_{jst})$. Because very few securities are traded in the DSE, employing a size-adjusted model is not feasible in this case. As such, $E(r_{jst})$ by day t average return of the market portfolio is estimated. Therefore, the ARs used in this study are, in fact, market-adjusted ARs.

The day t average abnormal return on firm j in event group s , AR_{st} , is then calculated using equation (2) below:

$$AR_{st} = \frac{\sum_{j=1}^t U_{sjt}}{N_{st}} \quad (2)$$

Here, N_{st} is the total number of events in event type s .

To determine whether the AR_{st} are statistically different from zero, the t -statistics for AR_{st} , t -stat (AR_{st}), were calculated as follows:

$$t\text{-stat}(AR_{st}) = \frac{AR_{st}}{\sqrt{S^2(U_{sjt})/N_{st}}} \quad (3)$$

where $S^2(U_{sjt})$ is the variance of U_{sjt} .

To calculate HARs for different holding periods, the holding period abnormal return on security j in event group s for a holding period from day t to day τ was calculated as

$$HR_{js(t \rightarrow \tau)} = r_{js}(t-\tau) - r_m(t-\tau) \quad (4)$$

where $r_{js}(t-\tau)$ and $r_m(t-\tau)$ are the returns on security j in sample type s and return on market portfolio, respectively for a holding period from day t to day τ .

The holding period average abnormal return for firms in event type s , $HPAAR_{s(t-\tau)}$, is then calculated as:

$$HAR_{st}(t-\tau) = \frac{\sum_{k=t}^{\tau} HR_{js}(t-\tau)}{N_{st}} \quad (5)$$

The t -statistics for $HAR_{s(t-\tau)}$, t -stat ($HAR_{s(t-\tau)}$), is calculated using equation (6):

$$t\text{-stat}(HAR_{st}) = \frac{HAR_{st}}{\sqrt{S^2(HR_{sjk})/N_{st}}} \quad (6)$$

The AR_{st} is the simple average of all 141 abnormal returns in the sample on day t in event group s . If any or a few of these abnormal returns are unusually large, the AR_{st} could become either positive or negative and statistically significant. Although absent these outlier(s), the AR_{st} would not have been statistically different from zero. Therefore, it should be tested if the results suffer from the presence of a few outliers or not. There are different ways of testing. This test, through reporting of the proportion of positive market-adjusted returns (PPR),¹⁷ is provided in the sample of 141 stocks in each of the positive and negative event samples. Furthermore, the PPR on a given day also indicates the probability of earning positive abnormal returns on a number of positions on that day. In absence of any news, the probability that the abnormal return on a stock of a firm on a given day would be positive or negative is 0.50. Therefore, it is expected that the proportion of abnormal returns out of a statistically significant sample would be 50% on any given day if there is no bias in abnormal returns on that day. However, if the stock behavior conforms to the OH, then following positive (negative) events on a given day, PPR would be significantly less (greater) than 50%, since most ARs on that day would be negative (positive). Therefore, by using PPRs also, whether or not a market overreacts to news surprises can be tested. For this, the null hypothesis that needs to be tested is that PPR_{st} is equal to 50%, against the alternative hypothesis that, following positive (negative) events, PPR_{st} is less (greater) than 50%. It may be mentioned here that, unlike ARs or HARs, PPRs are immune from the undue influence of outliers. Let it be supposed that more than 50% of the 141 market-adjusted returns on a given day are negative, but there are a few very large outliers among positive market-adjusted returns. It is quite possible that the AR for the day is positive. However, the PPR for that day would still be less than 50%. PPRs, as such, provide a test for outliers.

To calculate PPR_{st} , first convert the U_{sjt} or HR into a binary variable x_{sjt} . The variable x_{sjt} assumes a value 1 if U_{sjt} ($HR_{sjt-\tau}$) > 0 and 0 otherwise. The PPR_{st} is then calculated using equation (7):

$$PPR_{st} = \frac{\sum_{j=1}^{N_{st}} x_{sjt}}{N_{jt}} \quad (7)$$

The t-statistics for PPRst, t-stat (PPRst) is calculated using the following equation:

$$t - \text{stat}(PPAR_{st}) = \frac{PPR_{st} - p}{\sqrt{p(1-p)/N_{st}}} \quad (8)$$

in equation (8) above p is set equal 0.50 under assumption that PPR is normally distributed with mean p = 0.50 and variance = p(1-p)/N_{st}.

Empirical Results

Table 1 reports the ARs and the PPRs from trading day -10 to trading day +20 for positive event sample. According to the information contained in Table 1, the AR on the positive event day is 18.84%. This is followed by ARs of -7.62% on day +1 and -2.80% on day +2. Both these ARs are statistically significant at 1% level in a two-tailed test. Table 1 also shows that the PPR is 0% on day +1 and 31.91% on day +2 and both are statistically significantly less than 50%. Both the ARs and PPRs for the first two trading days following positive events demonstrate return reversals, a result consistent with the market overreaction. The other statistically significant ARs following positive events are -0.77% on day +7, 1.03% on day +18 and -0.80% on day +20. However, none of the post-positive-event PPRs from day +3 to day +20 are statistically different from 50%, indicating that the significant ARs on day +7, day +18 and day +20 may be the result of outliers in the sample. Overall, Table 1 presents results consistent with market overreaction, but the overreaction is confined within the first two trading days of the occurrence of positive events

Table 1 also shows that except for an AR of 1.05% on day -2, none of the pre-positive-event ARs are statistically different from zero. None of pre-positive-event PPRs are also statistically significantly different from 50%. Therefore, there is no presence of any pattern in pre-positive-event ARs and PPRs to indicate the subsequent occurrence of positive events to capitalize.

Table 2 presents the HARs and PPRs for various pre- and post-positive-event holding periods, starting from the holding period shown as (-10, -1) to the holding period shown as (0, +20). A holding period (-10, -1) means taking a long position on stocks 10 days prior to the event day and holding them until one day prior to the event day. Similarly, a holding period (0, +20) would indicate that a long position on stocks is taken at closing prices on the event day and stocks are disposed of at the closing prices on trading day t = 20 and so on. Table 2 shows that all post-positive-event HARs are negative and statistically significant at a 1% level in two-tailed tests. The smallest negative post-positive-event HAR (-7.62%) is earned for holding period (0, +1) and the largest negative post-positive-event HAR (-13.27%) is earned for holding period (0, +17). Table 2 also shows that all post-positive-event PPRs are less than 50% and statistically significant. The lowest post-positive-event PPR is 0% for holding period (0, +1), and the largest post-positive-event PPAR is 15.60%. This implies that if someone buys a stock at the closing price on the positive event day and sells the stock at the closing price on day +1, the probability that his/her return on the investment will be positive is 0%. If, however, someone buys a stock at the closing price on the positive event and sells the stock at the closing price on day +20, then the probability that his/her return on the investment will be positive is only 15.60%. That means that no one should buy stocks at closing prices on the positive event day. Rather, if allowed and possible, everyone should short sell stocks at closing prices on positive event days. These results are similar to the results reported in Table 1 and consistent with the core implication of the OH.

Figure 1 shows the reversal of post-positive-event returns very clearly. In the figure, the HARs are shown in the vertical axis and the corresponding holding periods identified by their closing days are shown in the horizontal axis. All the holding periods represented in Figure 1 start from trading day -10. As can be seen from Figure 1, the HARs from holding periods (-10, -9) to (-10, -1) are very close to zero. But the HAR for the holding period (-10, 0) suddenly jumps to 18% (the impact of the occurrence of a positive event) and is followed by huge drop in HARs for all other holding periods.

Table 3 reports the ARs and PPRs market-adjusted returns for trading days from -10 to +20 for negative events. The AR on the event day is -20.47%. This is followed by statistically significant positive ARs of 16.17% on day +1, 3.32% on day +2, 1.84% on day +9, 1.0% on day +18 and -0.77% on day +20. The

other post-negative-event ARs are not statistically significantly different from zero. Table 3 also reports that the PPRs for day +1 (100%) and day +2 (74.47%) are statistically greater than 50%. However, all other post-negative-event PPRs are not statistically significantly different from 50%. This suggests that statistically significant ARs on days +9, +18, and +20 are significant due to some usually large abnormal returns in the sample. From Table 3, it can also be seen that none of pre-negative-event ARs are statistically significantly different from zero and none of the PPRs are statistically significantly different from 50%. This shows that detectable patterns are not available during pre-negative-event periods. However, information contained in Table 3 provides support for post-negative-event return reversal. This result is, as such, consistent with short-term market overreaction.

The result is also reinforced by the information contained in Table 4, which reports HARs and PPRs for holding period market-adjusted returns around a negative event. According to Table 4, none of the pre-negative-event HARs and PPRs are statistically significant. In contrast, all post-negative-event HARs are positive and statistically significant, and all post-negative-event PPRs are greater than 50% and statistically significant. The post-negative-event HAR for holding period (0, +1) period is 16.17%, which increases to 20.02% for holding period (0, +3). This indicates that almost 100% of negative-event-day AR is recovered within three trading days following the event day. The largest HPR is 23.59% for holding period (0, +19). The smallest PPR is 90.78% for holding period (0, +18) and the largest is 100% for holding period (0, +1). This means an investor is certain to earn a positive market-adjusted return if s/he buys stocks at closing prices on a negative event day and sells them at the closing prices on day +1.

The results provided in Tables 1, 2, 3 and 4 show that there is no pre-event pattern in securities' daily market-adjusted average abnormal returns and market-adjusted average holding period abnormal returns. However, there are clear and discernible patterns following event days. The results show that following positive events for at least two trading days, ARs are negative, and following negative events for at least for two trading days, the ARs are positive. The results also show that all post-positive-event HARs are significantly negative, whereas all post-negative-event HARs are significantly positive. These clearly support the key implication of the OH. It is, therefore, safe to conclude that Bangladesh Capital Markets overreact in the short-term.

If the OH holds, then it is possible to earn positive returns on zero investment portfolios by selling short stocks experiencing positive events and taking a long position on stocks experiencing negative events on the same day. The results of zero-investment portfolios formed on the event day for different holding periods are shown in Table 5.

According to Table 5, the holding period average return on zero-investment portfolios for a holding period of 60 days is 38.86%, which is statistically significant at the 1% level. That means an investor buying in zero-investment portfolios on event days will earn on an average 38.86% return if s/he holds these portfolios for 60 trading days. However, a substantial part this HPR is attributable to abnormal returns on day +1. It, as such, remains to be seen if positive returns can be earned by forming zero-investment portfolios one day after event days. This can be seen from information contained in Table 6.

According to Table 6, an investor who forms zero-investment portfolios on day +1 and holds them for 59 trading days will, on an average, earn a statistically significant return of 15.64%. The zero-investment portfolios formed in this study are not entirely risk-free. However, the risk is considerably lower relative to the size of the average return that the zero-investment portfolios will generate.

