

Sustainable Governance Bangladesh Perspective

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Edited by

Aka Firowz Ahmad

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**OSDER
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Sustainable Governance

Bangladesh Perspective

Editors

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Sharif As-Saber
Niaz Ahmed Khan
Mahfuzul Haque

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*All those who are upholding sustainable governance
at individual level and striving to establish
it at the collective level*

Preface

This book is the outcome of intellectual discourse emanated from the “International Conference on Governance and Innovation: Business, Society and Environment in Developing Countries” held at BARD, Comilla on 19-20 December 2014. The conference was jointly organized by the Centre for Administrative Research and Innovation (CARI), University of Dhaka, Bangladesh along with Governance and Administration Innovation Network (GAIN) International, Netinsearch International- Network for Integrative Research and Public Administration and Governance Research Network (PAGRN). The conference focusing primarily on governance and innovation bears special academic, intellectual as well as functional importance due to significant role of governance and innovation in all spheres of individual and collective life. The conference aimed at exploring a holistic approach using integrative methodology to find innovative solutions to problems related to governance of business, society and environment; b) facilitating an interactive and sustainable network of researchers and academics across disciplines; and c) developing a community-based approach in conducting research on governance and innovation.

This book is a collective effort of the Stamford University of Bangladesh, Center for Administrative Research and Innovation (CARI) University of Dhaka, Bangladesh along with Governance and Administration Innovation Network (GAIN) International, Netinsearch International- Network for Integrative Research and Public Administration and Governance Research Network (PAGRN). We would like to acknowledge our gratitude for their cordial assistance and standing beside us with their utmost level of efficiency.

Special thanks go to Prof. Dr. M. A. Hannan Feroz, the founder president of the Stamford University, Bangladesh whose help has made this project as a successful one. Without his sincerest contribution, it would not be possible to undertake such a great responsibility in our own shoulder. We are grateful to the Osder Publications for publishing, distributing and marketing of this book within a very short time.

We would like to express our gratitude to a group of young teachers and researchers, especially to Md. Al- Ifran Hossain Mollah and Md. Jahidul Islam who put their selfless assistance in preparing the manuscripts through editing and formatting and it would not be possible to make this book publishable without their earnest help.

We also want to admit our liabilities and limitations. Despite several readings, there may still be typos and other minor mistakes for which we seek our sincerest apology and feedback from the readers to correct them in subsequent editions.

Publisher's Note

The 'Sustainable Governance, Bangladesh Perspective' edited by Dr Sharif As-Saber, Dr Aka Firowz Ahmad, Dr Niaz Ahmad and Dr Mafuzul Haque including some of the papers presented in the GAIN 2014 Conference, the first international integrative research conference on governance and innovation, addresses a number of key issues related to respective fields in Bangladesh. We appreciate the initiative of editors for their efforts to create an opportunity to bring the research findings of the contributors to *wider* range of readers, academics and practitioners through this book. This book successfully deals with the issues related to sustainable governance including environment, climate change, and biodiversity Osder Publications feels highly privileged to publish this book.

We are grateful to the conference organizers including Netinsearch International, Centre for Administrative Research (CARI), University of Dhaka and Stamford University Bangladesh and GAIN International for giving us the opportunity to publish this thought provoking book. In addition, we are also thankful to the editors who have arduously worked to accomplish this tremendous task.

Finally, we strongly recommend readers, especially researchers to read this book and to identify and explore new areas of research.

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Introduction

Bangladesh, of late, has experienced unprecedented enthusiasm about varied aspects of sustainable governance and development. In light of the recent global launch of the Sustainable Development Goals (SDGs), the issues and challenges of governance have received renewed attention from both academic and practitioners' quarters. Notwithstanding the enthusiasm and widespread popularity of the term 'sustainable governance', however, research on the broader context and contents of sustainable governance has remained generally limited. In most cases, studies on governance practices and/or associated issues have so far been narrowly focused, or done on a piecemeal basis. The limited literature has come short of developing a comprehensive picture of the varied aspects of sustainable governance in Bangladesh in relation to the wider society and polity of the region.

In this backdrop, this book intends to pull together selected views and insights on varied dimensions of sustainable governance – including economic, environmental, human, and disaster management perspectives. The articles have been contributed by researchers who have proven experience, authority and knowledge on the concerned subjects. This work is expected to introduce to the readers a wide range of issues and challenges concerning sustainable governance and development in Bangladesh. While recognising that it is impossible to cover all such issues in a single volume, this book addresses some of the major concerns, which are of immediate relevance to the development of the south Asian region – especially in her pursuit of the SDGs. These include a focus on environmental compliance procedures in local government development projects; green rights; climate refugees' right to a safe and healthy environment especially from a gender differential perspective; climate change impact on environment and biodiversity; the linkages between trade liberalization and Least Developed Countries' current position in international trade; sustainable development through energy trade between Bangladesh and India; the current and potential role of rural cooperatives in the context and age of globalization; the role of non-state actors in changing the legal and social dimensions of human rights issues in India; causal relationship between drug abuse and delinquency; perception of managers regarding significance of human resource accounting in human resource (HR) decision making; a comparative perspective on the current growth challenges and strategies of Bangladesh and Republic

of Korea; participatory approach to irrigation management in the Philippines and the relevant lessons for Bangladesh; political response to disaster management; and the role and challenges of renewable energy in rural Bangladesh. The lessons, findings and associated policy implications may have an immediate relevance and use for developing appropriate policies and strategies towards sustainable governance. The experience shared in the book is also expected to provide food for thought to policy planners and activists concerned with the governance of the broader South and East Asian region and beyond.

This literature may be of interest to anyone concerned with issues of governance especially from a sustainability perspective - including academics; planners; development managers in the public, non-government, and private sectors; graduate and postgraduate students of the broader disciplines of social sciences, development, and environmental studies; community development activists; and concerned international development assistance and research institutions.

The book is divided into four complementary parts, consisting of eighteen articles. The parts revolve around the four interrelated dimensions of sustainable governance, namely: environment and climate change; economic sustainability; human sustainability; and disaster management and development. The first part sets the scene by developing an environmental (as compounded by the recent challenges arising out of climate change) perspective on selected dynamics of sustainable governance. It also argues that a thorough understanding of the specific conditions and realities of the environmental context can provide the necessary context and rationale for launching any meaningful development policy and programme. The subsequent two parts (two and three) explore two intertwined dimensions of 'economic' and 'human' sustainability by focusing on a few issues of contemporary salience. The last part then links up to the broader environmental issues explored in the first part, and furthers the discussion by developing a 'disaster management' perspective.

Environmental compliance in the development projects especially in the context of local government operations has been explored in Article 1 (Environmental Compliance Procedures in Development Projects of Local Government in Bangladesh: Major Weaknesses and Implications). It attempts to examine the efficacy of the relevant guidelines and procedures in order to consider environmental issues while preparing development projects by local government

organizations in Bangladesh. The two article (Right to a Safe and Healthy Environment: An Introduction to Green Rights) explores the concept of ‘green rights’ that has come into prominence in the recent years in the broader field of human rights. The article sheds light on how the concept of green rights – more specifically the right to a clean and healthy environment–can play an active role to promote environmental protection and basic human rights. As there is no specific or dedicated fundamental right dealing with environment in Bangladesh, the author argues in favour of declaring ‘right to environment’ as a fundamental right which can play a vital role for the protection of environment. Article 3 (‘Climate Refugees in Bangladesh: Gender Difference in Psychological Well-Being and Depression’) focuses on the issues of psychological well-being and depression of climate refugees and their gender difference. It recommends a set of psychological interventions and social support for the climate refugees – together with clues on further in-depth research on climate displaced people.

Article 4 (Climate Change Impact in Bangladesh: Environment and Biodiversity) explores the effects of climate change on environment and biodiversity in Bangladesh with a view to identifying the barriers responsible for poor implementation of relevant government policies and interventions. It recommends ways of making the policy and decision making mechanisms more effective, enforcement of environmental laws, strengthening institutional capacity, and increasing public awareness for protecting the environment and biodiversity. The fifth article (Supply Chain Management in Readymade Garment Industry of Bangladesh) focuses on the existing of problems in the supply chain process of garment industry of the country. The author argues that only minimum wage competitiveness will not guarantee future business. For the sake of the industry, authorities have no alternative to making an effective SCM. The next article (Trade Liberalisation and LDC’s share in International Trade under the WTO Regime: An Evaluation of the Linkage) demonstrates the linkage between trade liberalization and LDCs current position in international trade by applying the quantitative research methodology approach. It scrutinizes the current efforts and contributions of WTO with a view to determining the nexus between trade liberalization and the participation of LDCs. It also sheds light on the guiding principles to secure democratic control of resources and equitable participations in international trade. From a regional cooperation perspective, Article 7 (‘Exploring the unexplored: Sustainable development through energy

trade between Bangladesh and India’) focuses on the issue of energy trade between Bangladesh and India, and makes the moral as well as economic case the cooperation between these two neighboring countries towards sustainable governance. The next article (Quest for Transparency and Accountability: Revisiting the Regulatory Regime for NGO Governance in Bangladesh) attempts to find out the basic problems of NGO governance within the existing legal regime and possible legal solution to those problems. In doing so, the author clearly focuses on the critical study of existing law and legal instruments for the management, administration and control of Non Governmental Organisations and attempts to find out the embedded problems therewith.

The article 9 (‘Self Reliant Village Cooperative Society at the Age of Globalisation: a case of Comprehensive Village Development Programme’) reports on the experience of a ‘self help’ rural development approach experimented by the Bangladesh Academy for Rural Development (BARD). Notwithstanding the odds of ‘individualism in this age of globalization’, the paper shows the continued relevance and rationale of pursuing a collective and morally-driven approach to community development. Article 11 (‘Debunking the Drug Abuse-Crime Interplay: A Study on the Youths of the Selected Urban Areas of Munshiganj District, Bangladesh’) examines the causal relationship between drug abuse and delinquency. The next article (‘Perceptions Regarding the Significance of the Measurement of Human Capital on HR Decisions in Bangladesh: Human Resource Accounting (HRA) Perspective’) focuses on a relatively less-explored area of ‘Human Resource Accounting’ (HRA) in the context of human resource decision making process. The study draws on the perceptions of selected corporate managers on the subject, and calls for wider application of HRA. The article on ‘Skill Development Challenges of Bangladesh & Korea’s Economic Emancipation: a comparative Study’ investigates the current growth challenges of Bangladesh by developing a comparative perspective on the relevant experience of Republic of Korea. It examines how the Korean growth experience may act as a guiding force for Bangladesh in her pursuit of the middle income country status. Article 14 (‘Irrigation Management by Participatory Approach in Philippine’) examines the participatory Irrigation management (PIM) approach that has evolved in the Philippines with a view to catering the need and special character of the ‘small land holding’ condition. The author argues that there are useful lessons from these experiences for various irrigation schemes in

Bangladesh. The next article on ‘Political response to disaster management in Bangladesh’ seeks answer to some uncomfortable yet crucial political questions in relation to disaster management. The article questions the appropriateness of the mainstream political parties’ superficial ‘relief distribution’ approaches to disaster response, and the manifest reluctance and ‘indifference’ to play a more meaningful role in responding to disasters and disaster-stricken people. Article 16 (Renewable Energy in Bangladesh: Some Evidence from Rural Areas) aims at providing an assessment on the ability of renewable resources to help in reducing poverty, aid in energy shortage, environmental degradation and climate change in rural Bangladesh. This study argues that renewable energy has many positive impacts on the livelihood development, changes in rural lifestyles, creating employment opportunities and enhancing energy security. The author identified few challenges and suggested ways to overcome these for the sustainable development.

The last article (‘Renewable Energy in Bangladesh: Some Evidence from Rural Areas’) makes an assessment of the current status and prospects of renewable energy resources’ role in reducing poverty, facing the ever-widening energy shortage, environmental degradation, and impacts of climate change in rural Bangladesh. It shows evidence that renewable energy has brought in a degree of positive impacts on livelihood development, changes in rural life-styles by creating employment opportunities, energy security, cost reduction, and environmental benefits. Renewable energy seems to be slowly gaining a ‘niche’ market in Bangladesh.

This book makes no claim of being exhaustive, or representative of *all* issues concerning sustainable governance and development in the region. In this regard, our humble intention is to record, develop and facilitate a basic and down to earth understanding of some of these salient issues, which have hitherto remained largely ignored. This interesting and less explored area of research calls for immediate attention, as at present our knowledge on the subject is at best marginal.

PART ONE
ENVIRONMENT AND CLIMATE CHANGE

1 Environmental Compliance Procedures in Development Projects of Local Government in Bangladesh: Major Weaknesses and Implications

A. K. M. Mahmudul Haque

Introduction

Development is a continuous process. Its impact on environment is ever increasing due to interference in the environmental settings. This interference is taken place in the developing countries because of unplanned development activities. Local government bodies in Bangladesh have been vested with planning and implementation of a wide range of development projects like construction of roads, bridges, culverts, housing, potable water supply and irrigation, flood control, recreation centre and markets, etc. with a view to improving the socio-economic condition at rural and urban level of the country. Environmental compliance in case of such development projects is very much essential to reduce the anticipated environmental degradation in the near future. Environmental regulations present a set of environmental protection parameters to analyze the adverse environmental consequences of the projects and adopt appropriate measures to eliminate, reduce to acceptable levels or offset such adverse consequences through proper planning and implementation of the project.

This study is basically based on the review of literatures collected from secondary sources i.e. published books, research works, recognized journals, electronic journals, newspapers, published and unpublished dissertations, and Websites.

Local Government Categories and Hierarchies in Bangladesh

The rural/regional local government in Bangladesh consists of three tiers:

1. Union *Parishads* (4501);
2. *Thana/Upazila Parishads* (460);
3. *Zila* (District) *Parishads* (64).

Urban areas have a separate set of local governments. The Bangladesh Census Commission recognized 522 urban areas in 1991 (with a population of about 5000 or more) but only about 308 of the larger urban areas among these have urban local governments. The nine largest cities have a City Corporation status, while the rest are known

as Pourashavas or Municipalities, which again are classified according to financial strength.¹

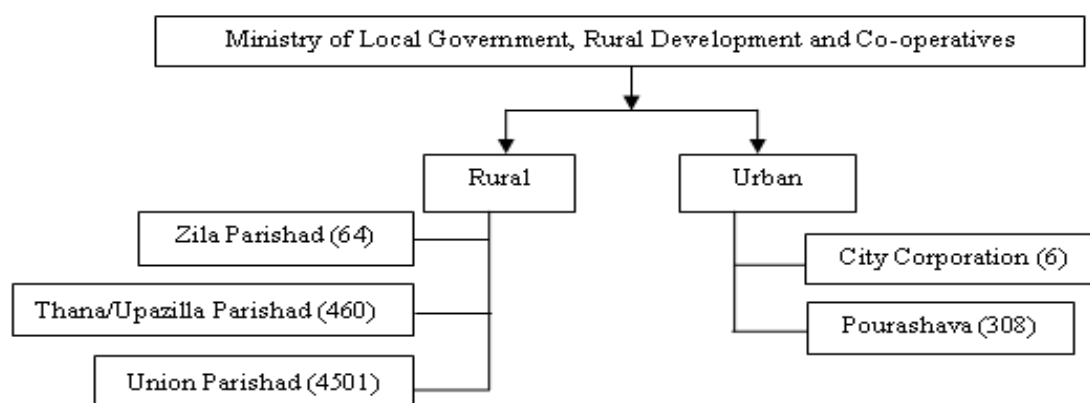
Table 1: Hierarchy of Urban Local Governments in Bangladesh

City Corporation	Dhaka, Chittagong, Khulna Rajshahi, Barishal, Sylhet, Rangpur, Narayanganj and Comilla.
<i>Pourashavas</i> (Municipalities)	308
Category	Annual income level
Class I <i>Pourashavas</i>	6 million +
Class II <i>Pourashavas</i>	2.5 million
Class III <i>Pourashavas</i>	Less than 2.5 million

Source: <http://www.unescap.org/huset/lgstudy/country/bangladesh/bangladesh.html> and various newspapers.

In addition, there are also some urban centers that are under Military Cantonment Boards. The City Corporation and *Pourashavas* (Municipalities) are true urban local governments. The large number of small urban centers is administered under the Union *Parishad* system (rural local government). Some urban centers have a fairly large population, but have not yet been declared a municipality, and, therefore, also remain under Union *Parishad* management². The existing structure of the urban-local government bodies in Bangladesh can be shown by the following diagram:

Figure 1: Existing Structure of Local Government in Bangladesh



Source: Pranab Kumar Panday, *Local Government in Bangladesh*, *South Asian Journal*, Available at [http://www.google.com/#hl=en&output=search&sclient=psyab&q=Local + government + in + Bangladesh + by + pra nab + kumar + pan](http://www.google.com/#hl=en&output=search&sclient=psyab&q=Local+government+in+Bangladesh+by+pranab+kumar+pan).

¹ Pranab Kumar Panday and Ishtiaq Jamil, *Policy Making in Urban Bangladesh: Whose Domination?*, available at <http://publicadministrationbd.blogspot.com/2011/03/local-government-in-bangladesh-note-5.html>.

² Pranab Kumar Panday, *Local Government in Bangladesh*, *South Asian Journal*, available at [http://www.google.com/#hl=en&output=search&sclient=psyab&q=Local+government+in+Bangladesh+ by+pra nab +kumar +pan](http://www.google.com/#hl=en&output=search&sclient=psyab&q=Local+government+in+Bangladesh+by+pranab+kumar+pan).

Environmental Compliance Framework of Development Projects

GoB has enacted a number of laws in different periods for ensuring environmental good governance in the country. There are around 200 different Acts and Ordinances in Bangladesh for regulating environment. Among them, a good number of laws specifically prescribed different guidelines to integrate environmental protection parameters in development projects planned and implemented by local government in Bangladesh.

Legal Framework

The Protection and Conservation of Fish Act, 1950 prohibit the destruction of or any attempt to destroy fishes by poisoning of water or the depletion of fisheries by pollution, by trade effluent or otherwise. Building Construction Act, 1952 provides for enforcement and penalties, preparation of rules, if not covered by the approved master plan, and the designation of authorized officers. The Bangladesh Forest Act, 1972 prohibited any damage by negligence for damaging or cutting down any tree and timber. This Act should require from all development projects and all agencies to have mandatory plantation. Bangladesh Wildlife Preservation Act, 1973 provides that no person damage or destroy any vegetation in any wildlife sanctuary; cause any fire in a wildlife shelter; pollute water flowing in or through a wildlife sanctuary. The Protection and Conservation of Fish Rules, 1985 prohibits construction of bunds, weirs, dams and embankments or any other structures, whether temporary or permanent, in, on, across over the rivers, canals, khals or beels for any purpose other than irrigation, flood control or drainage. Environment Conservation Act (ECA), 1995 stipulates that “no industrial unit or project shall be established or undertaken without obtaining environmental clearance from the Director General, Department of Environment, in the manner prescribed by the rules”. ECA is supported by Environmental Conservation Rules (ECR), 1997 which has prescribed certain rules that any project/development intervention is to obtain environmental clearance including the Initial Environmental Examination (IEE). The IEE will contain the scope of work of proposed Environmental Impact Assessment (EIA) of the project. Conservation and Protection of Wetland, Natural Water Channel, Khal, Beel, Retention of Pond, Playground and Open Space Act, 2000 controls land filling, intends to protect natural environment, to preserve and maintain water reservoirs, pond, open space and play grounds.

Policy Framework

Environmental Policy, 1992 prescribes to integrate environment into all plans and research works related to housing and urbanization, to control all housing and urbanization activities which may have negative impact on local and overall environment, to emphasis on the role of wetland in beautification of the city, to undertake EIA before preparing all proposed national and regional plans and projects related to housing and urbanization. The National Housing Policy, 1993 has set out a strategy that gives emphasis on private sector provision or housing with government acting as an enabler. This is strengthened with strategies for increasing access to land and housing finance, and cost recovery from public infrastructure investment. National Conservation Strategy (NCS) specified some strategies for sustainable development viz, planning functions of urban authorities with EIA capability should be in streamlined. Any urban land development plan should also incorporate transportation planning systems. Physical expansion of cities should only be carried out based on sound planning. There should be provision for adequate urban open space and recreation areas. National Environment Management Action Plan (NEMAP), 1995 suggested actions related to strengthening of local government institutional capacity for integrated planning, creating better housing facilities for the urban poor, middle class and working women, enacting appropriate legislation for land use, building standards, zoning and town planning. The National Energy Policy, 1996 highlights the important of protecting the environment by requiring the EIA for any new energy development project, introduction of economically viable and environment friendly technology and putting a ban on the use of fuel wood for brick burning.

Environmental Compliance Procedures in Development Project

Environmental compliance in the development processes is a core issue to ensure sustainable development. Any Governmental body, whether it is national or local level, must ensure environmental issues in case of implementation of development activities that affect physical environment. Different environmental rules and regulations provide different procedures to consider environmental issues in the development activities of the country. These rules and regulations emphasize mainly on the obligation of environmental clearance from the

government and undertaking Environmental Impact Assessment (EIA)³ depending on categories of the proposed projects. According to Environment Conservation Act (ECA), 1995, “No industry shall be established and no project shall be undertaken anywhere without obtaining environmental clearance from the Director General (DG) of Department of Environment (DoE), in the manner prescribed by the rules.”⁴ The rules of preparing EIA for the proposed development projects in Bangladesh have been stipulated by Environmental Conservation Rules, 1997. The legal procedures of environmental clearance and EIA have been described in below.

Procedure of Environmental Clearance

Environmental Conservation Rules, 1997 provides a framework for environmental evaluation of proposed development project in all sectors and prescribes procedures for obtaining environmental clearance certificate. According to the procedures, the developer should initially obtain a location clearance certificate from the DoE and then conduct an environmental study of the development project. The Rules have classified the projects into four categories on the basis of their site condition and environmental impacts. These are as, (a) Green, (b) Orange A, (c) Orange B and (d) Red.⁵ Different procedures are mentioned for environmental clearance certificate of each category of project. According to the rules, environmental clearance certificate is issued to all existing and proposed industrial units and projects, under Green category without undergoing EIA. For the category of Orange A and B and Red projects, it requires location clearance certificate, EIA and the satisfactory submission of the required documents.

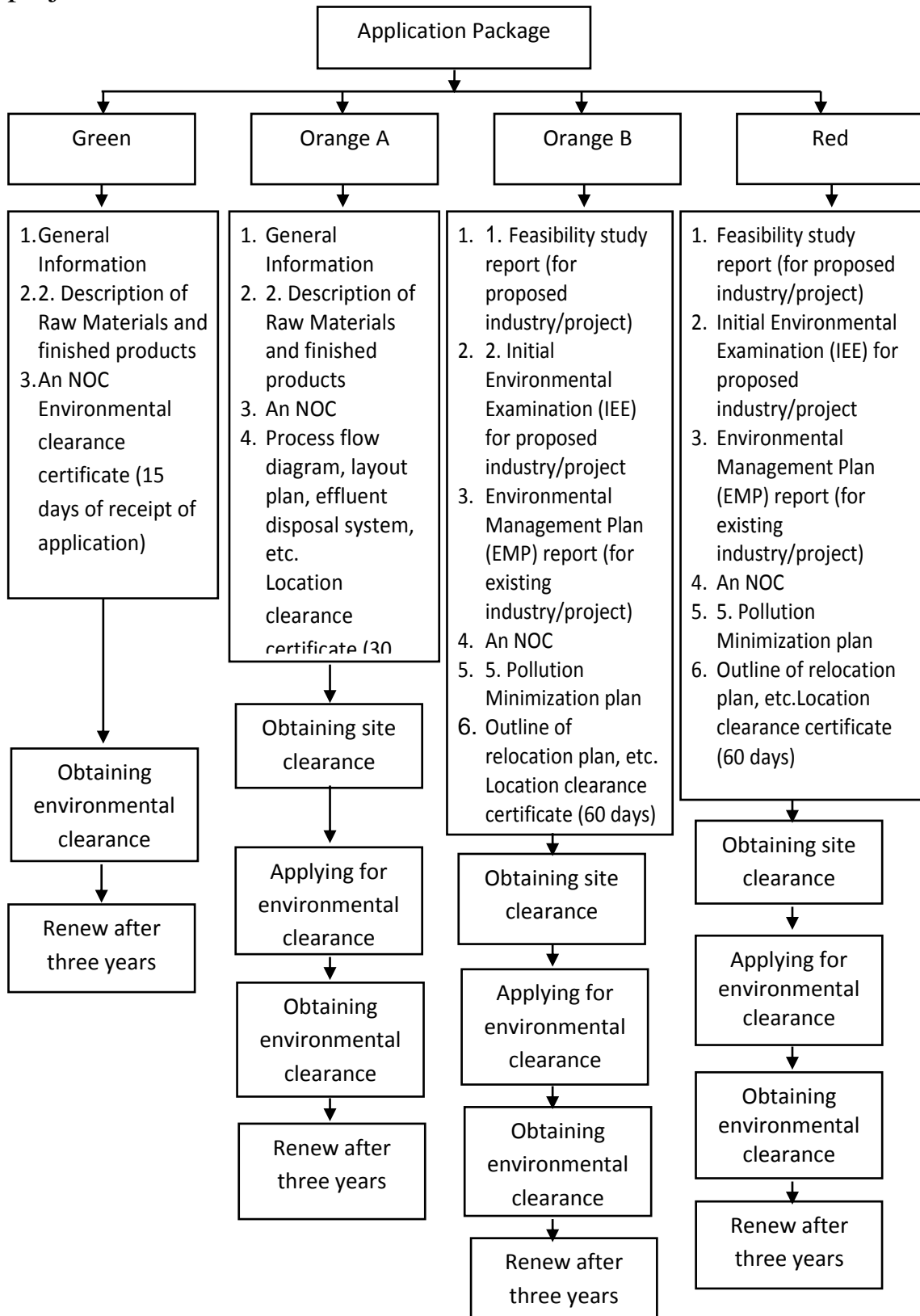
For getting environmental clearance certificate, the project proponent should apply to the concerned Divisional Officer of the Department through prescribed format (Form 3, mentioned in Rule 7). They should be accompanied with the documents as specified in Figure 2.

³ EIA is a process used to predict the environmental consequences of a proposed development project. It not only examines how the project might affect the environment, but also goes on to consider what measures might be introduced to mitigate the damaging environmental effects of the project and finally tries to inform the decision-makers on the options for avoiding or reducing the adverse impacts and to analyze the trade-offs involved in choosing between alternative actions.

⁴ *The Bangladesh Environmental Conservation Act, 1995, Article-12.*

⁵ *The Bangladesh Environment Conservation Rules, 1997, Rule-7.*

Figure 2: Procedure of environmental clearance for development projects



Source: S. Mumtaz, “Environmental Impact Assessment in Bangladesh”, *Environmental Impact Assessment Review*, vol.22 (2002), p. 166-169.

Environmental Impact Assessment (EIA) Procedure

Environmental Impact Assessment (EIA) is a project planning tool used for environmental protection and to achieve sustainable development.⁶ It is a prediction or forecasting of the future state of the environment as a consequence of the development activity. EIA attempts to:

- describe the existing environmental conditions;
- identify various activities to be undertaken for a particular project;
- predict the consequences with and without the project on environment;
- define options, cost, procedures of damages;
- propose most cost effective mitigating measures for unavoidable impacts;
- identify residuals;
- propose alternative course of action; and
- identify resources needed.

Environmental Impact Assessment (EIA) process of the development project in Bangladesh consists of six steps. These are as:

Project Screening based on Schedule 1 of ECR

Initial screening of the project is the first and simplest tier of project evaluation to decide as to whether or not to conduct an EIA. EIA process is not necessary for every kind of development project. Before conducting a full-scale EIA, a screening technique is applied to determine whether an EIA is required. Initial screening procedure divides projects into three categories:

A Category: projects do not clearly require an EIA;

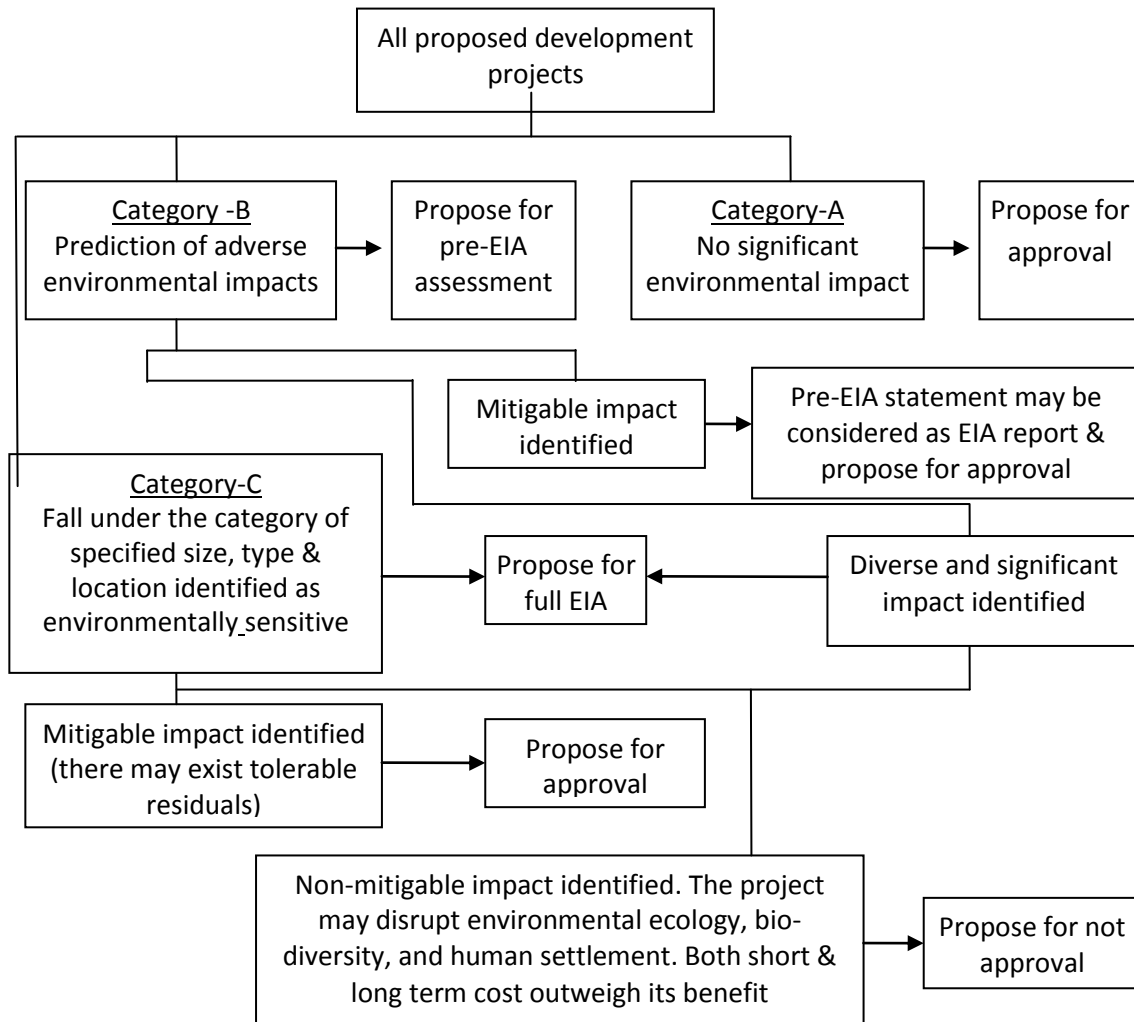
B Category: the requirement of an EIA is not clear and therefore further analysis or screening is necessary; and

C Category: projects clearly requiring an EIA.⁷

⁶ R.B. Khadka and U.S. Shrestha, "Process and Procedures of Environmental Impact Assessment Application in Some Countries of South Asia: A Review Study," *Journal of Environmental Science and Technology*, vol. 4(3), (2011), p. 215.

⁷ M. Khurshed Alam, "Procedures of Environmental Impact Assessment: Bangladesh Perspective," *Development Review, Dhaka*, vol. 9, (January – June, 1996), pp. 44-48.

Figure 3: Integration of EIA into the Project Approval Procedure



Source: M. Khurshed Alam, *op. cit.* p. 47.

The above flow chart (Figure 3), at a glance, may give us an overview on how we can integrate EIA into the project approval procedure.

Preparation of Initial Environmental Examination/Evaluation

Scoping is the second stage in EIA process. But in Bangladesh, Initial Environmental Evaluation (IEE) replaces scoping and becomes the prime document for environmental clearance for Orange and Red categories of projects. After screening, the developer is required to prepare an IEE based on pre-feasibility level of information and defines the basic principles and objectives of the project. This document identifies the proposed location of the project and the potential environmental and social impacts⁸.

Issuance of Site Clearance Certificate

On the basis of IEE report, the Department of Environment (DoE) issues a site clearance. IEE is also required to find that a full EIA is required. At this stage, preliminary cost estimates and alternative

⁸ R.B. Khadka and U.S. Shrestha, *op. cit.* p. 219.

locations for the project are also determined.⁹ The DoE will review IEE report and determine whether or not a full EIA is necessary. Generally, EIA is required prior to issuance of approval to start construction. The decision regarding the need for an EIA is issued as a part of the site clearance.¹⁰ A full EIA is generally required for the projects falling in Red category,

Preparation of the Terms of Reference

The TOR briefly describes the proposed project, identify the issues and potential impacts of the project and provide the details of basis for further study. After the site clearance is issued, the developer starts preparing a Terms of Reference (TOR) for carrying out a complete EIA study. The developer should consult with the relevant Departments and Ministries prior to submitting the TOR for review and approval. This will facilitate preparation of an acceptable TOR¹¹.

Submission of Draft EIA Report

Within the time frame outlined in TOR, the developer will conduct the study to develop a draft EIA report. In the process, the developer consults with the relevant Departments, such as, the Departments of Agriculture, Fisheries and Forests, etc. The draft EIA Report includes baseline physical, biological and social conditions at the project site and identification of the potential impacts on the physical, biological and social situation of the proposed project sites. The draft report should also contain proposed remedies as mitigation measures including resettlement and rehabilitation plans. The draft EIA report is submitted to DoE for reviewing comments. Based on review and comments, the draft report is revised and submitted it in final form for approval and issuance of authorization for the construction of the development project¹².

Submission of the Final EIA Report with Management and Monitoring Plan

The developer is notified of the approval of the final EIA report and may begin construction of the proposed project. The environmental clearance certificate for the project is not issued until the project construction is over and becomes ready for operation. Prior to issuing the environmental clearance certificate, DoE will conduct an inspection of the project and will determine if the conditions of the site clearance and commitments made in EIA are implemented properly.

⁹ *Environmental Conservation Rules*, 1997.

¹⁰ S. Mumtaz, "Environmental Impact Assessment in Bangladesh: A critical review", *Environmental Impact Assessment Review*, vol.22 (2002), pp. 166-169.

¹¹ R.B. Khadka and U.S. Shrestha, *op. cit.* p. 219.

¹² *Ibid.*

A relatively detailed description of mechanisms for compliance monitoring for site clearance and environmental clearance is provided by the ECR. In accordance with the Rules, citizens and governmental officials may lodge petitions against any development. The petition will be reviewed by an appellate body which will impose fine, penalty. At the extreme condition, it may also give the order for closing of the development projects. The environmental clearance is issued for a three year period for development project; the Government maintains a constant vigilance over the operation of the development¹³.

Any provision for consultation with the project-affected people or other stakeholders is not provided in the ECR. The only requirement of consultation is with DoE and other departments during the preparation of IEE and draft EIA report. However, an extensive consultation with the project affected people and stakeholders are conducted as per requirement of the donors and lenders, if the project requires financial assistance from foreign donors or lenders.

The DoE is responsible for monitoring of the project after it becomes operational, and may examine environmental conditions and the effectiveness of mitigation measures. As appropriate, the Department retains the authority to assure compliance with the agreed mitigation plan and maintaining the environmental quality standards¹⁴.

Environmental Compliances in Project Preparation and Approval

According to the Government procedure, Planning Commission invites project proposals from different Ministries or agencies as per national priorities reflected in the Five Year Plan objectives. In fact, project executing agencies select suitable project through conducting preliminary feasibility studies and thus prepare project profiles with a prescribed format named as, Development Project Proforma/Proposal (DPP)¹⁵. The DPP guidelines (Section 23 of DPP) contains the provision of a brief description of the effect/impact of the project and specific mitigation measures of adverse impact thereof if any on environment like land, water, air, bio-diversity etc.¹⁶ Every executive agency of the project has the responsibility to identify the potential environmental impacts of the project and to suggest specific mitigation measures in the DPP following the legal procedure of environmental assessment of the project.

¹³ R.B. Khadka and U.S. Shrestha, *op. cit.* p. 220.

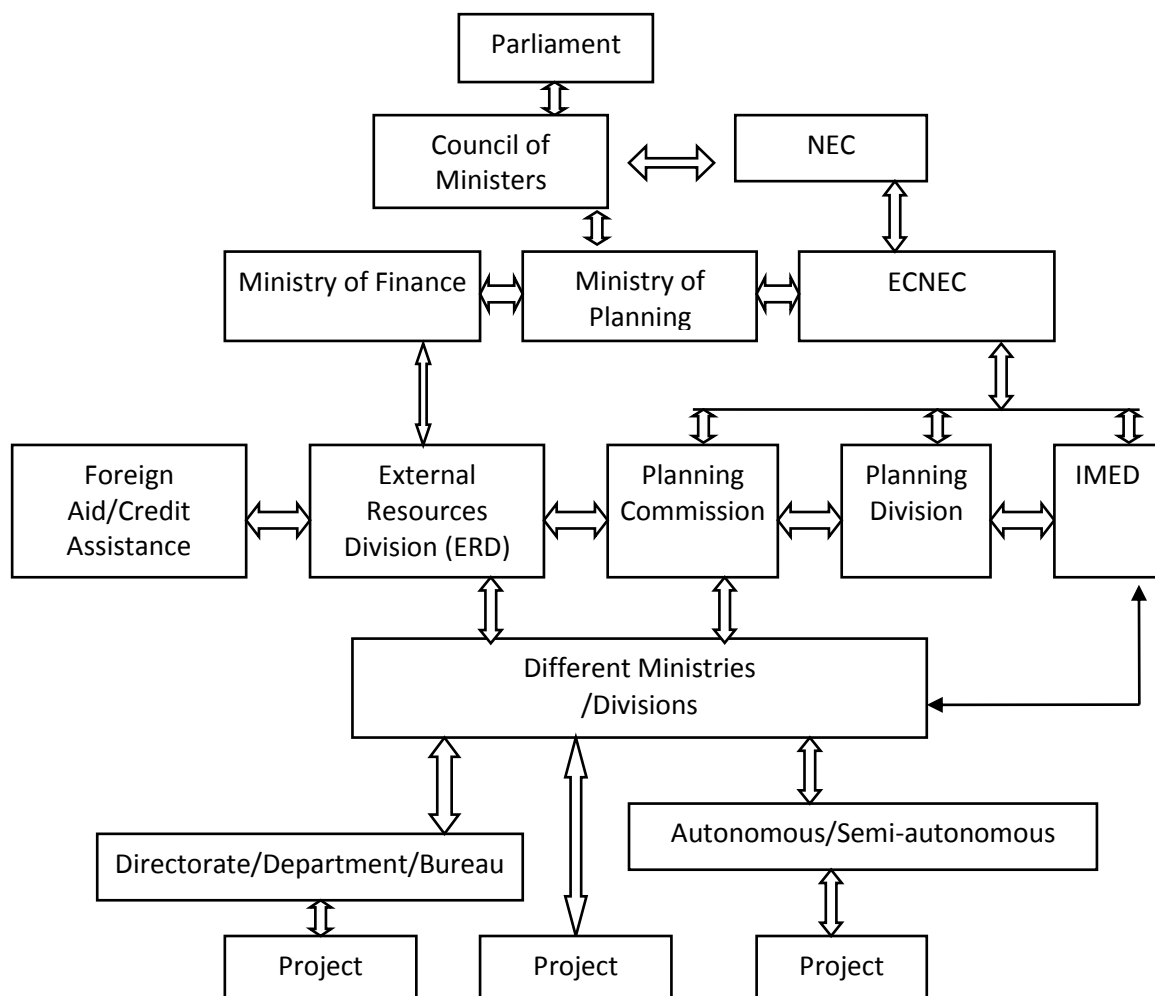
¹⁴ *Ibid.*

¹⁵ DPP means the proposal of the project to be undertaken, which mainly includes the location of the project and objectives, components and estimated cost summary, justification of the project, source of finance and benefits of the project. The DPP of the project is prepared by executive agency of the project.

¹⁶ GoB Circular, *Preparation, Processing and Approval Procedures of Development Projects*, (Dhaka: Planning Division, Ministry of Planning, 2008), p. 25.

Preparation, processing and approval procedures of development projects may vary due to difference in the investment size, sources of fund and nature of projects. Moreover, separate project proforma is used for different types of project and is processed and approved by the different committees and councils. But on principle, all development projects under different ministries are initially examined by the Planning Cell of the respective Ministry in the context of sectoral targets, allocations, priority and viability before forwarding to the appropriate authority for further processing¹⁷. However, the institutions that involved in planning and implementation of development projects and their linkage has been shown through the following diagram (Figure 4):

Figure 4: Institutional Set-up for Planning and Implementation of Development Projects



Source: S.J. Anwar Zahid, *Rural Development Planning and Project Management in Bangladesh* (Comilla: Bangladesh Academy for Rural Development, 2005), p. 67.

¹⁷ S.J. Anwar Zahid, *Rural Development Planning and Project Management in Bangladesh* (Comilla: Bangladesh Academy for Rural Development, 2005), p. 68

Inadequacy of Environmental Compliance Procedures in Bangladesh

Environmental compliance of a country reflects the political, cultural and socio-economic conditions. The framework or components of environmental compliance varies from one country to another. Like many other developing countries, environmental compliance or EIA in Bangladesh is imported from developed countries. In collaboration with the donor agencies, it was introduced carefully in the context of Bangladesh keeping in mind the socio-cultural and economic aspects of the country.¹⁸ Despite that the current environmental compliance process suffers from a number of legislative and institutional constraints or weaknesses that need to be addressed for more effective environmental compliance procedures.

Legislative Weaknesses

- a. In Bangladesh, four public sectors, i.e. industrial sector, water sector, communication sector, and LGED sector have EIA guidelines, but for the review of EISs or for community involvement in the process of EIA, there are no technical guidelines.
- b. If the DOE rejects an EIS after the review, the proponents are entitled to appeal to the Appeal Committee against the DOE's decision. This provision may be a barrier to the effective implementation of appeal procedures.
- c. According to Schedule 7 of the ECR 1997, the DOE will issue a site clearance certificate for the project proponent before the approval of EIS and the issuance of ECC. This site clearance allows the proponents to start development works such as land development at the project site and to build infrastructure. This is the great loopholes in the existing EIA rules in Bangladesh.¹⁹
- d. There is no legal requirement for public participation in the preparation or review of EIA report or during the implementation of mitigation measures. Inviting public comment depends on the will of the entrepreneur. e) The ECA 1995 does not specify whether EIA is required for expansion of new and ongoing project. In the absence

¹⁸ Salim Momtaz and S M Zobaidul Kabir, *Evaluating Environmental and Social Impact Assessment in Developing Countries*, p. 20 available at http://www.google.com.bd/?gws_rd=cr&ei=kXxrVKSSIcGWuAT7w4KwBw#q=evaluating+environmental+and+social+impact+assessment, accessed on 10 May 2011.

¹⁹ Salim Momtaz and S M Zobaidul Kabir, *op. cit.* p. 23.

of this provision, the proponent may attempt to avoid undertaking EIA study for the additional impacts.

- e. Conducting both IEE and EIA could cause delay in project implementation as well as an increase in the cost of the EIA study. If a detailed EIA is required for a project, it is better to conduct it earlier rather than undertaking both IEE and EIA. Moreover, an IEE is of no use in the decision-making process where an EIA is needed.²⁰
- f. The scoping of the EIA is done on the basis of the findings of the IEE. In the absence of primary scoping guidelines, it is unlikely that an effective EIA study will be conducted. Review of the EIA is done by the DOE officials. With no public involvement and an independent review body, ensuring the quality of the EIA document seems to be difficult.²¹
- g. Like many of the Asian countries, in Bangladesh, environmental consideration is simply done as a political decision without considering the technical and infrastructural aspects required to carry out environmental assessment smoothly and without the involvement of any public awareness or participation even without clear perceptions of environmental assessment by governmental agencies.²²
- h. In Bangladesh, the general perception is that EIAs are conducted only because they are required by the government legislation and donor agencies, not to ensure sustainability of projects or to develop better management plans.²³
- i. Bangladesh is one of the countries in the world identified as corrupted, which undermines economic growth.²⁴ Corruption is pervasive everywhere. This corruption also plays negative role in the efficient implementation of any sustainability efforts like EIA in the development projects.

²⁰ Rafik ahmed and nick harvey, p. 74

²¹ Ibid

²² Habib M. Alshuwaikhat, Strategic Environmental Assessment can help solve environmental impact assessment failures in developing countries, Environmental Impact Assessment Review 2005, vol. 25, p.311.

²³ Momtaz S, Environmental Impact Assessment in Bangladesh: a critical review, Environmental Impact Assessment Review 2002;22(2): 163-179.

²⁴ Transparency International, "Corruption will rampant in 70 countries", Corruption Perception Index 2005 (Press release), Berlin: Transparency International.

- j. Public sector investment plays a significant role in Bangladesh's socio-economic development. But the planning process of the public sector investment lacks systematic appraisal procedure. The use of cost-benefit analysis is mostly done on an ad hoc basis.²⁵
- k. There is no specific guideline for conducting and reviewing the environmental assessment of non industrial project, for which currently, environmental assessment done by the project sponsor are sent to the DOE for environmental clearance by the sectoral line agencies of the govt. In fact the DOE is still following an adhoc based procedure for giving environmental clearance of non industrial project.²⁶

Institutional Weaknesses

- a. DOE does not have any budget allocation for activities such as environmental awareness programs, research, and regular monitoring and auditing. For these activities, DOE has to depend on donor funds that are often conditional and uncertain. For this reason, continuous enforcement and improvement of EIA becomes difficult.
- b. The DOE is assigned with lots of environmental activities according to ECA 1995. But it lacks of sufficient manpower to discharge its responsibilities effectively. Since the establishment of DOE in 1993, the volume of its work has been increased but manpower has increased. Presently, the DOE consists of 244 staff positions of which 101 are managerial or technical. This strength of manpower is lower than that in South-East Asian countries like Thailand or Vietnam and South Asian countries like Nepal, Sri Lanka, or Pakistan²⁷.
- c. The dominant functions of EIA Unit of DOE are to review and approval of EIA, and to issue the ECC. But the EIA unit is highly understaffed. There are only five staff positions in the EIA unit of which 2 first-class officers, 1 second-class officer, and 2 third-class officers.²⁸
- d. The actual time taken for processing and issuance of Site Clearance and ECC and EIA is always more than the time specified by the

²⁵ Khorshed Alam, "Procedures of Environmental Impact Assessment: Bangladesh Perspective," *Development Review, Dhaka*, vol. 9, (January–June, 1996), pp. 44-48.

²⁶ Aminuzzamn , op. cit. p.11

²⁷ World Bank, 2007, quoted in Salim Momtaz and S M Zobaidul Kabir, op. cit. p. 25

²⁸ Salim Momtaz and S M Zobaidul Kabir, op. cit. p. 21

ECR 1997. Because of limited number of staff, it is difficult for the DOE to comply with the section 7 of ECR according to which ECC will be issued within 30 days.

- e. Only a limited number of staff within the DOE is assigned to oversee and monitor the implementation of EIA at post-EIA stage. Because of such shortage of manpower, DOE becomes unable in maximum cases to monitor properly. In such cases, responsibility for monitoring is left to the proponents without DOE supervision, creating risks that the mitigation measures are not carried out properly and adequately.
- f. Due to lack of well positioned field resources, the DOE is unable to consistently respond to complaints to a large extent. Besides, DOE does not have its offices at the District and Upazilla levels. As a result, DOE offices at the divisional level have large volume of tasks because of its large jurisdiction. The absence of field level offices significantly limits local awareness about environmental issues and participation of local key actors.²⁹
- g. In addition to the lack of adequate staff, DOE also lacks of staff with expert knowledge on EIA. This shortage of expert staff largely affects the quality control of EIA process including the review of the quality of EIA, the design of mitigation measures, and the quality of the monitoring data.
- h. No permanent leadership has developed in the DOE. The DG as the head of the DOE is appointed from outside (particularly from BCS Administration Cadre) on deputation usually for 3 years. This frequent changes in the top officials influences in planning and implementation of EIA policies properly and adequately.

Recommendations

Bangladesh is prominent for its heightened vulnerability to environmental change. In these circumstances, EIA can play a major role as a sustainable approach to development. The ECA 1995 and ECR 1997 have made a considerable progress in the field of environment providing the provision of EIA in the development activities. But there are some problems in the present EIA procedures and its implementation. So it needs more specific guidelines, independent review, greater community participation, regional or strategic impact assessment. In below, some suggestions have been recommended to improve the situation:

²⁹ Ibid

Legislative Recommendations

- a. To make the EIA system effective, sectoral and technical guidelines are essential for the project proponents and EIA consultants. NGOs should have their own EIA guidelines to implement small-scale and large-scale projects for rural and urban development.
- b. With the changing condition of environment, economy and technology, the environmental standards have to be revised. Otherwise, development projects, population pressure, rapid urbanization, industrialization will result excessive environmental degradation.
- c. The provision of settling the issue outside the court (Section 17(2) of ECA 1995) is a source of corruption and makes the administrative process lengthy. So the court has to be empowered to take cognizance of an offences or receive any suit for compensation without any written report from the DOE. Project affected parties should have the right to go to court directly. As a result the polluters would be punished without delay.
- d. The DOE can reject an EIS after review and the proponent can appeal against the DOE's decision. Such right of the proponent should be annulled for an effective EIS of the project.
- e. There is no provision for an independent Appeal Committee in our country. Since there is no independent review committee to review the EIA reports, review is done by the DOE's officials. So for ensuring quality of the EIA, it is needed to create a truly independent review body.
- f. Expanded projects may have adverse environmental consequences. But the ECA does not contain any specific provision whether EIA is required or not for the expanded projects. So, specific provision of undertaking EIA for such projects should be included in the legal framework to address additional environmental consequences.
- g. Although the proponents may follow donors' guidelines like ADB, WB for conducting EIA, these guidelines contain generic issues and may not always be appropriate locally. So for better reflection of local conditions, including the laws, institutions, standards and procedures, it would better to produce local EIA guidelines. Such guidelines may have a useful effect in promoting information flow, awareness and interdepartmental cooperation.³⁰

³⁰ Ibid

- h. In our country, major development programs are implemented by a number of local and international agencies. But it is still in the process of improving its project level EIA practice and learning from its past errors. Emphasize should be given on conducting EIA at the policy development level. So there is an urgent need for introducing SEA which would provide the decision makers more time to consider environmental impacts at an early stage.
- i. Conducting IEE is of no use in the project which requires detailed EIA. Rather, it will be costly and will delay project implementation.
- j. Proper enforcement of the EIA legislation should be ensured which depends mainly on the strong commitment of both politicians and bureaucrats. Effective steps must be taken to remove pervasive corruption in this regard. EIA should be conducted only to ensure sustainability of the project, not to make happy the donor agencies and government.
- k. Environmental consequences of the development projects should be described and enumerated in monetary values, not in physical terms. As a result, it would be easier to assign an appropriate weight to the environmental impacts in the decision-making process.
- l. The EIA legislations should provide necessary provisions for consultation with the project affected people or other stakeholders. The ECR 1997 contains only provision of consultation not with project affected people but with the DOE and other departments during the preparation of IEE and draft EIA report. However, if the project requires financial assistance from foreign donors or lenders, an extensive consultation of project affected people and stakeholders are conducted as per the requirement of donors and lenders.³¹

Institutional Recommendations

- a. Clear guidelines are needed regarding the procedures and steps of EIA legislation. The responsible agency should have a legal authority to require an EIA for any project; even if it is not included in the specific project list of the rules. The MOEF/DOE should have a legal mandate to advise all government agencies for environmental matters.³²

³¹ R B Khadka and U S Shrestha, p. 219.

³² Rafique Ahmed and Nick Harvey, op. cit. p. 74.

- b. Priority should be given on the capacity building at various levels both within and outside the government. DOE should be adequately equipped with both human and physical resources.
- c. The enforcement mechanism of the DOE should be strengthened. Officers from the Bangladesh Civil Service (Administration cadre) with appropriate jurisdiction can be seconded to the DOE so that they can ensure enforcement of law by conducting a 'Summary Trial' or 'Mobile Court'.
- d. Because of lack of sufficient budget, DOE cannot play active role for the enforcement and improvement of EIA. So DOE should have adequate budget allocation for EIA related activities like awareness raising programs, research, regular monitoring and auditing programs.
- e. In relation to the volume of work and responsibility, the DOE is under-staffed. The ECA 1995 has given plenty of environmental activities to the DOE. So to discharge such activities properly, the manpower and structure of the DOE should be strengthened.
- f. DOE offices should be expanded at the field level i.e. at the District and Upazilla level. This will help consistently respond to complaints and will lessen high volume of works of the Divisional offices. It will also make the environmental awareness programs more successful and community involvement in the environmental decision making will be intensified.
- g. Because of frequent changes in the top officials, like DG of DOE, proper planning and implementation of EIA policies is not possible. So, permanent leadership should be developed in the DOE.
- h. Good quality of EIA requires expert staff. So, expert staff should be appointed to review the quality of EIA, the design of mitigation measures and the quality of monitoring data. Besides, all line agencies of the government should have environmental guidelines including EIA matters, particularly for their planning units. In the planning unit of these agencies, there should be at least one officer with adequate knowledge on EIA.
- i. The MOEF/DOE should establish formal linkages with universities, research organizations, and NGOs within the country to share expertise. Expert from the universities, research organizations, and NGOs could be formally included in the review committee of the DOE.

- j. EIA matter should be on the regular agenda of the meeting of the National Environmental Committee headed by the Prime Minister, and the MOEF should play an active role in arranging this meeting in a regular manner.

Conclusion

Environmental regulations indicate that development projects of local government bodies have to be planned and implemented identifying the potential impacts on environment and natural resources. They have to avoid or take appropriate steps to mitigate or minimize the adverse impacts on environment. Several research reports reveal that our present environmental condition is not improving, rather it is deteriorating day by day despite there are sufficient number environmental laws in Bangladesh. Under this situation, it is perceived that there are some loopholes of environmental governance. One of these loopholes is that in our country, local government bodies do not adequately assess the adverse environmental impacts of development projects at the time of planning and implementation of the projects. Thus, these bodies have been disobeying environmental rules and regulations in this respect. In this way, the process of environmental governance is being hampered considerably and many environmental problems and resource degradation are taking place at rural and urban area. So, for the well being of the people, every local government body should ensure environmental consideration in their development activities/projects.

2 Right to a Safe and Healthy Environment: An Introduction to Green Rights

Asma Al Amin

Introduction

“Earth provides enough to satisfy every man's needs, but not every man's greed.”-Mahatma Gandhi

'Man has the fundamental right to freedom , equality and adequate condition of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations.' (Principle 1, Stockholm Declaration)

The relationship between environment and human life is inherent. Without a safe and healthy environment life in this planet cannot exist. Environment gives us the air to breath, water to drink, food to eat and a place to live. If these elements become polluted, contaminated or eliminated or destroyed, life will cease to exist. To protect human life, our environmental life support system must be maintained and protected. One way to accomplish this protection is through the enactment or recognition of a legal human right to environment (Thorne, 1991). If we want to protect our basic human right to life, we have to protect our environment first from pollution and destruction. The right to a healthy environment is a fundamental part of right to life and to personal integrity (Faruque, 2011) and realisation of all human rights are possible if healthy environment are ensured. The paper will show that recognition of green rights as a fundamental right can play an important role for the protection of environment.

Defining Green Rights

Universally human rights are categorised in to three classes - First generation human rights which are known as political and civil rights, Second generation human rights which are known as social and economic rights and Third generation human rights which are known as solidarity rights (group and collective rights). Among the third generation human rights, right to a safe and healthy environment is essential for the realisation of other human rights.

The word green denotes to a safe and healthy environment where we live in. The term environment comes from the French word 'environ' which means everything that surrounds us. It includes living

things and natural forces (Wikipedia). An environment is a set of natural, artificial or man-made, physical, chemical and biological elements that make the existence, transformation and development of living organisms possible (Mohammad, 2012). So green right refers to a third generation human right to a safe and healthy environment.

Green Right- As a Fundamental Right

'A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people' (Franklin D. Roosevelt).

At present there are now 109 national constitutions that mention the protection of the environment or natural resources. One hundred of them recognise the right to a clean and healthy environment and /or the state obligation to prevent environmental harm. Fifty-three constitutions explicitly recognise the right to a clean and healthy environment and ninety -two make it the duty of the national government to prevent harm to the environment (Fadaei, 2008). In Bangladesh the supreme law of the land insert the provision for environmental protection in Fundamental principle of state policy under article 18A by the fifteenth Amendment of the Constitution. Which provides- The state endeavour to protect and improve the environment and to preserve and safeguard the national resources, bio-diversity, wetland, forests and wild life for the present and future citizens. Here the constitutional provision recognise the states obligation to prevent environmental harm but the right to a safe and healthy environment as an independent right has been ignored. The recognition of right to a safe and healthy environment has two important goals: first, to improve the quality of life and second, to provide remedies to injured individuals by environmental pollution (Gormley, 1988). That means if the right to a safe and healthy environment is guaranteed as a fundamental right it can impose obligation on the government to prevent environmental harm in one hand. On the other hand it gives citizens the opportunity to invoke the right to safe environment in the national courts and tribunals as a fundamental right. The main legal implication of such provision is that since constitution is a supreme law of any country, it places the environmental protection on higher plane and as a superior norm that can be immune from ordinary legislative change. Thus the constitutional recognition of right to safe environment provides greater level of protection to environment than through ordinary legislation (Faruque, 2011).

Constitutional Status and Judicial Activism of Green Rights in Bangladesh

As we have already mentioned that the Constitution of the People's Republic of Bangladesh incorporated the provision regarding environmental protection in fundamental principle of state policy. However, environment has got the recognition as a fundamental right through legal and judicial activism of the higher judiciary (Hossain, 2011). The fundamental right to life has been explained as a key to ensure the right to a safe and healthy environment. Article 31 and 32 of our Constitution protect right to life as a fundamental right. Article 31 states that every citizen has the right to protection from action detrimental to the life, liberty, body, reputation, or property, except in accordance with law. Article 32 states that no person shall be deprived of life or personal liberty, save in accordance with law. The judiciary of Bangladesh has widened the horizon of right to life as an all encompassing right, 'right to a healthy environment' being inclusive within it (Billah, 2009). Public interest litigation (PIL) is one of the important strategies of judicial activism, which is now regarded as a necessary and inevitable part of the judicial process in South Asia (Faruque, 2012). In Bangladesh public interest litigation is also played as a most effective mechanism for environmental protection. Under Article 102 of the Constitution PIL can be invoked by filing writ petition. PIL on environmental issues are known as public interest environmental litigation (PIEL). Dr. M. Farooque Vs Bangladesh 49DLR (AD) (1997) known as FAP-20 Case is the first case in our legal history which opened a new dimension of PIL in Bangladesh. In this case the Supreme Court explained right to life extended to include right to a safe and healthy environment. Justice B.B. Roy Chowdhury has remarked in para.101 that- Article 31 and 32 of our Constitution protect right to life as a fundamental right. It encompasses within its ambit, the protection and preservation of environment, ecological balance free from pollution of air and water, sanitation without which life can hardly be enjoyed. Any act or omission contrary there to will be violative of the said right to life. Later on many PIEL has been settled by the interpretation of right to life Such as Commercial shrimp cultivation, vehicular pollution, unlawful construction of brick fields, industrial pollution, hill cutting, gas explosion in Magurchara, Illegal lake fill up, removing tannery to outside Dhaka city, encroachment of

rivers, Filling up Ashulia flood flow zone etc . From the above discussion it appears that right to healthy environment has got the status of a fundamental right with constitutional legitimacy in our country.

International Legal Regime on Green Rights

‘Environmental protection has become a dominant concern in contemporary international discursive framework and diplomatic vocabulary. This concern results from a growing global recognition that human activities like rapid population growth, overexploitation of natural resources, unsustainable industrialisation..’ (Islam, 2011)

There are certain international laws, treaties and conventions dealing with the green rights. It is now widely recognised that the planet faces a diverse and growing range of environmental challenges which can only be addressed through international cooperation (Sands, 2003).

The International Covenant on Economic, Social and cultural Rights 1966 recognises the right to ‘the improvement of all aspects of environmental and industrial hygiene as relates to the right to health (article 12 (2)(b)). The concept of green rights have been discussed and established by many resolutions and works of the United Nations. The UN Conference on Environment and Development 1972 recognises the environment as an important aspect of human rights. Principle 10 of the Rio Declaration 1992 recognises the need for public access to environmental information, public participation in environmental decision-making and access to justice, which can be viewed as procedural rights deriving from this substantive right.

Article 11 of the Additional Protocol to the American Convention on Human Rights 1988 declares that, ‘everyone shall have the right to live in a healthy environment.’

In 1990, the General Assembly of the UN recognized, ‘that all individuals are entitled to live in an environment adequate for their health and well-being’. In the same year the UN Commission on Human Rights adopted a resolution 1990/41 establishing the linkage between the environmental protection and human rights. In 1994 Fatma Zohra Ksentini, the Special Rapporteur of the UN submitted her Final Report on ‘Human Rights and the Environment’ where she

established the linkages between the fundamental human rights and the environment.

In 1999, the Bizkia Declaration on the Right to the Environment recognizes that, ‘everyone has the right, individually or in association with others, to enjoy a healthy and ecologically balanced environment’.

Green Rights: As A Key of Environmental Protection and Sustainable Development

Principle 1 of the Rio Declaration, 1992 declares that ‘Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.’

The Framework Convention on Climate Change, 1992 also refers to the sustainable development principle in the preamble by recognizing that ‘all countries, especially developing countries need access to resources required to achieve sustainable social and economic development’.

The concept of sustainable development may be found expressly or implicitly in many environmental treaties and other instruments in the period prior to the publication of the publication of the Brundtland Report, in 1987 (Sands, 2003). The term ‘Sustainable Development’ came into use following the report of the World Commission on Environment and Development widely known as Brundtland Commission Report, in 1987. It defined sustainable development as, ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs.’

Brundtland Commission Report contains two concepts on sustainable development; (i) the concept of ‘needs’ in particular the essential needs of the world’s poor, to which overriding priority should be given; and (ii) the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet up present and future needs. In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it (Principle 4 of Rio Declaration 1992).

Without proper implementation of green rights environmental protection and sustainable development cannot possible. As ‘human beings are at the center of concerns of sustainable development’ so

without ensuring right to a healthy and safe environment sustainable development will go vain. For a sustainable development controlling water and air pollution, land degradation, saving biodiversity and other physical properties are essential and all these activities lead to environmental protection.

General Overview and Concluding Remarks

There are almost 200 different laws in Bangladesh for environment protection. But most of the laws are only contained black and white in the official gazette of the Government rather being implemented. The Government is planning to establish a nuclear power plant within the 60 kilometers of the Sundarbans. Recently UNESCO urged the Bangladeshi Government to take precautionary measures to protect the Sundarbans. Although there are the Environment Conservation Act 1995 and Environment Court Act 2010 but in many cases these laws failed to protect the environment. The reasons for non-enforcement of these laws are many. There are: 'lack of knowledge about the at the operational levels; lack of awareness about environmental rights/duties; uncertainties or ambiguities in the provisions in expressing powers, functions, authorities and jurisdictions; institutional weaknesses and the lack of policy orientation; conflicts with traditional rights and practices; uncertainties over the legal status of resources; problems with resource survey, settlement and record or rights; absence of firm and long-term policies in some sectors that are to be implemented by appropriate laws; lack of political commitment' (Hasan, 2005).

Most of the people of Bangladesh are unaware about environmental protection and sustainable development. They don't know that they have some other important rights (green rights) along with other constitutionally guaranteed fundamental rights.

So, we have to identify and evaluate all existing laws and case laws on the conservation of environment. The government has to take all sorts of implementation measures on the basis of International Conventions, Treaties and existing national laws. The Multi National Corporation's and other corporate sectors can play a vital role in implementing these rights through their Corporate Social Responsibility programs. National Human Rights Commission can play the role of 'torch bearer' in implementing 'green rights'.

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3 Climate Refugees in Bangladesh: Gender Difference in Psychological Well-Being and Depression

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Introduction

Climate change induced migration in our country is a recurring phenomenon. Where, adverse climate change impacts such as long lasting floods, high-intensity of cyclones and tidal surges, encroaching salinity etc are caused by global warming, badly affect the life of inhabitants. These impacts generate a new generation of destitute people called ‘Climate Refugees’ (Anwer, 2012). Climate Refugees are forced to relocate a new location due to the drastic effect of climate change. A study (Anwer, 2012) reveals that climate refugees migrate in two major patterns; either migrates immediately after extreme events of climate change, or goes through a process of income erosion and ultimately leaves the place. Most refugees move internally and follow a circular pattern, either into urban or other rural areas. Analyzing available data on population displacement, it was found that 39 million people in Bangladesh were displaced by major natural events like flood and cyclone over 40 years from 1970 to 2009 (Akter, 2009). Displaced people initially try to relocate themselves within their home village or neighboring village, and then gradually shift to nearest town, larger cities, and then capital. In most cases, the refugees had lost everything in natural calamities. They mostly are shifting to larger city for better livelihoods and find shelter as slum dwellers. According to the International Organization for Migration (IOM), about 70 percent of slum dwellers in Dhaka city experienced some form of environmental shock. The factor that encourages them to leave their homes in the countryside and migrate to urban areas is the promise of jobs and income, and food and shelter security. But they loss their connection with home place, and require adjustment with totally diverse existence pattern. Such type of loss of connection or belonging to one’s home place undermines their mental well-being (Fullilove, 1996; as cited in

Doherty & Clayton, 2011) and may change state of being ,that is the changed feelings, thoughts or conditions that may surround the person's existence in the new place and cause, influence or complicate his/her inner and outer difficulties(Kristal-Andersson, 2000: P.88).

In new place everything and everyone is unknown and different refugees experience the feeling of the stranger or the outsider (Kristal-Andersson, 2000:p. 90). They may also feel a sense of great isolation during different periods of life in the new place, rooted in existing reality of life in the new place (Feldstein and Costello, 1974; Malzberg and Lee, 1956). The refugees will usually have gone through many separations and losses (McGoldrick, 1982). These results feelings of missing are experienced to a diverse extent during different periods of life in the new place (Kristal-Andersson, 2000). At certain times, they may grieve over what have been left behind or lost. Sorrow over the birthplace seems to come over the person repeatedly and lasting for few seconds to several months even for several years (Kristal-Andersson, 2000:p.114). Their identity may also change because identity and self-concept are built around the socioeconomic environment given by parents (Markus and Nurius 1986: p. 954). They must adopt with new socioeconomic circumstance (i.e. land owner to landless, middle class to lower class slam dweller) which results inferiority feelings in the refugees (Kristal-Andersson 1980: p. 126). Such life experiences may also cause bitterness feelings (Becker, 1962; Erikson, 1950 as cited in Kristal-Andersson, 2000: p.142). Such feelings cause deeply betrayed or cheated feelings about life in general. Bitter persons think or feel that their life-situation cannot be changed (Kristal-Andersson, 2000: p.142-143). All these factors trigger the onset of depressive attitude. They see their life as valueless, don't feel any hope, and don't have the enthusiasm to improve their condition. Depressed individuals feel as they do because their thinking is biased toward negative interpretation (Beck, 1967; as cited in Davison, 1998). What Beck called the 'Negative Triad': negative views of the self, the world, and the future; constantly work in their minds. An ineptness schema make depressed person individuals fail most of the time, a self blame schema burdens them with responsibility for all misfortune, a negative self-evaluation schema constantly reminds them of their worthlessness (Beck,1985; as cited in Davison, 1998).

Gender differences are a topic of interest to many researchers attempting to conceptualize psychological well-being (Ryff & Singer,

1996; as cited in Roothman, Kirsten & Wissing, 2003) and numerous studies revealed that woman are about twice as likely as men to develop depression (Nolen-Hoeksema, 1990; as cited in Nolen – Hoeksema, 2001). Our project has been motivated by these studies of gender differences and enthusiast to see how gender difference is visible to the psychological well-being and depression among climate refugees. Wadud et al. (2011) investigated the mental health of AILA victims in southern Bangladesh. Nine months after the devastation, they attempted to assess the level of anxiety and depression in 60 respondents (40 male & 20 female, with age range 12-65 years) in acutely damaged village of Satkhira. The results revealed around 45% of the victims suffering from depression. This rate was higher in females (55%) than the male respondents (40%).

Rationale and Objectives of the Study

Hence, Bangladesh is a disaster prone country surrounded by the Bay of Bengal and the north Indian-ocean to the south and the Himalayas; she is always on danger of various catastrophic disasters like tropical cyclones, storm surges, floods, droughts and erosion. The worst sufferer people often displaced from their own locality and become refugee. After any natural disaster, our government introduces several relief programs, but no psychological intervention is provided to sufferers. These help sufferers to survive at best but may not help them to be productive. However, mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (World Health Organization, August 2014). Therefore, it is important to assess mental well-being and depression among climate refugees in order to understand their problem and current mental state and provide evidence to initiate appropriate program by government, civil society, and private organization to improve their condition and help them in psychological and social adaptation.

The current study intended to investigate the gender differences of psychological well-being and depression of climate refugees. This study was also intended to know whether the death of family members had any significant effect on the climate refugees' psychological well-being and depression.

Method

Participants

2 × 2 factorial design was followed to conduct this study. Sixty climate refugees were purposefully selected from various slum areas of Dhaka

city, half of them were males and remaining half were females by age range of 20-60 years. They were displaced from their home districts as a result of natural disasters (flood, hurricane, cyclone, river erosion etc). Selection criteria were, those who are living in the Dhaka city for maximum 2 (two) years and those who were willing to participate. 81.67% of the participants were married. 0.05% of the participants were employed to some work, all of them were females. Monthly incomes of the participants were between TK. 500 to TK. 8,000 per month. None of them received any kind of help from government or non-government organization. 53.33% of the participants had at least one dead member in his/her family as a result of natural disasters.

Materials

Data were collected with the help of following instruments.

Personal Information Form (PIF).

A personal information form containing information regarding the gender, age, marital status, employment status, monthly income, present address and education was used to collect the personal and demographic data.

Bangla version of Psychological well-being scale (Huque & Begum, 2005).

A Bangla version of Psychological Well-being Scale (PWBS) (Huque & Begum, 2005) containing 66 items (among them 33 were positive and 33 were negative) was used to measure the psychological well-being of climate refugees. It is a five (5) point Likert type scale where negative items have reversed scoring. Possible score range is 66-330. The reliability and validity measures of PWBS are Cronbach Alpha 0.88 (whole scale); test-retest reliability 0.86; convergent validity 0.76 and criterion-related validity is 0.78.

Bangla version of Depression scale (Uddin & Rahman, 2005).

To measure the depression of climate refugees, Bangla version of Depression Scale (DS) (Uddin & Rahman, 2005) comprises of 30 items and a 5 (five) point Likert type scale was used. Possible score range is 30-150. The scale is reliable (i.e. split-half reliability correlation is 0.6789, Guttman split-half correlation is 0.7608 and Spearman-Brown correlation is 0.8088. Test-retest reliability correlation is 0.599). For the estimation of concurrent validity, three external criteria were used: a) rating of depression by psychiatrists b) patient's self rating to depression c) diagnosis of depression by

psychiatrists. Correlation between the first criterion and total score was $r = 0.3777$ and for the second criterion $r = 0.558$. Moreover, the correlation between total score and third criterion was highly positive.

Procedure

The respondents were approached individually and briefed about the purpose of the study. Only those who were eager to participate in the study were included. After getting their verbal consent, data collection started. Since most of the participants were uneducated or were not disposed to write; the statements of PWBS and Depression Scale were recite to the participants. It took a typical of 50 minutes to complete an individual record.

Results

Analysis of Variance (Two-way ANOVA) was conducted to see the male-female differences of psychological well-being and depression and to compare the psychological well-being and depression of the participants in the condition of having dead family member/s or not and whether there was a male-female difference.

Table 3.1 *Descriptive statistics of psychological well-being and depression of male and female climate refugees (N=60)*

	Psychological Well-being			Depression		
Gender	n	M	SD	M	SD	
Male	30	210.10	18.265	84.40	9.547	
Female	30	193.60	13.239	93.07	8.461	

Table 3.2 *Summary of ANOVA of according to gender and having dead family member/s (HDFM) of psychological well-being*

Variable	SS	Df	MS	f-value
Gender	4327.074	1	4327.074	17.690*
HDFM	142.931	1	142.931	0.584
Gender x HDFM	916.674	1	916.674	3.747

- $p < 0.001$

From Table 1, it was found that the significant differences between male and female in their psychological well-being ($F = 17.690$, $P < 0.01$). The difference between having dead family member/s and non-dead group in their psychological well-being ($F = 0.584$, $P > 0.01$) were not significant. But there is interaction effect between gender and HDFM variables on psychological well-being ($F = 3.747$, $p > 0.05$).

Table 3.3 Summary of ANOVA of according to gender and having dead family member/s (HDFM) of depression

Variable	SS	Df	MS	f -value
Gender	1215.607	1	1215.607	16.016*
HDFM	43.657	1	43.657	0.575
Gender x HDFM	425.007	1	425.007	5.600**

* $p < 0.001$, ** $p < 0.05$

From Table 1, it was found that the differences between male and female in their depression ($F = 16.016$, $P < 0.01$) were significant. The difference between dead and non-dead group in their depression ($F = 0.575$, $P < 0.01$) were not significant. Results also indicate that there is no significant interaction effect between gender and HDFM variables on depression ($F = 5.600$, $p < 0.05$).

Discussion

Analysis of data clearly indicates, there is a significant difference between male and female in their psychological well-being ($F = 17.690$, $P < 0.01$) and depression ($F = 16.016$, $P < 0.01$). Gender plays an important role on psychological well-being and depression. Previous research findings also support this idea, researchers found that male has higher well-being (Roothman, Kirsten & Wissing, 2003) and female has higher rate of depression (Nolen-Hoeksema, 2001). Well-being and depression are negatively correlated. Higher well-being results in lower depression.

Following any natural disaster, the clinical picture becomes more complicated by poor well-being and depression. The result shows us that women are more depressed ($F = 16.016$, $P < 0.01$) and suffer from poor psychological well-being ($F = 17.690$, $P < 0.01$) as women have always held socially disadvantage position historically. Women appear to possess lower level of wellness in epidemiological studies conducted from a pathogenic perspective (Croese, Nicholas, Gobble & Frank, 1992). Moreover, by virtue of their roles in society, women are more prone to experience a sense of lack of control over negative life events. Negative events like climate disaster are associated with higher-than-expected rates of depression. Another assumption is that women have different responses to being in a depressed mood than do men, and it may be these different responses that lead to differences in the severity and duration of depression for women and men. Women are more likely to ruminate ('The Negative Triad'; cited in Davison, 1998) when they become depressed which is likely to exacerbate depression. Men, by contrast engage in distracting activity like spending much of the time in their occupation when they get in a depressed mood. Here,

almost all women were engaged in some form of activity but still they have a higher rate of depression than men. Women are more prone to internalize their problems. If negative emotions such as depression and anxiety are internalized, it could lead to poor psychological well-being. Some researchers propose that gender differences are encouraged by societal expectation and beliefs regarding sex roles and stereotypes (Morin & Rosenfeld, 1998; as cited in Roothman, Kirsten & Wissing, 2003). The study also intended to measure the effect of having dead family members on their psychological-wellbeing and depression. The result found no significant difference between dead and non-dead group. Besides, the study also wanted to know whether family having dead members had any male-female difference on their psychological well-being and depression. Result shows no significant difference.

This research is open to criticism for several reasons. There were inadequacy of previous literature, gap on research knowledge, online books and journal. The research sample was not truly representative, due to the utilization of an availability sample. Therefore, the results are only applicable to this sample and can't be generalized to greater population. Moreover, samples were collected only from Dhaka city slum areas and including all the areas were not possible. So, it is necessary that further research be conducted with a representative sample, comparing older and younger respondents and from outside the Dhaka city. The individual's life context should also be considered whether an association exist between psychological well-being and depression and social support, socio-economic status, and level of education. The non-significant difference in psychological well-being and depression of dead and non-dead group and gender difference of the dead group regarding respondent's sex and age demands further investigations in the topic to understand the nature of resilience of population of this land towards natural calamities caused by climate change. Furthermore, these also tell us that both demand equal attention in respect of psychological intervention. As depression increases due to poorer psychological well-being and women are the main sufferer, necessity of social support and help of expertise are highly recommended.

The report concludes with by proposing a number of implications for providing potential solutions to climate refugees, including that:

- (1). Understanding of the mental state of the refugees would be much clearer than before and necessary initiatives could be introduced;
- (2). Government and NGO's could take related psychological intervention like short-term or long-term counselling sessions to help the victims lead a normal life.

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4 Climate Change Impact in Bangladesh: Environment and Biodiversity

Shamim Hosen

Introduction

Bangladesh is one of the most climate vulnerable countries in the world (General Economics Division (GED), 2009, p. 25) and more than 70 million people would be affected by climate change impact (Chowdhury, Banu, 2012, p. 113). Statistics disclosed that by the year 2050, 45 cm rise of sea level may submerge 10-15% of the land displacing more than 35 million people from the coastal regions (MoEF, 2009, p. xvii). Climate change through increased air and ocean temperature has direct or indirect effects on environment and biodiversity. Climate change impact has caused multiple shifts in the distribution of some species like amphibians, butterflies, grasses and migratory birds. A broad variety of amphibians, birds, crustaceans, mammals, reptiles, will face extinction in Bangladesh for the destroying impact of climate change. As environment is the sum total of all surroundings of a living organism, including natural forces and biodiversity is the degree of variation of life which measure the variety of organisms present in different ecosystems, we have to ensure the safety of environment and biodiversity for our own security. However, observe the impacts of climate change on environment and biodiversity a long term research and monitoring is necessary along with developing climate change response activities to identify the specific threats to ecosystem.

The objectives of the study are to observe the impacts of climate change on ecosystems and biodiversity; to identify the barriers responsible for poor implementation of government policies; to recommend policy options to speed up national actions in terms of adopting environment and biodiversity mechanisms.

Defining Concepts

Climate

In simple sense, climate is defined as the "average weather". It is the statistical description of relevant quantities (such as temperature, precipitation, and wind) over a period of time. The statistical description is given in terms of mean and variability. World

Meteorological Organization (WMO) assumes 3 decades as the classical period. In the broad sense, climate is the state of the climate system along with a statistical description (EPA, 2013). Atmosphere, hydrosphere, lithosphere, and biosphere are the components of climate system (IPCC, 2007).

Climate Change

The change in the state of the climate system that lasts for an extended period is denoted by the climate change. This change is identified by the changes in the mean and the variability. The United Nations Framework Convention on Climate Change (UNFCCC) defines climate change as: ‘a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods’ (IPCC, 2007).

Environment

The term ‘*environment*’ is a vast one: ranging from microbe action to the size of world population (Nasreen M., 2000). Environment has been defined as “the aggregate of all the external conditions and influences affecting the life and development of an organism” (The Webster’s New Collegiate Dictionary).

Biodiversity

Biodiversity denotes to the diversified ecosystems and living organisms i.e. animals, plants, their habitats and their genes on earth (IUCN, 2010). Biodiversity also denotes to lots of diversified ecosystems where different species form their distinctive communities and interact with one another and also with the air, soil and water (Swingland, 2001).

Environmental Governance

Environmental governance is the concept in political ecology and environmental policy which advocates sustainable development as the highest consideration for managing human activities. It assumes a desirable future state for human societies in which living conditions and resources meet human needs without undermining the sustainability of natural systems and the environment, so that future generations may also meet their needs (Asefa, 2005).

Methodology

This study has conducted by reviewing literatures on climate change and focusing on its effects on environment and biodiversity in Bangladesh. Data have collected by using articles, books, documents,

dailies journals, and reports. The report is presented in a descriptive pattern with some statistical analysis.

Significance

Climate change is destroying the food chain for selection of organisms present in different ecosystems and the rise of sea level will result in the submergence of coastal areas. Bangladesh government has taken multiple strategies to ensure safe environment and biodiversity; however, all these programs of government have often failed to mitigate the impacts of climate change on environment and biodiversity. A number of studies have been conducted on the issue of climate change, but these studies have some limitations in term of identifying the cause of weak policy implementation. It encourages me to conduct a study on Climate Change Impact in Bangladesh: Environment and Biodiversity.

The significance of the study is to provide suggestions to formulate more effective policy (in decision making, enforcement of environmental laws, strengthening institutional capacity and increasing public awareness) options in the battle against climate change for protecting the environment and biodiversity.

Impact of Climate Change in Bangladesh

Bangladesh is a deltaic which shares common border with India and Myanmar. The Bay of Bengal is situated in the south. The average annual rainfall varies from 1400 mm to 4500 mm and annual mean temperature over Bangladesh is likely to increase by 0.22 degree C and 0.41 degree C by 2050 and 2100 years respectively (MoEF, 2007). Bangladesh is endowed with rich and diverse genetic resources of flora and fauna because of its bio-climatic environment and its location at the complex interface of the Himayalan and the Southeast Asian bio-geographic regions. The forests cover about 17% of the total land area. The Sundarbans, the largest mangrove forest in the world is located in the south-western part of the country. A few hundred species and sub



Source:(<http://www.bhcanberra.com/tourism.php>, 2014)

species of birds including many migratory and seasonal birds are found in the country.

Climate Change Impact on Environment

Bangladesh is facing serious environmental degradation due to climate change and its reflections on environment are discussed below:

Cyclones

The tropical cyclones in 1970 and 1991 are estimated to have killed 500,000 and 140,000 people respectively (MoEF, 2009). Devastating cyclone also hit in 2007 and 2009 in the coastal area of Bangladesh.



Source: www.dwan.com

Floods

The country experienced 30 damaging floods between 1954 and 1998, of which 12 were severe and 5 were catastrophic. Flood in 2004 caused inundation of 38% land, damages 6.6 billion dollar, affected nearly 3.8 million people with 700 deaths (MoEF, 2005). Flood in 2007 inundated 320,000 Sq. K. land and almost 1 million houses damaged with 649 deaths (Government of Bangladesh, 2007).

Droughts and Dryness

Table -1 Summary of Drought Severity Areas in Bangladesh by Crop Season (in M ha)

Drought Class	Rabi	Pre-Kharif	Kharif
Very Severe	0.446	0.403	0.344
Severe	1.71	1.15	0.74
Moderate	2.95	4.76	3.17
Slight	4.21	4.09	2.90
No Drought	3.17	2.09	0.68
Non-T.Aman			4.71

Source: (Karim & Iqbal, 2001)

Land degradation due to dryness and loss of crops due to drought may have caused more human sufferings than any other environmental problems in Bangladesh. Because of rainfall variation in the pre and the post monsoon periods, northwestern part of Bangladesh is prone to drought primarily. Inadequate pre-monsoon showers, a delay in the onset of the rainy season or an early departure of the monsoon may

create drought conditions in Bangladesh, and adversely affect crop output (Karim & Iqbal, 2001)).

Salinity and Sea Level Rise

About 53% of the coastal areas are affected by salinity because of sea level rise and sea water intrusion due to climate change (Mahmood, 2012). Climate change is drastically affecting the natural ecosystem of world's largest mangrove forest Sundarbans. In winter months the saline front begins to penetrate inland, and the affected areas rise sharply from 10 percent in the monsoon to over 40 percent in the dry season (Management, 2012).

Desertification

Choudhury has described the world Bank's report that, the ratio of cultivable land to rural population (acre/person) has decreased in the northwestern area by 23.2% as compared to a decreased ratio of 17.2% in the whole of the country

(Choudhury, 2006).

Some geographers and ecologists claims that there is evidence of desertification from the very dry soil conditions in the Barind Tract region and the white reflectance of the



Source: www.wateraid.com

soil surface on air photos and satellite imageries.

Climate Change Impact on Biodiversity

Climate change is affecting the biodiversity both directly and indirectly. It could play a major role in the extinction a quarter of land animals and plants in the near future. It has resulted in numerous rearrangements in the worldwide distribution and abundance of species (such as amphibians, grasses, migratory birds and butterflies) over the last 30 years (MoEF, p. 2). The adverse impacts of human interventions, fragmentation of habitats, etc. on the biodiversity will be furthered by the impacts of climate change (MoEF, 2009, p. 28). Natural forest includes hill forests (tropical wet evergreen and semi-evergreen forest), sal forest (moist deciduous forestry), mangrove forest (tidal forest), and village forestry (Baten & Ahammad, 2008).

Salinity increase has replaced the tree species offering dense canopy cover with non-woody shrubs and bushes and consequently decreased forest productivity and deteriorated wildlife's habitat quality in the Sunderbans (Baten & Ahammad, 2008). The rich diversity of the forest flora and fauna of the Sundarbans ecosystem may experience a gradual depletion by the degradation of forest quality (Arefin, 2011, p. 7) (MoEF, 2009, p. 28).

At present, Royal Bengal tiger, salt water crocodile, the leatherback sea turtle, python, spotted deer, rhesus monkey, dolphins, sea eagle, vulture, forest eagle, owl, swamp partridge, brown wing kingfisher, ring lizard, green frog and other species living in the Sundarbans are in danger (Arefin, 2011, p. 8).

Increased rainfall has accelerated soil erosion which is liable for leaching of nutrient, destruction of micro-organisms and reduction of overall quality in the hill forests of Chittagong, Chittagong Hill Tracts (CHTs), Sylhet, and Cox's Bazar. Furthermore, village forests have also been affected as frequent and prolonged flood has triggered the mortality of home-garden species (Baten & Ahammad, 2008). Sal forest ecosystem would be affected by increased moisture stress caused by enhanced evapo-transpiration during the winter (MoEF, 2009, p. 28).

Government to Address Climate Change

The following national policy documents developed by the Government of Bangladesh have addressed the issues of Climate Change Including Adaptation:

Environmental Strategies

The 'Ministry of Environment and Forest (MoEF)' of Bangladesh is first and foremost accountable for environmental protection. The MoEF steps to minimize climate change impact are noted below:

- a. National Capacity Self-Assessment (NCSA): The project was implemented by MoEF with the technical support of The World Conservation Union (IUCN), Bangladesh Country Office and financial support of the United Nations Development Program (UNDP), Bangladesh; to assess the capacity needs and prepare a capacity development action plan for sustainable environmental governance.
- b. National Adaptation Programs of Action (NAPA): The National Adaptation Programs of Action (NAPA) for Bangladesh has been prepared by MoEF as a response to the decision of the COP 7 of the

UNFCCC. The project has identified 15 priority activities including general awareness raising, technical capacity building and execution of projects in different vulnerable areas, with a budget of US\$ 73.70 million (MoEF, 2007).

- c. **Climate Change Cell:** The Climate Change Cell was established at the Department of Environment (DoE) in 2004 under the Comprehensive Disaster Management Program (CDMP) of the Government as a response to the recognition that Bangladesh is particularly vulnerable to the effects of climate change.
- d. **Knowledge Enrichment Program:** Environmental education program has been incorporated in primary and higher education. Many universities have introduced various curriculum and projects on environmental issue. Government organizations as well as NGOs present meetings and seminars to raise public awareness on the environmental issue.

Development Strategies

The Government has shown itself, able to recognize delivery weaknesses and marshal resources to ensure overall development as follows:

- a. **Planning for Development:** “Five Years Plan” has given emphasis on poverty alleviation, increased self-reliance and meeting the basic needs of the people with particular focus on human resources development, women in development and environmental sustainability.

Plan size and actual expenditure (in million Taka) and GDP growth rate of past plans are shown below:

Plan	Plan Size (Million BDT)	Actual Expenditure (Million BDT)	Growth Target (%)	Realized Growth (%)
1 st Five Year Plan	44,550	20,740	5.50	4.00
Two Year Plan	38,610	33,590	5.60	3.50
2 nd Five Year Plan	172,000	152,970	5.40	3.80
3 rd Five Year Plan	386,000	270,110	5.40	3.80
4 th Five Year Plan	620,000	598,480	5.00	4.15
5 th Five Year Plan	1969,521	1717,878	7.00	5.21
6 th Five Year Plan	1347,000		8.00	

Source: (Five Year Plan)

- b. **Climate Change Trust Fund (CCTF):** Climate Change Trust Fund has established under the MoEF and budget for CCTF with 100 million dollar for FY2009-2010 and 100 million for FY2010-2011

has been allocated from Government's own resources (Rabbi & Ahmed, 2012). Government also allocated same amount of money for the current financial year.

- c. National Agenda-21: Bangladesh has recently formulated its National Agenda-21 program in line with UNCED Agenda-21. The Agenda 21 calls for implementing integrated resource management programs in the ecologically sensitive areas, integrating desertification combating policies in the national development plans, expanding watershed conservation activities with people's participation. and continuing forest management.

Status of Policy Implementation

The Government is concerned about environmental issues in general and the concern is reflected in the different policy initiatives that have taken by the government. The major policy initiatives and strategies emphasized environment and natural resource management, land management, and forest development with a view to achieve sustainability in resource conservation and utilization.

Table-3: International Convention, Treaty and Protocol and Place and Year of Signing

No	Convention, Treaty and Protocol and Place and Year of Signing	Signed	Ratified or Accessed	Being Ratified
1	Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar, 1971)		20.04.92 (ratified)	
2	Convention on International Trade in Endangered Species of Wild Fauna and flora (Washington, 1973.)	20.11.81	18.02.82	
3	Vienna Convention for the Protection of the Ozone Layer (Vienna, 1985.)		02.08.90 (AC) 3 1. 10.90 (entry into force)	
4	United Nations Framework Convention on Climate Change (New York, 1992)	09.06.92	16.02.94	
5	Convention on Biological Diversity, (Rio De Janeiro, 1992)	05.06.92	20.03.94	
6	International Convention to Combat Desertification, (Paris 1994.)	21.06.94		1995
7	Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, (Geneva, 1976.)		03.10.79 (AC) (entry into force)	

Source: (MoEF, Convention & Treaty, 2014)

The core policy, strategy, and action thrusts have been outlined in the Outline Perspective Plan, National Adaptation Program of Action (NAPA), Bangladesh Climate Change Strategy and Action Plan, adopted in July 2008 and amended in 2009 (Arefin A. B., 2011). Adaptation to the impacts is the main focus of these plans.