In the DSE and CSE, the transaction cost is relatively low. The brokerage commission is no greater than 1% of the transacted amount. A round trip transaction needed to complete an investment is, therefore, at most 2% of the total volume of transaction. After paying for this transaction cost, this sample of zero-investment portfolios will earn an average 13.64% return for a holding period of 59 days, even if the portfolios are formed on day +1. A market that allows a positive return of such large magnitude on zero-investment portfolios even after adjustment for transaction cost can not be termed as even even-weak-form efficient. Therefore, the results presented in this study lead us to conclude that Bangladesh capital markets are not even-weak-form efficient.

Implication of Market Inefficiency

The inefficiency of capital markets is a big drag on an economy. An inefficient market favors neither the investors nor the firms whose securities are traded in the market. Investors, especially the ordinary ones, can be measurably beaten in such inefficient markets because prices can be easily manipulated in an inefficient market. As a result, many ordinary investors may simply opt to remain out of capital

markets. As fewer investors are available in a market because of its inefficiency, firms selling their securities cannot get fair prices for their securities and, as such, many good firms may also opt to remain outside the realm of capital markets.

The failure of Bangladesh capital markets in processing and reflecting information in securities' prices was quite evident in the second half of 1996. Within a very short period of time, there occurred a huge price run for all securities traded in the DSE and CSE, followed by price declines that continued for about a year and a half. For a considerably long period after the crash of 1996, very few companies dared to consider going public, just because they did not believe that they would be able to sell their common shares at fair prices. This was frustrating to both the companies and investors desirous of investing in IPOs and secondary securities.

Companies must have access to organized capital markets for raising long-term capital to support their current operation and future expansion. Investors willing to assume calculated risks for better returns on their investments must also be able to invest in primary and secondary market securities. Unfortunately, the capital markets of Bangladesh have so far failed to accommodate the needs of these two parties. Unless inefficiency from its capital markets is not removed considerably, there will not be any change in the situation.

In order to improve the level of efficiency, a concerted effort by the Securities and Exchange Commission (SEC), the policy making and regulating agency of Bangladesh capital markets, and the authorities of the DSE and CSE must be undertaken. The SEC should not only pass sound regulations, but also ensure their proper implementation so that none can have any opportunity to manipulate the market. The authorities of the DSE and CSE should ensure proper operational efficiency for their clients. In sum, the policy makers must first understand the level of inefficiency of the market and find out the root causes of inefficiency. Only then will they be able to take measures to remove the causes of inefficiency. The sooner they start to realize that, the better it will be for the Bangladesh economy.

Concluding Remarks

This paper examines whether or not the behavior of short-term securities' returns in Bangladesh capital markets is consistent with the core implication of the OH which is that post-negative-event ARs and HARs would be significantly positive and post-positive event ARs and HARs would be significantly negative. To test this hypothesis, two samples – one for positive events and one for negative events – were taken. In the positive (negative) event sample group, all firms that were among the top three price increases (decreases) on the 47 trading days randomly selected from all the trading days from January 1, 1999 to December 31, 2002 were taken. This result indicates that Bangladesh Capital Markets are not even-weak-form efficient in the short run.

It must be noted that extremely large price changes were used to identify events. As a result, the sample is most likely to be populated by small capitalization firms. Small capitalization firms suffer from high-level risk and illiquidity. The average number of shares outstanding of these stocks is also very low. Any pressure from the demand or the supply side can substantially change the price. Therefore, significantly large price changes on event days may be the result of the excess demand or supply of shares, rather than the result of new information. There is a clue to this effect in the results presented in the paper. In case of negative events, the event-day price loss is more than fully recovered within the first 103 post-event trading days. Had the price loss been caused by negative information, the full recovery should not have taken place. Likewise, about 65% of positive-event-day price gain is lost within the first two post-event trading days. This large decline in post-event price indicates that only a small portion of the event-day price increase was the result of new information. Therefore, before generalizing the results of this study, another study should be conducted with large capitalization firms. Only if similar results are also found for large capitalization firms, can it be concluded with some certainty that Bangladesh capital markets overreact to news and, therefore, are not even-weak-form efficient.

Table 1: The Average Abnormal Returns (ARs) around positive events

The following are the daily average abnormal returns (ARs) in percentages and proportion of positive abnormal returns (PPRs) from day -10 to day +20 for “positive events” samples. The sample period starts on January 1, 1999 and ends on December 31, 2002. For each of randomly selected 47 trading days within the sample period, the three largest price increases were selected as positive events. The average daily ARs and their t-statistics are calculated using equations 2 and 3, respectively. The PPRs and their t-statistics are calculated using equation numbers 7 and 8, respectively.

Days	ARs	T-statistics (ARs)	PPRs	T- statistics (PPRs)
-10	-0.19	-0.51	49.65	-0.08
-9	-0.10	-0.25	51.77	0.42
-8	-0.07	-0.20	51.77	0.42
-7	0.25	0.80	52.48	0.59
-6	-0.06	-0.14	48.94	-0.25
-5	0.26	0.76	53.90	0.92
-4	0.27	0.89	51.77	0.42
-3	0.11	0.28	50.35	0.08
-2	1.05 ^a	2.13	56.74	1.60
-1	0.44	1.06	51.77	0.42
0	18.84 ^a	18.91	100.00 ^a	11.87
1	-7.62 ^a	-16.03	0.00 ^a	-11.87
2	-2.80 ^a	-6.58	31.91 ^a	-4.29
3	-0.46	-1.34	48.23	-0.42
4	-0.45	-0.84	41.84	-1.93
5	-0.30	-0.65	44.68	-1.26
6	0.20	0.51	49.65	-0.08
7	-0.77 ^a	-2.05	43.97	-1.43
8	-0.32	-0.92	48.23	-0.42
9	-0.48	-1.14	46.81	-0.75
10	-0.11	-0.27	46.81	-0.75
11	-0.18	-0.45	43.26	-1.60
12	0.75	1.70	48.94	-0.25
13	-0.16	-0.46	50.35	0.08
14	0.00	-0.00	49.65	-0.08
15	0.37	0.66	53.19	0.75
16	0.12	0.29	48.23	-0.42
17	-0.39	-1.12	46.10	-0.92
18	1.03 ^a	2.23	58.16	1.93
19	-0.08	-0.22	46.10	-0.92
20	-0.80 ^a	-2.35	43.26	-1.60

* Statistics followed by ^a are significant at 1% level.

Table 2: The Holding Period Average Market-Adjusted Returns (HARs) Around Positive Events

The following are the pre- and post-event holding period market-adjusted average abnormal returns (HARs) in percentages and proportion of positive HARs (PPRs) for “positive events” samples. The sample period starts on January 1, 1999 and ends on December 31, 2002. For each of the randomly selected 47 trading days within the sample period, the three largest price increases were selected as positive events. Therefore, the sample includes 141 positive events. The events are pooled together on the event day and the average abnormal return (AR) for the event day is shown against day 0. The pre-event holding periods from day $-t$ to day -1 are marked as $(-t, -1)$, whereas the post-event holding periods from day $+1$ to day $+t$ are marked as $(+1, +t)$. The HARs for various holding periods and their t-statistics are calculated using equation numbers 5 and 6, respectively. The PPRs for the holding periods shown below and their t-statistics are calculated using equation numbers 7 and 8, respectively.

Holding periods	HARs	T-statistics (HARs)	PPRs	T- statistics (PPRs)
(-10, -1)	-0.19	-0.52	49.65	-0.08
(-9, -1)	-0.10	-0.26	51.77	0.42
(-8, -1)	-0.07	-0.21	51.77	0.42
(-7, -1)	0.25	0.81	52.48	0.59
(-6, -1)	-0.06	-0.15	48.94	-0.25
(-5, -1)	0.26	0.77	53.90	0.93
(-4, -1)	0.27	0.89	51.77	0.42
(-3, -1)	0.11	0.29	50.35	0.08
(-2, -1)	1.05	2.14	56.74	1.60
-1	0.44	1.07	51.77	0.42
0	18.84 ^a	18.91	100.00 ^a	11.87
(0, +1)	-7.62 ^a	-16.03	0.00 ^a	-11.87
(0, +2)	-10.10 ^a	-17.14	0.71 ^a	-11.71
(0, +3)	-10.55 ^a	-16.53	0.71 ^a	-11.71
(0, +4)	-10.96 ^a	-14.90	3.55 ^a	-11.03
(0, +5)	-11.26 ^a	-14.08	5.67 ^a	-10.53
(0, +6)	-11.12 ^a	-12.88	7.80 ^a	-10.02
(0, +7)	-11.83 ^a	-12.61	7.80 ^a	-10.02
(0, +8)	-12.18 ^a	-12.81	6.38 ^a	-10.36
(0, +9)	-12.61 ^a	-12.43	9.93 ^a	-9.52
(0, +10)	-12.71 ^a	-11.70	11.35 ^a	-9.18
(0, +11)	-12.90 ^a	-11.39	13.48 ^a	-8.67
(0, +12)	-12.55 ^a	-11.76	10.64 ^a	-9.35
(0, +13)	-12.64 ^a	-11.19	11.35 ^a	-9.18
(0, +14)	-12.96 ^a	-11.68	11.35 ^a	-9.18
(0, +15)	-12.77 ^a	-11.13	8.51 ^a	-9.85
(0, +16)	-12.77 ^a	-11.35	12.06 ^a	-9.01
(0, +17)	-13.27 ^a	-12.08	10.64 ^a	-9.35
(0, +18)	-12.45 ^a	-11.27	13.48 ^a	-8.67
(0, +19)	-12.44 ^a	-10.45	14.18 ^a	-8.51
(0, +20)	-13.15 ^a	-10.79	15.60 ^a	-8.17

* Statistics followed by ^a are significant at 1% level.

Table 3: The daily Market-Adjusted Average Returns (ARs) Around Negative Events

The following are the daily average market-adjusted abnormal returns (ARs) in percentages and proportions for positive market-adjusted abnormal returns (PPRs) from day -10 to day +20 for the “positive events” sample. The sample period starts on January 1, 1999 and ends on December 31, 2002. For each of the randomly-selected 47 trading days within the sample period, the three largest price decreases are selected as negative events. The average daily ARs and their t-statistics are calculated using equation numbers 2 and 3, respectively. The PPRs and their t-statistics are calculated using equation numbers 7 and 8, respectively.

Days	ARs	T-statistics (ARs)	PPRs	T- statistics (PPRs)
-10	0.03	0.08	47.52	-0.59
-9	0.08	0.18	49.65	-0.08
-8	0.25	0.50	48.23	-0.42
-7	-0.40	-1.20	47.52	-0.59
-6	0.45	1.52	51.77	0.42
-5	0.35	1.05	52.48	0.59
-4	0.00	0.01	51.77	0.42
-3	-0.37	-0.94	49.65	-0.08
-2	0.39	0.82	51.77	0.42
-1	0.54	1.33	53.19	0.76
0	-20.47 ^a	-26.12	0.00 ^a	-11.87
1	16.17 ^a	15.80	100.00 ^a	11.87
2	3.32 ^a	6.87	74.47 ^a	5.81
3	0.13	0.36	50.35	0.08
4	-0.13	-0.29	45.39	-1.10
5	-0.26	-0.63	46.10	-0.93
6	0.46	1.05	51.06	0.25
7	0.26	0.74	50.35	0.08
8	0.54	1.51	51.77	0.42
9	1.84 ^a	2.43	51.77	0.42
10	0.11	0.23	51.06	0.25
11	-0.23	-0.63	51.77	0.42
12	-0.97	-1.75	43.26	-1.60
13	0.39	1.06	55.32	1.26
14	0.40	0.42	46.10	-0.92
15	0.27	0.38	56.74	1.60
16	0.27	0.39	47.52	-0.59
17	-0.23	-0.64	51.06	0.25
18	1.00 ^a	2.46	58.16	1.93
19	0.50	1.23	46.81	-0.75
20	-0.77 ^a	-2.25	39.01 ^a	-2.61

* Statistics followed by ^a are significant at 1% level.