Findings of the Study

Climate change impact in Bangladesh is acute and it is destroying the natural environment and ecosystem. Along with international organizations, the government of Bangladesh has taken multiple steps to manage climate change impact through implementation of numerous projects and plans. However, a number of factors are involved in weak implementation which includes lack of good governance and political institution, corruption, unplanned use of natural resources, defective industrialization and urbanization process, social disparity, exploitation, inequality etc. Developed countries emit carbon and GHGs more than that of developing countries, but they are always silent in times of mitigating climate change impact. Sometimes the western development model does not suit with the environment of our country and most of the times donor agencies set obligatory bindings in the implementation of a project for their own interest and it affects in the resultants.

Policy Suggestions

Along with government policies some other steps may also be taken to improve the environmental degradation:

- Environmental technologies and methods might be used for integrated policy formulation, decision making, and monitoring of environment.
- A comprehensive environmental database may be made and the environmental planners might have the access for environmental up gradation, planning and management.
- Formal and informal methods of education might be adopted through local media, seminars, celebrations, workshops, walks and student competitions to aware the people regarding the impact of climate change.
- The industries might be given both technical and financial support for introducing mitigation measures, promoting green technologies, using less pollution technologies and recycling the waste.

- Environmental Conservation Rules and environmental laws might be enforced further to punish the violation of the emission limits.
- Government must strengthen vehicle emission standards, complete the emission inventory and conduct an investigation on the emission control measures.
- The national and international action in terms of funding and adopting sustainable development mechanisms should speed up.

Concluding Remarks

In fine, it can be said that Bangladesh is one of the most vulnerable countries to Climate change and climate change impacts will be enormous in the coming near future. Environmental problems occur mainly due to population growth, urbanization, industrialization, rapid rise in transportation, inadequate and improper traffic management, poor sanitation systems and inefficient solid waste management. Environmental issues need to be dealt with the participation of all concerned, with the government and citizens at the relevant levels. In Bangladesh, we have adopted western development model in the context of disaster management, poverty reduction, population control and sustainable resource management. But this kind of development models has failed to reduce poverty, population growth as well as environmental sustainability in a meaningful way. There is a need for comprehensive strategy to maintain sustainable resources as a means to reduce degradation and to ensure overall development through lessening climate change impact.

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PART TWO
ECONOMIC SUSTAINABILITY

5 Supply Chain Management in Readymade Garment Industry of Bangladesh

Mohammad Hasan

Introduction

RMG manufacturing is one of the suitable examples of SCM. For example, design and development is done by any developed country like Germany, raw materials are sourced from developing countries like China, and merchandises are manufactured in Least Developed Countries (LDC) like Bangladesh and finally goods are sold to different developed and developing countries of the world. In RMG business value chain, manufacturing is in the lowest segment with highest risk. That's why this manufacturing function was never static in any particular region or country. Manufacturing RMG, as a labour intensive industry, always followed the countries where the lowest wage of labour was available. Interestingly, this low waged manufacturing industry has played as a "start up" industry of many developed countries. Before 1960s, developed countries like the UK and the USA used to procure garments from domestic firms. The following table shows the relocation of RMG production from high wage regions to low cost production regions. Improvement of global communication system and international trade policies made this shifting easier and quicker.

Table 1: Relocation of production

From	To	Period
North America and Western Europe	Japan	In the 1950s and the early 1960s
Japan	The Asian Tigers –South Korea, Taiwan, Hong Kong and Singapore	In 1970s.
The Asian Tigers	Other developing countries Philippines, Malaysia, Thailand, Indonesia and China +	Mid1980s through the 1990s
Developing + LDCs	Sri-lanka, Bangladesh, Pakistan, India, Cambodia Vietnam and Myanmar	The 1990s

Among the four main stages of business modes, our participation is mostly in preliminary or entry stage i.e. CMT wheremaker gets cutting, making and trimming cost. Sometimes, buyers procure the materials

from any third country and send it to the manufacturer on FOC (Free of Charges) basis and pay only cutting, sewing and trimming cost. Since most of the big retailers have their own offices in Bangladesh, they take the responsibility of trimming sourcing. Basically RMG in Bangladesh works on CM basis. The second stage of business mode is called Free on Board (FOB), from raw materials sourcing to delivery up to loading point where the responsibility goes to the factory. The price factory offers to the buyer includes raw materials cost + CMi.e. the price of fabrics, accessories including cutting and making charges. The possibility of earning is little more in FOBmode than CM or CMT. The RMG business in our country is based on these two types of modes - CMT and FOB, where FOBratio is very low.

Other two stages are Original Design Manufacturer (ODM) and Original Brand Manufacturing (OBM). Unfortunately, these, high value segments, third and fourth stages, remain far away to be reached by the industry even after three decades. Table 2 shows the difference between customer's buying price and manufacturer's charges in value chain.

Table 2: Global Value Chain and our value retention in per dozen)

Brand	CM/dz	FoB/pc	Price Tag/pc
1	\$ 19.00	\$ 7.55	\$ 40.36
2	\$ 18.5	\$ 5.50	£ 12.00
3	\$ 21.00	\$ 8.60	£ 30.00
4	\$ 15.50	\$ 6.12	£12.00
5	\$ 14.5	\$ 6.88	\$ 68.00
6	\$ 21.00	\$ 7.82	\$ 62.00
7	\$ 35.00	\$ 6.28	£20.00
8	\$ 16.5	\$ 5.49.00	\$ 59.50
9	\$ 17.50	\$ 6.80	Lira 44.30
10	\$ 18.00	\$ 6.80	SA r 180.00

In whole supply chain, Bangladesh does the manufacturing job but does not manufacture basic raw materials of the garment. Our competitors like China and India has their own sources of materials. Vietnam, Cambodia, needs only one week to receive the materials from Shanghai. So, lead time is another important issue of RMG business.

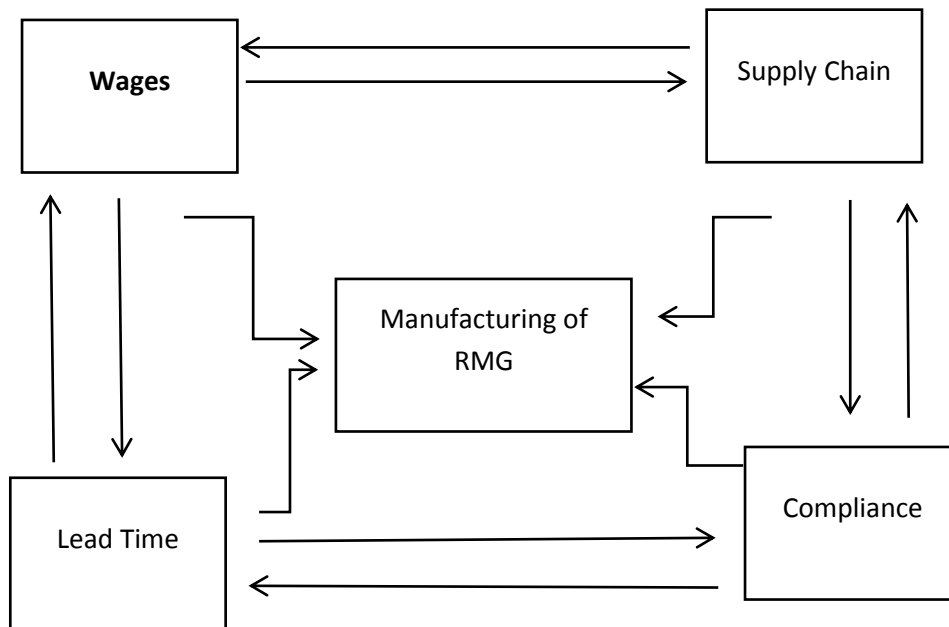


Diagram 01: main features and their interdependency in RMG business

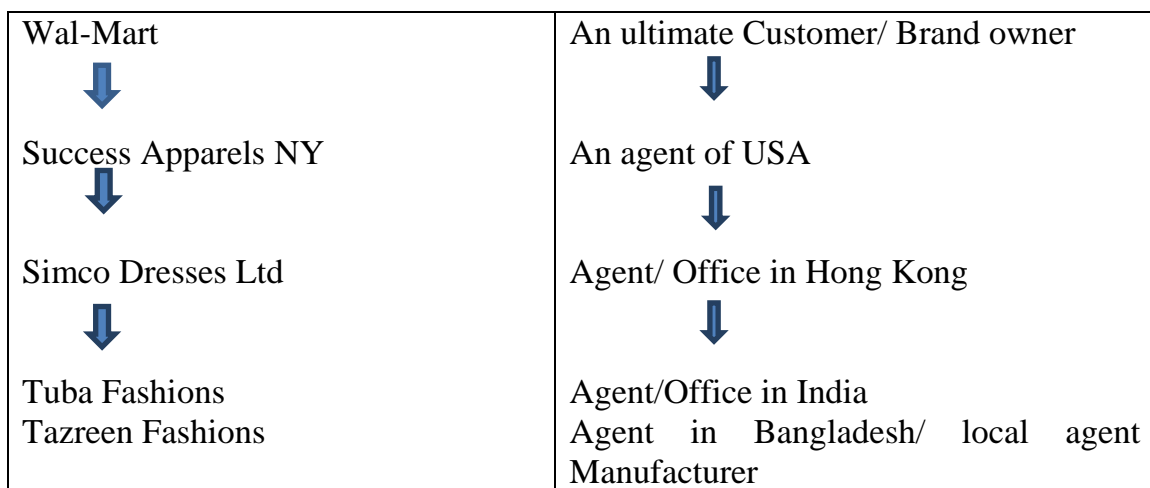
Depending on style criticality and materials to be used, this time frame ideally was 120 – 150 days. On the contrary, this period has been shrunken remarkably. With the reduced time frame, production has to take huge pressure. Political instability - hartals, strikes, workers unrest, port congestions, customs deficiency, shortage and failure of power and gas etc has been eating up the one fourth of lead time. Moreover, failure of raw materials schedule along with partial or wrong delivery is a common phenomenon of the supply chain. For the business, the most challenging issue of the present time is supply chain.

As part of the international supply chain, a factory can't do whatever it needs to do to meet the lead time. The other main feature of the industry is compliance. The factories' activities are strictly controlled by the Code of Conduct (CoC) and they are also under constant monitoring by the buyers' nominated representatives. Materials are not available at the right time, compliance doesnot permit excessive work or no compromise with lead time. All this is really a quandary for the RMG industry.

Why Supply Chain Management is so Important

Apart from the ultimate consumer and manufacturer, there are many other parties in between, involved in RMG business. In many cases a work order comes to a manufacturer through four to five different

hands/ phases. For example, A buyer in USA (ultimate customer/brand owner) confirms the business with an agent of that country. That agent has another agent in Hong Kong. Now many agents have their office in India. The agent in India has another agent in Bangladesh which is called “local agent”. That local agent communicates with the manufacturer. Tazreen Fashions where devastating fire incident took 113 lives of garment workers in 24 Nov 2012 had been working with Wal-martInc through an agent in New York named Success Apparels NY. Success Apparels NY gave the order to SimcoDresses Ltd Bangladesh, SimcoDresses Ltd made a contract with Tuba Fashions, Tuba fashions got the job done with Tazreen Fashions. Thus the things are getting done in our RMG sector.



Each work order has its own schedule. The period from the order placement to shipment is called lead time. A manufacturer chalks out a critical path to complete the work within that lead time. Usually, buyers allow 60-90 days for woven garment order, where principal materials are imported. On the other hand, it is only 30-60 days for knit items as fabrics are mostly procured from local sources. In most of the cases, buyers are uncompromising in their lead time. Local Problems are not the buyers' concern; rather sometimes they take the advantage of the situation.

One small materials missing or delayed mismatch full order at stake. One single order delivery schedule failing jeopardizes the whole production plan. Unplanned and earlier importation of material increases inventory level. Delayed in-house of materials create line gap. Both the situations have a negative impact on finance. On the other hand, if the finished goods are not shipped on time due to not getting the approval factory has to pay the bills of BTB L/Cs against bank loan with high interest. So factory always tries to avoid delay shipment even covering the delay with overtime work which incur

double cost of production. When this overtime work does not help then they take the risk of un-authorized sub contract. Excessive overtime work and un-authorized subcontract both are the violation of compliance, another inevitable feature for the industry.

In short the importance of supply chain can be pointed out as below -

- a. To keep the manufacturing activities under discipline
- b. To accommodate with shorter lead time
- c. To avoid over /under inventory
- d. To minimize wastage of money
- e. To run the company efficiently
- f. To ensure sustainable growth

Objectives of the Study

Readymade garment industry has been passing through many difficulties which the industry has never faced before. Devastating fire in Tazreen fashions and Rana Plaza collapse have raised the question of its capability in terms of compliance, fire safety and building integrity. Only minimum wage competitiveness does not guarantee of international business of this kind. Hundreds of factories are closed, thousands of workers have lost their jobs, many factories are running under capacity even after accepting the business at cost price. For the first time growth of our RMG export has fallen down mainly on compliance ground. Non functional supply chain increases production cost. Owners consider any investment on compliance as another cost. So to ensure compliance there is no way to enforce effective SCM.

Among the four important features proper supply chain is the key to others. All the features is interrelated and interdependent. All of our competitors have the advantage in lead time, they are in better position in supply chain and compliance. Our main competitiveness is low wage. Only wage competitiveness alone can't ensure business growth and sustainability.

To meet the short delivery time and to minimize stock level and wastage, to reduce extra load on finance and to gain customer satisfaction there is no alternative to an effective SCM system in place.

In the whole supply chain system the parties involved are- Business provider, Manufacturer of materials, Manufacturer of finished goods and Brands. Moreover, some other parties involved in the chain connect the parties like Freight Forwarder, Career (Main Line Operator), Bank, Customs, Export Promotion Bureau (EPB) Port,

Transport, Clearing and Forwarding (C & F) agent etc. It is a difficult job to make an effective coordination among all the parties. Common interest and business relationship can make a strong bondage in macro level SCM. On the other hand, proper planning and co-ordination among the departments inside the company are very important to make the system effective.

My object of the study is to identify the interest group in supply chain, analyze the importance and difficulties of SCM and find out the solutions to overcome those difficulties.

Macro Level Activities

Macro level SCM system involves the parties in different companies of different countries like suppliers, manufacturer, and brands. In global or macro level links, relationship and commitment of different suppliers, services of bank, ports, customs along with transportation, documentation are very interconnected. If the the parties involved work jointly then it is possible to render an effective management system. This is a team work. Non performance by any member of the team is enough to lose the game. We can classify macro level activities into two stages like pre-production and post-production.

Pre-production Activities

1. Development and Order confirmation Member from Marketing and/or Merchandising team negotiates and confirms order based on style, price, delivery date and prepares a critical path to execute the order within the time frame.
2. Sampling and Material booking Based on buyer's given specification sample section makes the samples (prototype) of different types like - development, style, pre-production, size set etc. and sends to the buyer for their comments and approval. Simultaneously, merchandising team confirms the materials booking with concerned suppliers. For any CM order buyer nominates the supplier and fixes the price; it's the manufacturers' liberty when the business mode is FOB.
3. Master L/C, Sales/Purchase Contract After the confirmation of business, buyer provides with the Letter of Credit (L/C, also called Master L/C) or purchase contract in favour of manufacturer where terms and conditions of the business including unit price, shipment date etc are cited.

- 4 BTB L/C to procure the materials to be used in garment production manufacturer opens the L/Cs infavour of suppliers which is called back to back L/C.
5. Pre-production meeting After having all the materials along with approval, a pre-production meeting is required among technical, production, quality, and store people in presence of buyers' representative to run the production smoothly. This meeting determines the men, machines and production lines required to meet the target shipment date.

Post-production Activities

When goods are ready, final inspection is offered. If the merchandises pass in inspection then factory send the goods to the port – sea or air, according to mode of shipment.

Macro level Links -

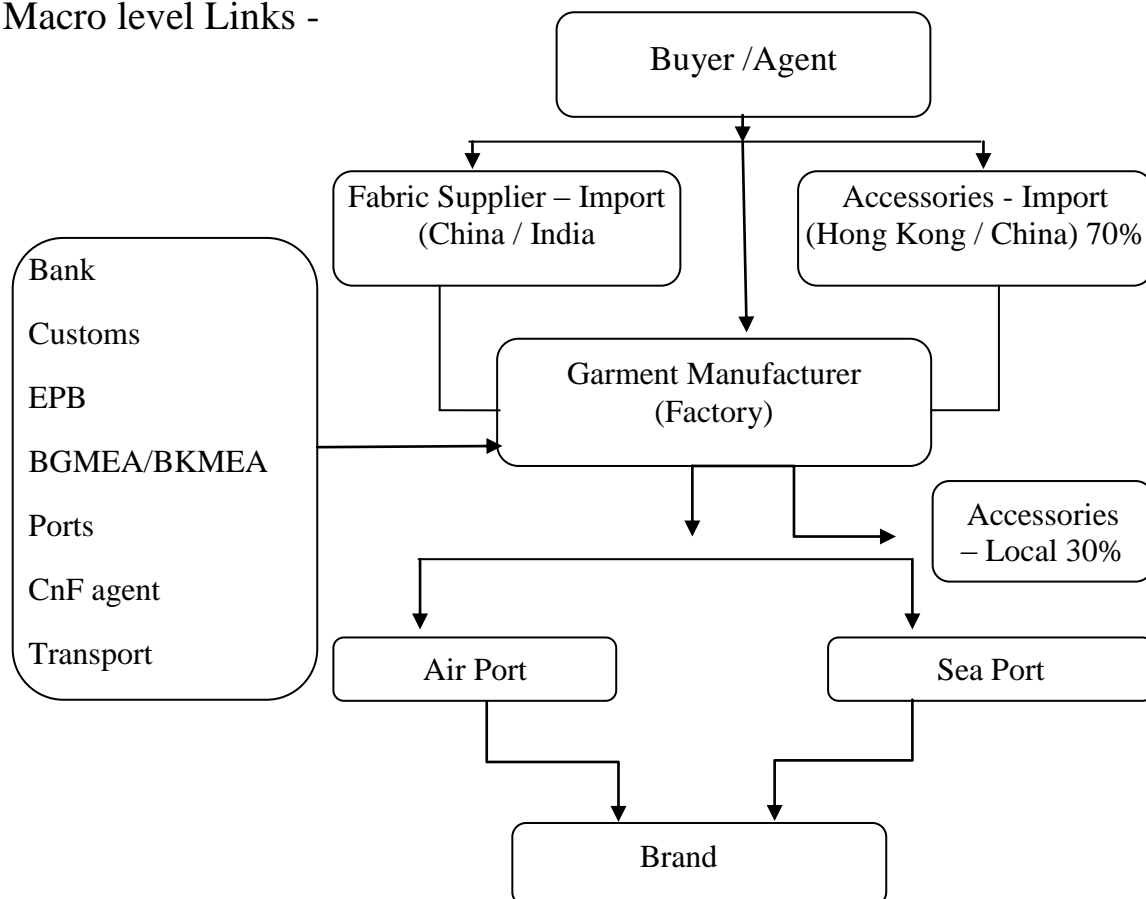


Diagram 02: Links of Macro Level or Global supply Chain

Micro Level Activities

There are basically two types of functions – a) Service, where the persons deal with buyer, supplier, involve in documentation etc are sitting, called Head office b) Production, where production operation activities are performed, called Factory. Even within the production

operation there are many departments involved. The links between factories and head office or among the departments of the factories can be classified as micro level.

Production Activities

The total production process can be divided mainly into three sections - cutting, sewing and finishing. The process of sewing, from front placket joint to button joint, is called line, in case of woven top garments. The size and capacity of any factory is determined by the number of lines. This is not irrelevant to mention here that we have huge numbers of factories with small capacity/lines. A plastic button, mismatched sewing thread, shortage of size or care label can stop whole the production line.

Micro Level Links -

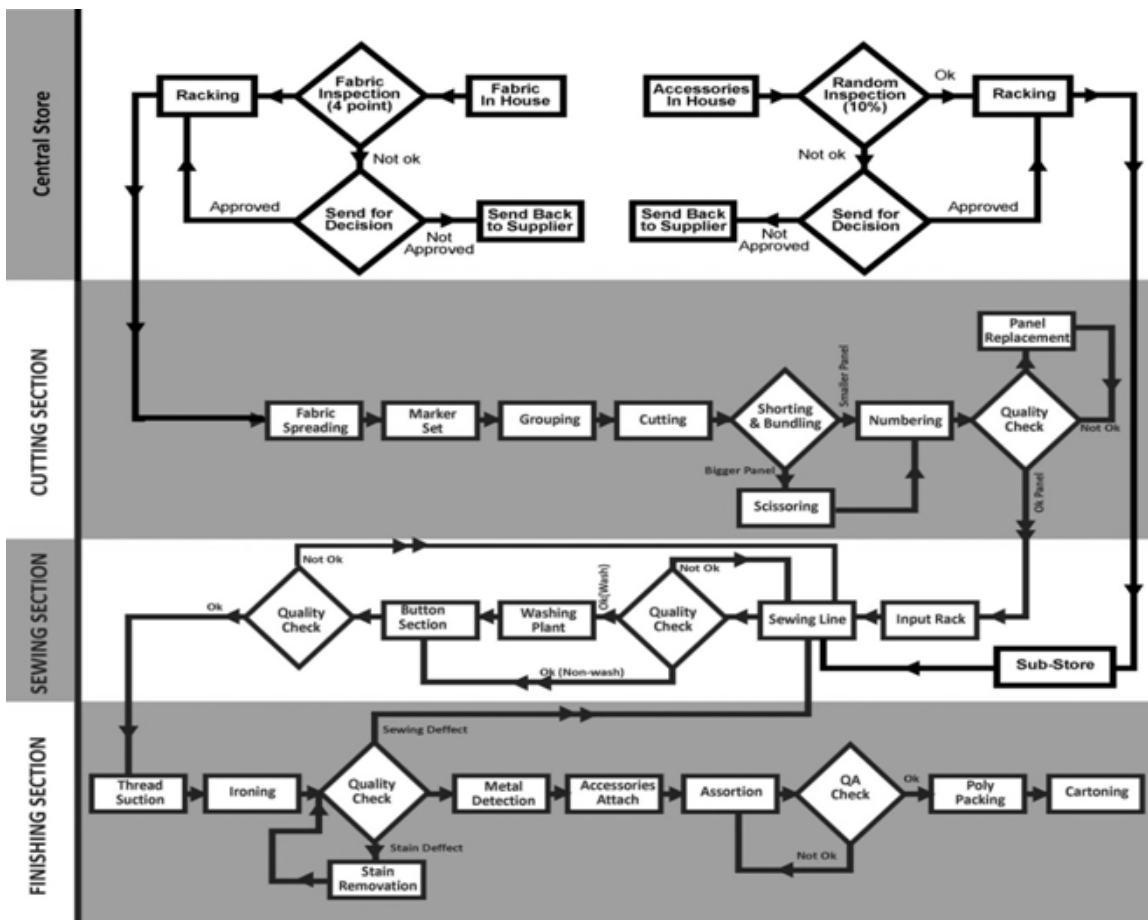


Diagram 03: Supply chain Links of Micro Level or within the Manufacturing unit

An Empirical Analysis

I have already mentioned that RMG is a buyer dominating supply system where garment makers have a very limited role as most of the businesses in our country are of CM based. Unfortunately, even with a limited role in supply chain, factory has to face tremendous pressure to

meet the lead time. In this particular business, suppliers are not static and a huge number of suppliers are involved to make a single shirt of a particular style. For the same buyer it's not necessarily that suppliers list and items will be the same. The number of suppliers varies depending on style specifications. Mr Kajal, leading a team of merchandisers, informed that there are almost 20 items required for a single shirt.

Table 03: A list of common items/materials

Product	Items		
	Main	Sewing	Finishing
Mens' woven Shirt	Fabric	Thread, Button, Interlining, label (main, size, fit, care, barcode), Zipper, Elastic etc.	Pin, Poly, Carton, Plastic clip, M-Clip, Butterfly, Neck board, Back board, Collar insert, Collar bone, Poly sticker, Tag pin, Carton sticker, Price ticket, Tie (if needed).

A factory dealing with 15 buyers has to handle at least 100 suppliers. Mr. Kajal also said that most of the factories run their operation in traditional system i.e. not having any modern information system. In CMT based order buyer or their local agent control the suppliers. They communicate with them, collect Pro-Forma Invoice (P/I) and forward the same to the factory to open BTB L/C in favour of supplier. Sometimes local materials are sourced by the factory.

To combat with the shrunken lead time industry needs to improve in SCM system. Mr. Nurul Kabir, started his career in 1997 as a merchandiser, now running a buying house, told that buyer wants everything ready and instant. Online costing and bidding orders are now common for which they took 2 - 3 weeks. He was allowed 120 days in case of solid fabrics and it was 150 days for yarn dyed. Now he is having 60 -75 days and 90-120 days respectively.

He further added that in repeat order it is within 45 – 60 days against the garments with local denim fabrics. Another Marketing in-charge of composite-knit division explained how they are to manage shorter lead time. They keep the fabric ready in grey condition. After having the style details they go for dyeing thus they can manage the lead time within 30–45 days for repeat orders and for fresh order, buyer does not allow 60–75 days which was 90–120 days earlier.

Mr Hoque, almost for two decades with the industry and responsible for marketing, explained this issue differently. In CM orders everything sourced by the buyer, they have an arrangement with the fabric mill. They develop the fabric and send to garment factory on FOC (Free of charge) basis. Factory has to consider transit and

production time. Thus they are getting 60 days lead time and in case of FOB orders they need 90 – 120 days depending on fabric quality.

Mr Alam deals with trouser factory which gets 120 days for fresh orders and imported fabric but he is not given more than 75 days for repeat orders with local fabrics and it is 90 days for fresh order with local fabrics. This is important to mention here that in knit and denim fabrics category Bangladesh is almost self reliant. From the above interviews I can compare the lead time extension in two different periods as below –

Table 04: Previous and Present Lead Time

Year	2000	2014
Woven	120 – 150 days (imported)	60- 75 local
		90- 120 imported
Knit	90 -120 days – local	30 – 45 days repeat
		60 -75 days fresh

Mr. Tofazzal, factory manager of twenty one lines, commented that above shortened lead time keeps our production team under huge pressure. Our workers' skills and productivity also increased than that of decades before.

Ms Shohely Shuraya, a merchandiser in a shirt factory deals with five customers of different countries. To manage all those customers she follows a Critical Path System. According to her in more than 90% cases she can't maintain initial plan.

In the critical path she keeps an order status under three phases – a) Plan: She makes plan based on order confirmation with the buyer, it's a both-parties agreement. b) Forecast- after getting the information from fabric supplier on ETD (Expected Date of Departure) she forecasts a date of fabric arrival c) Actual – It's the date of execution of any plan.

Table 05: Deviations among plan, forecast, and actual dates

Order #	Order qty		Input	Production complete	Remarks
1608	8000	PLAN	9-Aug-14	6-Sep-14	4 days earlier from plan but 5 days later from forecasted date
		FORECAST	12-Aug-14	27-Aug-14	
		ACTUAL	16-Aug-14	2-Sep-14	
1609	6000	PLAN	25-Aug-14	22-Sep-14	5 days later from plan but 1 day later from forecasted date
		FORECAST	5-Sep-14	21-Sep-14	
		ACTUAL	11-Sep-14	27-Sep-14	
1610	6500	PLAN	28-Jul-14	25-Aug-14	7 days later from plan
		FORECAST	12-Aug-14	25-Aug-14	

Order #	Order qty		Input	Production complete	Remarks
		ACTUAL		2-Sep-14	
1611	6000	PLAN	28-Jul-14	25-Aug-14	20 days later from plan, 7 days later from forecast
		FORECAST	24-Aug-14	8-Sep-14	
		ACTUAL	27-Aug-14	15 Sep 14	
1612	6000	PLAN	28-Jul-14	25-Aug-14	7 days later from plan , 8 days later from forecast
		FORECAST	12-Aug-14	24-Aug-14	
		ACTUAL	16-Aug-14	2-Sep-14	
1613	6000	PLAN	7-Aug-14	4-Sep-14	13 days later from plan 9 days from forecast
		FORECAST	25-Aug-14	8-Sep-14	
		ACTUAL	28-Aug-14	17 Sep 4	
1614	8000	PLAN	2-Aug-14	30-Aug-14	
		FORECAST	23-Aug-14	8-Sep-14	
		ACTUAL	28-Aug-14	20-Sep-14	
1615	8000	PLAN	2-Aug-14	30-Aug-14	25 days late
		FORECAST	24-Aug-14	10-Sep-14	
		ACTUAL	26-Aug-14	25-Sep-14	
1626	6500	PLAN	25-Aug-14	02-Sep-14	Maintained planned date even after 5 days later start
		FORECAST	20 Aug 14	27 Aug-14	
		ACTUAL	30-Aug-14	02-Sep-14	
1627	6000	PLAN	27-Aug -14	03-Sep-14	Maintained planned date even after 9 days later start
		FORECAST	30-Aug-14	05-Sep-14	
		ACTUAL	6-Sep-14	03-Sep-14	

Out of above ten orders none of them was shipped as initially planned. Sometimes factory has to maintain shipment date even after 10 days late start due to buyers fault. The import department provides the vessel position of imported materials against any particular order(s) and updates the clearing documents' status. Based on the forecast vessel and tentative clearing date, the production planning department allocates the production line (s) in consultation with all concerned to catch the buyer's nominated and approved vessel. In chain-production process, the whole function might collapse due to any missing or weak links. At the time of import, if any container rolls over at transit or gets delayed in clearing or piling at ports due to hartal or other political programmes, the production lines will remain vacant. Contrary, buyers make plans to display their products at the showrooms based on their pre-approved vessel's ETA (expected time of arrival). Their advertisements reach the customers accordingly, and if it is for the manufacturers' fault, then they do not usually extend their shipment date. Ultimately, the manufacturers have to complete the air freight at their cost to meet the buyers' ETA. Apart from materials, hartals or

agitation programmes multiply absenteeism— a very common problem for the industry. To cover the target production, a factory has to pay overtime, extra-overtime to the workers. Even this excessive work is not possible as needed, on non-compliance ground.

Difficulties in Supply Chain Management

Mr. Tofazzal, factory manager of twenty one production lines, pointed out the reasons of mismatching supply chain. Due to multiplicity of the stakeholders/middlemen, it takes a lengthy process for any decisions. Pending approval kills the lead time. On the contrary, buyer does not deviate, in most of the cases, from his initial shipment date. The ultimate customers are reluctant and sometimes do not agree to extend the shipment date though buyers' nominated supplier has made the delay. The reasons for mismatching the plan, according to Mr. Tofazzal, are as follows –

Macro Level – beyond Factory Control

1. Delayed and wrong supplies of materials
2. Delayed approval
3. Style changes after confirmation or even production starts
4. Fabric fails in test requirement
5. Pilferage/missing in transit or at ports, especially from airport

Micro Level – within Factory Control

1. Lack of co-ordination among the departments
2. Workers absenteeism and migration
3. Low productivity of our workers
4. Unskilled workers
5. Problem with line balancing
6. Low productivity of our workers
7. Short quantity with critical process
8. Disrupted utility supplies
9. Wrong consumption due to incorrect fabric wash result

Not only the buyer, supplier or factory, there are many other reasons behind to disrupt the supply chain like port congestions, customs bureaucracy, high- ways transit time, political and workers unrest etc.

How to Overcome the Difficulties

Evidences show that in 70% cases it is buyer's responsibility and 30% is manufacturers. Everybody needs to be committed to maintain the given schedule. Factory should be given the needed production lead

time which was in initial stage. But in many cases they do not extend delivery date. Direct marketing and elimination of middle men can help to establish an effective supply chain system. It is very difficult to make a combined and coordinated system among the interest groups involved at present. Miscommunication, misinformation at any point hampers the whole process. Apart from those parties, there are also involvements of freight forwarder, carrier, post, customs, transport etc. in the chain. Moreover, the impact of political instability and workers unrest are another concern to destabilize SCM. Undisrupted road communication, efficient port management, elimination bureaucratic aptitude of customs can help in the advancement of the process. Implementation of technological support can play as a catalyst to overcome the challenges. Without combined effort and firm commitment from all concerned, a performance based supply chain system is not possible. The following measures can be taken to improve the supply chain system in our RMG sector.

Macro Level

1. Initiate positive branding, promotional activities about the sector by the government and associations.
2. Capability of direct marketing and eliminate middlemen from the chain system.
3. Establish better business and trustworthy relationship between buyers and suppliers
4. Reduce dependency on other countries for raw materials
5. Political commitment not to hurt the sector by any quarter
6. Make sure undisrupted utility supplies and develop physical infrastructure
7. Eliminate bureaucratic red tapism from customs, port management and other concerned government agencies
8. Minimize corruption, political interference

Micro Level

1. Adapt changing technologies like Lean, ERP, SAP etc
2. Develop coordination between office and factory, among the different departments
3. Take initiatives to increase efficiency of the workers
4. Try to retain the workers and avoid migration
5. Need proper achievable planning and target

Conclusion

A chain is as strong as all of its rings are. Similarly, a chain is as weak as one of its rings is weak i.e. one single ring is more than enough to make the whole chain system dysfunctional. RMG industry in our country so far has been enjoying very clear price competitiveness. The rate of minimum wage in our country is still lowest among our competitors. But we have huge pressure on lead time. Chief labour does not help if they are not efficient. In the evolving of fast fashion, both quantity and time is a big deal. A small quantity with many styles in a short time is not possible without a functional supply chain. Reducing the dependency of materials on other countries is vital to make the chain strong. Only minimum wage competitiveness will not guarantee future business. Without proper management in supply chain, only wage competitiveness can't ensure sustainable business. So for the sake of the industry, we have no alternative to making an effective SCM.

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6 Trade Liberalisation and LDC's Share in International Trade under the WTO Regime: An Evaluation of the Linkage

Md. Mehedi Hasan

Introduction

One of the popular buzzword of today's world is 'economic globalization', a process characterized by high level of international trade and trade liberalization between the nations. Aftermath the Second World War II, the world had faced serious economic crisis. Since then the governments had initiated on a variety of efforts to reduce or to eliminate import restrictions and export subsidies.¹ The motivation behind the trade liberalization is to increase the volume of trade, to promote economic growth and to improve living standard worldwide.² The world Bank, for instances, forecasted that abolishing all trade barriers could increase global income by US\$2.8 trillion and lift 320 million people out of poverty by 2015.³ There are many possible ways to open an economy. The challenges for policy makers are to identify which best suits their country's political economy, institutional constraints, and initial conditions. As these vary from country to country, it is not surprising that there is a striking heterogeneity in country experiences regarding the timing and pace of reforms.⁴ On the contrary, few controversial insights of trade theory is that changes in a country's exposure to international trade, and world markets more generally, affect the distribution of resources within the country and can generate substantial distributional conflict. Hence, it comes as no surprise that the entry of many developing countries into the world market in the last three decades coincides with changes in

¹ WTO, Global Problem Global Solutions: Towards better Governance, Retrieved from http://www.wto.org/english/res_e/booksp_e/public_forum09_e.pdf

² WTO, Trends in Globalization, Retrieved from http://www.wto.org/english/res_e/booksp_e/anrep_e/wtr08-2b_e.pdf

³ Millennium Project, Trade, Development and the WTO: An action agenda beyond Cancun Ministerial, Retrieved from <http://www.unmillenniumproject.org/documents/tf9interim.pdf>

Or, WTO, Annual Report 2002, Retrieved from http://www.wto.org/english/res_e/booksp_e/anrep_e/anrep02_e.pdf

⁴ World Bank, Trade Liberalization: Why so much Controversy, http://www1.worldbank.org/prem/lessons1990s/chaps/05-Ch05_kl.pdf

various measures of inequality in these countries.⁵ The distributive effects of trade liberalization are diverse and not always pro-poor where the least developed countries (LDCs) face several cost disadvantages that tend to exclude them from international trade opportunities. Inadequacies in infrastructure, weakness of trade-related institutions, and even restrictive trade policies and regulatory obstacles are the main drawbacks for the LDCs to acquire a position and share internationally.⁶ To secure the LDCs share in international trade, trade liberalization has to be managed and regulated at the international level. If not, trade liberalization is likely to be a curse, rather than a blessing, to humankind, aggravating economic inequality, social injustice, environmental degradation and cultural dispossession.⁷ The law of the World Trade Organization is currently most ambitious effort to manage and regulate international trade. This article is going to evaluate the positions of the WTO and whether its initiative is really serving the LDCs a platform where they can secure a better position in international trade?

Evaluation of WTO's Approach on Trade Liberalization

The economic cooperation for an open trading system based on multilaterally agreed rules is simple enough and rests largely on commercial rules, customs and international conventions. But it is also supported by evidence: the experience of world trade and economic growth since the Second World War.⁸ Multilateral rules and principles were agreed back in 1947 to govern trade in goods between GATT Contracting Parties. From 1947 to 1994, the GATT provided the forum for negotiating lower customs duty rates and reducing or eliminating

⁵ National Bureau of Economic Research, Distributional Effects of Globalization in Developing Countries, Retrieved From http://www.econ.yale.edu/~pg87/jel_.pdf

⁶ WTO: WTO Trade Report 2007, Sixty Year of Multilateral Trading System: Achievement and Challenges, Retrieved from http://www.wto.org/english/res_e/booksp_e/anrep_e/wtr07-2d_e.pdf

⁷ Peter van dan bosshe, and WTO, Understanding the WTO: What is the World Trade Organization, Retrieved from http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm

⁸ Heekman.B., Mattoo.A., English. P., A Handbook On: Development, Trade and the WTO, Retrieved from

http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/08/19/000160016_20040819140633/Rendered/PDF/297990018213149971x.pdf

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WTO, Understanding the WTO, Retrieved from

http://www.wto.org/english/thewto_e/whatis_e/tif_e/understanding_e.pdf

other trade barriers. The text of the GATT contained important rules, particularly non-discrimination. After the conclusion of the Uruguay Round and the entry into force of the WTO Agreement, the basic principles formulated in the GATT remained fundamentally unchanged. A number of critical legal principles have guided post World War II trade liberalization efforts and have contributed significantly to the success of the World Trade Organization. Non-discrimination is a fundamental principle of the multilateral trading system and is recognized in the Preamble to the WTO Agreement as a key instrument to achieve the objectives of the WTO. In the Preamble, WTO members express their desire to eliminate discriminatory treatment in international trade relations. Non-discrimination in the WTO is embodied by two principles, the most favored nation (MFN) treatment obligation and the national treatment obligation.

There are many possible impediments to market access for goods, services and intellectual property. Lowering trade barriers is one of the most obvious means of encouraging trade liberalization. The barriers concerned include customs duties (or tariffs) and measures such as import bans or quotas that restrict quantities selectively. Under the WTO law, the imposition of custom duties is not prohibited and, in fact, WTO members impose customs duties on many products. While customs duties are, in principle, not prohibited, quantitative restrictions on trade in goods are, as a general rule, prohibited.⁹ Sometimes, promising not to raise a trade barrier can be as important as lowering one, because the promise gives businesses a clearer view of their future opportunities. With stability and predictability, investment is encouraged, jobs are created and consumers can fully enjoy the benefits of competition — choice and lower prices. The multilateral trading system is an attempt by governments to make the business environment stable and predictable. Recognizing the need for positive efforts designed to ensure that developing country Members, and especially the least developing countries among them, are integrated into the multilateral trading system.¹⁰ WTO law includes many

⁹ There is no explicit definition of the term "quantitative restriction" in the WTO. An implicit definition is provided by GATT Article XI:1, which proscribes any prohibition or restriction other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures.

¹⁰ WTO, International and Regional Trade Law: The Law of the World Trade Organization, Retrieved from http://www.jeanmonnetprogram.org/courses/wto/docs/unit_i-the_syntax_and_grammar_of_international_trade_law.pdf or WTO, Understanding the WTO, Retrieved from

provision granting a degree and special and differential treatment to developing country members. These provisions attempt to take the special needs of developing countries into account.

Apart from the aforementioned legal principle, WTO has formulated a number of economic principles which boost up and accelerate the trade liberalization among its member state. Most economists agree that countries can benefit from international trade liberalization. In 1776, Adam Smith wrote in his classic book, *The Wealth of Nations*;

‘It is the maximum of every prudent master of a family; never attempt to make at home what it will cost him more to make than to buy. The tailor does not attempt to make his own shoes but he buys from the shoemaker. The shoemaker does not attempt to make his own cloths, but employs a tailor. The farmer attempts to make neither the one nor the other, but attempt those different artificers. All of them find it for their interest to employ their whole industry in a way which they have some advantage over their neighbors, and to purchase with a part of its produce, or what the same thing with the price of a part of it else’s they have occasion for. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage’

Thus the economic pillar of the WTO emerged. Later on, a prominent economist David Ricardo, in his book, *The Principles of Political Economy and Taxation*, had developed the theory of ‘comparative advantage’. Suppose country A is better than country B at making automobiles, and country B is better than country A at making bread. It is obvious (the academics would say “trivial”) that both would benefit if A specialized in automobiles, B specialized in bread and they traded their products. That is a case of absolute advantage. But what if a country is bad at making everything? Will trade drive all producers out of business? The answer, according to Ricardo, is no. The reason is the

http://www.wto.org/english/thewto_e/whatis_e/tif_e/understanding_e.pdf or, Dean, J., S. Desai, and J. Riedel,(1994). *Trade Policy Reform in Developing Countries since*

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<http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9701.2005.00707.x>

principle of comparative advantage. It says, countries A and B still stand to benefit from trading with each other even if A is better than B at making everything. If A is much more superior at making automobiles and only slightly superior at making bread, then A should still invest resources in what it does best producing automobiles and export the product to B. B should still invest in what it does best making bread and export that product to A, even if it is not as efficient as A. Both would still benefit from the trade. A country does not have to be best at anything to gain from trade. That is comparative advantage.¹¹ This theory is still the predominant explanation for why countries even the poorest, can and do benefit from international trade. While the theory of comparative advantages won approval from the most economist ever since the early nineteenth century and also win the approval of the WTO. WTO Agreements liberalizing the world trade in multilateral levels which have been very successful over the past five decades. The round under the GATT and the WTO initiated trade talks which successfully reduce average global tariffs from forty percent to five percent. But no it is the burning question whether these legal and economic principles of the WTO have played a significant role to preserve the rights of LDCs in international trade.

Trade Liberations and LDC's Courtiers: Positive and Negative Impacts

Countries trade with each other because trading typically makes a country better off. In international trade competition occurs at the firm level, while citizens of every country can benefit from free trade. Citizens enjoy a greater variety of goods and services, and generally at a lower cost. Imagine a country that decides to isolate itself economically from the rest of the world. In order to survive, the citizens of this country would need to grow their own food, make their own clothes and build their own houses.¹² However, if this country

¹¹ WTO, Understanding the WTO, Retrieved from http://www.wto.org/english/thewto_e/whatis_e/tif_e/understanding_e.pdf or, Peter van dan bosshe, and WTO, Understanding the WTO: What is the World Trade Organization, Retrieved from http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact1_e.htm or, GATT, (1947), 40TH Years chronology of events and achievements, Retrieved from www.wto.org/gatt_docs/.../91320038.pdf or Chang, Ha-Joon, 2003: Kicking Away the Ladder: The 'Real' History of Free Trade. Foreign Policy in Focus Special Report, Retrieved from http://www.ilocarib.org.tt/trade/documents/economic_policies/SRtrade2003.pdf

¹² Strengthen Democracy through private enterprises, The Importance of Trade Liberalization for Developing Countries, Retrieved from

decided to open its border to trade, its citizens would specialize in the activities they do best. Specialization leads to higher productivity, higher income, and better living standards.¹³ Policies that make an economy open to trade and investment with the rest of the world are needed for sustained economic growth. The evidence on this is clear. No country in recent decades has achieved economic success, in terms of substantial increases in living standards for its people, without being open to the rest of the world. In contrast, trade opening (along with opening to foreign direct investment) has been an important element in the economic success of East Asia, where the average import tariff has fallen from 30 percent to 10 percent over the past 20 years.¹⁴ Freeing trade frequently benefits the poor especially.¹⁵ Developing countries can ill-afford the large implicit subsidies, often channeled to narrow privileged interests that trade protection provides. Moreover, the increased growth that results from freer trade itself tends to increase the incomes of the poor in roughly the same proportion as those of the population as a whole. New jobs are created for unskilled workers, raising them into the middle class. Overall, inequality among countries has been on the decline since 1990, reflecting more rapid economic growth in developing countries, in part the result of trade liberalization. There is a general presumption in the poorer countries that they will lose from global services trade liberalization since their domestic service industries are inefficient and non-competitive.

This view is despite the arguments from economists as to the gains to domestic consumers from lower prices and the joint benefits which accrue to both exporting and importing countries from exploiting comparative advantage and improved market access opportunities abroad. It is also despite the commonly held view that the production of many services are labour intensive, which economists believe should be the source of comparative advantage for poorer developing countries in services provision. There unfortunately appear to be few if no studies of the relative inefficiency of local versus Foreign Service

http://www.cipe.org/blog/2013/08/05/the-importance-of-trade-liberalization-for-developing-countries/#.VINX_ZDBAX8

¹³ Ibid, and Robert W. Staiger (2009), What can developing countries achieve in the WTO, Retrieved from http://www.ssc.wisc.edu/~rstaigerve/developing_wto_slides_princeton_final_print

¹⁴ International Monetary Fund, Global Trade Liberalization and developing Countries, Retrieved from <https://www.imf.org/external/np/exr/ib/2001/110801.htm>

¹⁵ ICTSD, The Future and the WTO: Confronting the Challenges, Retrieved from www.ictsd.org/.../07/the-future-and-the-wto-confronting-the-challenges.pdf

providers in developing country service markets which allow the strength of these arguments to be evaluated on empirical grounds. These cautions towards global services trade liberalization in the developing world seem to reflect two concerns. One is the general assumption in the developing world that any future negotiated global liberalization of services trade will be largely one sided in the results it will yield. The second caution that developing countries express is the nature and size of the adjustments in domestic economies which services liberalization may imply. One dimension of adjustment relates to potential foreign majority ownership and control of provision in key service sectors, and the related security and cultural concerns.¹⁶ But the amount accruing to developing countries would still be more than twice the level of aid they currently receive. Moreover, developing countries would gain more from global trade liberalization as a percentage of their GDP than industrial countries, because their economies are more highly protected and because they face higher barriers.

Studies such as those from which the following facts are culled demonstrate that current trade liberalization rules and policies have led to increased poverty and inequality, and have eroded democratic principles, with a disproportionately large negative effect on the poorest countries. In terms of poverty the numbers of people living on less than \$2 per day has raised by almost 50% since 1980, to 2.8 billion almost half the world's population.¹⁷ And this is precisely the period that has been most heavily liberalized. Recent evidence suggests that the numbers of people living on less than \$1 per day is growing in most regions of the world. The world's poorest countries' share of world trade has declined by more than 40 per cent since 1980 to a mere 0.4 per cent. The poorest 49 countries make up 10% of the world's population, but account for only 0.4% of world trade. This disparity has been growing.¹⁸ In 1980-1996 only 33 of 130 developing countries increased growth by more than 3% per capita, while the GNP per

¹⁶ Hoekman, B., Mattoo, A., and Sapir, A., 2007, —The political Economy of Services Trade Liberalization: A Case for International Regulatory Cooperation? *Oxford Review of Economic Policy* 23, pp. 367-391, Retrieved from

http://www.researchgate.net/profile/Bernard_Hoekman/publication/5216395_The_political_economy_of_services_trade_liberalization_a_case_for_international_regulatory_cooperation/links/0912f50b66aeb59907000000

¹⁷ International Monetary Fund, *World Economic Outlook*, Retrieved from <http://www.imf.org/external/pubs/ft/weo/2000/02/pdf/chapter1.pdf>

¹⁸ UNCTAD, *Harnessing Remittances and Diaspora Knowledge to Build Productive Capacities: Least Development Country Report 2012*, Retrieved from http://unctad.org/en/PublicationsLibrary/lcd2012_en.pdf

capita of 59 countries declined.¹⁹ Around 1.6 billion people are economically worse off today than 15 years ago. Poor are getting poorer in both relative and absolute terms, as one UNICEF study has commented;

“A new face of ‘apartheid’ is spreading across the globe.... as millions of people live in wretched conditions side-by-side with those who enjoy unprecedented prosperity.”

In terms of inequality Trade liberalization is negatively correlated with income growth among the poorest 40 per cent of the population, but positively correlated with income growth among higher income groups. In other words, it helps the rich get richer and the poor get poorer. The richest fifth have 80% of the world’s income and the poorest fifth have 1%; this gap has doubled between 1960 and 2000. Unfair Trade barriers are also very prominent in the regime of the World Trade Organization.²⁰ First World countries to raise trade barriers protecting their companies, even as we have served as their forum for insisting that Third World countries lower their trade barriers more and more. The implication of that is that trade negotiations should focus on making existing trade rules fairer—an agenda proposed by most developing countries—rather than on the agenda currently in sway of further opening up markets of the poorest countries and the extension of WTO rules to investment and services.²¹ Developing countries face higher tariffs on processed goods than on commodities; this is one of the reasons that the poorest countries are heavily dependent on a few commodities. A trade dominated by basic commodities means that these countries do not develop their infrastructural technologies, including education and training. The populations remain essentially in the service of more complex industries in the First World, which favors First World development

¹⁹ UNCTAD, Least Developed Countries Report 2014 - Growth with structural transformation: A post-2015 development agenda, Retrieved from http://unctad.org/en/PublicationsLibrary/ldc2014_en.pdf or, UNCTAD, Growth with employment for inclusive and sustainable development: Least Development Countries Report 2013, Retrieved from http://unctad.org/en/PublicationsLibrary/ldc2013_en.pdf

²⁰ United Nations, 2014 Human Development Report, Retrieved from <http://www.undp.org/content/dam/undp/library/corporate/HDR/2014HDR/HD R-2014-English.pdf>

²¹ WTO, Trade Liberalization Statistics, Retrieved from http://www.gatt.org/trastat_e.html

but not that of the Third World.²² The most powerful statement against terrorism would be for governments of the rich nations to redress the deep inequities in the trade system and reverse the marginalization of poorer countries. The WTO's current configuration makes this impossible, and extending its work into new areas of the global economy will only make matters worse.

LDC's Share in International Trade: Overview of Current Trends

In 2011, LDCs grew by 4.2 per cent, 1.4 percentage points lower than the preceding year, mirroring the slowdown of growth worldwide (from 5.3 per cent in 2010 to 3.9 per cent in 2011). Given their high dependence on external economic conditions, LDCs were unable to escape this broad-based slowdown, and the rate of deceleration was similar to that of developing countries (1.3 percentage points) and advanced economies (1.6 percentage points).²³ The poor performance of oil-exporting LDCs in 2011 (-1.6 per cent) had a negative impact on overall LDC performance. Compared with oil exporters, LDCs specializing in exports of other products such as manufactures (6.0 per cent), services (5.7 per cent), minerals (5.8 per cent), agriculture and food (5.9 per cent) or mixed exports (5.4 per cent) fared much better. However, in terms of resource gap, indicating the extent to which countries rely on external resources to finance their domestic investment, non-oil-exporting LDCs have performed poorly.²⁴ While the resource gap for LDCs as a whole fell from 6.5 per cent of GDP in 2000 to 3.9 per cent in 2010, for non-oil-exporting LDCs, it increased from 10 per cent 2000 to 13 per cent just before the global crisis and hit 14.8 per cent in 2010. One result of the increasing resource gap in non-petroleum-exporting LDCs has been growing balance of payments vulnerability. In 2011, thirteen LDCs had current account deficits of more than 10 per cent of GDP, while five had deficits of over 20 per cent of GDP. Only five LDCs reported current account surpluses.²⁵

²² United Nations, *Globalization and Least Developing Countries*, Retrieved from <http://unohrlls.org/UserFiles/File/LDC%20Documents/Background%20paper.pdf>

²³ UNCTAD, *Harnessing Remittances and Diaspora Knowledge to Build Productive Capacities: Least Development Country Report 2012*, Retrieved from http://unctad.org/en/PublicationsLibrary/lcd2012_en.pdf or, United Nations, *World Economic Situation and prospects:2013*, Retrieved from http://www.un.org/en/development/desa/policy/wesp/wesp_archive/2013wesp.pdf

²⁴ *Supra* note 18.

²⁵ *Supra* note 17, or , South Center, *The impact of the global economic crisis on industrial development of least development countries*, retrieved from <http://www10.iadb.org/intal/intalcdi/pe/2010/05589.pdf>

Gross fixed capital formation increased slightly from 20.7 per cent of GDP in 2005–2007 to 21.6 per cent in 2008–2010. Throughout the first decade of the 21st century, it has increased slowly but surely (by three GDP percentage points). While this is positive, it compares less favourably with other developing countries (ODCs), whose gross fixed capital formation reached 30.1 per cent of GDP in 2010. If current investment trends continue, it is unlikely that LDCs will be able to catch up with ODCs in the near future. The gross domestic saving rate for the LDCs as a group was 18.9 per cent of GDP in 2005–2007, and fell to 17.7 per cent in 2008–2010. The LDCs' trade balance improved from a deficit equivalent to 6.1 per cent of GDP in 2010 to 5.7 per cent in 2011. The value of merchandise exports from LDCs increased by 23 per cent in 2011, surpassing the pre-crisis level. The total value of merchandise exports in 2011 (\$204.8 billion) was twice as high as five years ago.²⁶ On the downside, merchandise exports for LDCs as a group have remained highly concentrated in a few countries. The top five exporters (Angola, Bangladesh, Equatorial Guinea, Yemen and Sudan) account for 62 per cent of all exports from LDCs. The value of merchandise imports rose sharply in 2011 (20.6 per cent) to \$202.2 billion, also doubling in the last five years.²⁷

Elimination of Global Trade Barriers: Impacts on Poverty

International trade has increased dramatically in recent decades, and flows of goods and services are crucial for achieving sustained growth in developing countries. Alongside trade, growing flows of capital across national borders could significantly contribute to economic growth and poverty reduction.²⁸ The international mobility and division of labour is also expected to generate important distributional changes in domestic economies. Notwithstanding the potential role of globalization in accelerating economic growth through greater integration into the world economy, the impact of globalization on poverty reduction has been uneven. LDCs also have benefited from a series of preferential market access to developed countries, promoted under the “Enabling Clause” and the Generalized System of Preferences (GSP) or resulting from bilateral or regional agreements.²⁹

²⁶ Supra note 17

²⁷ UNCTAD, World Investment report, Retrieved from http://www.cinu.mx/minisitio/wir_2014/wir2014_en.pdf

²⁸ UNCTAD, Trade, Income Distribution and Poverty in Developing Countries: A Survey, Retrieved from http://unctad.org/en/PublicationsLibrary/osgdp20121_en.pdf

²⁹ Ibid, or WTO, Global Value Chains in Changing World, Retrieved from

More recently, South-South trade preferences were promoted with the establishment of the Global System of Trade Preferences among Developing Countries (GSTP). In December 2005, the Sixth WTO Ministerial Conference in Hong Kong adopted a decision to extend LDCs' DFQF market access granted by developed countries to at least 97% of tariff lines.³⁰

Despite significant liberalization efforts, the failure of some developing countries, notably LDCs, to diversify production and exports and undergo structural transformation has led to low growth and persistent poverty.³¹ Moreover, regardless of the high growth rates and remarkable trade performance, a large proportion of the populations in developing countries still live in extreme poverty. Some claim that full liberalization in trade and goods could have significant negative effect on LDCs and the countries of sub-Saharan Africa in terms of production and employment, and also exacerbate environmental problems.³² Complete liberalization of agriculture could lead to an increasing dependence on food imports and a rise in poverty in most places. The insufficient development of exports and trade capacity in LDCs also reflects in the fact that poor households only receive a small portion of global trade revenues, and in most cases their share has been flat or declining since the global liberalization waves starting in the 1990s. Empirical results show that poor countries face higher barriers on their exports than advanced countries. Thus, the consistency and sustainability of trade policy reforms should be carefully considered, especially when linking the outcomes of trade liberalization to poverty and income distribution.³³

In parallel with increasing global interconnections, progress towards eradicating world poverty is at the centre of global development policy and research. Despite the significant advancement in measuring poverty and income distribution there is limited discernment regarding the impact of different economic policies – both national and international – on poverty-outcomes. And a persistent concern is the

http://www.wto.org/english/res_e/booksp_e/aid4tradeglobalvalue13_e.pdf

³⁰ WTO, WTO and Developing Countries, Retrieved from

http://www.wto.org/english/res_e/booksp_e/wtr14-2f_e.pdf

³¹ UNCTAD, Economic and Social Impacts of Globalization, Retrieved from <http://www.unctad.info/upload/TAB/docs/TechCooperation/fullreportversion14nov-p106-119.pdf>

³² Supra note 27.

³³ United Nations, Rethinking Poverty: Report on the World Situation 2010, Retrieved from <http://www.un.org/esa/socdev/rwss/docs/2010/fullreport.pdf>

impact of globalization, primarily the flows of trade and capital, on poverty and inequality.³⁴ The period 1960 to 1980 saw greater improvement and growth in developing countries than the period from 1980 to 2000. Yet 1960-1980 was the height of Keynesian economics, whereas the WTO's sort of liberalization philosophy has reached its peak in the latter period. In 1980-1996 only 33 of 130 developing countries increased growth by more than 3% per capita, while the GNP per capita of 59 countries declined. Around 1.6 billion people are economically worse off today than 15 years ago. FDI rose by 13 times in the 1990s compared with the 1970s, but GDP growth was 50% lower. One of the reasons is that foreign investment has concentrated on purchasing assets rather than creating new sources of production (in the period 1995-98, transfers of property accounted for nearly two-thirds of total FDI flows); over 80% of FDI is in the form of mergers and acquisitions (97% of which are acquisitions); most of the FDI is in the form of massive deals (50% comes from deals of over \$1 billion); 41% of FDI in developing countries (excluding China) is in the form of mergers and acquisitions; EU multinationals have taken over from the US as the biggest buyers in developing countries; cross-border mergers and acquisitions have increased by over 25 times since 1980 (as a proportion of world GDP). Greater openness to world markets can affect income distribution between and within countries. As the growth literature reveals, in general, changes in poverty are mostly associated to changes in average incomes, and hence it is pertinent to evaluate both issues in a comprehensive framework. Importantly, the impacts of trade liberalization need to be examined in conjunction with other concurrent policy reforms, and the implementation details of particular policies matter.³⁵

Reforming the WTO: Towards more Democratic Participation

When the WTO was established, countless benefits were envisioned for the whole world, but developing countries, in particular, were to expect vast improvements. Rich countries and the GATT Secretariat staff promised developing countries that they would experience major

³⁴ International Labour Office, Trade and Employment from myth to facts, Retrieved from http://www.ilo.org/wcmsp5/groups/public/@ed_emp/documents/publication/wcms_162297.pdf

³⁵ WTO, Global Value Chains in Changing World, Retrieved from http://www.wto.org/english/res_e/booksp_e/aid4tradeglobalvalue13_e.pdf or, WTO, Trade Liberalization Statistics, Retrieved from http://www.gatt.org/trastat_e.html

gains as industrialized countries lowered and eventually eliminated tariffs on such items as textiles and apparel and cut agricultural subsidies that had enabled large agribusinesses to dominate world commodity markets.³⁶ The Marrakech Agreement explicitly prioritizes considerations of a nation's welfare, suggesting that relations in the field of trade and economic endeavor should be conducted with a view to raising standards of living while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development. However, the WTO has not delivered all it has promised. Many of those subsidies and tariffs are still in place, with others continuously being erected, as countries find themselves unable to reach agreements on removing them within the existing paradigm.

Industrial countries maintain high protection in agriculture through an array of very high tariffs, including tariff peaks (tariffs above 15 percent), tariff escalation (tariffs that increase with the level of processing), and restrictive tariff quotas (limits on the amount that can be imported at a lower tariff rate). Average tariff protection in agriculture is about nine times higher than in manufacturing. In addition, agricultural subsidies in industrial countries, which are equivalent to 2/3 of Africa's total GDP, undermine developing countries' agricultural sectors and exports by depressing world prices and pre-empting markets. For example, the European Commission is spending 2.7 billion euro per year making sugar profitable for European farmers at the same time that it is shutting out low-cost imports of tropical sugar. In industrial countries, protection of manufacturing is generally low, but it remains high on many labor-intensive products produced by developing countries. For example, the United States, which has an *average* import tariff of only 5 percent, has tariff peaks on almost 300 individual products. These are largely on textiles and clothing, which account for 90 percent of the \$1 billion annually in U.S. imports from the poorest countries—a figure that is held down by import quotas as well as tariffs.³⁷ Other labor-intensive manufactures are also disproportionately subject to tariff peaks and tariff escalation, which inhibit the diversification of exports toward higher value-added products. Nontraditional measures to impede trade

³⁶ WTO, Reforming the WTO: Toward more democratic governance and decision making, Retrieved from

http://www.wto.org/english/forums_e/ngo_e/posp67_gaddafi_found_e.pdf

³⁷ International Monetary Fund, Global Trade Liberalization and the Developing Countries, Retrieved from

<https://www.imf.org/external/np/exr/ib/2001/110801.htm>

are harder to quantify and assess, but they are becoming more significant as traditional tariff protection and such barriers as import quotas decline. Antidumping measures are on the rise in both industrial and developing countries, but are faced disproportionately by developing countries. Regulations requiring imports to conform to technical and sanitary standards comprise another important hurdle. They impose costs on exporters that can exceed the benefits to consumers. Further liberalization—by both industrial and developing countries—will be needed to realize trade's potential as a driving force for economic growth and development. Greater efforts by industrial countries and the international community more broadly, are called for to remove the trade barriers facing developing countries, particularly the poorest countries. Enhanced market access for the poorest developing countries would provide them with the means to harness trade for development and poverty reduction. Offering the poorest countries duty- and quota-free access to world markets would greatly benefit these countries at little cost to the rest of the world. It is the high time to embark on a thoroughgoing process of reform of the WTO as an institution, its various bodies and its agreements so as to address the threats which it poses to people's rights. It is widely acknowledged that many of the WTO's current agreements and procedures are the direct result of unequal negotiations in previous rounds and ministerial conferences. Unless the people of developing countries are to pay in perpetuity for the consequences of this unfair process, the agreements and procedures themselves must be revised so that they work for people's rights and sustainable development, not again.

Conclusion

An appreciable shift in LDC trade has taken place in the past decade, thanks to the rebalancing of global demand towards large emerging countries and the resulting long-lasting cycle of high international commodity prices. In addition to this, the growing interdependence and interconnectedness of the modern world govern through increased flows of goods, services, capital, people and information paves the LDCs a way to get more share in international trade. The process is fasten by technological advances and reductions in the costs of international transactions which spread technology and ideas, raise their share of trade in world production and increase the mobility of capital. It may be easily mentioned that Trade liberalization is revolutionizing the way the world works, and can bring tremendous benefits to developing countries – by stimulating trade, generating employment, and by applying new information technology to

education. Simultaneously, it will recognize that not all developing countries have been able to take advantage of the benefits of trade liberalization, and certainly not to the same degree. As some countries race ahead, others face the risk of falling further behind in relative terms. Trade liberalization on the other hand is a fact, not a policy option. It is up to each nation to pursue policies that can help its people take advantage of the opportunities of globalization, so that all citizens, including women, will benefit. Sound national policies are the primary determinant of success in achieving the advancement of women, and indeed in achieving overall economic and social development. But Least Developing Countries should not face this task alone. The international community should provide encouragement and support, as appropriate, to help them build capacity and undertake the necessary reforms. World Trade Organisation has been seen by many LDCs as the authority to undermine legislation, passed by sovereign nation-states. Essentially, the WTO, and the 'new' Global Economy, hurt the environment, exploit workers, and disregard civil society's concerns. The only beneficiaries of open trade are the largest, richest, multinational corporations. This conception should be changed. The challenge for governments across the world, and international organisations such as the WTO, is to ensure that the benefits of free trade are more equitably distributed throughout the global community.

7 Exploring the Unexplored: Sustainable Development through Energy Trade between Bangladesh and India

Natasha Sharma

Introduction

A young and growing Bangladesh today, finds itself at the crossroads of human civilization where it is large and significant enough to exert an impact over its regional neighbours and be an epitome of growth in the global community and yet it is inept in certain core and essential quarters as it finds itself grappled with fundamental issues of development. The problems that Bangladesh is facing are umpteen, but the very basic malady that it is struggling to resolve are its problems related to poverty alleviation. This could be seen more as a problem of circular cumulative causation where poverty is a direct result of and the immediate cause of energy deficiency and lack of electrification. It is a cycle where lack of energy resources and a booming infrastructure cause poverty to prevail and grow, while poverty in itself hinders growth curbing infrastructural development.

Bangladesh is energy deficient and this has a direct impact on its infrastructural growth, while the development of human capital remains stunted at the same time. Despite being a highly populous nation Bangladesh has not been able to tap on its human resources to its potential extent. Electrification, though a single agenda on the issues of development assumes an inevitably significant role due to its ability to impact other factors on the list. The demand for energy resources and electricity has exceeded the supply in the nation and the lack of the same shall manifest repercussions on each strata of its intricately interwoven fabric of society (Mozumder & Marathe, 2007).

Although this may seem like a common concern that any developing nation may face, the issue that sets Bangladesh apart from other developing nations is the fact that it is one of the worst affected nations by the impact of climate change. It therefore makes the case of Bangladesh's development more complicated. Not only is Bangladesh struggling to utilize whatever little energy resources that it has toward economic growth and development it is also facing crisis in the face of repercussions caused by environmental degradation due to increasing carbon emissions world over. Due to the geographical location of the country it is highly vulnerable to the already intensifying cases of land

mass immersion under rising sea water. Large proportions of Bangladesh's coastal perimeters have 'disappeared' under the impact of climate change (Publications, 2015). Not only is this causing an escalating figure of environmental refugees it is also creating the mysterious case of a 'shrinking' land mass. The people in the coastal vicinities are vulnerable to having their land submerged and their lives endangered due to this phenomenon. Unless addressed promptly the issue shall escalate beyond repair. The government is already facing crisis in providing alternate forms of livelihood to those displaced. Although the phenomenon is not exclusively taking place in Bangladesh, other nations facing similar environmental crisis are better equipped to deal with such issues of climate change. Many other nations too, for instance China, have been dealing with aggravating crisis and societal unsettling circumstances due to environmental degradation manifested say, in the form of smog and reduced visibility. However, China has attained the economic capacity to mitigate the crisis through colossal investments in order to restore environmental serenity, a path not accessible to a young economically humble Bangladesh. The daunting and lamentable issue here is the path to development taken by most of the 'then emerging, now developed' nations. The 'grow first, clean up later' model of rapid economic growth has triggered severe loss of natural capital and bio-diversity.

Bangladesh is home to the heritage destination- Sundarbans and the direct impact of carbon emissions and other pollutants world over shall impact this ecological haven. This is where the complications begin for this part of the world as rapid growth cannot be triggered by any resource available at hand unless it is environmentally affable. Therefore, the liberty to use resources at one's own discretion based on affordability and ease of accessibility shall not be an option for Bangladesh. The sine qua non would be sustainable growth with conservation of natural capital as opposed to rapid economic growth sans adherence to stringent environmental policies.

The Role of the Global Community

The world's largest carbon emission creating nations, China and the United States of America have recently signed a climate deal in the sidelines of the 2014 G-20 Summit held in Australia (Pierrehumbert, 2015). The agreements encompass Chinese ambitions to echo America's clarion call to save the environment. Through distant deadlines and overtly ambitious goals, the two pollution emitting states have presented concerns over climate change. However this deal comes at a time where the G-20 Summit encompasses almost every

significant agenda as decided by Australia, the global community is dealing with, except climate change (Reuters, 2015)!

The stance of the international community with reference to climate change is thus apparent. Even when world's economic superpowers pursue the act of curbing damage, it is often in the form of curbing 'further' damage as an act in retrospect. Is it not then, the responsibility of economically developed nations to assist Bangladesh through economic means in availing energy resources that are sustainable and conducive to its economic and overall development?

Moreover, the standards to be met during industrialisation and infrastructural development involve much more stringent rules for the 'now developing' nations like Bangladesh, as opposed to those that the developed nations faced while they were at the infant stages of their own development.

This paper therefore argues that trade regimes need to be fair toward a growing Bangladesh. In a global order where economic aid often comes at a cost and assistance has strings attached to them, often clubbed with political implications and shackles, developing nations find no answers to the crisis they suffer as a result of actions of the developed giants. The role that developed powers in the region can play would be through enhancement of regional cooperation. Energy deficit developing nations would often, due to their lack of span of electrification and small markets, fail to cash on the advantage of economies of scale by themselves. In such a case regional cooperation would enable cross-border trade and resolve the energy crisis in such countries. The creation of a power plant that would enable transmission of electricity throughout this network would also enable to lower costs and limit environmental degradation.

Having said that regional cooperation shall be crucial to the growth of the energy sector in developing nations, the social responsibility of developed nations does not cease to exist. It is often seen that trade as a part of regional cooperation when pursued, is often treated in form of equal benefit of all the participants concerned and regional cooperation is expected to favour each one of them equally. Economically advanced and developed nations need to not just invest in such cooperation but also sponsor many initiatives to solidify the initiatives for energy trade. For instance, China being a next door neighbour and a vastly well endowed nation in terms of economy would morally owe it to Bangladesh to aid it and invest in assisting sustainable growth and energy generation without strings attached. Unfortunately every time China would favour Bangladesh it would do so in order to assert its

Middle kingdom status by luring the geo-strategically located Bangladesh as its ally. India too would envisage its Bangladesh investments as a part of its look East policy more than its moral obligation to aid and assist the nation.

What can India offer?

Being a natural ally to Bangladesh India holds the social responsibility to play a pivotal role in its growth and development. India's Power grid Corporation has been a major bonding factor connecting the North-East of India with its neighbouring states of Bangladesh, Bhutan and Nepal (Lama, 2013). India has a growing private sector with immense potential to invest in Bangladesh and harness its resources toward efficient utilisation. Although the two nations have not been able to extract sufficient advantage through either unperturbed access to Bangladesh markets by the private investors in Bangladesh or luring Indian investors into developing business frontiers in here, there remains a high potential which can easily be operated through addressing the trust deficit and mitigating political friction.

Although Bangladesh already imports 600 MW of electricity from India, close to half of which is provided by a private company, this export however is far from sufficient for the expanding needs of a growing Bangladesh (Ghosh, 2015). Close to just half of its population has access to electricity and even this number struggles to satiate its energy needs. It is not just the rapidly growing demand for electricity that needs to be met, it is also the whopping mass of population with no access to electricity that need to be connected to the growing circuit of energy access. Dependence on gas as a resort to meet energy demands is futile. Most part of the rural population, which is about 3/4th of the population in total, still depends on biomass fuels such as wood and cow dung. The dependence on Kerosene is also alarmingly worrisome. The poorly ventilated kitchens within small households retain particulate matter such as carbon monoxide and several kinds of carcinogen. The environmental degradation and rapid climate change would make the process of rural electrification an urgent social necessity.

Bangladesh, for this rationale, could also bank on import of electricity from Bhutan and Nepal with cheaper tariff and better reliability, but this network sans the cooperation of India would be meaningless as it has the potential for massive investment both via government signed Memorandums of agreements or private sector assisted investments. India too, despite its sheer size has been unable to enable electrification throughout the vast and widely spread-out

parameters of its territory. It would also be in the interest of India to create networks of grids to process electrification in the most economically viable way possible. It is therefore in the interest of all the regional parties concerned to not just cooperate bilaterally but to exploit the advantages of this regional collaboration to the fullest of its potential demanding India to play a more and more proactive role to enhance energy cooperation in the region through both aid and investment.

India should morally be inclined toward investing in initiatives such as creation of biogas power plants in Bangladesh and its smaller neighbours for the creation of not just small household energy consumption but also large scale electricity generation (Bond & Templeton, 2011). Biogas power plants are a cost effective and environment friendly solution to the energy crisis in the country. Biogas solutions can be used in multiple ways at both small and large scales. Small scale biogas use for domestic and household purposes can be developed by Bangladesh itself through community engagement. These require little investment while requiring next to no expertise, once created, to operate. This massively useful option has somehow not been well explored to develop large scale plants that can generate electricity. The generation of electricity through disposable waste products would mean a revolutionary change in the energy situation in Bangladesh. This could be an area where India could invest and support Bangladesh at a large scale.

Why Should India be Interested in Assisting this Development?

India has potential benefits to reap from this sacrosanct amalgamation through regional cooperation. Bangladesh being a geographical extension of India shares the same ecological conditions as the latter. As nature does not comprehend the contours of territorial divisions via political boundaries, impacts of climate change shall be a persistent factor that shall pose to be a major irritant for India too. Climate change in Bangladesh shall impact India especially the Sundarbans despite territorial demarcations (Intergovernmental Panel on Climate Change, 2001). India has in fact, already initiated several government sponsored and think tank initiated efforts in collaboration with Bangladesh to curb the harmful impact of climate change in the Sundarban region in entirety. The destruction of biodiversity in Bangladesh shall impact India as much as Bangladesh itself. But staring at the problem too hard from a single perspective of conserving the Sundarbans is rather futile. It is through a holistic assistance to the population of Bangladesh at large to tackle the use of resources only through renewable environment friendly energy alternative that India can help its own environment.

Migration both, as a result of economic disparity or trafficking, which are a result of lack of development or migration as a result of environmental migration create issues for India (Alam, 2003). Mitigating this issue should be a priority for India as a growing Bangladesh is an asset for India as a neighbour. A growing Bangladesh means a reliable neighbour as a trade partner for India, Bangladesh after all is a much larger and significant nation as opposed to popular perceptions about it which would portray it as a poorly developed nation.

Creating Connectivity toward a Sustainable Solution:

If we study the events that have led to the failure of most initiatives toward regional and bilateral cooperation we realise that the initiatives have been stalled because of either lack of political will or as a direct result of political fiction. Be it lack of internal political consensus such as the failure of water sharing issues or the case of only limited success in bilateral trade, political irritants have always triumphed political will in forming cultural and trade related ties.

However the lack of political will is not entirely unsubstantiated. It is a result of unresolved issues such as border rows and immigration issues. India should constructively work toward resolving these issues as it already has. The immediate policy goal, both for Bangladesh and India alike should be to create a nexus between the two nations via increase in connectivity. Cultural exchange and connectivity shall be significant in shaping the future role of these counties in the region and in reference to each other. People to people contacts should be enhanced and cultural commonalities that the two nations already share should be further enriched through exchanges. The private investors who are reaping benefits from increase in trade with Bangladesh also bear a corporate social responsibility to invest in Bangladesh's development apart from investments here.

Bangladesh has already resolved one of its major issues in the face of lack of sanitation. The community and the civil society have played a very crucial role in creating sanitation coverage across the nation (Hadi, 2000). Such a community led initiative is quintessentially the kind that Bangladesh needs to replicate as far as educating its communities about use of renewable sources of energy including creation of biogas plants in its local vicinities. It is through its capacity to utilise its community efforts at home and through its amicable relations with its neighbours that Bangladesh can march toward its goal of sustainable growth.

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8 Quest for Transparency and Accountability: Revisiting the Regulatory Regime for NGO Governance in Bangladesh

Md. Al- Ifran Hossain Mollah

Introduction

Bangladesh has experienced a wide scale expansion in development initiatives taken by both local and international players in the last few decades. From the very inception of the initiatives taken by Oxfam before and after the war of liberation and the rehabilitation program of war-child and woman victims taken by the Terre Das Home initiated the golden age of development activities in Bangladesh.¹

Socio-economic development regime is strongly marked by the presence of a good number of NGO's ranging from local to international entities.² Development issues in Bangladesh encompasses elaborately from ensuring Gender Justice to access of education for the underprivileged. It's not that easy to create the border line of development initiatives in a few words. But so far the term 'Development' is concerned in our national context; one can simply put forward the issues like micro-credit, gender justice, rights advocacy, primary education and healthcare so as to understand it's dimension.

Development players are playing a key role in shaping and deciding the dynamics of regulatory regime, as they are directly linked with the common people's concern like education, medical facilities, grass-root micro-economics (through micro-credit scheme) and rights issues. The growth of non-governmental organizations (NGOs) in Bangladesh owes to the gap between the development needs and aspirations of the citizens on the one hand and the limited capacity and performance of the government on the other³. Moreover, common peoples'

¹ Oxfam's involvement in Bangladesh began in 1970 assisting the then cyclone victims and supporting the people of Bangladesh during the Liberation War in 1971. For their work in 1971 Oxfam was one of only three organizations honored as a Friend of the Bangladesh Liberation War in 2012. See, <http://www.oxfam.org/en/bangladesh>, last visited 17 March, 2014.

² Zohir, Sajjad (2004), NGO Sector in Bangladesh, Economic and Political weekly, Vol. 39, No. 36 (Sep. 4-10, 2004), pp. 4109-4113, ERG online resource, available online at www.ergonline.org/30th_april/april_30/epw/reprint_series3.pdf, last visited 27 March, 2014.

³ Zaman, Iftekhhar (2003), "Governance, Organizational Effectiveness and the Non-profit Sector, Bangladesh Country Report", Presented at the International

participatory mechanism of non-government activities in comparison to the much complex hierarchical and bureaucratic government process has excelled the expansion of non-governmental initiatives in much wider context in Bangladesh.

Apart from this quest for development and its contribution towards socio-economic growth, there comes the issue of ensuring transparency and accountability on the side of the NGOs with the aid of existing legal regime established, regulated and enforced by different government agencies. This is considered as one of the most controversial and debatable issue within the present context of regulatory regime for the NGOs actively engaged in Bangladesh. The basic objectives of this study are to find out the basic problems of NGO governance within the existing legal regime and possible legal solution to those problems. In doing so, this article will particularly focuses on the critical study of existing law and legal instruments for the management, administration and control of Non Governmental Organisations and attempts to find out the embedded problems therewith.

Right to Development: from Global to National Context

The idea of the right to development first emerged in the 1970s in the context of the North-South dialogue and the call for a New International Economic Order. The principal motivation of those who championed this right was to establish a claim on the assistance and cooperation of the developed world of the Northern hemisphere for accelerating the pace of economic development in the South.⁴

The UN Declaration on the Right to Development recognized the right to development as a Universal right belonging to every state of this earth. Article 1, Clause 1 of this declaration states as follows:

The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized.

But this is to be borne in mind that the declaration is not the single one that stands for right to development as an essential human right.⁵ Back

Conference on Governance, Organizational Effectiveness and the Non-profit sector, Organized by the Asia-Pacific Philanthropy Consortium, Manila, September 5-7, 2003.

⁴ Osmani, S.R. (2010), Realising the Right to Development in Bangladesh: Progress and Challenges, The Bangladesh Development Studies, Vol. XXXIII, March-June 2010, Nos. 1 & 2, p.26

⁵ UNGA Resolution No. 41/128 of 1986

in 1981, The African Charter on Human and Peoples Right expressly declared the right to development as an essential right and the text states as follows ⁶

All peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind.

Later on it was reaffirmed by the UN through the Vienna Declaration and Program of Action in 1993, through declaring this right as a universal and inalienable right and an integral part of fundamental human rights.⁷ But the most important thing the declaration of 1986 made was that it successfully placed the policy issue in the discussion table through inserting the provisions for formulating national and international policy to ensure full exercise and progressive enhancement of the right to development. Thus the Declaration on The Right to Development of 1986, in practice, ushered a new horizon for the formulation and implementation of development concerned legal regime to ensure better practice of development activities and the related agencies.

The basic concept of right to development has also been reflected into the Constitution of the Peoples Republic of Bangladesh, though not in direct manner as enshrined in the Declaration to the right to development of 1986, rather than in indirect provisions ranging from Article 14 to Article 20 of Part II. These provisions has recognized the right to work, equal opportunity, social security, rural development, free education, equality of opportunity as well as work as a right and duty which is the primary passage towards the of mainstream development practice.

Thus the Constitution of the Peoples Republic of Bangladesh has redressed the issues associated with the right to development along with the global concern and discussion on the right to development which was later implemented in global context through the Declaration on the Right to Development of 1986.

The Declaration on the Right to Development (RTD) has not yet turned into a treaty which means it is not legally binding upon the states. But the legal basis of RTD declaration can be found in various legally binding human rights covenants like ICESCR and ICCPR.

As a signatory state to the Vienna Declaration and Program of Action, Bangladesh has committed itself to implementing the

⁶ Article 22, The African Charter on Human and Peoples Rights, 1981. For details see, <http://www.achpr.org/instruments/achpr/#a22>

⁷ Article 10, The Vienna Declaration and Program of Action, 1993

Declaration on the Right to Development adopted by the United Nations in 1986. Although neither of these two Declarations has the legally binding status of a Treaty, the moral force of the universal consensus underlying the Vienna Declaration enjoins upon the State the obligation to fulfill the commitments laid out in these Declarations.⁸

Later on, Bangladesh ratified the International Covenant on Economic, Social and Cultural Rights (ICESCR) in 1998, and the International Covenant on Civil and Political Rights (ICCPR) in 2000 (with some reservations in both cases). It has also ratified other important Conventions, including the International Convention on the Elimination of all Forms of Racial Discrimination (CERD), the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW), and the Convention on the Rights of the Child (CRC). Bangladesh has also ratified a good number of covenants which are crucial either directly or indirectly in implementing the right to development at the state level. Thus the RTD decoration served as the corner stone while other rights concerned covenants promoted the effort of implementation of the right to development from global to national context.

Development Scenario in Bangladesh

The globalization process has heavily posed a challenge for Bangladesh to accelerate its economic growth through the alleviation of poverty which affects a good proportion of its whole population. The route to ensure social justice has become narrow day by day with the limited resource provided by the government agencies.⁹ The challenge to ensure economic and social justice in this context compelled to shift away from state-centric bureaucratic-controlled development plans and programs to the result-oriented people-centered initiatives taken by the Non Governmental Organizations.

The mainstream NGOs in Bangladesh started with relief operations- the early organizations thus specialized in the delivery of services in ways that significantly differed from the government distributions. Subsequently, many of them offered alternative education, health and other 'social services'.¹⁰ The most significant move towards this new era was marked by the introduction of microcredit system for the

⁸ Supra note. 4, p.27

⁹ "Social justice is about assuring the protection of equal access to liberties, rights, and opportunities, as well as taking care of the least advantaged members of society", Rawls, John (2003), Justice as Fairness: A Restatement, Belknap Press; 2nd edition.

¹⁰ Supra note. 2

people lying behind the line of extreme poverty. This step started a revolution in the development initiative through which a good number of large and small NGOs emerged into the picturesque with their efficient and result-oriented credit programs & actions.

Present development issues in Bangladesh have found its dimension in broad spectrum ranging from resolving financial issues to redressing rights issues. As from the national context we can see that microcredit has placed itself into a pioneer position among the development issues concerned. Moreover, there are a good numbers of programs taken by different NGOs in present development context like Agriculture & food security, Disaster management, Gender justice, Education, Healthcare, Water, Sanitation & hygiene, Rights advocacy and Legal aid services.¹¹

It's worthy to mention a few of leading native NGOs working successfully not only in our country but also expanding the horizon of their activities in different parts of Africa, Europe and Latin America.¹² BRAC (Bangladesh Rural Advancement Committee), as starting its journey in the war-torn country in 1972, has become a story of success in redressing the issues like grass-root empowerment, health, education, financial services and providing self-sustaining solution not only in the home country but also in 11 different countries ranging from Africa to Caribbean.¹³ BRAC has been proved to be the alternative tool to alleviate radical poverty in significant manner in the rural areas through direct involvement of the beneficiaries of different micro-credit scheme where government agencies have hardly reached those people. In 2013, BRAC's microfinance program disbursed over USD 1.5 billion to 4.2 million borrowers, the majority of whom are women. Also, the program continued its progress on other fronts – improving human resources, strengthening internal operations and innovating to enhance products and services to better meet its clients' needs. In December 2013, the total number of BRAC primary and pre-primary schools was 39,869, of which 87 per cent were in rural areas.¹⁴

¹¹ Gender justice means equal treatment and equitable value of the sexes. Therefore, gender equality is a fundamental human right that is guaranteed in international and regional treaties, conventions, and national legislation. See, <http://femnet.co/index.php/en/introduction-gender-and-climate-justice/177-what-is-gender-justice-in-the-context-of-climate-change>, last visited 23 November, 2014.

¹² NGOs are often interpreted as non-profit organizations that are outside the public and private sectors and that tend to address the needs of disadvantaged citizens (Paul, 2000; Farrington and Lewis, 1993: 20)

¹³ For more information on BRAC and its activities, see, <http://www.brac.net/content/who-we-are#.VFX7axb5nB8> Last visited 3 November, 2014

¹⁴ BRAC Annual Report, 2013, p.14

NGOs like ASA, TMSS also working relentlessly in grass-root level through their nation-wide strong network of skilled workforce involved in various micro-credit projects and they are proved to be the mentionable non government agencies in the combat against poverty through the mass participation of the victims of radical poverty. Beside those mainstream NGOs in Bangladesh, there's a good number of rights advocacy NGOs like ASK (Ain O Salish Kendro), BLAST (Bangladesh Legal Aid Services Trust), BELA (Bangladesh Environment Lawyers Association) those who are primarily concerned with civil and political rights. These rights advocacy groups, although termed as NGO, are basically concerned with the protection and enforcement of citizen's rights guaranteed by the Constitution of Bangladesh. So, we can see a straight line of difference in the functioning of NGOs in Bangladesh where a major part is working in ensuring economic rights and a few groups are working in protecting the civil, political and legal rights of common people. There are also a good number of foreign NGOs like USAID, Action Aid, Plan Bangladesh, Oxfam etc working on different sector of Bangladesh beside the aforementioned native NGOs.¹⁵

There are about 45000 NGOs are currently registered under the Ministry of Social Welfare and among them there are about 2000 NGOs deals with the issues concerned with mainstream development practices.¹⁶ So the question of good governance, transparency and accountability arise along with the issue of management and administration of those NGOs in a same row.

NGO Governance within Theoretical Framework

The success story of NGOs in Bangladesh in combating poverty and ensuring sustainable economic development at the grass root level has achieved distinction with the expansion and introduction of numerous agencies funded either internally or externally. But the development experience in here is mostly dependent upon the foreign donations and funding and which seeks for a regulatory regime for the accountable and transparent governance of the agencies both from the inside and outside of the country. The duty-bearers (Provider NGOs) are

¹⁵ A total of 233 foreign Non-government organizations of 27 countries have been operational in the country. See, <http://www.dhakatribune.com/bangladesh/2014/jun/19/233-foreign-ngos-working-bangladesh>, last visited 12 September, 2014.

¹⁶ Fagan, Honor G. and Munck, Ronald (2009), *Globalization and Security: Social and Cultural aspects*, Introduction to Volume 2, Greenwood Publishing Group, 2009, p.298.

responsible to the right holders (beneficiaries) of the development activities. The human rights normative framework grants rights to the right holder and impose obligations on the duty bearers. Rights and obligation demands accountability.¹⁷

Three decades of growth in the NGO sector reached to a certain point where the issue of internal governance mechanism of NGO gained prominence. NGO governance in Bangladesh is concentrated within three areas: 1.Accountability to the people; 2.Accountability to government rules and regulations and 3.Accountability to funding organizations (external accountability).¹⁸ The necessity for ensuring transparency and accountability for the development agencies has, so far, become a burning issue in the context of growing number of development NGOs with unaccountable amount of foreign aid supplied into the mainstream development initiatives like microfinance, primary education and infrastructure development.¹⁹

NGO accountability works at the macro level as well as the micro level. Accountability at the macro level implies ensuring congruence between institutional policy and actual implementation and the efficient distribution and use of organizational resources.²⁰ The issue of NGO governance is sharply dependant in the harmonious combination of preparation, participation and implementation of policy as to the regulation of stake-holders in the development activities. Present regulatory regime concerning NGO governance in Bangladesh seems to be outdated, inconsistent and self-contradictory in certain respect. Lack of coherence in the legal mechanism is a challenging issue while dealing with an issue like NGO governance in the context of Bangladesh. The regulatory regime concerning NGO governance is marked by the presence of a very few number of laws like The

¹⁷ In governance, accountability has expanded beyond the basic definition of "being called to account for one's actions". It is frequently described as an account-giving relationship between individuals. See, <http://en.wikipedia.org/wiki/Accountability#Administrative>, last visited 20 October, 2014.

¹⁸ Haque, SK Tawfique M (2010), "NGO Governance in Bangladesh: quest for accountability and transparency", Paper presented at the 9th international conference of the International Society for Third Sector Research, 8th July, 2010, Turkey.

¹⁹ The term transparency has been defined as "The duty to act visibly, predictably and understandably to promote participation and accountability. Transparency is a characteristic of governments, companies, organisations and individuals that are open in the clear disclosure of information, rules, plans, processes and actions. See, <http://www.transparency-initiative.org/about/definitions>, last visited 12 September, 2014.

²⁰ Ibid.

Societies Registration Act, 1860, The Trust Act, 1882, Charitable Endowments Act, 1890, Voluntary Social Welfare Agencies (Regulation and Control) Ordinance, 1961, Wakf Ordinance, 1962, Cooperative Societies Ordinance, 1964, Foreign Donation (Voluntary Activities) Regulation Ordinance 1978, Foreign Contribution (Regulation) Ordinance 1982, Hindu Religious Welfare Trust Ordinance, 1983, Buddhist Religious Welfare Trust Ordinance, 1983, Christian Religious Welfare Trust Ordinance, 1983 and Companies Act of 1994.