Table 4: The Holding Period Market-Adjusted Abnormal Returns (HARs) Around Negative Events

The following are the pre- and post-event holding period average market-adjusted abnormal returns (HARs) in percentages and proportions of positive HPRs (PPRs) for the “negative events” samples. The sample period starts on January 1, 1999 and ends on December 31, 2002. For each of the randomly-selected 47 trading days within the sample period, the three largest price increases were selected as positive events. Therefore, the sample includes 141 positive events. The events are pooled together on the event day and the average abnormal return (AR) for the event day is shown against day 0. The pre-event holding periods from day $-t$ to day -1 are marked as $(-t, -1)$, whereas the post-event holding periods from day $+1$ to day $+t$ are marked as $(+1, +t)$. The HARs for various holding periods and their t-statistics are calculated using equation numbers 5 and 6, respectively. The PPRs for holding periods shown below and their t-statistics are calculated using equation numbers 7 and 8, respectively.

Holding Period	HARs	T-statistics (HARs)	PPRs	T- statistics (PPRs)
(-10, -1)	0.03	0.084	47.52	-0.59
(-9, -1)	0.08	0.180	49.65	-0.08
(-8, -1)	0.25	0.498	48.23	-0.42
(-7, -1)	-0.40	-1.204	47.52	-0.59
(-6, -1)	0.45	1.518	51.77	0.42
(-5, -1)	0.35	1.051	52.48	0.59
(-4, -1)	0.00	0.006	51.77	0.42
(-3, -1)	-0.37	-0.935	49.65	-0.08
(-2, -1)	0.39	0.819	51.77	0.42
-1	0.54	1.330	53.19	0.76
0	-20.47 ^a	-26.117	0.00 ^a	-11.87
(0, +1)	16.17 ^a	15.797	100.00 ^a	11.87
(0, +2)	20.02 ^a	16.359	99.29 ^a	11.71
(0, +3)	20.04 ^a	16.525	99.29 ^a	11.71
(0, +4)	19.88 ^a	14.955	97.87 ^a	11.36
(0, +5)	19.37 ^a	15.131	95.74 ^a	10.86
(0, +6)	19.90 ^a	13.684	95.74 ^a	10.86
(0, +7)	20.13 ^a	13.611	96.45 ^a	11.03
(0, +8)	20.77 ^a	12.946	96.45 ^a	11.03
(0, +9)	23.06 ^a	12.138	98.58 ^a	11.54
(0, +10)	23.29 ^a	10.873	96.45 ^a	11.03
(0, +11)	23.00 ^a	10.069	96.45 ^a	11.03
(0, +12)	21.89 ^a	8.637	95.74 ^a	10.86
(0, +13)	22.08 ^a	9.174	95.04 ^a	10.70
(0, +14)	22.01 ^a	8.920	92.20 ^a	10.02
(0, +15)	21.77 ^a	8.783	93.62 ^a	10.36
(0, +16)	21.87 ^a	9.152	93.62 ^a	10.36
(0, +17)	21.48 ^a	8.761	91.49 ^a	9.85
(0, +18)	22.78 ^a	8.905	90.78 ^a	9.69
(0, +19)	23.59 ^a	8.586	92.91 ^a	10.19
(0, +20)	22.67 ^a	8.074	90.78 ^a	9.69

* Statistics followed by ^a are significant at 1% (5%) level.

Table 5: The Average Holding Period Abnormal Returns (HPRs) on Zero Investment Portfolios Formed on the Event Day.

The following are the average holding period average returns (HPRs) in percentages on zero investment portfolios formed on the event day on the basis of taking short positions on stocks experiencing positive events and long positions on stocks experiencing negative events. Forty-seven trading days were randomly-selected from a sample period that started on January 1, 1999 and ended on December 31, 2002. Short positions were taken on three stocks experiencing the largest price gains and long positions were taken on three stocks experiencing the largest price losses to form the zero investment portfolio.

Holding Periods	HPRs	T-statistics (HPRs)
(0, +1)	21.72 ^a	13.27
(0, +2)	27.90 ^a	13.30
(0, +3)	28.54 ^a	14.58
(0, +4)	28.27 ^a	14.66
(0, +5)	27.78 ^a	15.83
(0, +6)	27.64 ^a	14.84
(0, +7)	28.62 ^a	15.44
(0, +8)	29.30 ^a	15.33
(0, +9)	32.02 ^a	13.76
(0, +10)	32.41 ^a	12.20
(0, +11)	32.12 ^a	11.31
(0, +12)	30.79 ^a	10.41
(0, +13)	31.24 ^a	10.70
(0, +14)	31.12 ^a	10.30
(0, +15)	31.52 ^a	10.26
(0, +16)	31.30 ^a	10.48
(0, +17)	31.15 ^a	10.45
(0, +18)	30.86 ^a	9.93
(0, +19)	31.03 ^a	10.02
(0, +20)	31.13 ^a	10.07
(0, +30)	30.94 ^a	9.32
(0, +40)	32.31 ^a	8.12
(0, +50)	33.62 ^a	7.21
(0, +60)	38.86 ^a	7.64

*Statistics followed by ^a are significant at 1% level.

Table 6: The Average Holding Period Returns (HPRs) on Zero Investment Portfolios Formed on Day +1.

The following are the average holding period returns (HPRs) in percentages on zero investment portfolios formed on the event day on the basis of taking short positions on stocks experiencing positive events and long positions on stocks experiencing negative events. Forty-seven trading days were randomly-selected from a sample period that started on January 1, 1999 and ended on December 31, 2002. Short positions are taken on three stocks experiencing the largest price gains and long positions are taken on three stocks experiencing the largest price losses to form the zero investment portfolio.

Holding Periods	Average HPRs	T-statistics (HPRs)
(+1, +2)	5.82 ^a	6.72
(+1, +3)	6.49 ^a	6.60
(+1, +4)	6.16 ^a	4.44
(+1, +5)	5.92 ^a	3.80
(+1, +6)	5.53 ^a	3.15
(+1, +7)	6.50 ^a	3.37
(+1, +8)	7.30 ^a	3.89
(+1, +9)	9.82 ^a	4.37
(+1, +10)	10.18 ^a	3.88
(+1, +11)	9.92 ^a	3.45
(+1, +12)	8.71 ^a	3.01
(+1, +13)	9.18 ^a	3.24
(+1, +14)	9.20 ^a	3.14
(+1, +15)	9.41 ^a	3.14
(+1, +16)	9.22 ^a	3.23
(+1, +17)	9.27 ^a	3.19
(+1, +18)	8.90 ^a	2.88
(+1, +19)	9.06 ^a	2.99
(+1, +20)	9.27 ^a	3.06
(+1, +30)	9.10 ^a	2.75
(+1, +40)	10.11 ^a	2.46
(+1, +50)	10.86 ^a	2.44
(+1, +60)	15.64 ^a	3.26

*Statistics followed by ^a are significant at 1% level.

Figure 1: The average holding period abnormal returns for the sample of positive events

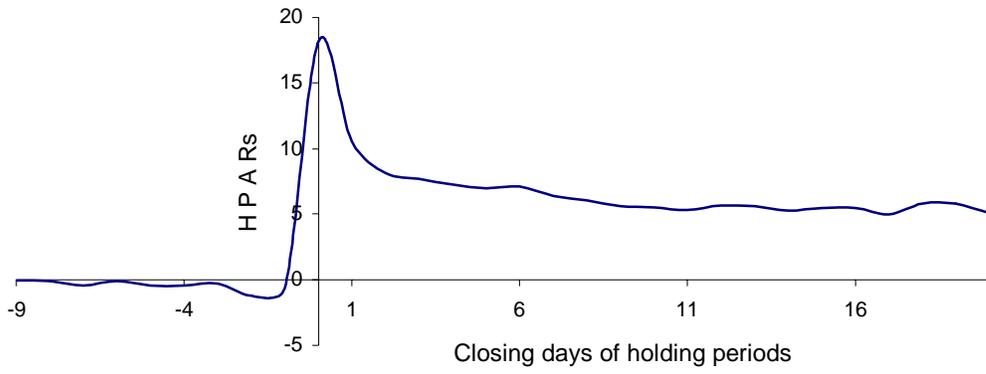
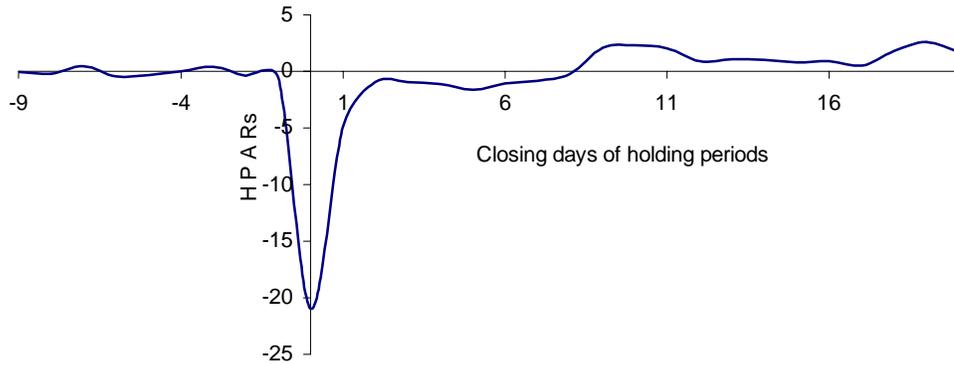


Figure 2: The holding period average returns for the sample of negative events



Endnotes

1. DeBondt and Thaler, however, recognize that part of the overreaction is related to the size and the turn of the year's effects.
2. Chan (1988) finds that before the test period, the systematic risk of the winner portfolio is higher than that of the loser portfolio and during the test period, the systematic risk of the winner portfolio becomes lower than that of the loser portfolio. According to Chan, this reversal in systematic risk of the winner and the loser portfolios partially account for the return reversal found in DeBondt and Thaler (1985, 1987).
3. Zarowin (1990) finds that the overreaction reported in DeBondt and Thaler (1985, 1987) disappears once the firms are controlled for size and the winner portfolio of small firms outperform the loser portfolio of large firms during the test period.
4. All these studies provide evidence supporting short-term market overreaction. Howe (1986), using threshold weekly returns of $\pm 5\%$ to identify positive and negative events, finds that the average weekly ARs are positive subsequent to negative events and the ARs are negative subsequent to positive events. Atkins and Dyl (1990) take three firms that experience the largest price increases (decreases) in each of the randomly selected 300 trading days to include in their positive (negative) event sample. By observing the behavior of the post-event daily ARs, they find support for the OH in the short-run. Ketcher and Jordon (1994), using a threshold return of $\pm 10\%$ to identify positive and negative events, find that post-position event daily ARs are negative, and the post-negative daily ARs are positive. Musa (1995) also finds similar results using daily returns. To identify positive or negative events, Musa uses ARs ± 2 standard deviation from the average returns as threshold returns. He reports that the post-positive (negative) ARs are negative (positive) for all size-based deciles. He also finds that the short-run overreaction cannot also be explained by day-of-the-week and turn-of-the-year effects.
5. Fama (1970) defines a market to be weak-form efficient if prices reflect all information contained in the past history of returns. He also defines two other forms of market efficiency: semi-strong and strong. According to Fama, the market is semi-strong-efficient if prices reflect all publicly available information, whereas the market will be called strong-form efficient if prices reflect all available information, both public and private.
6. It is for this reason perhaps that Brown, Horlow and Tinic claim that the UIH is the modified version of the EMH
7. The testable implication of the hypothesis includes: 1) there will be an increase in the volatility of security returns after news; 2) the post event ARs will be positive; 3) the magnitude of the ARs will be proportional to the degree of news. However, according to Brown, Horlow and Tinic, if the investors exhibit decreasing absolute risk aversion, then after positive events, investors will be better off and put less weight on the same level of risk than after negative news. Therefore, the magnitude of positive ARs after positive events will be less than the magnitude of the positive ARs after the same level of negative news. Hence, the UH predicts positive ARs following negative events and non-negative ARs after positive events.
8. Far short of theoretical support at that time, Brown and Horlow conclude for overreaction hypothesis for negative events only.
9. Corrodo and Jordon (1993) in fact, reexamine the UH using a sample which includes the largest 200 S&P firms as employed by Brown, Horlow and Tinic (1988, 1993). They (Corrodo and Jordon 1993) however, used these threshold returns $\pm 10\%$ and $\pm 5\%$ to identify events to provide evidence which is inconsistent with the UIH but consistent with the OH. This result hints of possible bias in the Brown, Horlow and Tinic results, as Brown, Horlow and Tinic use low threshold returns.
10. Musa (1995) offers comprehensive results on the short-term behavior of post-event daily ARs. He uses a much improved technical rule which does not suffer from using either too low a threshold return [as in Brown, Horlow and Tinic (1988, 1993)] or too high a threshold return [as in Atkins and Dyl 1990, and Corrodo and Jordon, 1993] to identify events. He uses the volatility of a security's own returns to determine the threshold returns [AR two standards below (above) the average return to identify negative (positive) events]. To examine the impact of size on the results, Musa (1995) uses ten equal-sized portfolios based on market capitalization of all

NYSE and AMEX firms and finds evidence which is inconsistent with the UIH, but consistent with the OH. However, the magnitudes of post-event ARs are size dependent. Musa (2001) tests the UIH on the market portfolios of Bangladesh capital markets, but results provided in the study are inconsistent with the UIH.

11. On a yearly basis, this translates into a holding period return of 109%.
12. Small capitalization firms' securities have very thin markets. Ordinarily they do not attract large number of investors. In addition, the number of outstanding shares of these firms is also low. Therefore, because of low demand and supply, these securities are infrequently and thinly traded. If, therefore, for some reason, an investor wants to sell (buy) a large number of securities of these thinly traded firms, he/she would have to accept (offer) considerably lower (higher) prices.
13. If, however, the post-negative event ARs and HPARs are found to be positive, and post-positive event ARs and HPARs are found to be non-negative, the data will be supportive of the UIH. There is still another possibility. If the ARs and HPARs are found to be positive following positive events and negative following negative events, then the results will be consistent with what can be termed as the underreaction hypothesis (UH). Studies examining security return behavior following earnings information provide extensive support for this hypothesis. For reference, please see Randleman, Jones and Latane (1982), Fortes, Oben. And Sherlin (1984), Berrand and Thomas (1989, 1990), Abarbasnell and Bernard (1992), etc.
14. The market portfolio is comprised of all securities that are traded in the DSE. Since the returns on market portfolios are calculated from the DSE ASPI and the DSE ASPI is based on the weighted average price of all stocks, the market portfolio returns are value-weighted average returns of all stocks in the portfolio.
15. The procedure used here is similar to the one followed by Atkins and Dyl (1990). Different studies of this nature follow different procedure of event identification and event selection. For example, Howe (1986) uses a threshold weekly return of $\pm 50\%$, which is a large threshold return to select events and such a procedure, as

mentioned in Musa (1995), is biased towards including small capitalization firms, as the returns of these firms tend to be highly volatile. Brown, Harlow and Tinic (1988, 1993), on the other hand, use a threshold return of $\pm 25\%$, which is considered by Corrado and Jordan (1993) as too small a threshold. Using too small a threshold return to identify events entails two types of problems. First, a large number of otherwise non-event abnormal returns could trigger them to qualify to become events. Second, when a securities market is as a whole either up or down in response to economy-wide information, the daily abnormal could be smaller (larger) than the threshold return to qualify as a negative (positive) event, although the daily return is positive (negative).

16. A large reason to use the single index market model is the evidence that firms' size and the book-to-market value, not the systematic risk as captured by the firm's data, are the significant variables that explain the cross-section variability of a security's return (Fama and French 1992). The size-adjusted model based ARs is similar to market adjusted returns. Whereas market adjusted return is the difference between security return and the return on market index, the size-adjusted model based AR is the difference between security return and average return of the portfolio to which the security belongs.
17. In case of holding period returns, PPR stands for proportion positive holding period market-adjusted return for a holding period from day t to day τ .

References

- Abarbanell, J. S. and Bernard, V. L. (1992). "Tests of analysts' overreaction / underreaction to earnings information as an explanation for anomalous stock price behavior". *The Journal of Finance*, 47: 1181-1207.
- Atkins, A. B. and Dyl, E. A. (1990). "Price reversals, bid-ask spreads, and market efficiency". *Journal of Financial and Quantitative Analysis*, pages 535-547.
- Ball, R. and Brown, P. (1968). "An empirical evaluation of accounting income numbers". *Journal of Accounting Research*, 6:159-178.
- Bernard, V. L. and Thomas, J. K. (1990). "Evidence that stock prices do not fully reflect the implications

of current earnings for future earnings". *Journal of Accounting and Economics*, 13:305-340.

Bernard, V. L. and Thomas, J. K. Abarbanell, J. S. (1993). "How sophisticated is the market in interpreting earnings news?". *Journal of Applied Corporate Finance*, 6:54-63.

Brown, K. C. and Warner, J. B. (1985). "Using daily stock returns: The case of event studies". *Journal of Financial Economics*, 14:3-32.

Brown, K. C. Harlow W. V. and Tinic, S. M. (1988). "Risk aversion, uncertain information and market efficiency". *Journal of Financial Economics*, 22:355-384.

Brown, K. C. Harlow W. V. and Tinic, S. M. (1993). "The risk required return of common stock following major price innovations". *Journal of Financial and Quantitative Analysis*, 28:101-116.

Chan, K. C. (1988). "On the contrarian investment strategy". *Journal of Business*, 61:147-163.

Corrado, C. J. and Jordon, B. D. (1993). "Risk aversion, uncertain information, and market efficiency: Reexamining the evidence". *Working paper. University of Missouri-Columbia*.

De Bondt, W. F. M. and Thaler, R. M. (1985). "Does the stock market overreact". *The Journal of Finance*, 40:793-808.

De Bondt, W. F. M. and Thaler, R. M. (1987). "Further evidence on investor overreaction and stock market seasonality,". *The Journal of Finance*, 42:557-581.

Howe, J. S. (1986). "Evidence on stock market overreaction". *Financial Analysts Journal*, pages 74-77.

Ketcher, D. N. and Jordon, B. D. (1994). "Short-term price reversals following major price innovations: Additional evidence on market overreaction". *Journal of Economics and Business*, 46:307-323.

Musa, M. (1995). Ph.D Dissertation, May 1995.

Musa, M. (1997). "The patterns of abnormal returns around information event". *Journal of Business Administration*, 23:1-17.

Rendleman, jr. R. J. Jones, C. P. and Latane, H. A. (1982). "Empirical anomalies based on unexpected earnings and the importance of risk adjustment". *Journal of Financial Economics*, 10:269-287.

Watts, R. L. (1987). "Systematic 'abnormal' returns after quarterly earnings announcements". *Journal of Financial Economics*, 6:127-150.

Zarowin, P. (1990). "Size, seasonality, and stock market overreaction". *Journal of Financial and Quantitative Analysis*, pages 113-125.

Mohammad Musa
Professor of Finance & Pro-Vice Chancellor
East West University
43 Mohakhali C/A
Dhaka, Bangladesh
e-mail: mmusa@ewubd.edu

Golam Ahmed Faruqui
Assistant Professor
Department of Business Administration
East West University
43 Mohakhali C/A
Dhaka, Bangladesh
e-mail: drfaruqui@yahoo.com

CHITTAGONG HILL TRACTS PEACE ACCORD IN BANGLADESH: RECONCILING THE ISSUES OF HUMAN RIGHTS, INDIGENOUS RIGHTS AND ENVIRONMENTAL GOVERNANCE

M. Ashiqur Rahman

ABSTRACT

The conflicts between the tribal people and the settlers in the Chittagong Hill Tracts (CHT) area of Bangladesh has long been a cause of violation of human rights of the inhabitants, obstruction in the path of sustainable development, as well as ecosystem destruction, loss of biodiversity and natural resource degradation. To end this long term problem and violation in the CHT, an agreement generally known as the 'peace accord' was signed in 1997. However, several years after signing the accord, conflict resolution, thus sustainable development in CHT, is yet to be attained. Failure of effective implementation of the peace accord has resulted in a very critical situation at present. At the international level it has been recognized long ago that this kind of conflict should be addressed by reconciling human rights issues, indigenous rights, and environmental governance of the area. The purpose of this paper is to review the peace accord and its status of implementation to analyze it from the point of view of reconciliation of the above-mentioned issues.

Background

The Chittagong Hill Tracts (CHT) in southeastern Bangladesh, bordering India and Myanmar, covers an area of 13,190 square kilometers (sq. kms) that constitutes about 10 per cent of the total land area of Bangladesh. The area is divided into three districts--Rangamati, Khagrachari and Bandarban--for administrative purposes. The region consists of several valleys running in a northwest to southeasterly direction, with ridges rising to 3000 feet. More than 90 per cent of the area is covered by hills with only 129,000 hectares (ha) of cropped land. About 87 per cent of the land is covered with forest totaling 11,475 sq. kms mostly owned by the government (Dasgupta and Ahmed, 1998). This upland, forested area is in sharp contrast to the landscape of other parts of Bangladesh, which are flat and subject to regular monsoon flooding.