Among these statutes, The Societies registration Act of 1860 is the primary piece of legislation in NGO governance and most of the NGOs working in Bangladesh are generally formed under this law. The exercising authority under this law is the Registrar of the Joint Stock Companies working under the Ministry of Commerce which is responsible for registering any society formed for any “literary, science or charitable purposes”.²¹ The Companies Act of 1994 provides the legal status for the not-for-profit companies and they can be registered with limited liability provided that the company spends or intends to spend its income in promoting its not-for-profit objectives.

Voluntary Social Welfare Agencies (Regulation and Control) Ordinance, 1961 came into operation to provide for the registration and control of voluntary social welfare agencies. This act provides extensive power to the government as to the registration, dissolution and administration of NGOs in broader array. A large number of NGOs are registered under this piece of legislation. But the insertion of ‘Good Faith Clause’ Under Section 15 of this ordinance has raised serious question as to the effectiveness and credibility of this legislation in case of any irregularities and corruption done by the development agencies.²²

The Foreign Donation (Voluntary Activities) Regulation Ordinance 1978 (also known as FDR) covers any formal or informal organization established to carry out voluntary activity within the territorial boundary of Bangladesh. The aim of this act is to regulate the receipts and expenditure of foreign donations for voluntary activities. There’s express provision forbidding any voluntary activity using foreign donations unless the organization is registered with the NGO Affairs Bureau (NGOAB), which is established within the Prime Minister’s Office and each foreign grant must be approved and monitored by the

²¹ Preamble, The Societies Registration Act, 1860.

²² Good faith is an abstract and comprehensive term that encompasses a sincere belief or motive without any malice or the desire to defraud others. It derives from the translation of the Latin term *bona fide*, and courts use the two terms interchangeably.

NGOAB. Later on, Foreign Contribution (Regulation) Ordinance 1982 (also known as FCR) was introduced to expand the scope to cover every kind of contributions from abroad. These two pieces of legislation has been considered as the night watchman in the field of NGO governance and administering the regulatory regime for many years concentrating only on the foreign aid and contributions.

Theory vs. Reality: NGO Governance in Bangladesh

The rules for internal governance and external accountability for NGOs in Bangladesh are fairly rudimentary, unless they are registered with Department of Social Welfare or NGOAB. The laws for establishment do very little to impose a workable internal governance regime or external accountability standards.²³ Lack of uniformity and coherence in the application of the exiting legal regime has turned the situation into a single-sided administrative process that focuses only in the regulation, control, management and administration of foreign voluntary funds the rate of which is depleting day by day due to the steady and sustainable growth in the domestic economic environment. This is one of the most important issues in assessing the reality of NGO governance from the context of Bangladesh.

The NGO Affairs Bureau (NGOAB), which operates under the Prime Minister's Office, basically administers the Foreign Donation (Voluntary Activities) Regulation Ordinance 1978 as well as Foreign Contribution (Regulation) ordinance of 1982. Its prime objective is to provide one-stop service to the NGOs operating with foreign assistance and registered under the FDR Ordinance. In addition, it facilitates the activities of the NGOs in the country, and ensures their accountability to the state and thereby to the people of the country.²⁴ The rationale for setting up NGOAB was the "huge backlog of projects pending Government approval" under the then-existing system, which required multiple levels of government review.²⁵ NGOAB has played a vital role from the very inception of its journey in 1990 because a large number of NGOS were mostly dependant on foreign aid and contribution to run their activities in Bangladesh. The NGO Affairs Bureau has the major responsibilities in broader array like providing one stop service to NGOs in respect of registration & processing of project proposals, approval of NGO projects, fund releases, permission for appointment of foreign expatriate consultants and fixation of their

²³ Irish, Leon E and Simon, Karla W (2005), Legal and Regulatory Environment for NGOs in Bangladesh, , International Centre for Civil Society Law, April 2005, p.10

²⁴ <http://www.ngoab.gov.bd/site/page/092eab90-ba5f-4cba-933f-d9f28863d170>, Last visited 17 September 2014

²⁵ Pursuing Common Goals, World Bank, 1996, p. 30

tenure, examination and evaluation of reports/returns submitted by the NGOs, coordination, monitoring, evaluation and inspection of NGO activities. Their responsibilities also include collection of fees/service charges levied by the government, inspection of field level NGO activities and examining their accounts, liaison with the donors and the NGOs, formulation of reports on NGO activities and take appropriate measures, enlistment of Chartered Accounting Firms for auditing of Accounts of the NGO, approval of proposals for one-time grants and any other matters incidental to NGO Affairs.²⁶

The administrative authority of the NGOAB never extended or exercised beyond the simple task of registration, approval, inspection of NGOs and their foreign grants. This short list of responsibilities handed down to the NGOAB is basically the creation of the legislative boundary accorded by the FDR and FCR Ordinance.

The Department of Social Welfare (DSW) is another regulatory authority that functions under the Voluntary Social Welfare Agencies (Regulation and Control) Ordinance, 1961. The principal work of the Directorate of this Department is to register and to deal with those NGOs whose purpose is to render welfare service for children, youth, women, family, physically or mentally handicapped, family planning, recreation, civic responsibility, released prisoners, juvenile delinquents, socially handicapped, beggars and the destitute, patients, the aged or infirm, social work, or coordination of other social welfare agencies. The DSW also dispenses public funds under a program of government assistance to social welfare NGOs.²⁷ This department has no authority to exercise over the non governmental agencies formed for any purposes relating to science, art, culture or environment.

Problems of NGO Governance within Present Legal Framework:

The biggest challenge that we face right now with the NGO sector is the outdated pieces of legislations. The number of NGOs actively engaged in development activities has increased significantly in multifold numbers and the dimension of development practice has shifted from rescue-rehabilitation to the mainstream socio-economic development where existing regulatory regime still focuses on the less important issues like registration, control of funds etc through disregarding the more significant issues like ensuring accountability, financial transparency, project implementation and supervision etc.

As it has been observed in a Report that “The current legal framework for NGOs in Bangladesh is outdated, confusing, and in need of complete revision. Not only does it tend to focus attention and

²⁶ <http://www.ngoab.gov.bd/site/page/3eab7933-542a-4b4f-92cd-e5063eb35c25>
Last visited 19 September 2014.

²⁷ Supra note. 15, p.12

money on issues that are relatively unimportant- the foreign funding of a few NGOs by legitimate multilaterals and bilateral donors- it also does not impose high enough standards of accountability and transparency on the vast majority of NGOs that receive no foreign funds but that do affect the public interest. With the apparent shift toward more domestic funding for Bangladeshi NGOs, the current regulatory system seems improperly focused”.²⁸

Beside the problems with the existing legal regime, there are certain other problems with NGO governance in Bangladesh which has been stated in another report prepared by TIB.²⁹ They have particularly focused on the following problems with NGO Governance.

- Ineffective internal governance mechanism.
- Non-transparent and arbitrary process of decision making.
- Lack of financial transparency.
- Lack of accountability to the service recipients (rights holders)
- Lack of accountability to the donors and the government.
- Lack of consolidated information as well as secrecy in providing information.

The report as to the establishment of good governance from TIB basically points out to and ignited the long-standing debate of ensuring transparency and accountability through improving present regulatory framework.³⁰ Present legal regime governing the Non government development agencies has been, as we have experienced till to date, proved to be inconsistent with the changing dynamics of the socio-economic development as well as the revolving demands from the different parts of the society which deals with different types of development issues.

Despite the fact that political activities seem to be the subject of the greatest contention between NGOs and the GOB, there are absolutely no rules currently on the books that forbid political activity by NGOs.³¹

²⁸ *ibid*

²⁹ For the detailed report see, “Problems of Governance in NGO sector: The way out”, Transparency International, Bangladesh, 2007

³⁰ “The federations of the NGOs in Bangladesh (FNB) and the Association of Development Agencies in Bangladesh (ADAB) have reacted angrily. They have claimed that the methodology used in the study was faulty, and information gathered from a faulty research cannot be acceptable”. Zamir, Muhammad, “NGOs in Bangladesh and their accountability”, The Daily Star, 10th October, 2007

³¹ It is possible to argue that the Societies Act, which refers to charitable activities, includes within that definition a ban on political activities. Such a rule would be consistent with outmoded definitions of “charity,” but throughout the common

On the other hand, there is complete agreement between the GOB and the NGOs that “partisan political activity” by NGOs should not be permitted, but it is in the details of the definition of that term that the trouble lies.³²

One of the most significant problem that we are facing present days with the increase of domestic fund in NGO sector is that there’s a lack of clarity about income-generating activities of the NGOs in Bangladesh and whether or not they should be exempted from giving tax in return of their profit-earning activities. In 2002, the question of whether the Societies Act forbids an organization registered under it from engaging in income-generating activities was answered in negative in the case of BRAC v. Mozaffar Ahmed.³³ The Appellate Division of the Supreme Court decided the case, which involved BRAC’s investment in the BRAC Bank, in favor of BRAC, interpreting the Societies Act to permit all sorts of investments as long as they are permitted by an organization’s charter. The outcome in the case is a rational one- that an NGO may engage in any business activities it wishes as long as its charter permits. The issue of unfair competition between the NGO sector and the business sector is not, however, resolved by this decision. What that means is that business enterprises will continue to complain unless there is greater clarity about the taxation of income from business enterprises conducted by NGOs.³⁴ Moreover, current legal regime of Bangladesh concerning the development regulation doesn’t meet the standard of international guidelines.³⁵ It failed to meet the needs of the NGOs in the context of changing global and national socio-economic dynamics.³⁶ For example, the current legal framework does not

- Permit easy, quick, non-discretionary establishment with full legal personality of a membership or non-membership not-for-profit organization to engage in any lawful activity
- Provide that a not-for-profit organization must be organized and operated primarily for not-for-profit purposes

law world today it is widely accepted that public benefit organizations may engage in a wide range of political activities. At the same time, however, the laws in other common law countries (e.g., UK, US, Canada, Australia) forbid charities’ supporting or opposing candidates for public office and financing political parties.

³² Supra note. 15, p.18

³³ BRAC vs. Professor Mozaffar Ahmed, (2002) 54 DLR (AD) 36.

³⁴ Supra note 15, p. 19

³⁵ Guidelines for laws affecting civic organization (2004), 2nd edition, International Centre for Not-For-Profit Law (ICNL), 2004

³⁶ Supra note. 15, p. 20

- Clearly forbid the distribution of income from a not-for-profit organization
- Assure the independence and accountability of boards of directors of not-for-profit organizations
- Require all not-for-profit organizations to have internal governance rules that allocate rights, duties, and responsibilities in a clear, reasonable, and flexible manner
- Clarify that directors have fiduciary duties of due care and loyalty
- Establish clear rules that not-for-profits must follow for dealing with conflicts of interest
- Establish clear and consistent financial accounting standards for all not-for-profit organizations
- Require minimal external accountability and transparency for ordinary not-for-profit organizations, with higher standards for public benefit organizations
- Provide adequate tax incentives for the not-for-profit sector.

In another report, it has been stated that the legal framework is outdated, obsolete, and in some cases not in synchronization with modern NGO regulatory concepts.³⁷ The problems looming around the current legal regime concerning NGO governance in Bangladesh has not been redressed due to multiple numbers of factors ranging from the reluctance of the government authority to the pressure of the NGOs collateral pressure for restraining to prepare and enforce a unified legal and regulatory environment. In addition, lack of balance between political motivation and international pressure from donor agencies has also led to the creation of vacuum in this legal regime. So far all the right holders (service recipients) and duty bearers (development agencies) are concerned, it has become a dire necessity on the side of the policy makers to revisit the present legal regime of Bangladesh concerning NGO governance so as to ensure transparency and accountability from downward to upward formation.

Recommendations from Law Commission and other Agencies

To improve the present legal regime and make it compatible with the evolving dynamics of mainstream development practice & norms, certain numbers of recommendations has been suggested by the authorities from both inside and outside of national boundary. Among these recommendations, one of the report prepared by the Law Commission, proposed for the amalgamation of existing four laws into

³⁷ “Economics and Governance of Nongovernmental Organizations in Bangladesh” (2006), Bangladesh Development Paper series, No.11, The World Bank Office, Dhaka, April 2006, P. 57

one legislation naming “বাংলাদেশ স্বেচ্ছাসেবী সমাজকল্যাণ ও উন্নয়ন সংস্থা (নিবন্ধন ও নিয়ন্ত্রণ) আইন, 1998 (Bangladesh Voluntary Social Welfare and Development Organization (Registration & Regulation) Act, 1998).³⁸ The recommendations provided by the law commission on that report particularly focused on two issues i.e. to continue The Societies Registration Act of 1860, and to repeal The Voluntary Social Welfare Agencies (Registration and Control) Ordinance, 1961 (Ordinance No. XLVI of 1961); The Foreign Donations (Voluntary Activities) Regulation Ordinance, 1978 (Ordinance No. XL VI of 1978); and The Foreign Contributions (Regulation) Ordinance, 1982 (Ordinance No. XXXI of 1982) and initiate the process to enact the proposed bill named hereinbefore. Unfortunately, a decade has already been passed since the legislative authority has failed to pay any attention to the recommendations proposed through the Law Commission of Bangladesh so as to make the present legal regime workable with the changing development scenario of Bangladesh. These suggestions, if enforced in real, could, at least, make the existing regulatory regime more viable and less bureaucratic which would ultimately leads towards establishing the practice of transparency and accountability (both external & internal) on that particular sector through consolidating the sporadic legal regime into one piece.

In recent years NGOAB has drafted a new law namely The Foreign Donations (voluntary activities) Regulation Act 2014, through amalgamating The Foreign Donations (Voluntary Activities) Regulation Ordinance, 1978 and The Foreign Contributions (Regulation) Ordinance, 1982, which primarily focuses on focuses on monitoring NGO activities and ensuring transparency and accountability in using foreign funds in development initiatives.³⁹ NGO affairs Bureau has almost taken a couple of years to prepare the draft and it has been welcomed by most of the development agencies and carried out discussions on it. They had some confusions and objections and requested their leaders to draw the government's attention in solving those.⁴⁰ It has been placed for public opinion, comments and feedback in the webpage of NGOAB and waiting to be passed by the legislative authority.⁴¹

³⁸ 3rd December, 2001, The law commission, the detailed report can be found on <http://www.lawcommissionbangladesh.org/reports/42.pdf>

³⁹ See for details, <http://www.ngoab.gov.bd/site/page/c5c209b3-0632-4997-b4d2-6bc823391404>, Last visited 10 September 2014.

⁴⁰ “New law drafted to regulate NGOs”, The Daily Star, Sunday, July 22, 2012

⁴¹ This bill has recently been placed and passed by the Cabinet which authorizes the NGOAB to cancel the license of any NGOs in case of any irregularities or corruption. This has come under fierce criticism on the fear that it can be used as tool of persecution for NGOs dissenting with the governments any action or opinion.

The World Bank suggested for a few more actions to be taken in improving the present regulatory regime for NGO governance in Bangladesh. Their recommendation basically focuses on improving and improvising the existing laws with the changing circumstance of the development practice rather than repealing them. For example, the focus of regulation ought to be shifted to fostering better governance and accountability in the NGO sector, rather than micro-managing foreign funds. In the process of legal reform, a number of tiered key principles are needed to be incorporated and enforced rather than making new laws and this will ultimately benefit a wide array of NGOs dealing with different issues in achieving the sustainable goals and objectives of their particular projects. In consolidating the laws for the formation of NGOs, one could merge the definitions of “social welfare agency” and “organization involved in voluntary activity” into a single, new definition of “Public Benefit Organization” (PBO)⁴². Apart from direct electioneering, a broad range of political activities ought to be permitted. Banning NGOs from the wide range of activities that could possibly be defined as “political” would not be appropriate in a country that is democratic, the main exception being the funding or support of (in favor or against) candidates for public office. Modern procedures for dealing with distressed NGOs and the mergers and exit of NGOs need to be developed. An enabling legal framework that permits the merger of NGOs will help smaller NGOs to continue their mission by joining forces with bigger ones. The Societies Registration Act ought to be amended based on the current state of the sector and in line with international good practices. In line with international good practices, NGO income in the form of donations, grants, membership dues, and microcredit revenues ought to be exempted from taxation. However, passive investment income and income from an active trade or business must be taxed in order to create a level playing field with other private sector competitors. Thus, Bangladesh needs to review its tax regime for NGOs and clarify the scope and applicability of exemption.⁴³ The recommendations provided by the World Bank for

⁴² Public benefit organization (Polish: *Organizacja pożytku publicznego* often abbreviated *OPP*) is a term used in Polish law introduced on 1 January 2004 by the statute on public good activity and volunteering. Organizations of public good are allowed to receive 1% of income tax from individuals, so they are tax deductible organizations. To receive such status, an organization has to be a non-governmental organization (political parties and trade unions do not qualify), involved in specific activities related to public good as described by the law, and be sufficiently transparent in its activities, governance and finances. Also data has shown that this evidence is to the point and makes sense.

(http://en.wikipedia.org/wiki/Public_benefit_organization, Last visited 11 September 2014)

⁴³ *Supra* note. 28, pp. 67-69.

revisiting the whole regulatory regime doesn't speak for the total change of the existing system, rather than the changes that makes that particular legal regime compatible with the good practice and procedures of mainstream development culture prevailing in other countries.

In another consultancy report it has been recommended to revise the whole legal regime as "...the current legal framework for NGOs in Bangladesh is outdated, confusing, and in need of complete revision. Not only does it tend to focus attention and money on issues that are relatively unimportant – the foreign funding of a few NGOs by legitimate multilaterals and bilateral donors – it also does not impose high enough standards of accountability and transparency on the vast majority of NGOs that receive no foreign funds but that do affect the public interest."⁴⁴ Moreover, this report clearly stated the absence of any laws relating to the issue of political activities by the NGOs. It suggested for new rules of political engagement for development agencies with a view to engage the NGOs in a wide range of democratic development activities, such as voter registration, issue advocacy, etc. Incorporation of a Law Reform Task Force has also been suggested comprising of NGO leaders, government officials, academic and lawyers with the technical assistance from the International Center for Civil Society Law.

Towards Rights-Based NGO governance

A Human Rights Based Approach (HRBA) is a way of empowering people to know and claim their rights, and increases the ability and accountability of individuals and institutions who are responsible for respecting, protecting and fulfilling rights.⁴⁵ This is otherwise known as Rights Based Approach (RBA) to development.⁴⁶ But how RBA can help in improving the present legal regime of Bangladesh regulating NGO governance? The answer to this question is not a straight-forward

⁴⁴ Supra note. 15, p. 44

⁴⁵ Scottish Human Rights Commission, see for details, <http://www.scottishhumanrights.com/eqhria/eqhriaaddvalpolicy>

⁴⁶ "There is a subtle difference between the rights-based approach to development and the right to development approach, which we mostly ignore for the purposes of the present study. One obvious difference is that the former can address either a specific human right or a broad range of rights, whereas the latter by definition embraces the whole spectrum of human rights. The distinction gets blurred when the process of development is itself subjected to a rights-based evaluation since such an evaluation must necessarily involve considering the whole spectrum of rights "Osmani, S.R. (2010)" Realising the Right to Development in Bangladesh: Progress and Challenges", *The Bangladesh Development Studies, Vol. XXXIII, March-June 2010, Nos. 1 & 2, p. 29*

one. If we carefully look into the basic concept of RBA that defines itself as an approach that integrates the norms and principles of International human rights system into development work.⁴⁷ The most significant features/principles of RBA can be stated as 2) Inalienability, indivisibility and interdependence of human rights; 2) Empowerment and participation; 3) Equality and non-discrimination and 4) Accountability.

The application of these human rights principles to the development process forms the fundamental basis of an RBA. While the principles are strong, many organizations often find them difficult to operationalise. By virtue of being principles they are fundamental, abstract and guiding. They express values and need to be translated into practice.⁴⁸ In RBA, the duty bearers (development agencies) are responsible to the rights holders (beneficiaries of development activities). The human rights normative framework grants rights to the right holders and impose legal obligations on the duty bearers. Primary responsibility as to ensuring the effective implementation of those obligations lies within the state through establishing an efficient and transparent accountability mechanism. RBA provides the opportunity of rights holders to participate in the policy making process as it aims to ensure the equal opportunity and participation of stake-holders in development norms and practice.

Accountability within the human rights framework focuses especially on the accountability of duty bearers (development actors) towards rights-holders (beneficiaries) and demands on the state to be answerable for the observance of human rights and to comply with standards, laws and policies.⁴⁹ Thus accountability principle embodied in the RBA not only seeks for the self-regulation (internal accountability) within the development agencies but also looks further for a competent and efficient regulatory regime (external accountability) from the policy-making authority that is compatible with mainstream human rights norms & practices.⁵⁰

⁴⁷ Boesen, Kirkemann Jakob & Martin, Tomas, Applying a Rights Based Approach: An inspirational guide for civil society, The Danish Institute For human rights, 2007, P.15.

⁴⁸ Ibid

⁴⁹ Ibid, p. 43

⁵⁰ "If governance norms are inconsistent, under-monitored, and under-enforced, and if accountability norms are inconsistent, weak, and under-enforced, then self-regulation naturally emerges as a potential solution." (Sidel, Mark and Zaman, Iftekhar (2005), Philanthropy and Law in South Asia: Key themes and Key choices, International Journal of Not-for-Profit Law, vol. 7, no. 2, February 2005 / 38

Rights Based Approach can significantly contribute through increasing awareness and encouraging stake-holders for the extensive reform of existing legal framework so as to realize the ultimate goal of every development initiatives. RBA can help establishing the appropriate monitoring and evaluation mechanism through micro-management which can alleviate unnecessary bureaucratic complexities in the development regulation. The most significant principle which can be the best tool for ensuring transparent and accountable governance is the presence of the Accountability principle in RBA. For accountability to be effective there must be appropriate laws, policies, institutions, administrative procedures and mechanisms of redress in order to secure human rights. Thus RBA can pave the way for implementing an efficient regulatory mechanism through incorporating established human rights principles and practices for NGO governance from the context of Bangladesh.

Conclusion

Every development initiatives, taken in the complex socio-economic structure of 21st century, aims at achieving human development. Ensuring transparency and accountability is the pre condition towards achieving sustainable human development. And to ensure accountability and transparency, it is essential to have an effective and efficient legal regime which is compatible with the standard of international civil society and meets the demands of evolving norms and practices of mainstream development culture as well. Regulatory regime of Bangladesh concerning NGO governance has failed to meet the demands of the present development through focusing more on the regulation of foreign funds while almost disregarded the practice of domestic funded initiatives which has formed a considerable portion in the mainstream development reality of Bangladesh. This shifting of concentration has not been redressed through changes in the regulatory regime which is a must to ensure transparency and accountability from the state side. Moreover, NGOs working in Bangladesh seems to be indifferent to apply self-regulating mechanism so as to ensure internal accountability within their organization's structural framework. As a large number of development agencies have focused more on applying Right Based Approach in their development initiatives in recent days and on which the principle of accountability holds one of the primary position on practical application, it's high time to improvise the present legal regime so as to make it viable and compatible with the present development culture and practice prevailed both in national and international context.

9 Self Reliant Village Cooperative Society at the Age of Globalisation: A Case of Comprehensive Village Development Programme

**M. Kamrul Hasan
Nasima Akhter**

Introduction

Comprehensive Village Development Programme (CVDP) is a multidimensional rural development approach which based on villagers own initiatives and resource mobilization consists of village people and their function under village based cooperative organization. CVDP is a brainchild of Bangladesh Academy for Rural Development (BARD), which has been begun its journey as an experimental project named Total Village Development Programme (TVDP) in 1975. Since 1983 the project renamed as Comprehensive Village Development Programme (CVDP). After several stages of experiments successfully over the periods, CVDP turn into a national project of the Rural Development and Cooperative Division under the Ministry of Local Government, Rural Development and Cooperatives of The Government of the People's Republic of Bangladesh. The government is provided fund of training and salaries of the project personnel. Since July 2008, CVDP is being implementing at least one Upazila (Subdistrict) of all 64 Districts of Bangladesh At its 2nd phase, The four institutions like Bangladesh Academy for Rural Development (BARD), Rural Development Academy (RDA), Department of Cooperatives, and Bangladesh Rural Development Board (BRDB) are implementing the project of CVDP-2nd phase which will be ended in December 2015.

Objectives, Scopes and Methods of the Study

The objective of the article was to delineate the self help approach entangled with services by the Comprehensive Village Development Cooperative Society (CVDCS) and the motivation of togetherness of its members with considerations of modus operandi, challenges at the age of market economy under globalization. The scope of the study is included process of advocacy cum motivation of inclusion in terms of membership, participation of support service providers and Nation Building Departments (NBDs), financial capital formation by the members and their process of building of social capital. This paper based on author's own long experiences and observation in the field of

rural development and working in CVDP villages of BARD. Besides, case stories, group discussions at the village levels have been organised for data collection.

Overview of CVDP

The general objective of the CVDP project is to create single comprehensive cooperative organization irrespective from all strata, gender, occupations of the villagers for organizing development efforts at the village and reduction of poverty. The project is evolved through working with village people in participatory approach. The major learning from the long experiences of CVDP is multiple. The society is formed through voluntary, spontaneous and folk solidarity of the villagers. The seven principles of cooperative such as democratic control of the society, the financial participation of the members, autonomy of the society, education and training, inter-cooperative relations, and social involvement are being practicing by the members of the society. It has three types of members like male, female, and children, those are assembled here. The CVDP believes in individual's entrepreneurship in one hand and inclusiveness of the villagers on the other. Therefore it has several dimensions such as self help, receiving end of Nation Building Departments, family cum community development. The motivation is the key of CVDP activities. Imparting training with motivation is inspiring the members for taking own initiative development. Therefore CVDP provides training on various fields such as leadership, capability development, agricultural development, gender development, child rights, family planning, orientation programmes on current issues like entrepreneur development and others. On the other hand CVDP arranges technical training for the youth members of the society and giving training on electrical, plumbing, refrigeration, tailoring and solar installation. After successful completion of technical trade training the fellow receives some of the inputs like sewing machine particularly for women. CVDP links its members with the Nation Building Departments through training, participation and visit. The major motto of CVDP is to develop physical and human capital. On the other hand cooperative society rises financial capital and offers small loans from own savings/share to the members. In this view CVDP follows some sort of self reliant in terms of own capital formation. This project harnesses the capacity and capability of the society as well as its individual members. At the organizational level the major components of CVDP are given below:

- Motivation and training
- Open membership
- Leadership development and team work

- Trained village development worker
- Capital formation and investment programme
- Economic development and self employment
- Social development activities
- Local level planning
- Monthly joint meeting

Self Help Approach

Comprehensive Village Development Programme has been evolved with own initiatives to mobilize resources of the villagers. They are organized for creating a socio economic organization beneath with cooperative norms. This is very organized and self dependent organization which incorporated so far about 0.4 million (4 lakh) people. The members of the cooperative society are helping themselves in terms of development of individual, family and village society. The village cooperative society is a registered society. The comprehensive village cooperative society is governed by the 9 members of elected executive committee. The establishment of single comprehensive cooperative society has own dynamism and strength and may act as an umbrella organization at the village level. It is totally depends on solidarity cum team work of the villagers. Effective relations with local government organizations and nation building departments or service providers are developed through monthly joint meeting at the village level. Agriculture extension, livestock, youth department are extending their services through CVDCS. The Upazila Project Implementation Committee and Union Project Implementation Committee are being operating for coordination of training and development of CVDP. However, the Assistant Project Director of Upazila level is the member secretary of both the committees. Currently there are 4080 CVDCS is operating in 64 Districts. Every village have village information based book on village survey conducted by CVDP. Comprehensive Village Development Society is a development platform where Nation Building Departments and various service providers irrespective of Non Government Organization and Voluntary Organizations can work here coordinately or jointly for wellbeing of the rural people. At the village level several development efforts are operating in the field of health and nutrition, human resource development and education services, agriculture and irrigation services, youth, fishery, and livestock, rural conflict mitigation, local resource utilization.

Globalisation and Changing Village Society of Bangladesh

The village of Bangladesh is not isolated even in early period of history. The process of globalization directly and indirectly influences

the rural Bangladesh. The pattern of social mobility has been changed due to several causes such as technology, education, politics, migration, women participation and etc. New occupations are interferences at the villages. The rate of urbanization directly impact on villages. The style of living has been changed. CVDP is a process of social inclusion with view of folk and spontaneous solidarity of the villager. Inclusion is the process which is national and global development strategy.

Access to information and leadership style of village people, capacity to establish linkages and willing to work are very important to run the village society. The aim of CVDP is to reduce poverty through mobilization of own thrift deposit savings and share. CVDP is the model of solidarity. It has capacity to accelerate division of labour among the village which may indicate the organic solidarity, which articulated by sociologist Emile Durkheim. CVDP has inclusiveness and harnessing of human capacity to get opportunity from globalization in terms of trade, employment generation through skilled training on technical fields. The comprehensive cooperative society patronizes its members for providing loans and information for going abroad in view of remittance earnings. The technical trained member of the society can go to abroad for remittance earning. A post training utilization study on technical training of CVDP reveals that about 5 percent (69 persons of CVDP technically trained members) are now working at respective fields in foreign countries.

On the other hand 93 percent (1340 persons) of them are self employed those working in the country. About 2 percent (32 persons) is working different formal and non formal organizations. Therefore the process of it in view of technical training and investment plan of the member(s) has increased the employment generation significantly. With the democratic practices the poor people can be organized here through assemble at the village organization and having raises their voices. The experiences with CVDP indicate that essentially rural poor people are more interested to join the CVDP. It depends on nature of motivation and information. CVDP also knocks achieving competitiveness of its members through education and training. The major components of the CVDP are agriculture development, economic and social wellbeing, organizing capacity and leadership, good governance, village solidarity, networks, self employment, and local level planning. Regional and international development agencies are also utilize CVDCS as platform for community development which successfully organized By volunteers from Korea International

Cooperation Agency (KOICA) at Raicho village of Comilla Sadar Upazila and different villages of Burichang Upazila of Comilla district.

Table 1: Some of the achievements of CVDP 2nd Phase BARD

Components	Cumulative achievements up to October, 2014
Formation of registered comprehensive cooperative society	1020
Number of family inclusion at the cooperative society	96183
Number of membership in the Comprehensive Village Development Cooperative Society (CVDCS)	147472
Formation of capital (share, savings, and others) (Tk. In Lakh)	2602.61
Savings and others (Tk. In Lakh)	1912.81
Disbursement of credit/investment (Tk. In Lakh)	4329.38
Self employment through training and credit (person)	49347

Source: Project information for Annual Development Programme Review Meeting

The changes have been occurred at the leadership pattern through CVDP. Traditional leadership is fading away from the villages on progress of CVDCS. New leadership comes from lower income and middle income groups. The majority of the comprehensive cooperative members are derived from poor socio economic position. They are mainly day labourers and small farmers (RDCD, 2013). The members of the CVDCS have shown their capability in the fields of education, family planning, sanitation, forestation, livestock and poultry birds rearing. Self reliant approach now days probably obsolete due to individualism. However Gandhian view on self reliant addresses one thing that is recognition of artisans on reciprocal exchange.

On the other hand other self reliant approaches are Julius Nayerer's socialist Ujama which dismantled due to advent of market capital economy. CVDP has two ends, to be self reliant at modern time in regards of own credit operations and getting training from technical and knowledge institutions. The trained manpower has opportunities to train village people. It was commitment that promised at the input giving ceremony after completion of the technical trade based training. So that CVDP is contributing to develop modern artisans which significantly valued at national development. CVDP has shown its capacity for achieving Millennium Development Goals (MDGs).

Challenges and Concluding Remarks

The motto of CVDP is to faith on human power and create enabling environment for human development. CVDP is an interdependent

socio economic development oriented cooperative organization. With its huge coverage in terms of social involvements therefore it is necessary to continue the motivation of the villagers for achieving maximum outputs. It is necessary to enhance capital in provisions of financial and social through CVDP movement. The demanding new trades on application of computer, air conditioning, motor and pump mechanic, veterinary training, paramedics, block and batik, midwifery training where CVDCS members can be participated in skill based technical training (RDCD, 2013). To achieve Millennium Development Goals (MDGs) it is necessary cover ultra poor at the CVDP project. The contradictions of micro credit those are provided by different NGOs, Grameen Bank, and other Government agencies should be coordinated and the rate of interest of credit must be affordable. However the project already experienced some of the challenges like sustainability of the village society and multiplicity of development organizations with contrasts.

The single most challenge is prevails in contradictions of poverty reduction programmes in terms of different modus operandi and rate of interest. The other challenges are leadership motivation and trust of members upon leader, challenges in enabling environment for synergy. Urbanization and changing rural lives, level of motivation and vision of service providers.

In real sense CVDP was designed for coordinating the development works from different service providers in the village. It can be worked with local government institutions. Without people's participation and leadership development at village level the functions of CVDP can be complex. On the other hand political commitment, harmonization of the government programmes in terms of providing contributory fund to all group or society and commitments of service providers are very decisive for running CVDP. In view of effective CVDP requires societal values, human energy, visionary village leadership, willing to participate in different social activities, utilize the networks and sharing the ideas for future planning of the villagers.

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PART THREE
HUMAN SUSTAINABILITY

10 The Experience of A Community-Driven Development Project in Bangladesh

Parvaz Azharul Huq

Introduction

The term mobilisation, as a development strategy, refers to the simultaneous social engagement of large masses of people in collective action Rahman (1993:17). Community mobilisation, more specifically, refers to a process of strategy development and gathering community members for collective action (German & Taye, 2008; Speer, 1995). In the context of Community-Driven Development (CDD), it is a process of bringing together the members from diverse sections of a community to raise awareness on and collective demand for a particular development programme. In a CDD project, community mobilisation is the purposeful organisation of community people to implement and support local development. Mobilisation supports other strategies and is not an end in itself. Basically, it is a process of organising relationships, identifying issues, mobilising around these issues, and building enduring community organisations. It facilitates change and development while taking into account the felt need of the community. Community mobilisation in a CDD project, the way it is managed, is important to consider since it determines how the collective action would be directed leading to the achievement of the development goal(s).

Rosenstone and Hansen (1993) argue that mobilisation depends on the inducement of individuals, organisations, or groups to others to participate. By referring to the works of e.g. Rosentone and Hansen (1993), Hawkins, Catalano and *et al.* (1992) and Spergel and Grossman (1997), Bolland and McCallum (2002) state that a key element of this conceptualisation is the involvement of leaders and community organisations as a mobilising force; and a person is mobilised to the extent that somebody has done something to increase the likelihood of his or her participation. In frequent cases, in the context of urban poor communities in third world countries, those leaders are the local elites, who are richer among the poor, more educated and more powerful (Desai, 1995). The definition of elites varies depending on the setting though. The term can be used to refer to the traditional elite, to educated people and political leaders (Dasgupta & Beard, 2007; Platteau, 2004; Platteau & Gaspart, 2003), to motivated individuals (Rao & Iba'ñez, 2005) or to prime movers (White, 2002). In a nutshell

elites are: ‘individuals who can exert disproportionate influence over a collective action process’ (Beard & Phankphian, 2009:11).

A number of writings, for example: Cooke and Kothari (2001), Dasgupta and Beard (2007), Dill (2009), Mansuri and Rao (2004), Platteau (2004) and J. P. Platteau and F. Gaspart (2003), indicate that many of the large scale CDD projects are indulged with lack of organisational capacity at the community level as well as lack of ownership of the projects by the intended beneficiaries. Projects are susceptible to elite capture because participants come from unequal positions of power. Most analyses define elite capture/domination as inherently pernicious to community development outcomes, and opt for searching whether and how CDD projects can avoid local elite capture (Dasgupta & Beard, 2007; Dongier et al., 2002; Platteau, 2004; Platteau & Abraham, 2002; Platteau & Gaspart, 2003). Contrary to the above view, Dasgupta and Beard’s (2007) study insists on making a distinction between ‘elite capture’ and ‘elite control’. In the case of ‘elite capture’ project decisions, planning and resources are solely monopolised and controlled by the elites. On the other hand, in a situation like ‘elite control’ the project planning and decisions may be controlled by the elites but in a participatory and democratic manner; and thus the elites remain accountable to the beneficiaries. This could be termed as ‘benevolent control’. By considering the fact that elite domination is frequent in CDD projects, Fritzen (2007) argues that greater attention needs to be paid to learn what mechanisms may raise the likelihood that elites will play a constructive role in CDD.

By analysing the initial community mobilisation process in four urban poor communities espoused by a community-driven development intervention in Bangladesh, this case study paper explores the role of local elites in organising community people for collective action. Focusing empirically on the elites’ role in a community mobilisation process this paper contributes to the limited but quickly expanding—as Platteau and Somville *et al* (2010) opine—field of CDD literature concerning elite capture.

Background Information of the Case Study Project

Upon realising the urgent need to address the urban poverty situation in Bangladesh, United Nations Development Programme (UNDP) supported Local Partnerships for Poverty Alleviation Project (LPUPAP) from 2000 to 2007. This was one of the largest UNDP sponsored projects in Bangladesh at that time, which was implemented in eleven cities and towns with an aim to improve the socio-economic and political status of the urban poor. Instead of the traditional supply-driven approach, the project adopted a community-based, bottom-up and demand-driven approach to achieve its development objectives.

The community groups, formed under the project, were involved in identifying and prioritising their needs, communicating effectively with local government bodies, and participating in designing, implementing and evaluating community level development activities (GHK International, 2006). In fact, the project design followed the typical CDD approach, so that the poor can improve their socio-economic and political status through their own efforts. Upon completion of LPUPAP, Urban Partnerships for Poverty Reduction (UPPR), co-sponsored by UNDP and the UK Department for International Development (DFID), came into operation as the second phase of the former for the time period of November 2007 to March 2015. UPPR is the largest urban poverty reduction initiative in Bangladesh till this time, and one of the largest in the world. The project covers 30 cities and towns (including the former 11 LPUPAP cities and towns) of the country (Urban Partnerships for Poverty Reduction, 2012). A four-tier implementation structure – community, ward, *Pourashava*/ city and national level – has been developed to support the fundamental principle of the project that decision-making will take place at the community level (Urban Partnerships for Poverty Reduction, 2008:4). In accordance with the CDD approach, this is an endeavour to create new community organisations at the local level. The detailed institutional arrangement and the management of the UPPR project has been described in the LPUPAP implementation guideline (Government of the People's Republic of Bangladesh, 2001) and the UPPR project document (Urban Partnerships for Poverty Reduction, 2008).

At the community¹ level, there are two types of groups: primary group (PG) and community development committee (CDC). A primary group is composed of a group of persons in the community that wants to address a development issue of common interest. The maximum number of primary groups in a community is about 20, and they are generally composed of 15 to 20 members. If a primary group starts a savings and credit operation, it is known as savings and credit group. Every group has a group leader and secretary, who are responsible for managing the primary group's funds. Primary groups are supposed to meet regularly to discuss various issues and work out plans to address those issues. On the other hand, a CDC is comprised of the group leaders and secretaries of the primary groups in a community and represents 200-300 families. Every CDC has a constitution of its own and needs to receive accreditation from the local authority

¹ The idea of community in the project is very similar to the idea of neighborhood. The project identifies communities mainly on the basis of geographical boundaries. The minimum number of households in a community is 30.

(*Pourashava/ City Corporation*). CDCs are the focal point for carrying out all the development activities and addressing the common development issues faced by the entire community. The three main responsibilities of the CDC are: (i) maintaining bank accounts (ii) formulating community action plans, and (iii) developing proposals for and managing community-contracts (Urban Partnerships for Poverty Reduction, 2009). According to the project implementation guidelines, all the group leaders, such as the chairpersons, vice-chairpersons, secretaries and treasurers (office bearers²), of the CDCs and the group leaders and secretaries of the primary groups are selected by the group members for two years. The primary group members first select the group leaders and secretaries for the respective groups. Afterwards all the group leaders and secretaries of the primary groups together select the office bearers for the respective CDCs using secret ballots.

The UPPR project document says that the community mobilisation process is the same as for LPUPAP (Urban Partnerships for Poverty Reduciton, 2008). In describing the community mobilisation process the LPUPAP implementation guideline stated that, ‘Social mobilisation will be initiated by Community Development Workers with the assistance of the Ward Commissioners’ (Government of the People's Republic of Bangladesh, 2001:28). The implementation guideline also describes the initial mobilisation process, where the concerned community development worker is supposed to play a supporting role:

- The community development worker should establish a good rapport with the community through regular visits and informal discussions
- Assists the community to hold a general meeting and make them realise the need to organise for collective action
- Facilitates small group discussions dealing with specific issues
- Assists in the formation of primary groups and to establish the rules of association
- Assists in the formulation of the constitution for the CDC
- The CDC may assume a name to give it identity and recognition
- Assists in the accreditation of the CDC with the local authority.

Research Methodology

In accordance with the nature of the inquiry, I have chosen a case study method within the framework of qualitative research approach. When a researcher needs to study a situation in great depth, employing a case study is useful. Furthermore, Yin (2003) describes the importance of

² Either the chairperson or vice-chairperson must be a female member. This is strategic policy to ensure more females in the leadership position.

using the case study method in situations where researchers deliberately want to cover contextual conditions – believing that they might be highly pertinent to their phenomenon of studies. Fieldwork for collecting primary data was done in 2009-2010 as part of a Ph.D study at Flinders University, Australia. Data were collected through face-to-face interviews with 20 community people from four selected project communities: Alampur, Salampur, Jogotpur and Sripur³, representing three different wards⁴ under Rajshahi City Corporation, Bangladesh. Interviews were aimed at exploring individual beliefs, perceptions, attitudes and opinions by using semi-structured questionnaires. It means that rather than having pre-set specific close ended questions, the interviews were guided by mainly open ended questions arranged in a thematic order. This paper is primarily based on the responses gathered from UPPR group members and non-participating community members. It was not possible to gather the views of the concerned community development workers, due to the timing of the study. Similarly, the views of the ward councillors are mostly absent, because the initial group formation processes in the study communities were initiated and organised during the former ward councillors (except in Jogotpur where the concerned ward councillor had been re-elected in the last local election).

Community Mobilisation: the Case Study

According to the official guideline, discussed above, the concerned ward councillors and community development workers were conferred with facilitators' role to play in the community mobilisation process. Interview data suggest that the initial community mobilisation process which organised community people into self-help groups was influenced not only by the official guidelines, but also by the local power relations in combination with the community people's socio-economic and political realities. For example, in describing the group membership pattern, one of the office bearers from Alampur CDC said:

We do not have group members from every family of the community. Still many families are left off. There are many who want to join but until the office [the project office] asks to form new groups, we cannot include them. There are participants from both well-off and poor families. Members of well-off families generally do not want to be members of the project groups. Besides this, there is official restriction on including members of well-off families in project groups.

³ The names of the study communities representing them are pseudonyms.

⁴ A City Corporation is divided into a number of electoral units or wards. One ward councilor from each ward and one woman ward councilor for every three wards are elected directly by the people.

This quote is characteristic of the general pattern of group membership in all the four study communities. Though the official guidelines literally discourage membership by well-off families, the community groups were comprised of members from both well-off and poor families. At the same time, the quote also reveals the issue that there were many who were willing to participate, meaning that the project groups were not necessarily all inclusive. Hence, the initial community mobilisation process through which the community groups were formed was an important factor in determining the community people's accessibility to groups and also shaping the nature of participation. The following discussion identifies the main actors, factors and their roles in the initial group formation process as a part of the overall community mobilisation process induced by the project.

In all the four study communities the mobilisation process started during 2000-2002 under LPUPAP (the first phase). Interview data suggest that in the name of facilitation, the concerned community development workers, often directed by the concerned ward councillors, played an active role in identifying potential community level organisers. However, the means of involvement and the level of influence of the community development workers and ward councillors varied across the study communities. To describe the group formation process, one of the office bearers from Alampur CDC stated that:

One day the personal assistant of the former ward councillor along with two project officials came to my residence. They informed me that I had been nominated as treasurer of the CDC ... I did not know anything about the project. Afterwards the CDW asked me to form project groups.

According to the above response, the community mobilisation process was started in Alampur CDC by contacting person(s) nominated by the concerned ward councillor. It also points out the fact that CDC leaders were nominated by the powerful actors before the formation of the community groups. The influence of the ward councillors in identifying community contact person(s) was also evident elsewhere. One of the office bearers from Salampur CDC described her experience in this way:

I was well known to the ward councillor. He sent the community development worker to me. He informed me that the ward councillor had advised him that if he comes to me, I can assist him in forming groups because community people respected me and listened to me... After meeting me, he was wondering whether community people would come when I asked. I assured him that they would.

There were, however, variations in how directive this process was. One of the office bearers from Jogotpur CDC said:

In fact we knew nothing. One day the ward councillor, who is my uncle, called on three of us [office bearers] along with some local women to come to his office. He explained the project to us and asked my aunty and me to join as office bearers on the ground that everyone was not suitable for leading the groups. People in the leadership positions were needed to give time and go outside the home.

In contrast, according to one of the respondents, the influence of ward councillor in the initial group formation process was not evident in Sripur. As one of the primary group leaders described:

One day I was standing alongside the dam in front of my house. Suddenly a person [the community development worker] came and asked my permission to discuss something with me. He introduced discussion on the project and asked me to communicate with other residents of the neighbourhood. I communicated with other people and sat for meetings for several times. Gradually we formed groups. He [the community development worker] advised me to be treasurer of the CDC, but since I was not good at accounting, I asked someone else to be treasurer.

The above quotes present the fact that in Alampur, Salampur and Jogotpur the process of organising community people into groups started either by contacting the ward councillors' nominated persons by the concerned community development workers, or the concerned ward councillors actively initiated the process. Consequently, except in Sripur, the group formation process was strongly influenced and guided either by the ward councillors or by their nominated persons. Here I am referring to the nominees as key persons. They were forerunners in the initial mobilisation process – leading to organising the community people into groups – by communicating with the residents, informing them about the project and inviting them to join pre-group formation meetings and discussion sessions. By reviewing the socio-economic profiles of the key persons it is evident that many of them came from the privileged section of the respective communities and in accordance with the project preference, most of them were women. A few were the wives or relatives of the local power elites, for example, the chairpersons and treasures of Alampur and Jogotpur CDCs. Even in the case of Sripur, though the group formation process did not start with the involvement of the concerned ward councillor, many of the local elites eventually found their way to guiding the group formation process as well as obtaining group membership and leadership. The chairperson (male) of Sripur CDC

was identified as one of the local power elites by a number of respondents. Again, the former treasure of the CDC was the wife of another member of local power elites. The community mobilisation process, therefore, started largely by co-opting the key persons, mostly hand-picked by the concerned ward councillors, into institutionalised roles in forming community groups. Eventually they found their way into various leadership positions both at the primary group and CDC levels through nomination either by the concerned ward councillors or the community development workers.

These key persons influenced the group formation process by playing active roles in communicating and information sharing with the community people. During interviews a number of respondents reported that they first heard about the project from these key persons. For example, in response to the question: how did you come to know about the project? one of the interviewees from Alampur CDC responded:

Mrs. 'N' [an office bearer of the CDC] convinced us by contacting house to house ... She is the person who informed me about the project.

Another respondent from Salampur CDC repeated this concurrence:

Mrs. 'M' and Mrs. 'S' [two of the office bearers] came to my residence ...

A total number of 11 respondents from all the four study communities pointed out the role of the key persons, who first informed community people and invited them to join. Data also indicate that the key persons were the prime source of information for the community people regarding the project intervention. Alternatively, it is understandable that those who were not informed, approached and invited by the key persons would miss the opportunity for getting involved. During discussions with a few people, it appeared that there were a number of community people who could not join because of not being informed by the concerned key persons. Hence, research data presented here so far suggest that there was information asymmetry among the community people. I did not find any data on official endeavours for using alternative mass-communication strategies to disseminate project information among the community people during the initial community mobilisation process. Though there was an inception workshop that was held at every community before the groups were formally formed, the participants in that session were contacted and hand-picked by those key persons.

Thus, the key persons virtually appeared in the role of gate-keepers by influencing the information flow, which in turn affected community

people's accessibility to the community groups. Consequently, inter-personal relationships with the key persons influenced people's decisions regarding group membership. One of the respondents from the non-participant category (out of five non-participating respondents in total) reported that she was not participating due to a poor relationship with one of the concerned key persons (the chairperson of the concerned CDC). When I brought up the issue for discussion during the interview with one of the key persons, she explained that not everyone was trusted in the community. According to her, since a savings and credit programme was an important part of the project intervention, it was risky to involve persons who were not trustworthy and dependable. Thus, the inter-personal relationships and key persons' own perception about someone's trustworthiness influenced the community people's access to the groups.

The discussion presented so far illuminates the pernicious role of elites' involvement in the initial community mobilisation process in a CDD project. However, interview data suggest that the ward councillors and the key persons' roles were crucial for giving credibility to the initial group formation initiative undertaken by the local project office. In a society like Bangladesh where people's lives and properties are not properly protected by the impersonal and objective application of the existing laws, people usually suffer from the insecurity of being cheated by others. As a result, a feature of these societies is generally a low level of interpersonal trust (Huq, 2006; M. T. Rahman, 2000). Such mistrust becomes higher when outsiders are included. Here are two of such quotes that highlight the issue of mistrust regarding outsiders:

When they [the project officials] approached us we did not believe them. I left the group owing to the fear that they might run away with our savings ... we know that many NGOs do so. (one of the office bearers from Sripur CDC)

Initially we had a fear that our savings might get lost ... in many places frauds over savings occur [referring to some of the NGOs]. (one of the primary group members from Jogotpur CDC)

In this context, for the community people the ward councillors and their nominated key persons were a source of confidence and trust for building faith in the project intervention. This comes out of the tradition of the subjective side of community life (Auyero, Lapegna, & Poma, 2009): contracting a chief, leader or trusted person for problem solving (De Wit & Berner, 2009). Here I give excerpts of three of the responses which describe the initial fear, suspicion and reaction of the community people:

I did not know that much. They [key persons] were close to me. When they informed me that the ward councillor had informed them that there would be a co-operative [the CDC] and the members would receive various benefits, I decided to join. (One of the primary group members from Jogotpur CDC)

We did not believe them [the project officials] until we heard that the Rajshahi City Corporation and the ward councillor were involved. (One of the primary group leaders from Salampur CDC)

People did not believe us [the key persons] at the outset. It was hard to convince people to become group members. At that time my uncle (WC) helped us a lot. When people were informed that the ward councillor was involved in the project, they started believing. Besides this, community people listen to my aunty [the chairperson of the CDC] and me. People also gained confidence because of our involvement. (One of the office bearers from Jogotpur CDC)

The above comments highlight the importance of the ward councillors and key persons' involvement in building trust among the community people in an externally initiated development intervention.

Conclusion

Data and the subsequent discussion have brought forward the issue that the initial community mobilisation which led to organising community people into project groups was strongly dominated and guided by a few local power elites, namely the ward councillors and their nominated person(s). This finding makes it clear that elite domination in community-driven development may occur from the very beginning of the mobilisation process which might narrow down the free and fair membership accessibility of the people to community groups. On the contrary, one of the noteworthy findings of this case study paper is that the involvement of the local elites was important in building trust among the community people in an externally initiated development intervention. This particular finding widens the current knowledge base on the role of elites in CDD projects by denoting that the elites' involvement is essential and often desirable for initiating community-based collective action. Accordingly, it furthers the need to pay greater attention to learn what mechanisms may raise the likelihood that elites will play constructive roles in CDD, instead of being more inclined to bypass them. Here data and analysis precisely prescribe that using multi-channel information sharing strategies in the mobilisation process may be helpful.

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11 Debunking the Drug Abuse-Crime Interplay A Study on the Youths of Selected Urban Areas of Munshiganj District, Bangladesh¹

Tauhid Hossain Khan

Introduction

Criminal activities committed by youths are not only a national issue but also a global phenomenon. Likewise, drug addiction is a growing national concern in Bangladesh. Furthermore, Drug-crime nexus is well known issue. “The association between drugs and crime in the public mind is so strong that a recent psychology experiment showed the word ‘drug’ tightly linked to such words as ‘choke’, ‘knife,’ ‘fight,’ and ‘wound’ in participants’ associative memory networks (Bushman, 1996:811)”. In the context of Bangladesh, there are millions of drug-addicted people and most of them are young (Shemul, 2009). In a same manner, addicted people are found in all strata of the society. According to a daily newspaper of Bangladesh(BSS, 2013:3), “The trend of drug consumption is higher in youth and teenagers , their age spanning between 15 and 30 years .They come from all strata of society”. As a result, tens of thousands of young people of the country are going to be potential users of drugs. During the initial stage of drug addiction by youths, it is the premature stage (on the way to commit crime), drugs become a habit, and the abuser seeks to have more. Gradually the abuser takes drugs at least 4-5 times a week. At the outset, the drug users manage the money for purchasing drugs. They take money from their family, and sometimes from the other sources; they take drugs with their friends. And after a few days they desire to take more and become dependent on it both psychologically and physically.

In dealing with the drug-crime nexus, a metaphor ‘reflexive action’ can be stated. For example, we can’t imagine fire without smoke or vice versa. Inciardi, Horowitz and Pottieger (1993), Baron (1999) argue that “the drug-crime relationship is interactive. Crime, they think, finances the use of drugs. Continuous use of drugs encourages more use of drugs and more use of drugs in turn encourages more crimes (Karofi, 2012:11)”. There have been mounting literatures that

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reveal the marriage between the using drugs and getting involved in criminal activities. Some socio demographic factors have special momentum in this regard. For example, age of the drug addicted has drawn the attention of the global scholars. Scholars argue that “many young offenders commit a wide variety of crimes which are caused by drug use. Even if it is assumed that the use of drug is not a direct cause of crime, it is interesting that a large proportion of youth who get involved in criminal justice agencies (the police, the courts and custodian institutions) are usually regular drug users (Karofi, 2012:11)”. A United Nation Report (1989) indicates criminal activities as an apparent aftermath of drug abuse. In many cases, drug users literally do any negative acts to obtain enough money to satisfy their drug use habits (Karofi, 2012). This study also reveals that the people who are involved in drug abuse try to get financial support by theft, prostitution and drug peddling.

There is a clear evidence that a person’s drug use increases his involvements in criminal activities (Bennett, 1998 and 2000), albeit it is not necessarily true in all situations. Even in those situations where they are engaged in criminal activities, it is not sufficient to justify drug abuse as the sole cause of criminal behavior (Karofi, 2012). In this regard, “some micro and macro factors predisposing drug abusers to criminal behaviors can be considered for an adequate understanding of crime as a dependent variable (Karofi, 2012:12)”. This study aims at exploring the drug-crime nexus in the context of urban youths of Bangladesh. In doing so, this study investigates the causes of drug addiction and content of drugs, explores the nature of criminal activities committed by the drug addicted youths. It also attempts to identify the type of drug use associated with the type of crime. There is a welcome growth of literature in recent years revealing the causal relationships between drug abuse and criminal behavior. Bennett (2000) identified five arresting explanations on ‘drug abuse- crime nexus’. As per the first view, drug abuse brings about crimes. In terms of the first view by Bennet, Goldstein, Rosonis and Heald (1992), Baron (1999), Mackesy-Amitir and Fendrick (1999) offered some examples in this regard. The second point refers to reverse causation of the former one implying crime brings about drug use. It is further explained and illustrated by Bennett (1998 and 2000). A ground breaking interpretation is provided by Becker (1963) implying that both drug abuse and crime are caused by other factors. Moreover, the reciprocal relationship between drug-abuse and crime is examined by Inciardi, et al. (1993). Finally, “drugs and crime are not causally connected, but simply coexist within a complex setting of events that include both (Bennett, 2000: 54; Karofi, 2012:12)”.

There have been mounting arguments in the discourse of drug-crime causation. Some argue that most addicts commit economic-associated crimes to sustain their addictive behavior. Others opine that “drug users are more frequently involved in personal crimes like assault, family quarrels, violent crimes, and prostitution (Karofi, 2012:12)”. In this regard, Goldstein (1985) thinks that there is a causal relationship between drug use and violence. In this perspective, these are the micro factors which are learned in society vis-a- vis a process called interaction. Social deviation and criminality are learned through peer pressure, family members, on the street, at school, contact with criminal justice agents, mass media, individual frustration and many more (Goldstein, 1985). On the contrary, macro factors are structural leading people to social deviation and criminality. Some of well known structural factors are social disorganization, weak social control, a host of social problems caused by social structure, population heterogeneity, environmental factors, inequality, unemployment, poverty, broken homes and many more (Goldstein, 1985).

Whereas the connection between drug use and crime involves with illicit drug sales, illicit drug use is a necessary prerequisite to illicit drug sales. It therefore follows logically that the drug market is one mechanism by which substance abuse brings about crime. Mernard's (2001) findings comply with Goldstein's (1985) Tripartite Conceptual Framework in this regard. He shows that psychopharmacological inducements to commit offence were evidently attributed to alcohol use and other illicit drug usage. For example, among street addicts, economic compulsive motivation played a great role in their participation in property offences. Furthermore, involvement in illicit drug sales leads to violence. Many researchers, for example, Spunt and Goldstein (1994), Sommers and Baskin (1999) concluded that the drug distribution market is deemed as just another domain of community life that is troubled with violence; where violence is a general culture. On the contrary, there has been a couple of studies conducted by the scholars like Bennet (1998), Otero-lopez, Martin, Miron-Redondon, Carrillo-De-la-Pena and Romero-Trinanes (1994), and Hser, Anglin and Chous (1992) unearthing correlation of the criminals to drug use was involve in income generating crimes viz. multiple types of theft, many shopliftings and handling stolen goods, and supplying drugs.

In the case of child development process from adolescent to adulthood, children learns patterns of behavior whether pro social behavior (that is condoned) and /or antisocial behaviors (deemed as anti-social). This process undergoes the socializing agents like family, school, religious and other community institutions and their peer groups. Socialization then follows the same processes of learning that produces pro social or antisocial behavior. To Mernard (2001:6):

Children are socialized through processes involving four constructs: (a) perceived opportunities for involvement in activities and interactions with others, (b) the degree of involvement and interaction, (c) the skills to participate in these involvements and interactions, and (d) the reinforcement they perceive as forthcoming from performance in activities and interactions". When socializing processes are consistent, a social bond develops between the individual and the socializing agent. This social bond, once strongly established, has the power to affect behavior independently by creating an informal control on future behavior. This control inhibits deviant behaviors through the establishment of an individual's "stake" in conforming to the norms and values of the socializing unit.

The arguments of Catalano and Kosterman (1996) comply with Mernard (2001) in the case of the effects of the predictors or factors learned from the socialization agencies. They further empirically revealed that multiple biological, psychological, and social factors at different levels in different social domains (i.e., within the individual and in the family, school, peer group, and community) all contribute in some degree to the development of such problems as delinquency and drug use (Catalano and Kosterman, 1996). There have been wellcome growth of empirical evidences, conducted by Navaratnam and Foong (1988), Baron (1999), Acarid , Burton and Cullen (2000), Miethe and Meier (1994), and Karofi(2012), reveal that peer pressure, learning and sub-culture as important determiner of associating drug use and criminal behavior. On the contrary, a group of scholars like Ramsay and Percy (1996), Johnson, Golub and Fagan (1995), Leslie (1989), Miller, Downs and Gondoli(1989), McCarthy and Hagan, (1991) proved that socio-economic factors including environment, poverty, broken homes, urbanization, and improper family socialization are responsible for both drug abuse and criminal behavior ; causation between drug abuse and crimes or vice versa.

In Western societies, the plethora of disclosing drug and deviant or criminal behavior connection was both recorded and fuelled by a particular theoretical approach regardless of sociological, biological and psychological perspectives within the social sciences. This study deems Becker's (1963) learning/sub-culture point of view to explain the drug-crime connection. To Becker (1963), deviant behaviors in general are not only learned through interaction, but are also enhanced through career following a chronological process. He (1963; Karofi, 2012:13) notes that "in the first stage peer groups train the deviant how to deviate. The second stage is that he/she is rejected by his/her society. After the rejection he/she joins a deviant group in a form of a sub-culture. A beginner of marijuana use must first learn how to use it".

In explaining drug-crime linkage, Paul Goldstein's (1985) conceptual essay offered a tripartite classification of drugs-crime connections. The Psychopharmacological views argued that many people associate drug intoxication with crime, sometimes even violent crime. This so-called psychopharmacological link implies that "people may commit crimes or sometimes violent crimes after using certain substances recognized as undermining judgment and self-control, generating paranoid ideas and/or distorting inhibitions and perceptions (Single, 1998:6)". Although all drugs that have an impact on the nervous system may cause these kinds of reactions, the scientific literature suggests that some drugs are more strongly associated than others with violence of this type. Those drugs include alcohol, PCP (phencyclidine), cocaine, amphetamines and barbiturates (Wright and Klee, 2001). Inversely, Heroin and cannabis are generally associated with a weaker desire to use violence to resolve disputes. Another well known aspect of his theory, by Goldstein's (1985), regarding the drug crime connection 'economic-compulsive link' stated that drug users commit crimes to finance their drug use. More specifically, according to this explanatory model of the drug-crime relationship, the compelling and recurrent need for drugs and their high price lead some users to commit crimes to obtain the money they need to buy drugs (Wright and Klee, 2001). As per this model, "individuals who have developed a dependence on expensive drugs and assume that the large amounts of money associated with frequent use of certain illegal drugs constitute an incentive for criminal action (Wright and Klee, 2001:87)". Finally, systematic aspect implies that violence associated with the marketing of illicit drugs is turf battles, contract disputes, and so on (Wright and Klee, 2001).

However, the above mentioned empirical review prompted the conduct of this study, to make a study with a view to exploring the relationship between drug addiction and criminal behavior of the youths in the context of Bangladesh. Much has been researched and written about the epidemiology of drugs, causes of drug addiction or nature of drug addiction in Bangladesh, but there was no single local study devoted to the understanding and explanation of the criminal behavior of the youths as consequence of drug addiction. While the use of certain categories of drugs cannot be attributed to some kinds of criminal offences, literature suggests that those who abuse expensive drugs like marijuana, *ganja* (Cannabis), heroin, cocaine and other illicit drugs, often command funds to sustain their addictive behaviors, which, in turn lead them to a wide range of criminal behaviors in order to sustain their drug addictions (Karofi, 2012). Other crimes associated with drug addiction of course include those crimes that result in the distribution and marketing of drugs and or crimes like corruption, fraud, embezzlement, money laundering that are linked to drug trade at

large (Karofi, 2012). In addition, it is estimated that “the number of addicts in Bangladesh is more than six million who spend over TK. 70 million every day on illegal narcotics (BSS, 2013:3)”. In this regard, a particular age group is momentous to explain the drug –crime issues in Bangladesh because the most vulnerable groups are youths and teenage while the average age of the drug addicts in Bangladesh is 22 years (BSS, 2013); by various traits they are mostly students, male, poor, unmarried and many more (BSS, 2013). According to police of Bangladesh (BSS, 2013:3), “in the last two or three years, many more teens have been arrested for using drugs than ever before”. Under these circumstances, questions can be raised: whereas youths are the future builder of our nation, why are they being addicted? What are the newly added narcotics available to the urban youths of Bangladesh? Although the nexus between drug and criminal behavior or vice versa is taken for granted, what are the newly added crimes committed by the youths beyond traditional one?

The study will focus on the following questions:

- What is the relationship between drug abuse and criminal activities?
- To what extent are drug abusers involved in criminal activities?
- Why are drug abusers engaged in specific types of criminal offences?
- Why are drug abusers involved in criminal activities?
- What are the newly added drugs to be used by the youths?
- What are the newly added crimes committed by a particular age group (youths)?

Study Design and Participants

This exploratory research utilized both qualitative and quantitative methods including semi structured survey and case studies to collect data. The use of multiple methods permitted the data to improve the validity of the findings and enable greater inferences from the results (Khan, 2011). Such pluralism in methodology, we argue, is not aimed merely at validation but at deepening and widening one's understanding about the phenomenon being studied (Khan, 2011). The aim of such mixing of methods is to reduce misreporting and cross-cultural confusion and thus the qualitative element is designed to improve the main technique which is quantitative in this study. The study is about one hundred and eighty two drug addicts who were drawn from two local government unit of *Munshiganj sadar upazila*, Bangladesh called *Munshiganj Pourashava* and *Panchasar union*, using snowball sampling. The population was unknown because no organization or institutions like rehabilitation centre or hospital was found from where the exact figure of the total addicted could be found.

Based on this rationale, snowball sampling was adopted to collect data. The unit of analysis was the all male and female drug addicted youths whose ages do not exceed 30 years old. This age group was specified in this rationale that this group is prone to drug addiction, which has access to information about newly emerged drugs and show the most violent or criminal conduct.

The survey was conducted with the help of interview schedule, for a period of three months during January–March 2014. There were 10 interviewers including the researcher were responsible for data collection. All of the field interviewers were recruited from the study area. Some of them had experiences of conducting survey-interview and case study. In terms of having quality of data, the interviewers were trained on data collection mechanism, the art of data collection and were briefed comprehensively on the data collection instruments (e.g. interview schedule, case study guideline etc). After getting the training, the interviewers went to the field. The researcher himself along with other interviewers administered the survey among the respondents according to the sampling plan set out earlier. The time limit of the accomplishment of an interview was not specified because it depended upon the rapport they could build. Before approaching the respondents, the interviewers informed them about the purpose of this study, topics under study and the need for collecting data. The data collection team then sought their cooperation and formal permission to administer survey.

The quality of data, quantitative or qualitative, largely depends on the interviewer's skill and in wider sense on the overall nature of the study and its subjects (Patton, 1990; Khan, 2011). To maintain the richness, originality and authenticity, the researchers use the cross verification technique to obtain quality data from the respondents. In this case interviewees' freedom and rights were considered to maintain the ethical standard of the research. By validity it is commonly understood the need to use the most appropriate research design for what you are studying (Blalock, 1985; Khan, 2011). What the researcher have done is to design the research to ensure internal validity, hoping that the consistency between the patterns observed in the data and the explanatory arguments proposed will be a clear test for that. In this regard, we triangulated data from different sources. However, validity cannot be achieved without the research first being reliable. Reliability has to do with the consistency of findings and, in that sense, is directly related to procedures of data handling and analysis. Along the process of analysis of data, reliability was a constant concern and all efforts were made to guarantee reliability of findings. The efforts were concentrated around two specific issues perceived as the most relevant threats to reliability (and to validity)

within the research carried out avoiding ambiguity in the analysis, namely not taking correlation for causation; controlling for interaction, i.e. controlling for co-occurring effects that may render some phenomena invisible.

Various qualitative data from case studies were obtained mainly to deepening our understanding and to complement the quantitative data. They were particularly useful in supporting the broad research questions and a sociological perspective of drug addiction and criminal behavior. Seven case studies were conducted on the subjects selected purposively and comprehensively. While conducting survey researcher observed the interesting cases to be selected for the case study subjects. Results of the case studies added the vivid picture of the phenomenon being studied.

Findings of the Study

Background Characteristics of the Participants

Among the sampled population, most of the respondents (98.6%) were male. By the marital status of the respondents, majority of the respondents (68%) were unmarried, whereas a significant number of respondents were married (24%) and other (8%). The maximum age was 30 years and minimum age was 15 years with average 19 years and standard deviation 4.89 years. In terms of respondent's level of education, most of the respondents (56.1%) passed secondary school certificate exam (SSC). On the contrary, a considerable number of respondents (16.4%) passed HSC and only 2.3 % respondents completed graduation. A significant number of respondents who has no education and completed primary education are 20% and 17% respectively. In terms of respondents' occupations, most of the respondents (55.2%) are students. But a considerable number of respondents (16%) are neither student nor employed with any sort of job. In terms of total monthly family income, the majority of the respondents' (53.1%) family income ranges between less than Tk.10, 000-Tk.20, 000 per month. On the contrary, a significant number of respondents' (33.9%) monthly family income is between Tk.20, 000-Tk.30, 000. Of the respondents surveyed, in terms of their religious affiliation, majority of the respondents (84.4%) are Muslim.

Nature of Upbringing

Table-1 shows that majority of the respondents (65%) have been growing up with their parents. On the contrary, a significant number of respondents have been growing up in the absence of either father (38%) or mother (16%). The respondents who have residential experience of hostel or hall or mess are 36%.

Table -1: Distribution of the respondents by the nature of upbringing (N = 182)

With whom/where they have grown up	Per cent*
With parents	65
Absentee father	38
Absentee mother	16
Step mother	22
Hostel /Hall/ Mess	36
Relatives	9

* *Multiple responses: These percentages add up to more than 100 because of respondents appeared in more than one category.*

Age at First Use of Drug

Table- 2 reveals that more than half of the respondents (53%) who took drug at the age of 20 -25 years old. In addition, a significant number of respondents (21+8=29%) experienced initial drug use at the age of 10-20 years old. On the other hand, a considerable number of respondents (18%) are aged to 25-30 years age group when they experienced to have drug at first.

Table -2: Age of first use of drug (N=182)

Age (in years)	Per cent
10-15	8
15-20	21
20-25	53
25-30	18
Total	100.0

Contents of Drug

Respondents were asked ‘what are the drugs they generally take? According to table 3, all most all of the respondents (96%) reports that they take Yaba. Likewise, a significant number of respondents take phensidyl (89%) and cannabis (67%). The rate of Heroine and Viagra use are 45% and 57% respectively.

Table- 3: Contents of drugs (N=182)

Contents of drugs	Per cent*
Alcohol	87
Heroin	45
Phensidyl	89
Pethidine	31
Cannabis	67
Chorosh	34
Yaba	96
Vayagra	57
Sleeping pill	49
Seduxene	27

* *Multiple responses: These percentages add up to more than 100 because of respondents appeared in more than one category.*

Causes of Drug Addiction

Participants were asked ‘why they were addicted to drugs or alcohol? Most of the respondents reported that drug use was learnt from peer group. In addition, a significant number of respondents (59.76%) reported that they took drug because of curiosity or making fun. Broken family or family conflict was responsible for 37.87 % of the respondents while the major structural variable unemployment played very trivial role.

Table-4: Distribution of the respondents by causes of drug addiction (N = 182)

Causes of drug addiction	Per cent*
Peer group	73.54
Broken family /family conflict	37.87
Frustration	17.34
Curiosity or fun	59.76
Unemployment	6.8
Failure in love	17.45

* *Multiple responses: These percentages add up to more than 100 because of respondents appeared in more than one category.*

Attitude toward the Drug-crime Connection or vice versa

A couple of questions were asked to solicit information from the respondents based on the relationship between their use of drugs and involvement in criminal activities. For example, —Did you commit any crime to confirm your drug use habit? Table 5 describes the responses provided by the respondents. The Table 5 shows that most of the respondents (67%) attributed their involvement in criminal activities to support their use of drug habit while 33% of the respondents answered negatively. This means the respondents’ involvement in criminal activities had nothing to do with their drug habit. But beyond this habit, this big differences between the ‘Yes’ and ‘No’ responses of the subjects indicate that abusing drugs might not in all situations predispose the drug abusers to commit crime .Concerning those who answered positively, drug abuse is one of the influential factors among a series of factors that lead addicts to be involved in criminal activities, or do not commit crimes at all, or their involvement in criminal activities had nothing to do with their drug use habit. But beyond this, the big differences between the ‘Yes’ and ‘No’ responses of the subjects’ negative or positive indicate that abusing drugs might not in all situations predispose the drug abusers to commit crime. Concerning those who said ‘Yes’, abusing drugs might thus be among a series of factors that lead addicts to be involved in criminal activities.

Table-5 : Committing crime to support drug use (N=182)

Committing Crime to support drug use	Per cent
Yes(positive)	67
No(Negative)	33
Total	100.0

Additionally, there were two other items added in the questionnaire. In this regards, the two additional statements (items) were:

- Item I -There is a relationship between your casual drug(s) use and your criminal activities.
- Item II- There is a causal relationship between your criminal activities and casual drug use.

The responses to the above two items are presented in Table 6 and 7 respectively. Tables 6 and 7 reveal that a significant number of respondents (41+13=)54% and (20.1+13.8=)33.9% reported that a relationship exists between the respondents’ drug use habit and their engagement in criminal activities. However, in both cases a considerable number of respondents (11% and 18.8%) were neither agree nor disagree or undecided about the relationship. Putting together —Disagree and —Strongly Disagree – a significant number of respondents (27+8=) 35% and (17.2+30.1=) 47.3% respectively might either not have had any criminal involvements or found no relationship between their drug use and criminal activities and vice versa.

Table 6 Relationship between your drug use and criminal activities (N=182)

Level of agreement with item I	Per cent
Strongly agree	41
Agree	13
Neither agree nor disagree	11
Disagree	27
Strongly disagree	8
Total	100.0

From Tables 6 and 7 the results indicate that the respondents understood the two items because the percentages obtained in both the tables are quite similar. This interpretation shows acceptance of the view that there might be other factors rather than drugs could be responsible for causing drug users to commit crimes. Drug abuse might not be a major contributing factor but might be one among many factors.

Table 7 Relationship between your criminal activities and drug use (N=182)

Level of agreement with the item II	Per cent
Strongly agree	20.1
Agree	13.8
Neither agree nor disagree	18.8
Disagree	17.2
Strongly disagree	30.1
Total	100.0

Types of Committed Crimes

Finally, to find out what type of crime the respondents were involve in, respondents were asked to state which type of offences they committed. Based on the nature of crimes, these are operationalised under three umbrellas –personal, property and drug related. According to table 8, all most all of the respondents were involved in property and drug related crimes .In addition, a significant number of respondents were involved in personal crimes. This is an indication that the drug addicts might resort to income generating criminal activities i.e. economic-associated crimes in order to sustain their use of drugs. Moreover, the data above show that the relationship might exist between drug use and involvement in criminal behaviours. Thus, it is further assumed that what is illustrated in the table -8 supports the theoretical argument that factors responsible for involvements in criminal activities by drug using population might be economic-compulsive.

Table-8: Types of crimes (N=182)

Types of crimes	Contents of Crimes	Per cent*
	<ul style="list-style-type: none"> ▪ Sexuality out of marriage (premarital and extramarital); ▪ Dowry; ▪ Domestic violence; ▪ Rape; ▪ Campus violence; ▪ Self made pornography and blackmailing; ▪ Child marriage. 	56.83
	<ul style="list-style-type: none"> ▪ Mugging /hijacking; ▪ Extortion ; ▪ Forced prostitution; ▪ Gambling; ▪ Kidnapping ; ▪ Theft; ▪ Shoplifting ; ▪ Armed robbery/robbery; ▪ Frauding (in or out of family) ; ▪ Pick pocketing; ▪ Illegal arms possessing and trading. 	87.54
	<ul style="list-style-type: none"> ▪ Illegal Drug and alcohol trading. 	92.72

* Multiple responses: These percentages add up to more than 100 because of respondents appeared in more than one category

Type of Drugs Associated with Type of Crimes

An additional calculation based on the drug use and committed crimes (in Table-9) revealed that the respondents (74.5%) who addicted by Heroine, Yaba, Cannabis, Phensydl, Alcohol, Pethydrin ,Vayagra are likely to commit property crimes. On the other hand, people using Yaba, alcohol, Viagra are likely to commit personal crimes by 62.33% .Similarly the respondents who take Phensydl and Yaba are likely to commit drug related crimes. As presented above, it can be concluded that the evidence provided by data combined with the opinions expressed by the respondents suggested the existence of a relationship between drug abuse and criminal activities.

Table-9: Type of drugs associated with type of crimes (N=182)

Types of drugs	Types of Crimes	Per cent*
<ul style="list-style-type: none"> ▪ Heroine ▪ Yaba ▪ Cannabis ▪ Phensydl ▪ Alcohol ▪ Pethydrin ▪ Vayagra 	Property crimes	74.5
<ul style="list-style-type: none"> ▪ Yaba, ▪ Alcohol ▪ Vayagra 	Personal crimes	62.33
<ul style="list-style-type: none"> ▪ Phensydl ▪ Yaba 	Drug related crimes	89.76

* *Multiple responses: These percentages add up to more than 100 because of respondents appeared in more than one category.*

Discussion

The findings of this study reveal a relationship between drug abuse and involvement in criminal activities. This result is in accordance with both the national and the international empirical studies. As documented by the research results, Yaba, Heroine and Cannabis, alcohol were the most popular drugs being abused by the respondents . At the national level, Feroz (2013) also ascertain that the major abusing drugs in Bangladesh were Heroine, Phensydyle, *ganja* (Cannabis), Pethedine, tranquilizers, and poly drug abuse, especially by young and adolescents using inhalants or psychotropic substances in varying combination with or without alcohol. Government data in Bangladesh also documented that recently added drug, yaba, generally addicted by the youths was rising and alarming (Annual Drug Report of Bangladesh-2010, 2011). Currently, Yaba has become popular and fashionable drug among youths in Bangladesh. On the contrary, cough syrup Phensedyl remains the most popular among the masses because of its low price and easy availability (BSS, 2013). The concerned of Bangladesh government supported the findings of this study (Table 3). At the international level, the National Drug Research Centre of

University Science Malaysia (Karofi, 2012), in presenting the Patterns and Trends of Drug Abuse in Selected South Asian Cities, acknowledged that heroin was the main drug abused in Colombo, Dhaka and New Delhi. The findings of this research are also consistent with those found in the United States by Jones (1999). On the other hand, Bernholz (2002), Karofi (2012) presenting the drug abuse scenario in Africa found that cannabis was used extensively in all African countries which is consistent with our study.

The findings of the present study reveals that drug addicted are involved in criminal activities. It is found that 67% respondents reports that they committed crime as an output of drug use, although all most all of the respondents agree with items indicating causal relation of drug and crimes (table 6 and 7). According to the types of crime, the study reveals that 87.54% respondents are involved in income generating or property crimes. These discoveries are similarly consistent with mounting national and internal evidences, e.g., Hossain and Mamun (2006), Karofi(2012) and BSS(2013). Makkai and Doak (2000) also indicated in their sample of police detainees in Australia, who are criminally active participants are most frequently detained for property offences (40.9 %) which are also similar to the findings of this research. The range of offences indicates that drug use is a factor predisposing persons to a variety of crimes. Makkai and Doak (2000) thus conclude that a large number of police detainees, regardless of their offence types were drug users.

The findings, above reviewed, are also accorded with the 'economic- compulsion' crime as mentioned by Goldstein (1985) in related to drug/violence nexus. Thereby, if drug addicted people involve in crime relation to drug trade and trafficking, it will be nothing anomaly. Similarly, our study also shows significant number of drug related crimes (table 8) which is consistent with the available literature at the national and international level. This study unearths some facts about Bangladesh that are matter of concerned for policy makers, researchers, and intellectuals. This study reveals that personal crimes were reported by the more than half of the respondents (56.83%). This therefore requires some sociological interpretation in the case Bangladesh. Bangladesh is facing the frequent incidence of sexual harassments, rapes, unemployment, campus violence, domestic violence, and abuses of communication and information technology (viz. internet, satellite, mobile phone). These features might be related to the structural variables such as cultural lag, detradionalization, lumpen development, unbridled industrialization and urbanization. Personal crimes, albeit it ever and anon happens silently, are not less dangerous for a society than other types of crime.

The data of this research indicates that socio-economic factors such as family structure, role of family in socialization, peer group association, frustration and unemployment have influence on getting involved in criminal activities in order to support drug use habit by the drug abusers. However, it is worth noting here that, as was anticipated, these factors are crucial predictors of criminal behavior in general. Many studies identified poverty as crucial predictors of criminal activities, e.g., Hossain and Mamun (2006), Karofi (2012), Cabrera (1999), Baron (1999), Pfeffer and Cole (1998). Interestingly, the data of this study are not consistent with the conclusion, although some respondents (only 6.8%) reported that they took drugs because of joblessness. On the contrary, this study reveals that broken family or family conflicts, curiosity and frustration are responsible for drug use. So, on the one hand, constant need of funds to ensure availability of drugs and alcohol among youth necessitates the undertaking of criminal activities. On the other hand, curious youths take drug as a fun in association with their addicted peers at the outset. In addition, Frustration may arise from broken family that causes drug use which result in committing crime. It is obvious; moreover, that there is a ubiquitous unholy alliance between the politically influential people and law enforcing agency regarding drug production and trade in Bangladesh. This alliance is promoting the availability of drug in Bangladesh. Hence, it is responsible for drug addiction and related crimes too. Under these circumstances, according to the findings of the study, it is worthless to say poverty causes drug use. The causes of drug use and criminal behavior explored by these study findings are consistent with Becker's (1963) 'sub culture' theoretical perspective.

This study reveals that the respondents who generally take the drugs such as Heroine, Yaba, Cannabis, Phensydl, Alcohol, Pethydrin Vayagra are likely to commit property crimes (Table 9). This finding is consistent with Goldstein's (1985) assertion of 'economic – compulsion', because all are related to money consuming and fuel to commit income generating crimes. According to our study, 62.33 % respondents who are addicted by Yaba, alcohol, Vayagra are likely to commit personal crimes. This also accords with the Goldstein's (1985) psychopharmacological aspect of his theory. Since the peopled addicted by the drug such as Yaba, alcohol, Vayagra are likely to commit personal crimes which are generally taken place when people lose self control undermining self judgment as well as originated from paranoid ideas. This study also reveals that the respondents who take Phensydl and Yaba are likely to commit drug related crimes complying with the available reports of the daily newspaper of Bangladesh. The Department of Narcotics Control (DNC) of Bangladesh government expressed frequent concern about this issue taking an alarming factor into account –“around 10,000 cases are filed and 9000 people are

arrested every year in connection with drug-related violence and crimes (BSS, 2013:3)”

Conclusion and Recommendations

This paper is based on a research conducted to study the relationship between drugs abuse and criminal behavior using data collected from urban youths of Munshiganj district, Bangladesh. To answer the questions as well as to achieve the objectives, a quantitative methodology was predominately adopted. Drawing a sample from the study area, this study found support for the initial assumption that a relationship exists between drug abuse and criminal activities. The objectives of the research have also been achieved accordingly. Both of the factors - micro and macro- are attributed by the respondents in respect of involvement in criminal activities. The findings of this study suggest that major causes and reasons of criminal activities among the sample are peer group pressure, broken family/family conflicts , curiosity or fun and frustration and many more. However, the findings of the qualitative data of this study confirm that easy access to drugs is also responsible for drug addiction and committing crime as well. It further delineates that this availability of drugs is brought about by the unholy alliance of local politically influential people and law enforcing agencies. The results of this study are consistent with previous empirical studies such as Becker (1963), Baron (1999), Otero-lopez, Martin , Miron-Renondon, Carillo-De- la-pena, and Romero-Trainens (1994), Goldstein, Rosonis and Heald (1992), and Karofi (2012).The results have been discussed in the context of the sociological perspective, adopting the ‘Integrative Theoretical Framework’ that merged micro and macro explanations attributes as causal model for deviant or criminal behavior including abusing illicit drugs and getting involved in criminal activities.

Drug addiction has been a diseases like an epidemic for Bangladesh because it has been a cross cutting sources of a good deal of social problems such as crimes ,political unrest, political violence, poor law and order structure, drop out of educational institutions in Bangladesh regardless of urban and rural areas. Whereas Bangladesh is undergoing a time of mounting potentials with tens of thousands promising youths, to get a crime free Bangladesh taking these youths away of drug abuse, the following issues can be recommended for national and local level: The government should conduct a long term, national surveys channels and supporting resources of newly emerging causes of drug addiction and its related criminal activities by addicted youths with a view to assessing and monitoring regularly.

- First of all, it is a must for government to have ‘zero tolerance’ principle regarding drug trade, drug trafficking and drug production.

- Concerned authorities should be reshuffled to create adequate linkage with society and other stake holders.
- Adequate manpower and equipment should be arranged for the department of narcotics as well as customs, police, and other law enforcers involved in drug control.
- Rewards may be declared for good performers of narcotics control department, customs and police, other law enforcers by the government or N.G.Os, however exemplary punishment should be given to the beneficiaries of drug business.
- Particular attention should be given to the skills development and honesty of Border Guard Bangladesh (BGB) because it is obvious that drug business would fall rapidly if border crossing areas can be checked properly.
- Awareness program should be developed and implemented in thana, upazila, and district level to inform the public about the about the fatal consequences of addiction and drug abuse.
- Leaders of social institutions like school, colleges, clubs etc should be involved so that they come forward to build resistance against drugs.
- The NGOs can play a great role throughout the country, especially in the awareness and rehabilitation processes. It is observed by many of the addicts that rehabilitations procedures and prevailing costs are high and cumbersome .Presently number of NGOs involved in campaign drugs are hand count few.
- In the case of rural areas, coordination and collaboration of the efforts of the key agencies such as community polices or other law enforcing agencies, rural elites (e.g., *Matabbar*), opinion leaders (viz. school teachers, Imam of mosques or religious leaders), cultural activists or folk musician should be emphasized.
- In the case of urban areas (also may be applicable for rural areas), youths gang or street gangs should be rigorously monitored, which are available in the lane of Para/Mahalla or adjacent areas of school, college and market of respective local areas. These gangs commit many types crimes such as hijacking , extortion , sexual harassment to female or eve teasing , and show pornography related behaviors indeed, since the members of these gangs tends to have drug addiction.
- Tax should be imposed highly on alcohol so that the youths cannot get easily.

- Socio psychological counseling should be promoted .In this regards, counseling centers ought to be introduced in every educational institution so that the students of the respective institutions can receive counseling services whenever they feel. Moreover, community counseling centers can be set up by the government or NGOs sponsorships.
- ‘Family values’ must be promoted and maintained by the parents so that the children can do everything using their rationales, conscientious. It is so strong agency that trigger to refrain children themselves from any deviant activities; it functions sometime more radically than law and state regulation. In this respect, government can take a project on “promoting family values” by which the youths, parents and other key agency will be provided social and intellectual skills through training, workshops, and cultural programs.
- ‘Family tie’ ought to be protected to safe our children from these curses of drug addiction.
- ‘Peer socialization’ must be strongly monitored by the parents because a child , entering into a peer circle, try to enjoy everything of the world whatever it is positive or negative beyond the parental control. This study along with mounting evidence concerns about ‘peer group pressure’ which first introduce an innocent child with drugs.
- Mass media can play a greater role in providing culturally approved message regarding the curses of drug addiction to the youths. However, the electronic media are now broadcasting some sorts of programs that are inspiring our youths to be deviant because they are learning some behavior that are not approved by our own countries or tradition. Hence, the programs of satellite television can be monitored or censored by the concerned authority of government.
- There is an ubiquitous unholy alliance between local politically influential individuals and law enforcing agency regarding drug trade , that should be abolished .
- Message on anti drug addiction movements can be included in the school, college and university text books having promoted indigenous culture through indigenous literatures and arts. Simultaneously, co-curricular activities ought to be emphasized along with text books in this regard.

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12 Perceptions Regarding the Significance of the Measurement of Human Capital on HR Decisions in Bangladesh: A Human Resource Accounting (HRA) Perspective

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Introduction

The success of organizations is reliant on the quality of their human resource- its knowledge, skills, competence, motivation and understanding of the organizational culture. In knowledge –driven economies therefore, it is crucial that the humans be recognizes an integral part of the total worth of an organization. However, in order to estimate and forecast the worth of the human capital, it is necessary that some way quantifying the worth of the knowledge, motivation, skills, and contribution of the human element as well as that of the organizational processes, like recruitment, selection, training & development etc., which are used to build and support these human aspects, is developed. Human resource accounting (HRA) denotes just this method of quantification/measurement of the Human Resource.

Human Resource Accounting attempts to provide information regarding human resource that holds promise for the evaluation of human resource management and in turn assists to take decisions in human resource planning policies and practices which invest in effective utilization of these resources. The basic objective underlying human resource accounting is to facilitate the effective and efficient management of human resources (Porwal, 1993). Although decision-making is key objective of HRA, the other objectives are existing but these also indirectly going forward in that direction as well.

Human Resource Accounting gives information regarding inner strength of organization and helps in making decisions regarding long-term investment in that organization (Ratti, M.2012). HRA can play a crucial role in internal managerial decision making, and HRA measures can be used to show that investments in a company's human resources may result in long-term profit for the company (Bullen, 2007, p. 89). As Human resource accounting provides monetary data regarding the human resources of the organization that helps the management in taking various HR decisions. Without actual

(monetary) information regarding information regarding human resource an organization may achieve some sort of objectives in short-run, but in long run it is not possible to do the same. For example, very often organizations hire young people from outside on very high salaries because of an immediate business requirement. Later on, however, they find that the de-motivating impact of this move on the existing experienced staff has caused immense long term harm by reducing their productivity and by creating salary distortions across the organizational structure. HRA also provides the HR professionals and management with information for managing the human resources efficiently and effectively. Such information is essential for performing the critical HR functions of acquiring, developing, allocating, conserving, utilizing, evaluating and rewarding in a proper way. Moreover, the development of human resource accounting is necessary to provide a firm with accurate financial reports to guide its other decisions (Brummet et al., 1968). Finally, Human Resource Accounting Information of an organization is very important factor to decision makers in the era of knowledge based economy. (Al Mamun, S.A. 2009).

Literature Review

In the past decade, there are several studies on human resource accounting (HRA) that focused on wide and diverse range of research concerns. Human Resource Accounting (HRA) information can be useful for managerial decision making in different areas. Numerous investigations centered on showcasing a connection Human Resource Accounting (HRA) and HR Decision making in world context other than Bangladesh . The major findings of the study have suggested that HRA could bring benefits to managers in decision making as Elias, N.S. (1972), Tomassini (1977), Brummet, Flamholtz & Pyle (1969), Gul (1984), Bayes (1984), Pekin Ogan (1988), Malik (1993), Moore (2007) , Sen et.al (2008), Bino Catasus (2009), Bullen (2007), Avazzadehfath & H.Raiashekar (December, 2011), Ratti, M. (2012), C.Jacob & Farouq. S. (2013).

Elias, N.S. (1972) conducted a research which results showed that HRA information had meaningful impact on decisions statistically, although the relationship between HRA information and the adopted decisions was not strong. Several empirical investigation conducted to know the impact of HRA information on decision making and he found the positive relationship between HRA and managerial decision making (Malik, 1993; Bayes, 1984; Avazzadehfath & H.Raiashekar , December, 2011). Brummet, Flamholtz & Pyle (1969) attempted to

focus on HRA as a tool for increasing managerial effectiveness in the acquisition, development, allocation, maintenance, and utilization of its human resources. Gul (1984) focused on the study about usefulness of human resources turnover cost information for labour turnover decision-making in a sample of Australian Accounting Firms. Moore (2007) suggests that the value of human capital should be more fully considered when making decisions about the acquisition and disposal of personnel. Moore notes that there are parallels between the process of acquiring an employee (a human capital asset) and that of acquiring a fixed capital asset.