The average population density of CHT is 103 persons per sq. km. as against the national average of 1040 persons per sq. km. On the other hand, cropland per capita in CHT is 0.23 acres (0.09 ha), while the national average is 0.13 acres (0.05 ha) (World Bank 2004; Adnan 2004; Rahman 2001). Although compared to the national average the CHT seems to be under populated, the difference in per capita cropped land is comparatively low. Most of the valleys of the CHT area are covered with thick virgin forests interspersed by small waterways and swamps of all sizes and descriptions. The main features of the vegetation are semi-evergreen (deciduous) or tropical evergreen, dominated by tall trees. Because of its

geographical setting and the pristine nature of the CHT area, the potential of crop production from this region is not high; rather, a huge prospect for eco-tourism exists in the area. Thus the need for environmental conservation of natural forest lands of the CHT area is very important.

The hill tracts are rich in commercial natural resources, especially different types of forest and mineral resources such as timber, bamboo, fruits, medicinal plants and gas. Oil via exploration has also been actively pursued in recent years. In addition to these resources, a huge stock of fish also exists in the lakes and rivers of the CHT area. Natural gas with a reserve of 0.16 trillion cubic feet has been discovered at Sumutang in Khagrachari Hill district. Good quality natural gas at Ruma in Bandarban, petroleum at Alikadam, and reserves of coal at Lama have also been found (Haque, 2001). Large quantities of hand rocks, limestone and sandstone have also been discovered at certain places in the hill regions. However, commercial exploitation of these mineral resources could not be achieved due to the prolonged political unrest prevailing in the region.

Before the 1950s the CHT region was inhabited mostly by the tribal people (Dasgupta and Ahmed, 1998) who differ significantly from the mainstream population of Bangladesh. They are of Sino-Tibetan descent, have a distinctive appearance with Mongolian features, and are predominantly Buddhists with small numbers of Hindus. Currently a total of at least 13 ethnic groups live in the CHT. The three principal groups are *Chakma*, *Marma* and *Tripura*.

The other groups are *Murong, Tanchangya, Bown, Pankho, Chak, Khyang, Khumi, Lushai, Mro and Rakhain*. They differ linguistically and their social organization, marriage customs, birth and death rites, food and agricultural techniques, and other social and cultural customs also differ from each other. These tribal groups are collectively known as *Jumma* for their slash and burn style of agriculture, which is also known as 'Jhum' cultivation. The *Jumma* people are distinct and different from the Bengali people of Bangladesh in respect of race, language, culture and religion.

Available documents of the indigenous ethnic groups of the CHT indicate that notions of private property rights regarding land were not only absent, but also unnecessary for their way of life as they used to depend on shifting cultivation. Their customary practices for allocating and using common land were not written down in the form of legal codes. Instead, they were handed down from one generation to another as part of an oral tradition. However, CHT Regulation-1900 enacted during the colonial period laid down specific rules on rights of entry and residence in the CHT, as well as land settlements and transfers. This regulation made it difficult for people from outside to acquire rights to land in the CHT. Unfortunately, some of these restrictive measures on outsiders were withdrawn even before the end of the British rule. Later, during the succeeding Pakistani and Bangladeshi periods, through a series of legislative amendments and executive orders, the remaining restrictions on outsiders were lifted. In the process, the erstwhile indigenous common land of the tribal people has been converted to state and private property (Adnan, 2004).

Also, as noted by Loffler, the amendments to Rule 34 of the CHT Regulation-1900 by the Pakistani and Bangladeshi governments effectively served to 'legalize the settlement of more and more immigrants from the plains' (Loffler, 1991). Eventually this caused the continuing loss of ancestral lands of the tribal people and increased settlement activities, growth of private rubber plantations, and opening of commercial and industrialized enterprises by the outsiders from the flood plains. At present, the tribal people do not customarily own any land. They live and work on common land which belongs to the government. However, the use of common land by the tribal people is not new in the region because, since the British colonial period, the indigenous villagers who lost their access to the former common land eventually moved on to the state owned reserve forests. The result was an innovation based upon their traditional resource management patterns to retain

forest cover for long-term use. This gave birth to the 'village common forests' (VCF) of today, which are directly managed, protected and used by indigenous village communities (Roy and Halim, 2001). These VCFs are now under severe threat due to a variety of factors including rapid population increases and consequent growth of village settlements, the spread of sedentary agriculture, horticulture and tree plantations, and frequent in-migration and out-migration.

The problems in the CHT region had largely begun with the building of the Kaptai Hydroelectric Dam between 1957 and 1963, when the area was administered by Pakistan. This dam flooded at least 54,000 acres of settled cultivable land, farmed by the tribes, and displaced over 100,000 tribal people (about 25 per cent of the region's population). Compensation for lost land was inadequate and over 40,000 tribal people crossed the border into India (Khan, 1994; Amnesty International, 2000). At the time of the Kaptai dam construction, the Pakistan Government announced its intention to open up the area for economic development and encouraged poor Bengali families to settle there. This policy was even more vigorously pursued by the Bangladesh Government after independence in 1971 (Amnesty International, 2000). Later, in 1979, a Bangladesh Government program, which relocated hundreds of thousands of poor Bengalis into the Hill Tracts put additional stress on the situation and reduced the tribal people to a minority status within the region (Khan, 1994). The Government settlement programs increased the number of Bengali inhabitants in the CHT from three per cent of the region's total population in 1947 to about 50 per cent in 1997 (US Department of State, 1998). The settlers were attracted by the then government scheme to provide five acres of hilly land, four acres of mixed forest land and 2.5 acres of cropped land for each newly settled Bengali family (Haque, 2001). The people were also settled with the help of the army and the army started building bases in the Hill Tracts. Consequently, these caused outnumbering of the *Jummas* and evicted thousands of individual indigenous people from their ancestral lands. The latest official census report accounted for 501,144 tribal persons (about 53 per cent of the total) in the CHT region, belonging to 13 ethnically heterogeneous groups (Dasgupta and Ahmed, 1998).

The entire CHT region has been kept open since the beginning of 1950s for unrestricted migration and acquisition of land titles by non-indigenous people in violation of the letter and spirit of the CHT Regulation-1900, which provided the basic legal

framework for civil, revenue and judicial administration in the CHT (Adnan, 2004). Moreover, although general Bangladeshi and CHT regulations acknowledge the CHT people as 'indigenous', this was not formally acknowledged in the national constitution of Bangladesh, which was adopted in 1972. It did not include any provision recognizing the distinct identities of the non-Bengali ethnic groups of the CHT; rather a 'Bengali Nationality' was imposed by definition on all citizens of Bangladesh, irrespective of their linguistic, ethnic or cultural attributes (Article-9). Eventually, this led to a demand for autonomy for the CHT by the indigenous community. They also wanted the government to impose a ban on further Bengali settlement in the region. However, it has been reported that successive governments did not heed the land grabbing activities of the settlers; instead they adopted a tactic of expansion of Islamisation in the region by sponsoring the Bengali settlers (Talukdar, 2005). As a result, the indigenous communities were deprived of justice to regain their ancestral lands.

The conflict over land, together with the threat of assimilation into the majority culture of Bangladesh, provided the background to the armed conflict between the Bengali settlers, tribals and law enforcing agencies in the CHT area. The *Shanti Bahini* (Peace Force) was formed in 1972 by the *Parbattya Chattagram Jana Sanghati Samiti*—PCJSS (Chittagong Hill Tribal Peoples' Coordination Association) in self-defense and, it is believed, with unofficial support from the Indian Government (Khan, 1994; Rahman, 1998). Within a short period the *Shanti Bahini* emerged in huge numbers with modern arms. The Government deployed more armed forces to keep the law and order situation under control but it could not stop bloodshed, loss of lives and the insecurity prevailing between the tribal people and the settlers.

The violence in the CHT area has long been the cause of violation of human rights of the inhabitants (both tribals and settlers) as well as ecosystem destruction, loss of biodiversity and natural resource degradation. The forests were destroyed by the establishment of military camps and 'security operations'. Still today *jhum* cultivation is the most prevalent form of cultivation in the entire CHT region. The practice of shifting cultivation was found to be ecologically stable and sustainable when the fallow period was about 10 to 15 years. But in recent years, the erosion and soil fertility problems have become severe with decreased fallow period due to increased population—thus not allowing enough time for

replenishment of soil fertility through natural processes. It is also largely responsible for massive and frequent land slides, siltation in the lakes of adjoining areas, subsequent floods, and continuous regression of valuable forest species (Rahman, 2001). The forced settlement by the Bengalis from the plain land in the CHT region has dramatically increased the population density of this area and thus the pressure on the limited cropped land and illegal logging of trees. Most of the fertile land is reportedly occupied by Bengali settlers while the *Jummas* are pushed into less productive areas where long term cultivation is impossible (Dictaan-Bang-oa, 2004). Moreover, as tribes lost their ancestral lands, they moved into the deep forests and began shifting cultivation in new areas. A study by Bandarban-based Soil Conservation and Water Management Centre found soil loss during rainy season as follows: gentle slope-41.3 metric tons per hectare (MT/h), moderate slope-35.4 MT/h and steep slope-42.1 MT/h (Rahman, 2001). Such loss is caused due to rampant destruction of forests for 'jhum' cultivation. The consequent erosion of land and deforestation could gradually cause severe water crisis in the CHT region. Furthermore, this could cause a loss of biodiversity and bring on ecological disaster in the whole area. The psychological and physical relationships between the quality of human life and the quality of the natural environment could also deteriorate. For this reason, any new institutional arrangement designed to solve the problems of the CHT needs to consider the issues of human rights, indigenous rights, and environmental governance of the area holistically (the difference of inner meaning between the human rights and indigenous rights is explained in the next section).

The Bangladesh Government has realised the loss of great resources in the CHT area caused by the disturbances and has been trying to solve this political problem mainly by applying force. As a result, any discussion regarding settlement of the problem has ended without any result. Ultimately, by the establishment of the 'Chittagong Hill Tracts Regional Council' and by giving greater autonomy and power to the Regional Council, the then government negotiated a peace accord with the representatives of the *Shanti bahini* and the PCJSS in December, 1997. Although the government claims that the peace accord upholds the political, social, cultural, educational and economic rights of all the people of the CHT region, much controversy has arisen over the accord among the different political, tribal and Bengali settler groups. Moreover, the peace accord has not yet been able to stop the incidents of

violence in the CHT region.

It is important, therefore, to review the peace accord for the CHT in Bangladesh and examine whether it reconciles the issues of human rights of the Bengali settlers, upholds the indigenous rights of the tribal people, and ensures environmental governance for the preservation of nature and environment in CHT. The purpose of this paper is to review the peace accord, its status of implementation and thus to critically analyze it from the point of view of reconciling the above-mentioned issues.

Why Do We Need to Reconcile the Issues of Human Rights, Indigenous Rights and Environmental Governance?