Two different studies reported the results of a field experiment designed to assess the impact of HRA information on layoff decisions made by managers. The findings of this study indicates that HRA information does make a difference in personnel layoff decisions and enables managers to increase their level of confidence regarding decisions of this sort (Tomassini,1977; Pekin Ogan,1988) .

Sen et.al (2008) attempted to focus in their study that make a Scientific investigation into whether HR information has any impact on internal decision making. Bino Catusus (2009) concluded in their paper that HRA acts as a tool that will most certainly affect decisions and behavior. The assessment of human resource conditions is likely to encourage managers to take long run view of their decisions. Bullen (2007, p. 89) found that, even if human assets are not reported on the face of external financial statements, HRA can play a crucial role in internal managerial decision-making, and HRA measures can be used to show that investments in a company's human resources may result in long-term profit for the company.

Ratti, M. (2012) revealed that Human Resource Accounting gives information regarding inner strength of organization and helps in making decisions regarding long-term investment in that organization. C. Jacob et.al (2013) concluded as The HRA implementation helps to improve managerial decisions like layoffs, better performance evaluation measures of the firm and also acts as a guide during buying, selling and merger transactions.

More literature enclosed that conceded the evidence of the influence of HRA, even on the level of managerial decision-making (Flamholtz, 1976; Tomassini,1977; Oliver & Flamholtz, 1978; Harrell & Klick, 1980; Gul, 1984; Ogan, 1988; Johanson & Nilson, 1996). In all of these studies, decisions have been changed because of information derived from HRA. In the studies of Flamholtz (1978), Harrell & Klick

(1980), Gul (1984) and Johanson & Nilson (1996) recruitment decisions were shown to be affected.

Objectives of the Study

The main objective of this study is to understand and analyze the managerial perceptions towards the uses of HRA on HR decision making of organizations in Bangladesh. As *supplement* to the achievement of the objective of this research paper, the following specific objectives are being pursued spontaneously:

1. To provide information about the major benefits and challenges of HRA ;
2. To visualize the managerial satisfaction level with the use of HRA system;
3. To analyze the managerial perceptions towards the impacts of HRA on HR decision making and the achievement of strategic competitiveness of organization;
4. To identify the probable ways to overcome the different challenges of decision making for using HRA in Bangladesh.

Materials and Methods

Human Resource Accounting (HRA) helps the management in various HR decisions. Keeping this in mind and in order to achieve the research objectives, the target group of this study was those managers or in some context accountants who were serving in different leading private organizations in Bangladesh. The organizations that were surveyed from both service and manufacturing oriented. This study was conducted in total 51 professionals with a request that only those managers should respond who have knowledge of the human resource accounting system and were associated with the designing of such system. Professionals those were selected for survey have complete knowledge on HRA system. In addition, HRA system still is an emerging or very new issue in Bangladesh. As a result, we didn't manage huge number of organizations as we expected.

This study is based on both primary and secondary data. The data used in this research is qualitative and specifically gathered by the author through comprehensive interview for this study. However, the theoretical part of this study is formalized from secondary information collected from different books, journals and publications of thesis.

A structured or closed questionnaire has been used for collecting primary data. Likert Five-Point scale was applied in order to analyze the results. The percentage response for each category was calculated

and the various weights assigned to different opinions as per Likert scale, where 1= strongly disagree, 2= disagree, 3= neither agree nor disagree (Neutral), 4= agree, 5= strongly agree. Finally, The mean scores and standard deviation scores were calculated for the same and the results were arranged chronologically on the basis of mean scores. The items on the survey were generated based upon suggestions developed from review of the previous literature in general.

Results and Discussion

This research was exploratory and primarily descriptive in nature. The research had a relatively small sample size. Therefore, author used table 1 to measure the percentage of favorable responses to a set of questions assessing managers perceptions about the aspects of HR decisions by using information derived from HRA and table 2 shows the limitations of decision making by using HRA and suggestions to overcome.

Table 1: Perceptions of respondents related to various uses of HR decisions of Human Resource Accounting (HRA)

Aspects	5	4	3	2	1	Mean	Standard Deviation
HRA provides increased levels of useful information regarding HR	23.5%	60.8%	15.7%	0.0%	0.00%	4.07	0.62
The information generated from HRA has improved the strategic decision making	29.4%	58.8%	11.8%	0.0%	0.00%	4.17	0.62
HRA helps in providing estimate the cost of recruitment from outside & development from inside of the organization	27.5%	60.8%	9.8%	2.0%	0.00%	4.13	0.66
HRA improved the forecasting and recruitment process	29.4%	60.8%	9.8%	0.0%	0.0%	4.19	0.60
HRA helps in job evaluation process	17.6%	66.7%	15.7%	0.0%	0.0%	4.01	0.58
HRA provides estimation for budgeting human resource acquisition & development program	21.6%	64.7%	13.7%	0.0%	0.0%	4.07	0.59
HRA facilitates in employee selection process	19.6%	66.7%	13.7%	0%	0.0%	4.05	0.58
HRA aids in job design	27.5%	52.9%	17.6%	2.0%	0.0%	4.05	0.73
HRA assists in resource allocation among various HR development programs	13.7%	66.7%	17.6%	2.0%	0.0%	3.92	0.62
HRA facilitates management in human resources conservation	25.5%	56.9%	15.7%	2.0%	0.0%	4.05	0.70
HRA helps in performance appraisal of employees	19.6%	68.6%	7.8%	3.9%	0.0%	4.03	0.66

(Continue- Table 1)

Aspects	5	4	3	2	1	Mean	Standard Deviation
HRA constructs appropriate conditions to the best treatment of personnel	23.5%	64.7%	7.8%	3.9%	0.0%	4.07	0.68
HRA aids in utilization of HR's effectively & efficiently	29.4%	58.8%	11.8%	0.0%	0.0%	4.17	0.62
HRA helps in better reward management	19.6%	58.8%	19.6%	2.0%	0.0%	3.96	0.69
HRA highlights the loss due to turnover of personnel	29.4%	56.9%	9.8%	3.9%	0.0%	4.11	0.73

On the basis of the mean and standard deviation calculated for the various aspects of HR uses of human resource accounting we can understand the usefulness of the human resource accounting. We can see most of the respondents i.e 84.3% (Strongly Agreed 23.5% & 60.8 % Agreed) have agreed and 15.7% remain neutral with the aspect of HRA provide increased levels of useful information regarding HR.

So, In that regard, the perceptions of respondents is clearly indicates that HRA provides sufficient information and information plays an important role in every decisions of HR.

Utilization of Human Resources

The human resource accounting can provide framework to help managers utilize human resources effectively and efficiently. The question seeks the perception of the managers in this regards. 88.2 % of the respondents have agreed with the statement that human resource accounting helps in utilizations of human resources effectively and efficiently and 11.8% percent remained neutral. The mean of that question is 4.17 and the standard deviation is 0.62. The mean indicate that all manager believe human resource can be managed effectively and efficiently by using HRA.

Functions Regarding Planning and Forecasting

In that part of paper focuses on the issues which relating with forecasting, planning, estimation. We will show four similar aspects regarding HR decisions. Strategic decision regarding HR is very important to go ahead of challengers. The information generated from HRA has improved the strategic decision making. In that question 84.3% managers are agreed and 11.8% respondent remained neutral. The mean score and standard deviation of that aspect 4.17 & 0.62 respectively.

HRA helps in providing estimate the cost of recruitment from outside & development from inside of the organization. 88.3%

respondents agreed in the cost estimation of recruitment and development and 9.8% remained neutral where 2% respondents have disagreed. The mean score and standard deviation of that aspect 4.13 & 0.66 respectively. 90.2% managers believe that HRA improved the forecasting and recruitment process, 9.8 respondents remained neutral. The mean score & standard deviation, 4.19 and 0.60 respectively in that regard.

HRA provides estimation for budgeting human resource acquisition & development program. In that question 86.3% managers have agreed and 13.7% respondent remained neutral. The mean score for this question turned out to be 4.07 with standard deviation of 0.59.

HRA as a Judgment Tool

Selection is a process of choosing from among the pool of applicants the individuals who best fill the existing or projected job openings and should be offered positions in the organizations. HRA facilitates in employee selection process. In that question 86.3% managers have agreed and 13.7% respondent remained neutral. The mean score and standard deviation of that aspect 4.05 & 0.58 respectively.

Performance appraisal is a formal assessment of how well employees are performing their job (Griffin, 2002). HRA helps in performance appraisal of employees definitely as 88.2% respondents were agreed and 7.8% remained neutral in that question. But, 3.9% respondents also were disagreed in this regard and 4.03 were the mean score.

Reward management is concerned with the formulation and implementation of strategies and policies that aim to reward people fairly, equitably and consistently in accordance with their value to the organization (Murlis, 2004). HRA helps in better reward management. In that question 78.4%, managers were agreed, 19.6% respondent remained neutral and 2% were disagreed. The mean score for this question turned out to be 3.96 with standard deviation of 0.69.

Job evaluation is the process which job's are systematically assessed to one another within an organization in order to define the worth and value of the job, to ensure the principle of equal pay for equal work. This system carries crucial importance for managers to decide which rewards should be handed out by what amount and to whom. Job evaluation provides the basis for grading, pay structure, grading jobs in the structure and managing job and pay relativities (Armstrong and Stephens, 2005). HRA helps in job evaluation process; in that question

84.3% respondents were agreed and 15.7% remained neutral with the mean score of 4.01.

So, Employee selection, performance appraisal, reward management and job evaluation all are judgment tool in their respective area as define above. But their cumulative mean score was about 4.01, which proves that respondents believe that HRA can be effective in HR decisions whenever judgment issues will come. Although in some cases respondents were remain neutral and some were disagreed with the statements. The professionals responded to the question were of the opinion that human resource accounting is not responsible for this problem. So, we can conclude that HRA is useful judgment tool for various functions of HR.

Cost Estimation and Budgeting

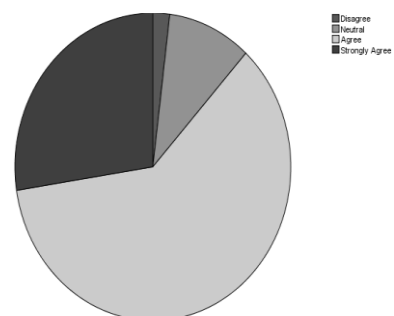
HRA helps in providing estimate the cost of recruitment from outside & development from inside of the organization, In that question 88.3%, managers are agreed , 9.8% respondent remained neutral and 2% remained neutral. The mean score for this question turned out to be 4.13 with standard deviation of 0.66.

HRA provides estimation for budgeting human resource acquisition & development program In that question 86.3%, managers are agreed and 13.7% respondent remained neutral. The mean score for this question turned out to be 4.07 with standard deviation of 0.59.

HRA helps in providing estimate the cost of recruitment from outside & development from inside of the organization

	Frequency	Percent	Mean	SD
Disagree	1	2.0		
Neutral	5	9.8		
Agree	31	60.8	4.13	.66
Strongly Agree	14	27.5		
Total	51	100.0		

HRA helps in providing estimate the cost of recruitment from outside & development from inside of the organization



Limitations and suggestions

There are certain operational problems in human resource accounting because it attempts to measure intangibles. The main limitation of that work is the idea of HRA still emerging in Bangladesh; for that the numbers of respondents are fewer. But the respondents of this research were the managers who familiar with the HRA process in their

organizations argue about the following limitations and probable suggestions of the problems:

Table 2: Limitations of decision making based on HRA and suggestions to overcome

Limitations	% Agreed
less accuracy in present measurement techniques for measuring human capital	87.5%
Insufficient knowledge of the accountants to implement the system.	75.0%
uncertainties in the reporting areas	76.5%
Lack of organizational support	83.0%
Sensitivities in the reporting areas	73%
Probable suggestions	% Agreed
Proper attention of the top-level managers/administrators to implement the system properly	87.5%
Use more efficient & professional accountants to operate the system	83%
Using reliable HRA method to measure human capital properly	85.5%

Moreover, there is a possibility that human resource accounting may lead to the dehumanization in the organization if the valuation is not done correctly or results of the valuation are not utilized properly. We noticed that the main problem of taking HR decisions by using HRA is the reliability of valuation method. So, we may suggest some basic issue of HRA to make it more reliable which can be:

Use data and information on human resources costs to base internal decisions and their disclosure through an annual report of the organization; Treating investments in employee development at the same level with other investments; Treating costs like employee training and development as capital investment expenditures that increase the productive capacity of employees.

Conclusion

Human Resource Accounting provides quantitative information about the value of human assets, which assists the top management to take decisions regarding human resources. When proper valuation and accounting of human resource accounting is not done then the management may not be able to recognize the negative effects of certain decisions, which are aimed at improving profit in short run if not recognized on time these decisions could lead to a fall in productivity levels, high turnover rate and low morale of existing employees

Therefore much of the potential for developing human resource accounting capability and gaining its advantage depending upon the availability of and accessing to the required data. In those organizations, where the data is not readily available or routinely maintained, the first step towards human resource accounting (HRA) will have to be Human Resource Information System (HRIS). Finally we can say that the output of HRA system can be used to take a variety of decisions in the area of Human Resource Management.

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13 Skill Development Challenges of Bangladesh and Korea's Economic Emancipation: A Comparative Study

**Naznin
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Introduction

The scholars of development studies often come across a common query: why do some countries fail while others succeed despite having the similar socio-economic environment? Another is: can developing nations change their fortune without following conventional method of development? The central theme of this paper revolves around these queries followed with special focus on Korea's innovation driven economy and the lessons Bangladesh should take into account to prosper economically. The paper aims to investigate both growth challenges and success strategies of Republic of Korea in transforming itself from poverty to prosperity. Another objective of the paper is to examine how Korean growth experience can act as a guiding force for Bangladesh, one of the least developed countries in the world, striving to earn the status of a middle income country by 2021. Korea achieved rapid economic development over the last six decades at various levels and dimensions which can be a role model for any developing economies like Bangladesh.

In the last six decades South Korea has risen like phoenix from the ashes and become one of the Asian Dragons. Korea sets an example for developing countries how striving for excellence and determination can change a nation's fortune. During the four decades following the Korean War, Korea evolved from one of the poorest states in the region to one of the most dynamic industrial super-power that has virtually eradicated poverty, malnutrition, and illiteracy (Choong-yong, 2010). In the late 1960's family owned industrial conglomerates known as chaebols received extensive government sponsored schemes that built the foundation of Korea's exponential economic growth. Government provided both physical and human capital to chaebols which helped them grow rapidly (Ra & Shim, 2009).

Korea's Combat against Growth Challenges

South Korea faced massive growth challenges in its early stage of industrialization like other developing countries economy. Korean government played an important role in facing those challenges. The

then government's active role in promoting rapid industrial growth by utilizing both physical and human capital can be exemplary for any developing country.

At the time of rapid industrialization in early 1970's workforce mobility increased at an alarming rate in Korea. Enterprises preferred practicing free-riding and poaching of workers. Chaebols preferred to hire workers trained by other industries. This poaching of workers reduced chaebols' excess training cost (Ra & Shim, 2009). This is one of the major reasons for which small and medium enterprises (SME) did not prefer to invest in training as trained workers would be enticed by big companies or chaebols. Even workers preferred to work for the chaebols because of their lucrative offers. This caused inefficient resource allocation and also reduced the number of workers with specialized training (Ra & Shim, 2009). To overcome this problem, Korea adopted government-led skills development system to increase the supply of skilled workforce. In addition, government intervention was needed for the development of the future workforce to meet the upcoming demand of rapidly growing diversified industries.

Another major challenge faced by the government was that a massive unskilled workforce began to migrate from rural to urban areas (Ra & Shim, 2009). The resulting differences in employment rates and skill levels among the national workforce were significant and were reflected in individual productivity and wage disparities. To redress the inequality in employment and income distribution, the government enhanced job opportunities and productivity through training provision (Ra& Shim, 2009).

Where every other developing country faces hard time in handling its unskilled workforce the government-led training program acted as a panacea to surplus unskilled Korean labour market. Training opportunities were provided to an annual influx of up to 400,000 unskilled rural youth which also met the demand of the skilled workforce during Korea's high growth stage in the 1970s-1980s (Suh, 2002). Moreover, Korean government's decision to invest huge amount of money in human capital served the nation during the time of Asian financial and economic crisis in the late 1990's. Korean government found another rationale for intervening in the skills development market. It saved the underprivileged people from the harshness of the economic downturn and ever increasing degree of competition in the market economy (Ra& Shim, 2009). Hence, this government-led training and skills development system contributed to meet increasing skills demand at the initial stage of Korean economic miracle. It transformed mass unskilled youth to a skilled workforce through vocational education and training (Shim, 1997). As a result,

Intentional Labour organization (ILO) marked Korean government-led education and vocational training policy as one of the core for its rapid industrial growth (ILO, 2008).

Bangladesh Skills Development Scenario

Bangladesh has the world's eighth-largest population with more than 160 million people. Even though in recent years' population growth has been reduced significantly, Bangladesh is still struggling to manage its huge population. Agriculture used to be the main occupation which eventually became unable to provide adequate remunerations to people. Therefore, Bangladesh is now trying to diversify its economy by prioritizing industrial development. Moreover, many Bangladeshis prefer overseas employment which is becoming one of the main sources of the country's foreign reserve. So, a huge demand for technically skilled workforce is at hand.

Government and other development partners are working together to come up with an effective manpower planning that can serve the country's demand for skilled workforce. Bangladesh government is currently emphasizing on vocational training and education system to prepare its large work pool for this competitive market. According to Bangladesh Vocational Training and Education Board's (BTEB) report, there are 27 different courses offered in 5149 institutions with an enrollment capacity of 4,56,614 students. They are offering diploma courses on technical education, vocational education, engineering, textile engineering, fish culture, agriculture, jute technology, forestry, health technology, medical ultrasound, commerce, animal health and production for 1 year to 4 years duration. They are also offering some certificate courses for 6 months to 2 years duration (BTEB, 2011).

Bangladesh government is now working with its development partners to transform its people into human resources. It's working with developing partners like International Labour Organization (ILO), World Bank, USAID, Korea International Cooperation Agency (KOICA), Asian Development Bank (ADB), and International Organization for Migration (IOM), Japan International Cooperation Agency (JAICA) and so on. Bangladesh government is trying to cope with frequently changing determinants of competitive market. In order to make vocational training available to every vulnerable group of population, Bangladesh government introduced Nation Skills Development Policy (NSDP).

As per the policy, technical and vocational training courses are introduced at secondary and higher secondary level education including madrassas. To expand technical and vocational education, the government is planning to set up one technical school in each

upazila. An engineering college has been set up in Barisal district. Moreover, 2 women's polytechnic institutes in Barisal and Sylhet districts and 10 polytechnic institutes in other districts are being set up. 11 modern language training institutes have been set up in six divisions of Bangladesh to teach English, Arabic, Korean and Malay languages for doctors, nurses and job seeking unemployed youths of Bangladesh. The former Dhaka Textile College has been transformed into Bangladesh Textile University to cater to the needs of skilled manpower in the booming garments sector (Bangladesh Ministry of Labour, 2011)

In addition to these, in collaboration with International Labour Organization (ILO) and European Union (EU) Bangladesh government has taken an initiative named 'Skills Vision: 2016' with the aim to transform unemployed youth into dynamic and skilled manpower. Human resource development is an integral part of development agenda. Effective vocational training and education system can transform this huge population into an efficient workforce. Under this program development partners will be focused on 18 visions to bring radical changes in Bangladesh's human resource development condition. All these measures can bring a significant change in Bangladesh skills development scenario.

Current Growth Challenges of Bangladesh

Lack of Planning & Synchronization

In Bangladesh there is a lack of synchronization in the entire technical and vocational education system. Even though government is investing a lot of money on human resource development, but it is not bringing any significant changes. Most of these training programs are focused to serve external job market. The number of migrant workers increased significantly since the beginning in 1976 from 6,078 to 409,253 in 2013. But the number of skilled migrant workers remains nominal. But only 4% of them are considered as professionals and 33% as skilled ones. Other 63% of them are considered as semi-skilled and less-skilled ones. As overseas job market is highly competitive so this large semi-skilled and unskilled work group can deteriorate market reputation for Bangladeshi workers. Adding to this, country's training courses have not received foreign accreditation and professional degrees remain unrecognized (Bureau of Manpower, 2013).

So, even though there are numerous vocational training institutes in Bangladesh, the quality of education they are providing is not widely accepted. Un-authorized vocational training institutes provide below standard education and poor rural people often gets trapped by such deceitful offers. As students are learning technical skills, it is essential for them to have experiences about real working environment. But

there is no strong training culture in Bangladesh. Apprenticeship opportunities are pretty uncommon here. There are no such mandatory government rules that can force industries to provide internship opportunities.

Lack of Pre-Service & In-Service Training Facilities

Most of the industries are reluctant about providing pre-service or in-service training facilities. They consider this as wastage of money and time. Such culture affects the overall effectiveness of the entire skills development approach. Hence, most of the immigrant workers went abroad without having any specialized skills. So, their job performances remain poor and they often suffer from downsizing and wage disparities. In this scenario, government intervention is highly recommended, so that government can set a standard and ensure that all the institutions are providing same qualities of vocational training. Additionally, government should come up with some incentive plans like tax exemptions and subsidies to encourage industries for creating training opportunities. This will not only ensure the acceptability of the courses to the foreign market but also increase our labours' efficiency.

Alarming rate of Unskilled Madrassa Students

According to Bangladesh Enterprise Institute (BEI, 2011) from primary to post-graduate levels, there are about 37,000 madrassas in the country, with a total of 3,340,800 students. However, Qaumi madrassas, in particular, are flooded with problems, including an outdated curriculum for which madrassa graduates are unable to gain employment as easily as graduates of regular schools. So, over the years a substantial number of potential work pool remained unskilled and inefficient. Some of them went to middle-east countries to work as labourers without any training or work experiences. Those workers were often sent back to Bangladesh due to their poor job performances. After coming back, these inexperienced workers could not find any suitable job in Bangladesh. Consequently, many of them are often manipulated to be involved in terrorist activities. It's high time now and government should seriously consider a massive reformation of madrassa education. Bangladesh government has already included some vocational training facilities for madrassa students. As these students have fluency in Arabic language, government should plan to train them in those institutes targeting the middle –eastern job market.

Learning from Korean Growth Experience

Bangladesh is one of the most densely populated countries of the world. It's still struggling to manage this population explosion. Bangladesh is trying to find out effective ways to fight back the vicious cycle of poverty. With an extremely dense population it's becoming more and more difficult for Bangladesh to implement any development

scheme. Like many other developing countries, Bangladesh often suffers from fluctuating economic conditions due to socio-political instability. Thereby, to maintain a sound macro-economic condition government should intervene in the skills development system to meet the future demand of skilled workforce of the growing industries. South Korea has already set an example on how manpower planning can transform a country's entire economic scenario. Korea's extensive vocational and skills development policy served the nation's rising demand for skilled workforce in its early stage of industrialization.

In Korea's initial stage of industrialization in 60's government considered vocational training as public good and introduced government-led skills development policy to protect the rights of vulnerable populations. Bangladesh government should take lessons from Korea's skills development experience. Government can plan to facilitate technical and vocational education to the least developed areas of the country. According to Bangladesh ministry of Finance (2011) government took an initiative to build a vocational training institute in every upazila.

Feasible Skills Development Approach

Korea first adopted the skills development system in 1967 by an enactment of the Vocational Training Act to provide a skilled workforce for industrialization. Since then, Korea has successfully aligned the skills development policy with the different stages of economic development and met skills demands by continuously improving the skills development system. The skills development system complemented the economic cycles of the Korean economy—from supplying skilled workers for export-oriented light industries in the 1960s and early 1970s, heavy and chemical industries in the 1970s and 1980s and technically more advanced and knowledge based industries in the 1990s and 2000s (Ra & Shim, 2009).

After 1997's Asian financial crisis the government shifted the emphasis of the skills development policy from supporting economic growth towards reduction in poverty and inequality and creation of employment opportunities. The government concentrated on securing training opportunities for the disadvantaged groups, such as, the unemployed, non-regular workers, the aged, females, the under-educated, and SME workers, in order to reduce relative poverty and social polarization.

Active State Transition

Korea shows exemplary practices of government-led skills development. According to Ra & Shim (2009) The Government of Korea initiated a development strategy based on two premises. First, the government selected core industries (e.g., the light or heavy

chemical industry) to be developed. Second, the government should examine the existing training capacity of employers, and when it found the then-existing capacity was deemed insufficient to meet the scaled-up needs for skilled and technical manpower, the government supported employers to carry out enterprise training or directly train the workforce needed. It's a milestone for Korea's skills development approach. Adopting such policy government ensures sustainability for enterprises in the global market. For any developing countries like Bangladesh Korea sets an example of how a balanced intervention by the governing bodies can take private industries to the next level.

For those less developed countries with a low educational attainment and a weak industrial base, an emphasis should be placed on basic education rather than early vocational education and training. Once basic education is well established, a vocational education and training system would be more effective and efficient in supplying a skilled workforce (Ra & Shim, 2009). Bangladesh is currently having a surplus of graduates at tertiary level. These large numbers of potential work pool remain unemployed due to lack of proper training. Bangladesh government should introduce vocational training facilities for those potential workforces.

Emphasize on Research Activities

Continuous research activities can bring significant change to any economic condition. Korea invested a lot of money on research activities to find out the most effective way of resource allocation and planning. Usually developing countries avoid research activities because of its high costs. Korea developed a qualifications system together with the vocational training system during its industrialization period. At first, the qualifications system was designed to increase the credibility of the training programs among employers and the general public, as supported by the Vocational Training Act of 1967. The government launched various types of evaluation systems like regional survey, nationwide survey and panel survey with an aim of understanding the actual impact of the taken skills development policies over the job market (Ra & Shim, 2009).

Additionally, the government supported various research institutes to carry out panel survey studies as follows. Korean Labor and Income Panel Study (Korea Labor Research Institute: KLI), Workplace Panel Survey (KLI), Youth Panel (KLI), Korean Education and Employment Panel (Korea Research Institute for Vocational Education and Training: KRIVET), Human Capital Corporate Panel (KRIVET), Graduates Occupational Mobility Survey (Korea Employment Information Service). These labour market research institutes not only carried out the survey studies, but also conducted evaluation of efficiency or effectiveness of training programs as an input to their

policy development studies (Ra & Shim, 2009). Such extensive research-oriented evaluation system ensured maximum output from skills development policies.

During its rapid period of industrialization Korea faced an urge to focus on utilizing new talents who can bring innovation to chaebols. In order to that, major recruitment of college students was done by campus visits, company tours and pre-employment internships. They sent executives - alumni of the universities - with company brochures to attract new talent pool. Providing future graduates with opportunities to tour various companies or plant facilities was another effective measure. The tour used to work as an eye-opening experience for many students which helped them to understand the real working environment (Lee, 1998). Bangladesh government should adopt such strategies. Collaboration with academicians and entrepreneurs can bring significant changes in skills development process. Government should take initiative in establishing research institutes for forming and evaluating skill development programs, forecasting industrial development trend and also measuring the current labour market condition of the country.

Adopting Integrated Approach with Academicians

Korea worked along with fellow academicians and scholars to figure out the most effective way of human resource utilization. As demand for highly efficient workers increased, companies requested professors of some elite Korean universities to choose their best students. Professors started to recommend those students who were most suitable for the chaebols. Chaebols offered widespread pre-employment opportunities as well. Moreover, chaebols like Samsung, Daewoo, and LG began to conduct research projects in collaboration with the universities. They were also financing scholarship funds and other development projects of universities (Lee, 1998). Although this whole practice was quite unusual for a struggling economy, it helped Korea in the long run in terms of achieving sustainability and competitive advantages over others.

Target Frontier Market

Choosing a suitable target market is an important technique of survival in today's competitive market. Geographically Korea is surrounded by China and Japan; two economic giants. From industrial point of view, it was very difficult for Korea to establish its brands in the global market because of international recognition of Chinese and Japanese brands. So, Korea chose to focus on the untapped markets to export their products. Korea decided to export their products in frontier markets like Cambodia and Lithuania. "Koreans are Asia's most

adventurous frontier market investors right now”, says Douglas Clayton (cited in Minder 2008).

Bangladesh can learn a lot from the strategies adopted by Korea. Geographically it's surrounded by the ultimate south-east Asian economic giant India. Hence, in order to establish Bangladeshi brands in the global market conglomerates must search for frontier markets. Government should support one of the leading conglomerates of Bangladesh called Walton adopted this strategy and decided to target frontier markets. The Walton products hold a significant volume of share in local market and are also exported to different countries of the world like the United Arab Emirates, Myanmar, Sudan, Qatar and so on. Walton is taking preparation to enter other international markets like Australia, South Africa, Singapore, Poland, Romania, Saudi Arabia, the UAE, Bahrain, Oman, Kuwait, Yemen, Ethiopia, Nigeria, Ghana, Nepal and Bhutan in near future (Walton, 2014).

Collaboration with Chaebols

Government must constantly keep an eye on training institutes' performance to ensure maximum quality of education. Feedback from organizations about latest skill trends and demands will help to achieve sustainability and earn competitive advantage over others. Korean government constantly worked with chaebols like Samsung, Hyundai, and LG to identify what type of skills required for their future growth and then worked with the training institutions to change curricula. This three dimensional work strategy built a synchronized skills development strategy (Tzannatos & Johnes, 1997). Bangladesh should also follow the path.

Tackling Alarming Urban Influx Rate

Bangladesh has got an alarming urban influx rate. Around 6.6 million unskilled people moved to Dhaka, the country's capital city from rural areas with a hope to change their fortune (EkusherRaas 2014). This huge migration is creating a massive chaos in the city. Unskilled people are suffering from wage disparities and are deprived of basic civil rights. Most of them work as day laborers and earn very minimal amount and live miserably in slums. Bangladesh government can play a significant role like Korean government by training these socially underprivileged groups of the population. Government can learn from Korea's similar growth challenge experience and improve job opportunities for these people through government-led training facilities and reduce annual urban influx.

Conclusion

To sum up, Korea's innovative and sustainable manpower planning has become exemplary for any developing economy like Bangladesh. Where other developing country considers training as an extra

unnecessary cost, Korea showed why investing in human capital is an inevitable part of achieving sustainable economic transition. Thereby, skills development, a fundamental aspect of policy development cannot be overlooked if Bangladesh hopes to change its fortune to a developed country and attain sustainable economic development. Another key point to remember is that Korean economic transition often referred to as miracle; this miracle did not occur overnight. Instead, the concept of innovation and integrated approach was reinstated in every phase of the country's economic development. The entire nation fought back with extreme dedication and determination for the last six decades to make this miracle happen. A developing economy like Bangladesh can be highly inspired by the popular miracle on the Han River. Indeed, in today's competitive global environment it is high time we thought about Bangladesh should adopt good governance, prioritize sustainability in administrative, industrial, and human capital development.

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PART FOUR
DISASTER MANAGEMENT
AND DEVELOPMENT

14 Irrigation Management by Participatory Approach in the Philippine: Lessons for Bangladesh

Md. Azizur Rahman

Introduction

Participatory irrigation management (PIM) is a process through which stakeholders in irrigation influence and share control of development initiatives and of decisions and resources that affect them. Farmers are the principal decision-makers in all or most of irrigation project/system activities. Participatory irrigation management approach first introduced in the Philippines in early '70s in communal irrigation systems also known as “participatory approach program” (PAP) where stakeholders are involved in practically all phases of irrigation development and management. PIM was institutionalized in the mid-80's including national irrigation systems. It was an assignment of Institutional Development Officers (IDO) and Engineers to work with the farmers in the formation of WUAs or Irrigators Associations (IAs) and training of the IAs on: Basic leadership and management, financial management, irrigation system management and other capacity building. Subsequently, IAs are registered with the Securities and Exchange Commission (SEC) to attain legal personality and participate in national irrigation systems (NIS). Finally the system turnover in communal irrigation systems (CIS) and encouraged to PISs with direct government patronization. In the Philippines, three categories of farming exist for instant National Irrigation Systems (NIS) —1,000 ha or more, constructed, owned by the government but jointly managed with farmers/Irrigators Associations (IAs), Communal Irrigation Systems (CISs) —less than 1,000 ha; jointly constructed by National Irrigation Administration (NIA) and IA, but handed for O & M to the IA and Private Irrigation Systems (PISs) —owned by private individuals or firms constructed with or without government assistance.

PIM of the Philippines comes to mature through a lot of experiences from various schemes. The term PIM in the toolbox of current approaches to improve the efficiency and performance of irrigation management to cope with the issue of water scarcity, or problems associated with global and climate change in the foreseeable future

(Regner et al., 2006). PIM refers to the participation of users – the farmers in all aspects and levels of irrigation management. All aspects include planning, design, construction, operation and maintenance (O&M), financing, decision rules and the monitoring and evaluation of irrigation system. In Bangladesh irrigation stands on are similar to the Philippines. Accordingly, Bangladesh has a great learning on participatory approaches to establish sustainable participatory irrigation management.

Importance and Objectives of the Study

The paradigms for rural development pursued and practiced in developing countries have transformed greatly since the 1950s. Failure to achieve intended result through transfer of technology policies caused shift towards a more user participation centered approach to development and people first development model based on popular participation gained popularity in the 1980s and 1990s (Bukey, 1993; Chambers, 1997; Cernea, 1991; Khanal, 2003). Accordingly, the focus of participatory irrigation management has also shifted from technology transfer towards decentralized and user participation centered approaches emphasizing participation and local organizational development (Clyma, 1986; Uphoff, 1986; Khanal, 2003). Several countries of South and South East Asia including the Philippines adopted policies to encourage greater management participation by water users since the mid-1980s. These experiences witness demonstrable improvements in economic water use efficiency, sustainability and a more responsible handling of water resources and public funded installations (World Bank, 2002). These PIM schemes generate an uprising and sustainability in irrigation management system of Philippines. Conversely, Bangladesh has no irrigation management scheme or even before. No amalgamation within farmers as well as between Government and farmers regarding Participatory irrigation Management or policy. Here farmer has no systematic knowledge on irrigation. Farmer's performance depends on their individual policy. So, Bangladesh can shift the policy in experience from Philippines towards participatory water management so as to improve communal integrity and better uses of resources.

The following steadfast objectives in these regards are:

- The objective of the study is to find out the actual implementation of irrigation policy, instrument, and empowerment of WUAs in implementing the PIM with the necessary terms of implementation of obligations and of detailed procedures of WUAs / WUAF on the

management of irrigation by virtue of PIM approach in context of Philippines experiences.

- The ultimate goal of the study is to assess the economic and social impact of the implemented schemes of Philippines under the framework of participatory irrigation management approach and collect strategically information and share experiences so as to take same kind of initiative in Bangladesh for the improvement and sustainability of irrigation management in Bangladesh.
- Find out Schemes toward a more powerful and independent water users' association in managing their irrigation infrastructures on the basis of sustainable PIM, in the Schemes of Philippines and expected to be replicated in Bangladesh.

Methodology

The methodology used in this study basically secondary sources. Secondary information were collected mainly by reviewing official publications both national and international, published and unpublished papers, working papers, seminar and conference proceedings, online resources as well as ethnographic observations of the researchers. Then, the findings were classified thematically to get a picture of Participatory Irrigation Management (PIM) in Philippines and present irrigation management in Bangladesh.

Learning from the Participatory Approaches in Phillipines

Participation as the centerpiece of any water service endeavors excluding people who consume water nonparticipation has tended to make solutions to sustainability elusive. The following components improve through participation for sustainable irrigation management in Philippines:

Policies Promote Participation

Many countries have aimed to establish appropriate and requisite policy frameworks for enhancing agricultural productivity through participatory irrigation management. In this regards, Philippines is ahead than others. Philippines have established national water policies adopting the same or similar principles that outcome makes Philippines role model in south and south East Asia as well as helps to follow others. (Asian Development Bank-2012).

Participation is Central to Good Governance

Good governance of community organizations is important in ensuring the participation of beneficiaries and affected groups and in preventing

any dominant authority from taking control of water resources. In Philippines, have ethnic group diversity but they established good governance in all levels so as to effective the programme for all people not for someone which have found in south Asia. (Asian Development Bank-2012).

Stakeholder Identification and Assessment are a Key Foundation for Participation

Stakeholder analysis is fundamental to participation work at any level and provides an understanding of the interests of individuals, groups, and institutions that have something to win or lose from a project. When stakeholder interests are not addressed before making a commitment to a development project, problematic issues can surface during implementation, compromising implementation and operation. In Philippines, Central Region Water Resources Sector Project, stakeholder analysis was done using a participatory rural appraisal method. It covered identification of all social groups (included or excluded) from planning, implementation, and maintenance of water resources management projects. (Asian Development Bank-2012).

Participation Enhances Careful and Appropriate Planning

Stakeholders have to be involved as early as possible, rather than in a residual activity after physical facilities are completed. The expected outputs of each stakeholder should be clearly identified and linked to the outputs of other stakeholders, which will facilitate participatory monitoring and meeting project targets. In the irrigation component of the Earthquake and Tsunami Emergency Support Project in Philippines, joint walkthroughs and field inspections with the affected communities formed the basis for identification and selection of the main rehabilitation and reconstruction options. (Asian Development Bank-2012).

Participation Promotes Ownership and Responsibility

Stakeholder ownership is one of the factors that spell the difference between project success and failure. During implementation, ownership is enhanced when farmers provide in-kind and voluntary labor support and co-share the cost of irrigation improvements. Key lessons from the Farmers Managed Irrigation Systems Project in Philippines identified that, as a matter of principle, farmers should be required to contribute to construction costs and that this requirement should be clearly stated at the outset and applied as a precondition for the selection of subprojects. (Asian Development Bank-2012).

The Participatory Process Takes Time

Irrigation development through farmers' participation is demanding and time consuming. Yet implementation delays are sometimes attributed to a lack of participation, as in the Decentralized Irrigation Development and Management Sector Project in the Lao PDR, Philippines. In the Community Managed Irrigation Project, in the Lao PDR, although detailed design of the project was participatory, the level of participation was constrained by farmers' low education and inability to read plans (Asian Development Bank-2012).

The Participatory Approach to Operations and Maintenance (O&M) is a Viable and Effective Option for Sustaining Irrigation Projects

With the recent emphasis on small- and medium-scale irrigation systems approach to O&M through farmer-managed irrigation schemes has been considered a viable and effective option in country like Philippines. Farmer managed: irrigation schemes are considered more sustainable because they are generally small and they can have cohesive links with farmer beneficiaries. (Asian Development Bank-2012).

WUAs Can Play a Significant Role in the Effective Project Implementation and Sustainability of Irrigation Projects

Aside from collecting water user fees for routine O&M, WUA roles can be broadened for social mobilization, repair and maintenance, and village-level agriculture extension services. In Philippines national body has fully responsible for maintenance of the project with local community. (Asian Development Bank-2012).

Before WUAs Take Over Responsibility for O&M, Systems Should be Functional and Able to Deliver Irrigation Water to Farmer's Fields, With Key Structures Rehabilitated And The Canal Network Intact

This would also ensure the collection of irrigation service fees and the undertaking of routine O&M through local resource mobilization. Irrigation leaders and ordinary farmers both need training on the O&M of newly built structures, but improving the skills and awareness of ordinary farmers are even more important because they are directly involved in O&M of the canal systems. In Philippines the system is very effective and people are respected in this regards (Asian Development Bank-2012).

Private Sector Participation Can Help Improve Water Delivery

One alternative to participatory irrigation management is to involve the private sector in publicly managed irrigation and drainage schemes.

Often called public-private partnerships (PPP), these involve funding a viable ‘third party’ between farmers and governments. PPPs could also be useful in mobilizing financing, implementing investment programs, and improving the water delivery service. Philippines has practiced the idea that the private sector can efficiently manage irrigation systems and collect water charges, even in the sense of formal WUAs (Asian Development Bank-2012).

Necessities for Success of Pim Approaches

For PIM approaches to be efficient, necessary preconditions should be provided that practices in the Philippines are as follows:



Figure: 2 (Necessities for success of PIM Approaches)

Capacity Building

Supporting WUAs through participatory design process to build up the capacity to manage water and provide better working conditions through more compatible technologies and water management practices is highly important. It should not be merely viewed as a training program aimed at bridging gaps in knowledge and skills among farmers and agencies but also as facilitating the change process (Peter, 2003; Bryan and Helmi, 1996; Khanal, 2003).

Regional Cooperation

Since most Asian countries have a similar context in irrigation, regional cooperation by sharing of experiences and study tours could prove invaluable. A powerful mechanism by which this could be achieved is the creation of farmer networks at the national level or through PIM chapters. (Peter, 2004).

Establishing Farmer Networks

Farmer networks and federations could provide a platform for debate on water sector and irrigation reform issues, so that farmers get an opportunity to take part in policy formation and receive intense consultation (Peter, 2004).

Adaptation to the Local Setup

Experiences from several countries indicate that introducing participatory elements in the relationship between mostly governmental decision makers on water resources and end users of water is an essential. The successful implementation of PIM in a specific case crucially depends on its sensible adaptation to the local situation (Regner et al., 2006).

Improved Service Delivery

The sustainability and efficiency of a WUA depend to large extent on its services to the members. Most of the irrigation systems are quite old and require rehabilitation and modernization in order to be capable of providing easy-access, reliable and equitable services to their users (Peter, 2004).

Coping With the Complex Incentive

One of basic needs of efforts towards an improved utilization of water by introducing participatory elements in water resources management is to cope with the complex incentive structures of individuals on the levels of farmer's communities and within the administration (Regner et al., 2006).

Access to Assured Water

In order for farmers to participate in the process of irrigation management they should be provided with water entitlement as well asefficient input and output markets (Ward et al., 2005)

Analyzing Traditional Management Model

In order to come out with an efficient PIM, the first attempt is to analyze traditional management models within irrigation communities and to identify informal management approaches of country to acquire basic knowledge on more suitable starting points. This proved to be a successful measure in Jordan (Ghneim et al., 2005).

Securing Water Rights

For WUAs to be successful, they need to be vested with a clear water right to give the right incentives for improvement of the irrigation system. Secure water right also protects the WUAs from infringements of its allocation and share of water to other powerful interest such as industries and municipalities (Peter, 2004; Bryan and Helmi, 1996).

Defining a Legal Framework for Water User Associations

WUAs should be empowered through well defined legal frameworks that specify clear roles and responsibilities among agencies, WUAs and governments. This legal framework gives WUAs a fair degree of freedom and power to exercise its authority (Peter, 2004; Bryan and Helmi, 1996; Burak, 1999).

Requiring Technical Assistancess at Initial Years of the Transfer

WUAs need technical assistance by central government to repair and maintain water structures with equipment. This support can be gradually decreased over the years. This is a crucial issue in the case of small WUAs which are weak and face challenges to fulfill their tasks properly (Burak, 1999).

Challenges for Pim Approaches

In investigating challenges faced by PIM approaches in Philippines Khanal (2003) found that irrigation administrations face constraints to perform their responsibilities in some extend primarily. These constraints include: accelerated deterioration of irrigation infrastructure, lack of production capital, lack of knowledge on water resources, lack of financial sustainability stringent bank lending procedures and directive political interventions, hierarchical organizational structure, lack of organizational learning, shorter time frames, and failure to link the project while the broader development objectives all pose barriers in maintaining participatory processes for irrigation management. (Peter, 2004). To remove these constraints Philippines have considered that irrigation systems are socio, economic & technical systems and technology of the system is shaped by ecology and society. Hence, it has both human and physical dimensions (Khanal, 2003).

Recommendations

For Successful Implementation of PIM Approach in Bangladesh following recommendations & suggestions are proposed in the light of Philippines success history.

1. PIM concept should be implemented by adopting a programme approach instead of a project approach through integration of Engineering, Legal, Financial, Social and Agricultural components.
2. To ensure Farmers' participation in irrigation management needs Government patronization through new and separate department.
3. PIM Programme needs to implement through a gradual and phased process, it would appear to be more realistic and implementable in Bangladesh's social set-up and system constraints.
4. There should be a continuous process of monitoring & evaluation through all the phased of PIM implementation programme. This has been revised each year as lessons learned are fed back into the process for refinement through continuous monitoring & evaluation.
5. It will be beneficial if PIM programme is implemented through irrigation department like Philippines so as to their experience as expertise is effectively utilized.

Conclusion

In Bangladesh taking experience from Philippines we can apply and share the success story of participatory irrigation management in our own ground. Successful irrigation and drainage projects require participation by all stakeholders in planning, implementation and O&M to create a sense of ownership of and consequent commitment to the project. A successful PIM approach should be based on complete involvement and cooperation of various stakeholders at different levels and from different sectors ranging from top governmental body to the end users like Philippines. Particularly, the role of water users is crucial because they can help in establishing realistic water price and implementing water protection and distribution measures. For improving the role of WUAs, it is essential to take constituent factors into considerations which are: laws and policies of the country and its irrigation agencies, size and complexity of the irrigation systems, physical condition of the irrigation systems, size of irrigated farm holdings, farmers net income, capability and Organizational arrangements of WUAs, local politics, local social customs and practices, frequency of natural disasters and environmental problems.