The problem of CHT is multidimensional. Looking into the problem, we can identify that the conflict between the indigenous people (tribes) and the Bengali settlers concentrates on the issue of access rights to the natural resources of the area, such as land and forests. The disturbances in the area further caused the destruction of local level institutional arrangements, which led to the degradation of natural resources and violation of tribal peoples' and Bengali settlers' rights. In other words, the problem of CHT revolves around disputes over sharing environmental and natural resources between the two different groups of inhabitants.

Peace and the socioeconomic development of the CHT area are interrelated. The United Nations global conferences from Rio in 1992 to Rome in 1996 have highlighted the crucial links between peace, development and human rights in any area of the world (UNDP, 1998). Also, at the international level it has been recognized long ago that the settlement of environmental and natural resource disputes should be addressed by the recognition of individual human rights and the protection of the environment (Gormley, 1976). Furthermore, the 1993 World Conference on Human Rights and the 1995 World Summit for Social Development highlighted the importance of an integrated approach to social advancement (UNDP, 1998). At the international level, it has been reiterated many times that human rights, peace, sustainable development and the protection of the environment are interdependent and indivisible. Moreover, the protection of land and resource rights of the indigenous community is closely related to the achievement of sustainable development.

To justify the importance of reconciliation of the issues of human rights, indigenous rights and

environmental governance in the peace accord, it is necessary to have a clear concept of these terminologies. Human rights are essential for the well being of every human being. The Universal Declaration of Human Rights sets the civil, political, social, economic and cultural rights of each human being through a set of articles (UNHCHR, 1998). Included among these are the right to life, liberty and security; the right not to be discriminated against (discriminating in property and resources on the grounds of ethnicity is condemned); the fundamental rights granted by the constitution or by law; the right of equal access to public service; the right to vote, and to freedom of speech and freedom of the press; the right to be free from arbitrary invasion of privacy, family or home; and legal rights such as the right to due process of law.

For the protection of indigenous minority groups, specific indigenous rights were also established to ensure the enjoyment of their own culture, religion and language through the Indigenous and Tribal Populations Convention in 1957 (ILO, 1999). This includes the right of the indigenous people to control their lands and territories, to maintain their traditional way of living, and the right to security. Moreover, the Draft United Nations Declaration on the Rights of Indigenous People emphasizes that indigenous people shall not be forcibly removed from their lands or territories and that they have rights to the conservation, restoration and protection of the total environment and the productive capacity of their lands (Article 10 and 28) (UNCHR, 1993). Since the indigenous groups are outnumbered and marginalized in many places of the world, the above mentioned international treaties and agreements place special emphasis on protecting ethnic diversity and their cultural norms and values. Even Agenda-21 (Chapter 26) places special emphasis on indigenous people and recognizes the need to establish their rights to attain peace and sustainable development in a region (UNCED, 1992). This justifies the purpose of separating human rights from indigenous rights. Actually human rights are part of indigenous rights but as mentioned earlier, the latter provides special attention to the aboriginal groups where they have become marginalized, to restore their ancestral lands, properties and culture as well as their rights as human beings.

Environmental governance means governing peoples access to nature and natural resources (Conca, 1995). Environmental governance offers a system which establishes reciprocal relationships between people relating to access and use of environmental goods and services and binds them to certain specific

environmental ethics. The rules, rights and responsibilities may either flow from custom and practice or be codified in such instruments as conventions, treaties or statutes managed by different organisational forms. Furthermore, the concept of environmental governance provides the flexibility to determine and establish a variety of appropriate institutional systems to decide on the allocation of environmental resources (Mugabe and Tumushabe, 1999). In other words, environmental governance considers the environment and natural resources and the institutional responses needed to manage them (Hempel, 1996). Thus, by considering the issues of environmental governance, we can incorporate into the existing and new institutional arrangements the provisions of allocations of access and use rights to natural resources.

In this way it has been recognized at the international level that to ensure peace and sustainable development in a region, the solution should be sought within a framework, which connects human rights, indigenous rights and environmental governance in a holistic and integrated way. At the national level, the Forum of Environment and Sustainable Development in the Chittagong Hill Tracts adopted the 'Rangamati Declaration' on 19 December, 1998, bearing in mind the Rio Conference on Environment and Development (Roy and Halim, 2001). In their declaration, they suggested measures which recognize an integrated approach for the establishment of rights of tribes as well as settlers, and the protection of environment like land, water bodies, biodiversity, forestry, mineral resources and public health simultaneously for speedy implementation of the peace accord.

From the above discussion, it should become clear that the issues of human rights, indigenous rights and environmental governance are so interrelated and interdependent that they need to be reconciled via new institutional arrangements (such as the Peace Accord of 1997) to bring peace for further development of the CHT area. It is necessary to establish a balance between the interests of the tribal people and those of the nontribal people within the available natural resources. By realizing the importance of the issue of reconciliation, this paper has reviewed the existing 'peace accord' of the CHT within an analytical framework where human rights of the settlers, indigenous rights of the tribal people, and environmental governance of the CHT region have been addressed holistically to obtain positive results.

Obligations Under the National Constitution and International Conventions and Pressure to Solve the Problem

For more than two decades the CHT area has seen much bloodshed. Innumerable young men and innocent people have lost their lives in the conflicts between the tribes and the settlers. The people of the Hill Tracts have had to endure insecurity in their lives, suffering financial and property losses in their day-to-day affairs for a long time. Although the government has to spend nearly US \$ 125 million per year to suppress the rebellion through military force, it has failed to stop the unrest, violence and conflict in the area (IWGIA, 2005). Moreover, the disturbances in the area have resulted in loss of biodiversity and degradation of land. However, since the problems persist, the Government of Bangladesh is obligated to solve them from the point of view of violation of human rights, indigenous rights, and degradation of the natural environment under the national constitution, international conventions, and sustained external pressure.

Article 28 of the national constitution of Bangladesh clearly states that State shall not discriminate against any citizen on the grounds of religion, race, caste, sex or place of birth. Moreover, the constitution provides equal rights to the citizens to freely move within the country, ensures freedom of speech and expression, and provides fundamental rights of security and safety of life and property of the citizen. Also, there is no scope in the constitution for granting autonomy to any region of the country.

At the international level, Bangladesh ratified the Indigenous and Populations Convention-1957 on 22 July 1972. Bangladesh also signed the Universal Declaration of Human Rights (UNCHR, 1998), Agenda 21 and the Convention on Biological Diversity-1992. These agreements recognize human rights and indigenous rights in a general form. Once a country signs these agreements, it automatically accepts the obligation to establish human rights as well as the rights of indigenous people within its borders. Rights under the Indigenous and Population Convention-1957 and the Universal Declaration of Human Rights have been briefly mentioned in the previous section. Agenda 21 (Chapter 26) describes the obligations of governments in strengthening the role of indigenous people for natural resource management. The Convention on Biological Diversity places importance on protecting and

encouraging customary use of biological resources in accordance with the practices of indigenous and local communities (Colchester, 1999). As a result, Bangladesh has international obligations to establish the rights of its indigenous people as well as human rights.

In addition to these, in recent years the problems of survival and development of the CHT people, particularly for the tribes, have been raised at the international level by different humanitarian groups and tribal representatives. The Survival International, UK, urged the United Nations Commission on Human Rights in 1992 to take action to halt the gross human rights violations against tribal people and to demilitarize the CHT. They also urged the Bangladesh Government to actively seek a peaceful political solution to the problem that recognizes and upholds the rights of the tribes to their own lands. The International Work Group for Indigenous Affairs and Anti-Slavery International was concerned about the situation in the CHT and submitted a report to the United Nations Sub-Commission on Prevention of Discrimination and Protection of Minorities in 1992. They also recommended demilitarization of the area; sufficient autonomy for CHT; addressing the issue of land disputes by an impartial body; and international monitoring of the situation. The International Labor Organization (ILO) has repeatedly requested the Government of Bangladesh for further information on the steps taken to improve the situation in the area and to conduct impartial and comprehensive investigations into reported massacres of the tribes.

Moreover, the Government of Bangladesh has received financial assistance from international organizations for the resolution of the situation in CHT, for example, the European Union's financial assistance for the resettlement of the Bengali settlers in the plains. Furthermore, the House of Representatives, Congress of the USA and the US Department of State have expressed their strong concern about the massacre and violation of human rights in the CHT and have urged the government of Bangladesh to take action to rectify the situation beyond forceful military solutions. They have particularly mentioned that the tribal people have marginal ability to influence decisions concerning the use of their lands (US Department of State, 1998). These types of indirect interventions at the international level have put pressure and obligations on the government to find a political solution to the problem in CHT.

Origin and Purpose of the Peace Accord

Following their obligations to solve the problem of the CHT area, successive governments in Bangladesh initiated discussions with various groups representing the tribal people of the CHT to explore solutions to the conflict. Many discussions for a settlement ended without any result, as neither did the government accept the demand to oust the Bengali settlers, nor did the tribal representatives relax their demand for full regional autonomy.

The previous government of Bangladesh established a Committee in October, 1996 chaired by the Chief Whip of the Bangladesh National Assembly and consisting of 12 members from the parliament to work out a solution to the problem. Following a series of meetings between the National Committee and the leaders of PCJSS along with *Shanti Bahini* members, an agreement, generally known as the 'Peace Accord', was signed between these two parties in the presence of the highest government authorities in Bangladesh on December 2, 1997. This time the negotiation was successful, as the PCJSS stepped aside from their demand for full regional autonomy while on the other hand, the government agreed to withdraw the army and the illegal Bengali settlers, and to form a 'Regional Council' headed by a member from the tribal groups with a large degree of administrative autonomy. In this peace accord both sides had reached agreement with regard to changing, amending, incorporating and omitting the Hill District Local Government Acts-1989 and its different sections, which were in existence before the accord came into being. Following the peace accord the then head of the government of Bangladesh, Prime Minister Sheikh Hasina, was awarded the Peace Prize of UNESCO for the year 1998 for her outstanding contribution towards establishing peace, development, democracy and human rights.

The purpose of the peace accord was to stop the state of insurgency, establish peace, bring tribal refugees back home, create understanding between communities in conflict with each other, expedite the socioeconomic development process, stop violation of human rights and protect the rights of the tribal people who form a minority group in the CHT area.

Salient Features of the Peace Accord

The peace accord of CHT is comprised of four parts—General; Hill District Local Government Council; the Chittagong Hill Tracts Regional Council; rehabilitation, general amnesty and other issues. The salient features of the accord, compiled

from the original text of the CHT peace accord are as follows:

- The accord has recognized CHT as a region populated by tribals, the need for preserving the particular characteristics of the region, and the need for its development.
- The two sides have reached agreement with regard to changing, amending, incorporating and writing off the existing three ordinances for the three hill districts--the Rangamati/Bandarban/Khagrachari Hill District Local Government Council Act-1989.
- The government agreed to set up a separate Ministry of CHT Affairs, to be headed by a Minister from among the tribal people.
- The 'Hill District Local Government Council' shall be renamed as 'Hill District Council' and will have the functions and responsibilities of land and land administration, local police, tribal law and social justice, youth welfare, environment protection and development, local tourism, irrigation, and license for local trade and commerce, *jhum* cultivation and money lending business.
- The Hill District Councils will be formed under Article 59 of the constitution which states that local government would be formed in every administrative unit of the country with people elected to such bodies. Three seats are reserved for women in each district council and two-thirds of these seats will be for tribals.
- A 'non-tribal permanent resident' must have legal land in the hill district and should have a specific address. Moreover, whether a person is a non-tribal shall be determined, along with the identity of non-tribal to which he belongs and no person can be a candidate for the office of the non-tribal member without a certificate from the concerned Circle Chief in this regard.
- The accord also provides for the formation of a 'Regional Council' to coordinate the development activities undertaken by the three district councils and for overseeing general administration including law and order. There would be both tribal and nontribal representatives in the regional council, but the tribal representatives would be in the majority.
- The Chairman of the Regional Council shall be elected indirectly by the elected members of Hill District Council from amongst the tribals. His status will be that of a State Minister of the government.
- The Council shall be constituted of twenty-five members. There shall be an elected chairman,

twelve male tribal members, two female tribal members, six male non-tribal members, and one female nontribal member. The three Chairmen of the Hill District Councils will be ex-officio members with voting rights.

- The members of the Regional Council will be elected by the elected members of the three Hill District Councils and the term of the council will be five years.
- There will be a Chief Executive Officer with the rank of a Joint Secretary to the government in the regional council and tribals will be preferred for appointment for this post.
- The *Shanti Bahini* rebels will surrender their arms under a general amnesty and they will receive financial assistance to return to normal life.
- The government will withdraw security outposts manned by the army and paramilitary forces.
- The tribal refugees will be rehabilitated with a sum of Taka 50 thousand per family at a time. The government will also provide two acres of land in the respective locality subject to availability of land of the landless tribals or the tribals having less than two acres of land per family. Groveland will be allocated in the case of nonavailability of necessary lands.
- A five-member Land Commission with a retired justice as its head will be constituted to settle disputes regarding lands and premises.
- Priority will be given to the tribal people in all kinds of appointment in all government, semi government and autonomous organizations in CHT.

In addition to these, another aspect of the peace accord is worth noting: The accord has been established without any direct external international intervention or mediation. This may be one of the reasons which makes the accord particularly significant at the international level. However, international pressure was always present and the government obliged finally.

Conflicts Regarding Peace Accord and Its Implementation Status

It has been more than seven years since the peace accord was signed but conflicts and disturbances still rage between the tribals and the settlers in the CHT. Since the signing of the accord, the law and order situation in CHT has deteriorated in many ways. A newspaper caption on March 29, 2000 bears testimony to the fact: '40 killed, 45 kidnapped in CHT since peace accord' (Alam, 2000). Back in

March 2001, the abduction of four foreign engineers of Danish international consulting firm-KAMPSAX who were there to study the technical aspects for development of a 63-km vital road linking Rangamati and Khagrachari under the Tk.500 crore CHT Major Roads Project, was an eye opener for the authorities to the fact that the law and order situation of CHT had not yet improved. Some new conflicts have also arisen between different tribal groups since the signing of the accord. At least three groups, namely the Hill Students Council, the Hill Peoples Council and the Hill Women Federation (later on these groups formed a coalition named United Peoples Democratic Front-UPDF) have challenged the right of the PCJSS to be the sole representative of the tribal people and sign the accord on their behalf. These groups also want total autonomy and complete withdrawal of Bengali settlers (Amnesty International, 2000).

Moreover, it has been observed that after signing the peace accord, conflict began between UPDF, some *Jumma* youths and the pro-peace accord groups (like PCJSS), and the rivalry between these groups have been gaining strength (Daily Star, 2005). This intra-group conflict among the *Jumma* people has delayed the effective implementation of the peace accord, further increased settlement by outsiders, and reopened the check-posts of the military to control the movement of the *Jumma* people throughout the CHT for maintaining law and order. For instance, in August 2003, fourteen indigenous villages were looted and burnt to ashes, people were injured and killed, and ten indigenous women were raped during a settler attack (Dictaan-Bang-oa, 2004). In the latest incident on 31 March 2005, the Deputy Commissioner of Khagrachari district served acquisition notices to the indigenous *Jumma* land users in respect of acquiring 45 acres of land for the purpose of constructing a battalion headquarters' office of the Bangladesh Rifles. If this is implemented at least 74 *Jumma* families will be displaced from that area (UNPO, 2005). These instances prove that the peace accord is facing a number of difficulties regarding implementation, which require urgent and continued attention. On the other hand, the Bengali people of CHT protested against the accord and claimed that the accord will cause uncertainty for them as there remains for them a possibility of being ousted. The settlers point out that their fundamental rights have not been protected by the accord and they will be deprived of those rights.

As a result of these existing conflicts, the government has not been able to implement the peace accord properly until now as mentioned by the European

Union (EU). After a visit to the CHT by a team of delegation from the EU, they expressed that the accord is not effective. Moreover, despite its previous commitment, the EU has refused to release funds for development of the CHT region until the accord is fully implemented (Daily Star, 2000).

Since the signing of the accord, the slow withdrawal of the military from the CHT also slowed the effective implementation of the accord. Though it has been stated in the accord that all the temporary camps of the army and other paramilitary forces shall be withdrawn to permanent cantonments, even after seven years since the signing of the accord, no time limit was fixed for such withdrawal. Only 31 temporary military camps out of more than 500 have been withdrawn so far. The army still holds the supreme authority and control over the general administration and is empowered through an administrative order named 'Operation Uttoron' (UNPO, 2005).

To date, only a limited number of the various provisions of the peace accord have been implemented by the government. These include enactment of laws amending the structure and powers of the three Hill District Councils, as well as an act for the newly created Regional Council of the CHT. The peace accord is in jeopardy at this moment not only because of this, but also because of improper implementation and violation of other fundamental points such as, withdrawal of Bengali settlers, rehabilitation of the *Jumma* refugees repatriated from India and internally displaced *Jummas*, settlement of the land disputes pending between the thousands of *Jumma* people and Bengali settlers, and restoration of the traditional land rights of the *Jumma* people.

Moreover, it is very important to note that the peace accord was not recognized by the then opposition party (now the ruling party) of Bangladesh on the ground that it has made 'too many concessions to the tribal interests' and as such the accord has like many other important issues in the country been caught in the cross confrontation of Bangladesh party politics. Thus after seven years of slow progress of implementation of the accord, it is not illogical to be skeptical about the policy of the present government towards the CHT and the peace accord. Furthermore, the land commission formed in 1999 in accordance with the CHT peace accord to settle and resolve land disputes, could not yet start functioning due to bureaucratic tangles. In this aspect in a recent meeting held on June 8, 2005, the commission chairman underscored the need for enactment of necessary laws for its functioning to start (Alam,

2005). From these issues it is clear that the government should be very transparent and must have the political will and sincerity to implement the provisions of the peace accord to bring justice to the CHT peoples.

A Critical Analysis of the Peace Accord from the Point of View of Reconciling the Issues of Human Rights, Indigenous Rights, and Environmental Governance

The signing of the peace accord was a good attempt by the government to seek a political solution to the problem rather than a forceful military solution, and along with it, to protect the tribal culture and to establish their rights in CHT. However, this attempt could not make everybody happy in CHT, not even all the tribes, because certain important matters seem to have been overlooked. These are as follows:

- One of the major deficiencies of the accord was the absence of a clear determination of the future of the Bengali settlers in CHT. The Bengalis were largely settled there due to the policies made by successive governments. The accord was specific about return of the land to the tribals but did not clarify the land rights of the settlers. Moreover, the issue of dispossessing the settlers from their present land, especially without adequate compensatory measures is not clear. Currently the Bengali population is almost half of the total population in CHT. If the interests of this huge number of Bengalis are neglected, a possible violation of human rights may occur as the article 36 of the constitution gives every citizen the right to move and the right to acquire, hold, transfer and otherwise dispose of property in any place of the country.
- The accord was signed without the consent of all the tribal people as well as the consent of the Bengali settlers in the CHT. The inadequate public participation made the accord unsatisfactory to different groups of people living there. This is one of the reasons for the failure in the formation and implementation of allocating access rights to the natural resources for different groups of people of CHT.
- In Part-B of Article 26 (b), the accord provides that no land, hills or forests under the control of the Hill District Council can be acquired or transferred by the government without the permission of the council. It is a good policy; however, it seems to be inconsistent with the national constitution (Article 143) and takes away the executive authority of the state to regulate the settlement, transfer or otherwise

dispose state property. This contradictory issue may further bring conflict in the CHT and thus amendment is required in the constitution for effective implementation of the accord.

- The peace accord also made provisions for the cancellation of user rights of lands to nontribals for rubber cultivation and other purposes, which have not yet been utilized properly during the last ten years or more. This provision is good but it does not further clarify, after cancellation of the previous rights, how the provisions of allocation for new access and user rights to natural resources will be made to both the tribal and non-tribal people. It means that the accord did not properly consider the issues of environmental governance.
- A provision of the CHT accord says that a 'nontribal permanent resident' will be considered eligible to be enlisted in the voter list, if s/he, along with fulfilling other conditions imposed by the constitution, owns legally acquired lands and generally lives in the hill district at a specific address. Unlike the provisions of the CHT peace accord, constitutional preconditions do not hold that one has to be the owner of lands to become a voter in a constituency. As a result, the provision is directly in violation of the Bengali settlers' rights to be voters, regardless of the land factor, as guaranteed by the constitution. In this case, to overcome the contradiction, perhaps a minimum number of years of residence rule could be put in place and perhaps they could vote in absentia wherever they come from.
- Although the Bengali population is almost half of the total population, according to the accord they are restricted to one-third representation in the Regional Council. This stands out as one of the major problems in implementing the accord, as the Bengali settlers feel they have been discriminated against through this provision.
- The provision of reserving quotas for the tribal people in all kinds of government, semi-government and autonomous organizations and allocation of scholarships in the peace accord may not be able to ensure the rights of tribes in CHT; rather, it may create an opposite reaction. The World Bank group has criticized these types of policies in some other countries. They have commented that in some countries a policy of positive discrimination is adopted, reserving quotas in education and administration for indigenous people (Colchester, 1999).
- The peace accord did not focus on initiating reconciliation activities to remove previous communal mistrust/hatred and to ensure communal harmony among all CHT people

including Bengalis and tribals.

- The peace accord has failed to initiate any measure to stop stealing and illegal trading of forest resources and killing of forest animals for the preservation of nature and the environment in CHT.

There is no doubt that the problem of CHT is very complex. The initial threats to the ethnic and cultural identity of the tribal people have been gradually compounded by government initiated nontribal settlements and demographic incursions from the lowlands. The Bengalis had started to settle there at large since the last fifty years but not illegally from their point of view as they were patronized by the successive governments. As a result, it would not be right to radically eradicate the access and user rights of the settlers.

The peace accord is a very good attempt towards solving the problem of CHT although apparently it seems that it mainly focused on establishing the rights of the tribal people. But once we look at the problem neutrally from the historical perspective, it becomes clear that justice was never in favor of the indigenous community for a long time. The tribes have been deprived of their rights, they have faced enormous trouble and suffering, and their tradition and culture is now at stake. It is obvious that there is a strong necessity for preservation and development of indigenous culture, religion and languages of different tribal people living in CHT area, as well as to protect the rights of poor and innocent Bengali settlers within the available natural resources in the area. The positive thing about the peace accord is that these basic issues were addressed, although there are some deficiencies in the accord which have been discussed in this section. These deficiencies can be overcome if the political commitment exists to effectively implement the accord along with some measures which are suggested in the following section. However, in many ways the peace accord was not totally successful in reconciling issues like human rights, indigenous rights and environmental governance of the CHT region. This might be another reason for the slow progress of implementation of the accord, and non-acceptance of the accord by some segments of the tribal people, as well as certain Bengali interest groups.

Recommendations for Effective Implementation of the Peace Accord

The purpose of bringing peace in the CHT through any new institutional arrangement (such as the peace accord of 1997) is to improve the livelihoods of the

inhabitants there (both tribes and Bengali settlers) which largely depends on the improvement of the interaction between the inhabitants and the natural resources. This can be achieved by incorporating provisions for the use of natural resources into new institutional arrangements, which tie humanity and environment together. The new institutional arrangements should define which social groups shall have what sorts of rights to use the natural resources, the means they may or may not use, and the circumstances under which those means may or may not be applied. This particular issue is missing in the accord. Moreover, the implementation process of the peace accord could be further expedited through adopting integrated policies such as land reform, community based natural resource management, active involvement of grassroots organizations, effective participation of tribals and non-tribals, and support for traditional ecological knowledge and culture. The following measures may be taken into consideration for effective implementation of the peace accord:

- It is essential to start a systematic analysis of the land tenure system of the CHT by the Land Commission. In most cases, both the tribals and the Bengali settlers have no evidence of their land rights. The legal basis of the land tenure system of both groups has to be clarified. The government owned lands need to be reallocated and specified to the tribes and Bengali settlers. A proper initiative for rehabilitation of Bengali settlers, ousted under the implementation process of the accord, has to be taken and their fundamental human rights have to be ensured where applicable.
- If the community could be involved directly in natural resource management, it will have the desired impact on proper utilization of huge natural resources in CHT. Community villages can be established both in the tribal and non-tribal communities by grouping a certain number of families. The community should be empowered by developing capacity building dynamics through involving them directly in participatory natural resource appraisal, needs assessment, community envisioning, planning, implementation, review and replanning with the ultimate goal of improving their livelihoods. Community ownership of resources and traditional institutions may work as key elements for implementing this sort of policy.
- Involvement of non-governmental organizations (NGOs) under direct supervision of the CHT Regional Council can play an important role in establishing a strong linkage within and between

communities, removing previous communal mistrust and ensuring communal harmony among all CHT people, initiating legal awareness raising programs for the tribal as well as the non-tribal people, undertaking voter education programs that may ensure a meaningful and effective local leadership, and inspiring tribal and non-tribal youths towards more sporting and cultural activities.

- The degree of success of implementation of the peace accord to bring sustainable development in the CHT depends upon the extent to which the tribals and non-tribals are involved in the formulation and the implementation of the policies. If the government ensures the effective participation of all groups of people during the implementation of the peace accord, the current oppressive measures by anti-accord activists might be overcome and the peace accord would appear in a more refined form. It is very important to establish trust and confidence among people and government by adopting the anthropological and sociophysical approach to solving problems such as those in CHT.
- It is important to keep in mind that during the formulation of reconciliation activities, the traditional ecological knowledge and culture of the tribal people should be protected and used. Environmentalists have opined that indigenous systems of land use and management are often more sustainable than the alternative land use systems imposed on them (Colchester, 1999). Moreover, some special programs need to be undertaken for preservation and development of indigenous culture, religion and language of different tribal people living in CHT area. Furthermore, all the opportunities should be opened to the tribals as well as to the permanent non-tribals of CHT.
- The continued presence of army camps and other forms of armed personnel is affecting the chances of peace. All non-permanent army camps should be immediately withdrawn from the CHT to foster confidence building and trust within the tribal population. This will also give an opportunity to the Special Affairs Ministry of the CHT to act pro-actively.
- Necessary by-laws should be promulgated, consistent to the peace accord, to resolve the conflicts regarding indigenous land, knowledge and resource ownership, use, control, and management systems. Moreover, appropriate amendments should be made to the laws of the land as well as the constitution of Bangladesh, to give legal status and continuity to the specific agreements contained in the peace accord.

- The peace accord recognizes the long-sufferings of the tribal refugees of the CHT who have been uprooted and forced to move from one place to another on both sides of the border. Provisions have been made in the peace accord to repatriate these refugees. For proper implementation of this provision, measures should be taken to provide water, sanitation and medical facilities to the tribal refugees living in camps temporarily. If their original lands cannot be restituted, the repatriated refugees should be allocated alternative plots from the state-owned lands of the CHT, which are as similar as possible to their former holdings. Moreover, the state should continue to provide food rations to the refugee families until they can produce their own crops.
- Government should attempt to encourage the voluntary withdrawal of Bengali settlers from the CHT as per the peace accord through providing economic incentives and necessary logistic facilities like means of transport, arrangements for reception at the new location, provision of employment opportunities, providing rationed goods for a certain period etc.

Thus, establishing a situation where various groups such as tribals and nontribals conduct their business within the bounds of agreed rules and practices and with respect and support of the authorities (like the Department of Forestry) responsible for natural resource management may bring peace and harmony to the CHT.

Conclusion

The 'peace accord' was signed with good intention but so far the progress of implementation of the peace accord of CHT is very slow. To date, in-migration of Bengali settlers, forcible occupation of the lands of tribal people, and acts of violence against them are still taking place in the region. The accord incorporated a number of agreements involving a certain redistribution of power between the national government and the Regional Council, as well as partial delegation of authority to the latter by the former in specific subject areas. The accord was a very good attempt for preservation and development of indigenous culture, religion and language of different tribal people living in the CHT area, as well as to protect the rights of poor and innocent Bengali settlers with the available natural resources. That means, the accord was primarily successful in reconciling issues like human rights, indigenous rights and environmental governance. However, as mentioned earlier in terms of the extent of the implementation of the accord, it was not very

successful for reasons such as lack of commitment from the government, reluctance of withdrawing of military force from the region, absence of by-laws, non-function of the land commission etc. To solve the continuing conflicts and to bring peace and harmony to the CHT area, integrated planning and implementation through effective participation of the tribes and Bengali settlers is a precondition.

References

Adnan, S., *Migration, Land Alienation and Ethnic Conflict: causes of poverty in the Chittagong Hill Tracts of Bangladesh*, Research and Advisory Services, Dhaka, 2004.

Alam, M., 'Frame laws for CHT Land Commission', *The Daily Star*, Dhaka, 2 June 2005.

Alam, N., '40 killed, 45 kidnapped in CHT since peace accord', *The Daily Star*, Dhaka, 29 March 2000.

Amnesty International, *Bangladesh :Human rights in the Chittagong Hill Tracts*, UK, 2000.

Colchester, M., *Indigenous peoples and Forests: main issues*, Discussion note, The World Bank Group, 1999.

Conca, K., 'Global Environmental Governance: causes, components and consequences', *The Journal of Green Red Cross Korea*, 1(1), Summer 1995:98-110.

Daily Star, 'CHT accord not properly implemented: EU', Dhaka, 19 September 2000.

Daily Star, 'Ministry dreads mayhem in CHT: UPDF, PCJSS rivalry getting stronger', Dhaka, 13 June 2005.

Dasgupta, S. and Ahmed, F.U., 'Natural resource management by tribal community: a case study of Bangladesh', World Bank/WBI's CBNRM initiative, 1998.

Dictaan-Bang-oa, E., *In Search for Peace in the Chittagong Hill Tracts of Bangladesh*, Indigenous Peoples International Centre for Policy Research and Education, Baguio City, Philippines, 2004.

Gormley, W.P., *Human Rights and Environment: the need for international co-operation*, A.W. Sijthoff-Leyden, The Netherlands, 1976.

Haque, M., 'Chittagong Hill Tracts of Bangladesh: physical environment', in Q.I. Chowdhury (ed.), *Chittagong Hill Tracts: state of environment*, Forum of Environmental Journalists of Bangladesh, Dhaka, 2001: 47-57.

Hempel, L.C., *Environmental governance: the global challenge*, Island Press, California, 1996.

ILO (International Labor Organization), *Indigenous and tribal populations convention, 1957*, Geneva, 1999.

IWGIA (International Work Group for Indigenous Affairs), *Indigenous World Report*, Copenhagen, Denmark, 2005.

Khan, S., 'The CHT give away', Tohoku University, Japan, 1997.

Loffler, L.G., *Ecology and Human Rights: two papers on the CHT, Bangladesh*, Zurich, Switzerland, 1991.

Mugabe J. and Tumushabe, G.W ., 'Environmental governance: conceptual and emerging issues', in H.W.O. Okoth-Ogendo and G.W. Tumushabe (eds), *Governing the Environment: political change and natural resources management in Eastern and Southern Africa*, African Center for Technology Studies, Nairobi, 1999: 11-25.

Roy, D. and Halim, S., 'Valuing Village Commons in Forestry: a case from the Chittagong Hill Tracts', in Q.I. Chowdhury (ed.), *Chittagong Hill Tracts: state of environment*, Forum of Environmental Journalists of Bangladesh, Dhaka, 2001: 13-43.

Rahman, M.S., 'CHT agreement: a broad perspective', *The Daily Star*, Dhaka, 22 April 1998.

Rahman, A., 'CHT heads toward ecological disaster', in Q.I. Chowdhury (ed), *Chittagong Hill Tracts: state of environment*, Forum of Environmental Journalists of Bangladesh, Dhaka, 2001: 95-9.

UNCED (United Nations Conference on Environment and Development), *Agenda 21*, United Nations Division for Sustainable Development, Rio de Janeiro, Brazil, 1992.

UNCHR (United Nations Commission on Human Rights), 'Draft declaration on the rights of indigenous peoples', Center for World Indigenous Studies, Olympia, USA, 23 August 1993.

UNHCHR (United Nations High Commissioner for Human Rights), *Universal declaration of human rights*, Geneva, 1998.

UNDP (United Nations Development Program), *Integrating Human Rights with Sustainable Human Development*, a UNDP policy document, New York, 1998.

UNPO (Unrepresented Nations and Peoples Organization), 'Chittagong Hill Tracts Issue and

Post-Accord Situation', International Conference on Civil Society, Human Rights and Minorities in Bangladesh, Kolkata, India, 22-23 January, 2005.

U.S. Department of State, *Bangladesh country report on human rights practices for 1997*, Published by the Bureau of Democracy, Human Rights and Labor, June 1998.

World Bank, *World Development Indicators-2004*, Washington, DC, 2004.

M. Ashiqur Rahman
Department of Environmental Studies, North
South University
12 Banani C/A
Kemal Ataturk Avenue
Dhaka 1213, Bangladesh
E-mail: ashiq@northsouth.edu