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15 Political Response to Disaster Management in Bangladesh

Md. Shafiul Islam

Introduction

Bangladesh has a long history to face of natural disasters. Between 1980 and 2008, it experienced 219 natural disasters, causing over US\$16 billion in total damage. The predicted effects of climate change will only compound these impacts. It is happened because Bangladesh is geographically located in South East Asia and environmentally disaster prone in the world. She has a long experience of facing disasters. Just before independence, in April of 1970, a devastating cyclone hit Bangladesh, causing a massive destruction of infrastructures, crops, lives of animals and death of human being.

Natural Disasters in Bangladesh and Impacts

Several natural disasters, including cyclones hit Bangladesh in 1961, 1965, 1970, 1991, 2007 and 2009 (Blaikie et al., 1994; Dube et al., 1997; GoB, 2009). Among these in 1970, 1991 and 2007, about 500000, 138000 and 3406 people died respectively (Ali, 1980; Choudhury, 1989; Haider et al., 1991, Chowdhury, 1995; GoB, 2008). Tropical cyclones from the Bay of Bengal accompanied by storm surges are one of the major disasters in Bangladesh. The country is one of the worst sufferers of all cyclonic casualties in the world. The high number of casualties is due to the fact that cyclones are always associated with storm surges. Storm surge height in excess of 9m is not uncommon in this region. For example, the 1876 cyclone had a surge height of 13.6 m and in 1970 the height was 9.11 m (WARPO, 2005). In fact, the 1970 Cyclone is the deadliest Cyclone that has hit Bangladesh coastline. With a wind-speed of about 224 km per hour and associated storm surge of 6.1 to 9.11 Metre, it was responsible for death of about 300,000 people.

The cyclone sidr-2007 erupted from the Bay of Bengal packing winds of 240 kilometers per hour, swept through the southwestern coastal areas within 155-miles radius of its eye with heavy rain and storm surges reached up to 15-20 feet high in some places on 15th November 2007. According to Bangladesh Metrological Department, the Sidr's eye crossed the Khulna-Barisal coast near the Sunderbans mangrove forests around 9:30 pm , while it crossed over the Baleshwar

River in Barguna district at mid night . The coastal districts of Barisal Patuakhali, Borguna, Pirojpur, Jhalkathi, Bhola, Bagerhat, Khulna, Satkhira, Shariatpur, Chittagong and Cox'sbazar and their offshore islands and chars received the major destructions by the SIDR. Out of 12 severely affected districts 4 are the worst affected, these are Bagerhat, Barguna, Perojpur and Patuakhali. As on the reporting period it was observed that 3,363 peoples are dead, 55,282 are injured. Approximately 5,63,877 houses are totally destroyed and 9,55,065 houses are partly damaged. It is also reported that 186,883 hectare of crop areas are fully and 498,645 hectare area partly damaged by the SIDR'2007. 30 districts were affected and among them 12 districts were most affected by Sidr. An estimated 1.87 million livestock and poultry perished, and crops on 2.51 million acres suffered complete or partial damage. In addition, the cyclone washed away private food stockpiles and storages and destroyed 1.4 million fruit trees (Paul, 2012-2013).

Floods are annual phenomena with the most severe occurring during the months of July and August. Regular river floods affect 20% of the country increasing up to 68% in extreme years. The floods of 1988, 1998 and 2004 were particularly catastrophic, resulting in large-scale destruction and loss of lives.

Bangladesh faces unpredictable drought hazard in the dry monsoon due to inadequate and uneven rainfall. It varies from place to place. However, North-western region suffers most from the drought. As much as 17% of the Aman crops, the main paddy crops in the wet season, may be lost in a typical year due to drought. Though this is an annual phenomenon, the last severe drought faced by Bangladesh was in 1994. Bangladesh is at higher risk from droughts. Between 1949 and 1991, droughts occurred in Bangladesh 24 times. Very severe droughts hit the country in 1951, 1957, 1958, 1961, 1972, 1975, 1979, 1981, 1982, 1984 and 1989. Past droughts have typically affected about 47% area of the country and 53% of the population (WARPO, 2005).

Large and small landslides occur almost every year in nearly all regions of the world. In the past, landslide was not considered a major hazard in Bangladesh. However, recently landslide has emerged as a major hazard, particularly after the Chittagong Landslide 2007. Due to heavy rainfall during 10 -11 June 2007, landslides and collapsed walls caused widespread damages in six areas of Chittagong city and in different Upazilas of the District. 50 mm of rainfall was recorded from 12:00 AM on 10 June 2007 to 6:00 AM on 11 June 2007, and 315mm of rainfall was recorded from 6:00am to 2:00 PM on 11 June 2007. More than 120 people have been reported dead due to Chittagong landslide.

Table-1 Types of disasters, causes, affected areas, impacts and response mechanism

Types of disaster	Cause	Areas affected	Impact	Responses
Flood	Excess flow in monsoon, improper infrastructural development 92 percent of the total catchment area across the boarder Drainage congestion due to river bed siltation Deforestation in upper catchment area	Floodplains of the Brahmaputra-Jamuna, the Ganges-Padma and the Meghna river system	Loss of agricultural production, disruption of communication and livelihood system, injury, damage and destruction of immobile infrastructure, disruption of essential services, national economic loss, evacuation, and loss of human lives and biodiversity, displacement and sufferings of human population and biodiversity	Comprehensive Disaster Management Program Flood Action Plan (FAP) National Water Policy Flood forecast and inundation modeling Dredging if river bed Construction of embankments with sluice gates
Cyclone and Storm surges	Geographical setting of Bangladesh Coastal configurations and bathymetry of Bay of Bengal Location of ITCZ near the equator and its shifting with the apparent movement of the sun across the Bay	Coastal areas and offshore islands	Loss of agricultural production, disruption of communication and livelihood system, injury, damage and destruction of immobile infrastructure, national economic loss, loss of human lives and biodiversity, need for evacuation and temporary shelter	
Tornado	Intense ground heating and low level moisture incursion from the Bay of Bengal during pre and post monsoon Conjugation of western disturbance with locally developed low pressure	Scattered areas of the country	Loss of human lives and biodiversity, injury, damage and destruction of property, damage of cash crops, disruption in lifestyle. Damage to essential services, national economic loss and loss of livelihood.	

Types of disaster	Cause	Areas affected	Impact	Responses
Drought	Less and uneven rainfall in dry season and wet season Non-availability of surface water in dry season Fluctuation of ground water table	Almost all areas, especially the Northeast region of the country	Loss of agricultural production, stress on national economy and disruption in life style	Agricultural research and extension works Intensive afforestation Program Re-excavation of channels and ponds in rural areas Augmentation of surface water flow Construction of water reservoir
Flash Flood		Haor Basins of the North-east region and South-eastern hilly areas	Damage of standing crops, disruption in life style, evacuation and destruction of properties	
Hail Storm and Lighting		Any part of the country	Damage and destruction of property, damage and destruction of subsistence and cash crops and loss of livelihood	
Erosion		Banks of Brahmaputra-Jamuna, the Ganges-Padma and the Meghna river system	Loss of land, displacement of human population and livestock, disruption of production, evacuation and loss of property.	
Landslide		Chittagong and Chittagong Hill tracts	Loss of land, displacement of human population and livestock, evacuation, damage of property and loss of life	
Earthquake	Geographical location of Bangladesh having major and moderate faults	Northern and central parts of the country	Damage and destruction of property, loss of life and change in geomorphology	

Source: SoE, 2001

Objective and Methodology

Nowadays, democracy is almost acceptable all over the world to run a country. Hence, political parties are common to participate for running a country through election. For this, they campaign that they will devote themselves to well-being of mass people. So, the objective of this paper is to assess the role of political parties in respect of disaster management in Bangladesh.

The paper is mainly based on secondary sources. To achieve the objective of this paper, the researcher closely reviews news and views published in two national daily newspapers for two months-July and August of 2014, to observe the response of political parties to disasters this year. The news papers are daily Prothom Alo and Daily Nayadiganta, both the newspapers published from Dhaka.

Disaster Management: A Conceptual Organization

Disaster means a serious disruption to a community caused by the impact of an event that requires a significant coordinated response by the Government and other entities to help the community to recover from the disruption. Disasters are usually associated with severe damage to infrastructure and utilities, death, injuries and homelessness, and can be widespread or contained within a particular sector or sub sector.

So, disaster may be defined as those extreme events either natural or men induced which exceed the tolerable magnitude within or beyond certain limits make adjustment difficult, result in catastrophic loss of properties, income and lives.

There are two types of disaster. They are: a. Natural disaster ; b. Human made disaster. *Natural Disaster*: Natural disaster is created by the nature. It is created by various ways such as flood, cyclone, tornado, sidr, earthquake, tidal surge, drought, riverbank erosion, etc. *Human made disaster*: Those disasters which are created by men are called by human made disasters such as war, environmental pollution, deforestation, environmental degradation, etc.

Disaster Management

In general, it can be said that disaster management is planned steps taken to minimize the effects of a disaster. According to Disaster Management Centre, University of Wisconsin, 'Disaster management is the range of activities designed to maintain control over disaster and emergency situation and to provide a framework for helping at reach person to avoid or recover from the impact of the disaster. It deals with situations that occurred prior to during and after the disaster situation.' So, disaster management is in the disaster planning and risk management.

Disaster management is a special type of emergency management. It is an applied science which seeks by the systematic observation and analysis of disaster to improve measures relating to prevention, mitigation, preparedness, emergency response and recovery.



Figure-1 Disaster Management Cycle

Preparedness includes the information of a viable counter disaster plan, maintenance of inventories of resources and the training of personnel. Response is usually measures those which are taken immediately prior to and following disaster impact with a view to saving life and property. Recovery means the process by which communities and the nation are assisted in returning to their proper levels of functioning following a disaster. Prevention aims at impeding the occurrence of a disastrous event or to minimize its harmful effects on communities. Mitigation includes the measures aimed at reducing the impact of a disaster on a nation or a community.

Assessment is the process of determining the impact of a disaster on a society. The first priority is to save and sustain lives of survivors. The second is, expediting recovery and development. The objective of post-disaster assessment is to determine when an emergency exists, define the actions and responses needed to reduce immediate threats to health and safety and to pre-empt future serious problems. The assessment must help decide how best to use the existing resources for relief and identify the priorities of the affected people.

Government initiatives: In Response to Disaster Management

Since the independence the successive governments have undertaken a number of initiatives to contain the damages caused by different types of natural disasters. It covers from central level to grass root level. Centrally, as per institutional initiatives, the government has established a separate ministry, Ministry of Disaster Management and Relief, Disaster Management Bureau now it turned into Disaster

Management Department, and high level policy formulating and coordinating bodies. At micro level, there are several disaster management committees such as district disaster management committee, upazila/thana disaster management committee and union disaster management committee. There is a standing order on disaster adapted by the disaster management bureau in 1997 and later in 2010, it has been updated and modified as per requirement of need. Besides, the government of Bangladesh has adapted a strategy action plan called `Bangladesh Climate Change Strategy and Action Plan-2008 and it is revised in 2009 (GoB, 2009). Earlier, in 2005, the government also developed a National Adaptation Programme of Action (NAPA) after extensive consultations with communities across the country, professional groups; and other members of civil society (GoB, 2009)

Table-2 Key Disaster Management Bodies and their Main Function: At a glance

National Disaster Management Council (NDMC)	Establishing policies and providing overall direction for all aspects of disaster management Defining priorities and criteria for the allocation of resources
National Disaster Management Advisory Committee (NDMAC)	Providing advice to the NDMC, and directly to MDMR and DMB (now DDM), on specific technical, management and socio-economic aspects of disaster management, including vulnerability analysis and disaster management links
Inter-Ministerial Disaster Management Coordination Committee IIMDMCC)	Implementation of NDMC policies and decisions on an inter-ministerial basis Coordination of action by all government agencies and overall direction of the activities of the DMB (DDM). Responsibility for major operational decisions during emergency Decisions on allocations of relief resources through its sub-committee, the Executive Emergency Relief Management Committee.
Ministry of Disaster Management and Relief (MDMR)	Ministerial responsibility for disaster management, including the convening of the IIMDMCC Assuring the establishment, resource management (budget), and satisfactory functioning of the DDM Supervision of the DDR
Disaster Management Bureau (DMB) now DDM—a part of the MDMR	Provision of expert staff services to the NDMC and IIMDMCC Promotion of disaster prevention/mitigation and preparedness within all agencies and levels of government Providing guidelines, organizing training, and promoting the preparation of disaster action plans Providing expert services to the national Emergency Operations Centre (control room) located at the MDMR at time of disaster
Directorate of Relief and Rehabilitation (DDR)	As at present with respect to vulnerable group (VGD); Food for works (FFW); Gratuitous Relief (GR) and Test Relief (TR); the management and delivery of relief supplies, and The provision of related services

Source: Standing order on disaster (DMB), 1997

Discussions and Findings

The above table shows us that the political parties have scope to do a lot of in disaster management in Bangladesh. In term of preparedness, political parties have a scope in this particular issue to involve themselves. But it is revealed that they do not do that. On the other hand, there is limited scope to involve in policy and plan formulation. Moreover, they cannot make maintenance of resources in the training personnel. But they make aware about preparedness among local people.

Table-3 Status of Political Parties in Response to Disaster Management

		Status of political parties		
		Possible	Not possible	Actions taken
Preparedness	Planning and training and also focus more specifically to the development and maintenance of preparedness including its effectiveness prior to an occurrence of a disaster.	Y		N
	Disaster preparedness involves forecasting and taking precautionary measures prior to an imminent threat when advance warnings are possible.	Y		N
	It also includes the formulation of viable disaster plan		Y	N
	Maintenance of resources in the training of personnel.		Y	N
Response	Disaster response is the sum total of actions taken by the people, communities and institutions in the face of disaster. These actions start with the warning of an incoming threatening event or with the event itself if that occurs without warning.	Y		N
	Disaster response includes the implementation of disaster preparedness plans and procedures.	Y		N
	The last steps on disaster response involve the completion of disaster rehabilitation program.	Y		N
Recovery	It means the process by which communities and the nation are assisted in returning to their proper levels of functioning following a disaster.	Y		N
Prevention	It aims at impeding the occurrence of a disastrous event or to minimize its harmful effects on communities.	Y		N
Mitigation	It includes the measures aimed at reducing the impact of a disaster on a nation or a community.	Y		N
Assessment	Assessment is the process of determining the impact of a disaster on a society.	Y		N
	The first priority is to save and sustain lives of survivors.	Y		N
	The second is, expediting recovery and development.	Y		N
	The assessment must help decide how best to use the existing resources for relief and identify the priorities of the affected people.	Y		N

Y=Yes and N=No

In response, the political parties can arrange warning forecast about threatening events of natural disasters. But they do not do it, it is revealed. On the other hand, although there is no direct involvement in preparing plans and procedures, political parties can implement these disaster preparedness plans and procedures. But the scenario is same. They do not show eagerness to implement such types of preparedness plans and procedures.

In rehabilitation process, political parties, particularly ruling party, are very much interested to involve in disaster rehabilitation process. But they cannot initiate rehabilitation program by own initiatives. They eagerly wait for government decisions regarding rehabilitation programs and try to involve in this process.

Disaster management in term of recovery, the political parties can involve themselves. But they do not do it. It is seemed that the responsibility of recovery is only rest on the government side. In prevention process, the political parties have also scope to do better for the disaster prone people. They can aware about harmful events such as cutting trees, among disaster affected people. But the same answer. They do not do this. Mitigation process is one the disaster management cycles. It includes the measures aimed at reducing the impact of a disaster on a community. The political parties in this respect can do something for people. But the finding is negative. The political parties do not do this.

Assessment is another important cycles of disaster management. The political parties have a lot of scope in this regard to do for people of disaster prone areas. But they do not show their interest in this regard. The general finding of the paper is that the political parties do politics for the people. It is in paper or theory. But in practical, the political parties do not do in general politics for the welfare of the people. The political parties believe, it is seemed to us, that the government and the ruling party will do everything for the welfare of people and it is their responsibility. The opposition political parties or the parties which are out of power do not have the responsibility to do something for disaster affected people.

But it is general findings that the political parties distribute relief goods only during the disaster period and it is distributed in many cases among their supporters. However, to achieve the objectives of this paper, the researcher closely reviews two national daily newspapers for two months-July and August of 2014, to observe the response of political parties to disasters this year. The news papers are daily Prothom Alo and Daily Nayadiganta. This year people of Bangladesh, especially of northern districts, have experienced severe demolition of flood and river bank erosion. According to the newspaper reports, thousands of people become homeless. They have

lost their all properties. Crops of land have damaged completely. Even bed of lands has been filled up with sands, causing long term infertility of lands. Thousands of educational institutions have been damaged. Some of these have eroded into river. People waited for reliefs for long, even whole the day. But at the end of the day, they got nothing. Relief goods distributed through government channels were not enough as against the need of disaster prone people. On the other hand, relief goods provided by the government are distributed under the banner of Awami League.

Justifying this event, an MP claims that the government is of Awami League. He is an MP of Awami League. So, there is no problem to distribute government relief goods under the banner of Awami League (Prothom Alo, September 7, 2014). No political parties paid heed to the need of people of these disaster prone areas. They were busy for political gain, accusing each other for not doing 'good' for people. They did not come forward to help the disaster prone people (Prothom Alo, September 1, 2014). After devastating flood this year, BNP chairperson visits Nilfamari, one of the severe flood affected districts, for political programme. But she did not make any remarks for the welfare of the people of these regions who are affected by different types of natural disasters, including flash floods, floods, river bank erosion, every year. Moreover, she handed over Tk 50000/- each of four persons who were killed during the movement against the national election held in January 5, 2014. She did not give anything for the disaster prone people but she wanted vote for her party to go to the state power again (Prothom Alo, October 24, 2014). Then, she will do welfare!

Conclusion

The mechanism to sustain institutional networking should be enhanced, and funds to sustain such programs need to be ensured. The sources of such fund can be from donors, or can be collected from tax imposed for the sales and purchase of lands, revenue collected from auctions from haat, bazaars, and jalmahals, and also by the revival of 5 percent ADP reserved for disaster management fund. Door to door awareness campaigns can enhance the capacity building activities of communities. Proper pre-disaster preparedness programs should be further enhanced to empower the community on the matter To do these, political parties can play a vital role to mitigate and reduce damages of disasters.

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16 Renewable Energy in Bangladesh: Some Evidences from Rural Areas

Kora Hasan Evana

Introduction

Bangladesh with a land area of 1, 47, 570 sq. km. and a population of ranging from 150 to 170 million and is the 8th most populous nation in the world. Most of the people of Bangladesh live in rural areas. [1] The rural population of Bangladesh is characterized by an abundance of open and disguised unemployment, large numbers of landless farmers, inadequate economic and social facilities, low standard of living, poverty and deprivation. Again population growth and poverty in developing country are considered to be the major causes of environmental degradation and resource scarcity. Not only the number of people but also the lifestyle, unsustainable consumption and production patterns, demographic factors such as population distribution and migration and regions people inhabit and use directly affect the environment. Thus the development of energy systems supplied from small, varied, decentralized and locally managed renewable sources supplies and greater efficiency of energy use in an efficient converted form for benefit of the rural people. Sustainable social and economic development depends on adequate power generation capacity of a country. There is no other way for accelerating development except to increase the power generation by fuel diversification. The demand forecasts for the period 1992-2020 reveal that the energy demands in Bangladesh will more than double by the end of 2020, with commercial energy increasing by 400%, and non-commercial energy displaying an increase of just 45% [2]. The Renewable Energy Policy envisions that 5% of total energy production will have to be achieved by 2015 and 10% by 2020. To achieve this target, GOB is looking for various options preferably Renewable Energy resources. Under the existing generation scenario of Bangladesh, Renewable Energy has a very small share to the total generation. The share of Renewable Energy exceeds more than 1% till now. The present Government is placing priority on developing Renewable Energy resources to improve energy security and to establish a sustainable energy regime alongside of conventional energy sources. Government has already launched "500 MW Solar Power Mission" to promote the use of Renewable Energy to meet the increasing demand of electricity.[3] This paper aims at providing an assessment on the ability of renewable resources to help in reducing poverty, aid in energy shortage and the uses of renewable energy

special emphasis on solar and biomass energy to improve the quality of rural life.

Background and Objectives of the Study

Government of Bangladesh has taken a systematic approach towards renewable energy development. In line with the Government approach Bangladesh Power Development Board formed the Directorate of Renewable Energy and Research & Development in 2010 [2]. Since the very beginning of establishment the directorate is dedicated to keep a sign for the enhancement of Renewable Energy use in rural sector. There is a good scope for solar, wind, biomass, and micro/mini hydro power generation in Bangladesh. BPDB has taken systematic steps for developing Renewable Energy projects as well as implement and promote Energy Efficiency Measures for the last few years to achieve the target of the Renewable Energy Policy 2008. Bangladesh's interim government has unveiled a renewable energy policy, the first of its kind, to ease the country's severe electricity shortages, and aims to achieve this by luring investors with a raft of incentives [3]. Therefore the directorate is established for feasibility study, planning, evaluation, examination, monitoring of such projects and to perform necessary research based works in relative fields. There are few studies regarding power crisis and its solution, prospects and trends and situation of renewable energy in Bangladesh have been conducted [6, 7, 8]. Therefore, this study is taken to assess the ability of renewable resources to help in reducing poverty and its effects on rural Bangladesh.

The general objective of the study was an assessment on the ability of renewable resources to help in reducing poverty and its effects in environmental degradation and climate change in rural Bangladesh.

The specific objectives of the study were to:

- a. review the development activities of village societies through some projects with special emphasis on renewable energy use;
- b. to assess the socio economic characteristics of respondent households;
- c. efficiency of energy use and utilization of energy sources of rural people;
- d. make recommendation and way out based on the findings of the study

This study was conducted on village people, who were got technical and electrical training on specific energy sources and uses under the program of BARD (CVDP), LGED, RIB, Grameen Shakti and BRAC.

Minimum ten people from each selected village from different district were participated in the interview schedule. The scope of the study was confined to the following variables:

- Socio economic condition i.e. population by age, sex, house hold size;
- Occupation, income and expenditure;
- efficiency of solar and biomass energy use and its utilization;
- Training and educational status;
- Interlink with the support service.

Methodology

Selection of Sample Areas

In order to assess the uses and scope of renewable energy of rural people, the sample survey method was followed. This study was conducted in six villages namely Dhamra, Matiranga, Gopal pur, Lokkipur, Kashinathpur, Jogotpur from Shahrasti, Matiranga, Nobinagar, Comilla Sadar and Burichong Upazilla respectively under relevant projects of BARD such as Comprehensive Village Development Program (CVDP), LGED, RIB, Grameen Shakti and BRAC. Mainly purposive sampling procedure has been followed in this study.

Selection of Respondents

The primary data of this study were collected through structured questionnaire and checklist of the sample villages. The respondents (n = 120) for KIIs (key informant interviews) have been selected through purposive sampling procedure from the village society members, non members and local representatives who received relevant training and utilize that acquired knowledge and skill for increasing access to quality of life of rural people.

Methods of Data Collection

Survey methods were used to collect relevant data from the study villages, which were purposively selected. Relevant data were collected from both primary and secondary sources.

Data Processing and Analysis

Collected data were processed, analyzed and presented in such a manner that the reader could get a clear idea of potential, uses and scope of solar and biomass energy in rural areas of Bangladesh. Data were collected during July to October 2014.

Renewable Energy: An overview

Bangladesh is endowed with plentiful supply of renewable sources of energy. The four renewable sources used most often are:

- Solar Energy
- Wind Energy
- Biomass Energy
- Hydro-power energy

Solar Energy

Solar Energy can be a great source for solving power crisis in Bangladesh. Bangladesh is situated between 20.30 and 26.38 degrees north latitude and 88.04 and 92.44 degrees east which is an ideal location for solar energy utilization [3]. At this position the amount of hours of sunlight each day throughout a year is shown in the following graph in the Figure-1 [4]. The highest and the lowest intensity of direct radiation in W/m^2 are also shown in the Figure-2 [4].

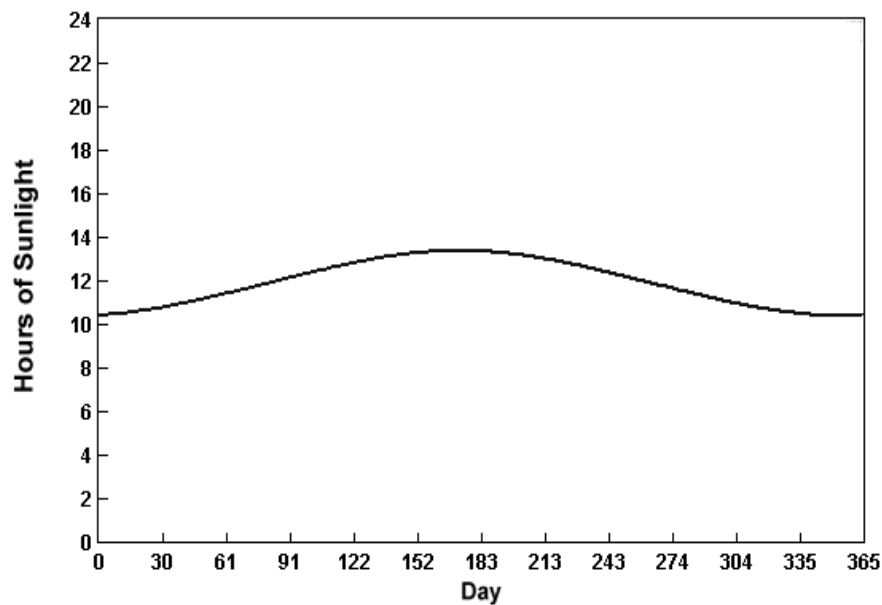


Fig.1. The amount of hours of sunlight in Bangladesh

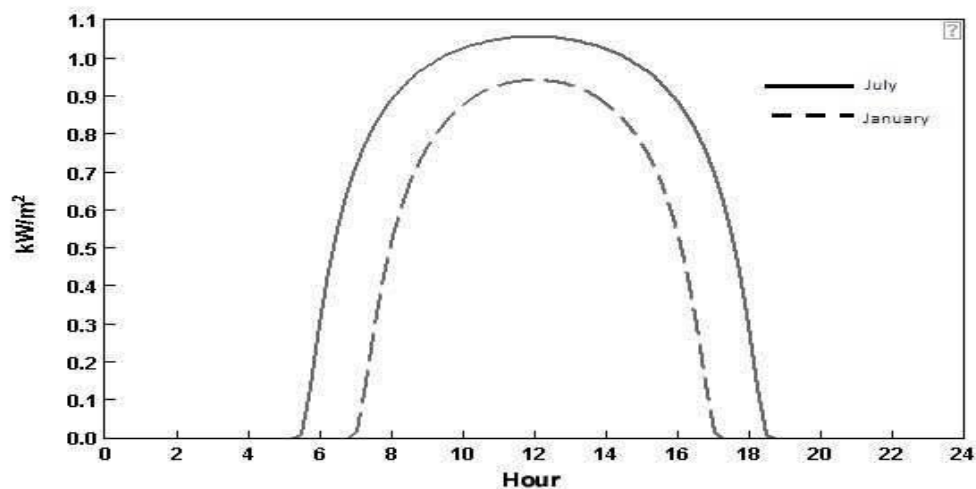


Figure 2: The highest and the lowest intensity of direct radiation in W/m^2

In a recent study conducted by Renewable Energy Research Centre, it is found that average solar radiation varies between 4 to 6.5 kWhm⁻² day⁻¹ and maximum amounts of radiation are available in the month of March-April and minimum in December-January [3]. So from the above figure and discussion we can say that there is a good prospect of harnessing solar power in Bangladesh because it is-

- readily available
- pollution free
- free source of energy in our country

Different Solar photovoltaic (PV) applications are gaining acceptance as a technology for electricity generation in remote and rural areas of the country, including-

- Solar Home Systems (SHS)
- Rural Market Electrification
- School Electrification
- Health Clinic / Hospital Electrification
- Cyclone Shelter Electrification
- Micro enterprise (grocery shops, tailoring shops, clinics, restaurants, sawmills, rice mills, cellular phone services, barber shops) Electrification
- ICT Training Centre Electrification
- Water Pumping
- Signaling
- Remote Telecommunication
- Remote Rainfall Measuring Station

Biomass Energy:

Bangladesh is densely populated country. Large proportions of rural and urban poor traditionally harvest; fire wood, Vegetation, animal excreta and agricultural residues for domestic cooking. These methods proved to be unsustainable as fire woods contributed to higher levels of deforestation. Population explosion and to meet related energy demands, deforestation level is higher than forestation efforts which is resulting environmental degradation. Uses of fire wood increases at rate of 2% annually. The high cost of petroleum products, low coverage of the electricity grid, gasification and increasing scarcity of traditional fuel woods due to deforestation created an energy deficit situation in rural Bangladesh. Environmental experts predicted massive deforestation if crisis is not being met from alternative source. Country like Bangladesh, making people renewable way meeting energy demands, considerably Biogas technology is cheaper option. More than

73% of total final energy consumption was met by different type of biomass fuels.

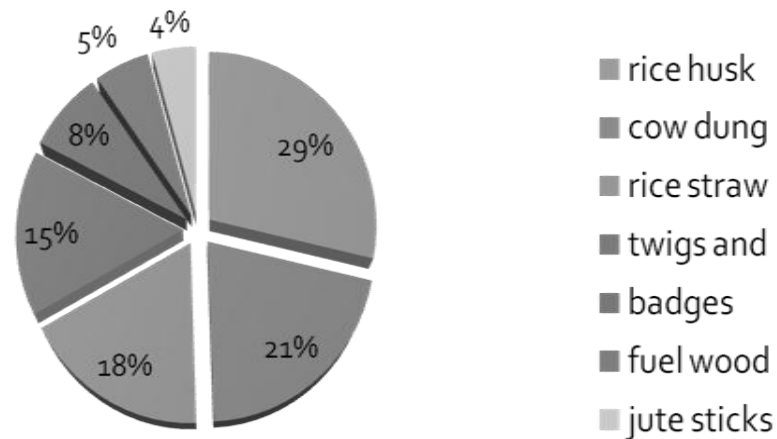


Fig: Biomass resources present in Bangladesh [5]

Sustainable Biomass energy has the positive impact on environment such as:

- Reduce higher level of deforestation.
- Reduce net greenhouse gas emissions.
- Improve air quality and reduce acid deposition
- Improve soil quality and reduce erosions.
- Reduce land filling by adding value to residues.
- Reduce agricultural chemical runoff.
- Improve sanitation condition.
- Improve habitat for native wildlife and improve biodiversity.
- Outlining sustainable land use and improved air quality.
- Improved habitat for wildlife and reduced use of fertilizers and insecticides compared with lands used for row crops, protection of riparian areas, and erosion protection for sensitive land areas.

Reduction of Greenhouse Gases from biomass power takes place because the carbon dioxide released during combustion is absorbed by the plants as they grow. Biomass could play a role in reducing CO₂ emissions in both of these sectors.

Technologies for Biomass Energy in Bangladesh are:

1. Improved Cook Stove (ICS)
2. Boiler operation for parboiling
3. Briquette fuel
4. Electricity generation
5. Cooking and heating

There are some projects of renewable energy in Bangladesh as mention below [9]:

Projects by Governmental Organizations –

- Biogas Pilot Plant Project by IFRD (20,000 plants within 2004)
- Biogas Project by LGED (1,200 plants)
- Chittagong Hill Tracks Solar Electrification Project by BPBD
- Diffusion of Renewable Energy Technologies Project by REB
- Feasibility Study & R&D on Renewable Energies by IFR

Projects by the Private Sector/NGOs-

- RET Programs by Grameen Shakti (10,000 SHS)
- Dissemination Program by CMES (Rural Market Electrification)
- Renewable Energy Program by BRAC

Projects by Educational Institutions-

- Dissemination of RETs by Renewable Energy Research Centre
- RET Program of Centre for Energy Studies (CES), BUET

Projects by Bilateral and Multilateral Development Partners-

- Sustainable Rural Energy (SRE) Project by UNDP
- Renewable Energy Technologies in Asia (RETs in Asia) Program by SIDA
- Opportunity For Women In Renewable Energy Technology
- Utilization In Bangladesh Project by ESMAP (35 Women ESCO)
- BUET- Loughborough University Higher Education Link Project by DFID
- Solar and Wind Energy Resource Assessment (SWERA) Project by GEF/UNEP
- Promotion of Renewable Energy, Energy Efficiency and Greenhouse Gas Abatement (PREGA) Project by ADB
- Rural Electrification and Renewable Energy Development Project (REREDP) by World Bank/GEF, conducted by IDCOL
- Promotion of Renewable Energy in Selected Rural Areas of Bangladesh by GTZ

Profile of the Study Villages

General Information

The study was conducted in six villages which are located in five different upazila of Chandpur, Khagrachori, Bramanbaria and Comilla district. Among the societies of CVDP from BARD: two villages namely Dhamra and Matiranga, and under Grameen Shakti and RIB programs: Gopal pur, Lokkhipur villages were selected. On the other

hand Kashinathpur and Jogotpur were selected under BRAC and LGED program.

The Households and Respondents Socio Economic Characteristics

The total number of households in the study villages was 1, 656. These household had a total of 8478 members with an average family size of 5.12 persons. Villagers live on multi type of occupation. Of the total household 31% lived on agriculture. The rest household heads were engaged in trade, service and rickshaw pulling.

Findings and Discussion on Renewable energy use in studied villages

BARD program

Bangladesh Academy for Rural Development (BARD) has made an effort for rural development endeavor under village based cooperative organization through Comprehensive Village Development Programme (CVDP). Now it is a national project of the Bangladesh Government. The CVDP believes in individual's entrepreneurship in one hand and inclusiveness of villagers on the other, motivate the members for own initiative development through training and capability improvement. Therefore, CVDP provides training on various fields such as leadership, trade based skill training, eco sanitation, agricultural development and income generation through entrepreneurship development. On the other hand CVDP arranges technical training for the youth members of the society and giving training on electrical, plumbing, refrigeration, tailoring and solar installation training. Data reveals that in CVDP project villages of BARD, out of the total household 51% lived on agriculture. The rest 30% household heads were engaged in trade, service and rickshaw pulling. The rest households of 19% people engage with petty business. In the study village, 72% people are literate because of project initiatives and better school facilities. The village society's member under CVDP program revealed that 55% respondents of Dhamra and Matiranga village got training on electrical and solar installation and management from the Technical Training Centre (TTC) of Comilla. It was observed that trained rural people utilize the acquired knowledge to be self employed in their respective fields. It was observed that out of the total people of the studied village, 70% use solar PV system in maintaining light, fan, television, charging of electronic devices etc. Again the trained member of CVDP program gives expertise in repairing and maintenance support to the solar PV using families according to their

needs. Again solar PV powered Street light has been installed in Khagrachori district.

Grameen Shakti and RIB program

Data reveals that under Grameen Shakti and RIB project villages, among the respondents, 68% people are literate and majority mainly depend on agriculture. The rest households of 20% people work in abroad and engage with petty business. Data revealed that 80% people have the electricity facilities from the RIB and other 20% people depends on own initiatives such as installation of solar PV system, using kerosene, charge light, candles etc. The people who use solar PV system, collects solar panel from the Grameen Shakti through 2-3 years duration credit facilities following monthly repayment of loan amount on the installment basis. Moreover it was found that solar market electrification of shop and health centre improved uses of CFL lamp, OT lamp, refrigerator, TV etc. In case of Bio energy uses by the rural people, it is found that 60% respondents depend on traditional cooking system and applies chemical fertilization in the agricultural works. The rest of the 40% respondents use bio sources such as wood, rice husk, agricultural residues and food waste for the regular cooking work.

LGED Program

Local Government Engineering Department, a government motivated village development organization has been involved in dissemination of biogas technology since 1985 and has been able to demonstrate its usefulness at more than thousand sites in different parts of the country. At present Bangladesh meet 46.15% of its energy need by agricultural residue, 10.5 % by fuel wood and 33% by tree residue. Biogas will reduce energy deficit 15 %. Biogas is a proven technology; there is no risk of failure if proper design and supervision can be ensured. Most of the commercial banks are now convinced and took decision to provide loan for the construction of Biogas plants. Most of the urban poor can not afford gas connection as it costs Tk. 200 to Tk. 400 per month. Instead they can install Biogas plants with bank loan and repay the loan out of their fuel savings' domestic' size Biogas plant of 100 cft capacity cost Tk. 15,000 to Tk.18, 000 and can meet the cooking energy need for a five- member family. Large scale bio energy development in Bangladesh could bring significant environmental benefits.

LGED has constructed 61 Biogas plants in different rural villages, educational institutes, orphanages, hospitals, school/college hostels for solving the sanitation problems and getting biogas as an alternative energy source. Data reveals that studied Jogotpur village of Burichang

Upazilla constructed a low cost biogas plant three years back which served the purpose of septic tank as well as a source of gas and fertilizer. Now villagers are aware about environment and technology, create clear, healthy and acceptable environment in the villages and inspire the people around the villages to accept such project.

BRAC Program

Data reveals that under BRAC project villages, among the respondents, 69% people are literate and majority mainly depends on agriculture and shop keeping. Previously BRAC conducted an action research project on rural electrification by biogas generation called Project Emergence during 2004-2009. The project plans to establish mini power plants (MPP) in rural villages of Comilla district, each of which will be owned and operated by two borrowers in a micro credit programme. Data reveals that under the studied Kashinathpur village of BRAC don't have specific project of biogas plant to produce electricity, fertilizer, and heat but recently they implementing training under wash project for environment friendly behavior, sanitation management and marketing of cow dung and fish feed. From the study of these villages under four different districts, it can be concluded that renewable energy has different positive impacts on livelihood development, changes in rural life styles by creating employment opportunities, energy security, cost reduction and environmental benefits. Again it has found that respondents face some disadvantages of using solar and bio energy which is given below:

Table-1: Opinion of the respondents about Advantages and isadvantages of Biomass energy, 2014:

Advantages of Biomass Energy	N=120 (%)	Disadvantages of Biomass Energy	N=120 (%)
easy uses of renewable fuel	90 (75%)	a large area of land is required for the production of fuel	58 (48%)
can contribute to climate change mitigation	85 (71%)	requires more fertilizer for crops	44 (36%)
secure and diverse energy supply and economic development	88 (74%)	burning of biomass may create pollution	63 (52%)
opportunities for rural development and agricultural growth	80 (67%)	a reduction in food or feed production may occur if existing lands are used to produce bioenergy feedstock	34 (28%)

Source: Field survey, 2014

Table-2: Opinion of the respondents about Advantages and Disadvantages of Solar energy, 2014:

Advantages	N=120 (%)	Disadvantages	N=120 (%)
solar energy is sustainable and non-polluting	92 (76%)	requires large space	85 (71%)
solar thermal and PV technologies do not generate any types of solid, liquid or gaseous by-products when producing electricity	70 (58%)	may also require substantial amount of cooling water	35 (29%)
solar energy can bring in significant benefits for rural people in replacing indoor polluting kerosene lamps and inefficient cook stoves	92 (76%)	solar energy is variable and unpredictable	87 (73%)
increased indoor reading, reduce time gathering firewood for cooking	90 (75%)	solar electricity could be expensive	95 (79%)
street lighting for security, improved health by providing refrigeration for vaccines and food products and media communications	68 (56%)		
-solar PV has job-generating potential	74 (62%)		

Table-3: Opinion of the respondents about renewable energy issues, 2014

The opinion about renewable energy of the respondents as well as changes of attitudes related with the project were assessed. However, the following table furnishes the opinion of the project beneficiaries in the study villages.

Issues	CVDP	Grameen Shakti	RIB	LGED	BRAC
	Number (%)	Number (%)	Number (%)	Number (%)	Number (%)
a) Satisfactory use of electricity through solar PV system	15 (75%)	7 (38%)	17 (85%)	null	null
b) Practical use of Biomass energy	9 (45%)	2 (10%)	2 (10%)	16 (82%)	10 (54%)
c) Group formation, weekly meeting, share saving, credit increase their standard of living	17 (85%)	8 (40%)	5 (25%)	4 (20%)	15 (81%)
d) training for increasing their income and economic solvency	10 (54%)	12 (60)	08 (40)	3 (15%)	8 (40%)
c) Aware about eco friendly environment and climate change	7 (38%)	2 (10%)	2 (10%)	9 (45%)	6 (30%)
f) Improve their ability to practice solar power and Biomass energy	14 (70%)	13 (65%)	8 (40%)	9 (45%)	6 (30%)

Source: Field survey, 2014

Opportunities and Barriers associated with the RE Project:

Renewable energy is slowly finding a niche market in Bangladesh. Although it is economically viable for several applications, renewable energy has not been able to realize its potential due to some barriers to its penetration.

RE Type	Key Risk Issues	Barrier penetration
Solar PV System	<ul style="list-style-type: none"> • High initial cost • Dependence on weather • Component Breakdowns (e.g. Short circuits) • Maintenance cost • Theft • Third party dependency • Ownership Rights risk 	<ul style="list-style-type: none"> • Raising people awareness • Publicity and advertisement • Installation • Training of operation and maintenance • Sun light readily available and pollution free • free source of energy in our country
Biomass Power	<ul style="list-style-type: none"> • Fuel supply availability • Environment liabilities • Unavailability of necessary information • Lack of operation and maintenance technology • Human resource barriers 	<ul style="list-style-type: none"> • Transport of biomass fuel • Raising people awareness • Publicity and advertisement • Installation • Training of operation and maintenance • Eco friendly nature

Conclusion and Recommendations

Renewable technologies are clean sources of energy and provide an opportunity for mitigation of climate change (global warming), and reducing greenhouse emissions. Electricity generation from RE sources can play an important role to enhance reliability and efficiency of the power system (i.e. energy security- availability, reliability and affordability of energy supply). Though renewable energy is slowly finding a niche market in Bangladesh, at present electricity generation from renewable sources is becoming an essential part in rural areas of Bangladesh. On the basis of findings, it is recommended that people's participation and awareness regarding renewable energy consumption and initiatives should be developed, providing more training and low cost support service, innovation and expansion of durable technology, efficient operation and maintenance skill as well as availability of necessary equipments and technology should be strengthened for sustainable development in Bangladesh.

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17 Dams and Development: The Kaptai Hydro Electricity Project Revisited

Mahfuzul Haque

Introduction

Dams have been built for thousands of years to manage flood waters, to harness water as hydropower, to supply water to drink or for industry, or to irrigate fields. As populations increased and national economies grew, more dams are being commissioned. America's pioneering giant, multipurpose dams in the 20th century received instant attention throughout the world. The result was a dam-building boom of epic proportions on virtually every major river of the planet. Beside generation of hydro-electricity, large dams have been providing irrigation for increased food production; power for industrial factories; drinking water supply; sanitation services; illumination for large metropolis; and betterment of people's life and society. US President Herbert Hoover (after whom, Hoover Dam was commissioned in 1936) proclaimed that "every drop of water that runs to the sea without yielding its full commercial returns to the nation is an economic waste"¹. This view was also shared by many other world leaders. The Indian Prime Minister Nehru compared dam project to "the new temple of resurgent India" and Egyptian President Nasser compared Aswan Dam to a pyramid.² Although, Egypt's Aswan High Dam was described as a "modern engineering wonder fulfilling a vital need of the country's increasing population", it was perceived by others, the environmentalists and sociologists as a "disaster reflecting a classic case of ecological ignorance and shortsightedness".³ However, completion of the 2080 MW Hoover Dam on the Colorado river in 1935 was a significant moment in the history of dam building in the US.

¹ See, Sajjadur Rasheed, K.B., 2011, *Water Resources Management with examples from Bangladesh*, AHDPH, Dhaka, p.62. In a separate chapter on "Water Development", the author gave the definition of hydropower, described multiple benefits and multipurpose use of dams, raised issues related to social and environmental effects of large dams and brought to the fore the dams debate.

² *Op. cit.*, p62.

³ See, Hussein M. Fahim, 1981, *Dams, People and Development: The Aswan High Dam Case*, Pergamon Press, New York.

By mid-twentieth century, at least 45,000 large dams have been built as a response to meet energy or water need. Today, nearly half of the world's rivers have at least one large dam. In fact, dams have made an important and significant contribution to human development, and the benefits derived from them have been considerable. In too many cases, an unacceptable and often unnecessary price has been paid to secure those benefits, especially in social and environmental terms, by people displaced, by communities downstream, by taxpayers and by the natural environment. Lack of equity in the distribution of benefits has called into question the value of many dams in meeting water and energy development needs when compared with the alternatives. Large dams have fragmented and transformed the world's rivers, while global estimates suggest 40-80 million people have been displaced by reservoirs.⁴

According to the International Commission on Large Dams (ICOLD), a large dam is 15 m (49.2 ft) or more high from the foundation. If dams are between 5-15 m high and have a reservoir volume of more than 3 million cubic meter of water, they are also classified as large dams.⁵ Using this definition, there are more than 45,000 large dams around the world. Considering the world population of dams, China topped the list having 22,000 (45%); followed by USA with 6,575 (14%); India 4,291 (9%); Japan 2,675 (6%); and Spain 1,196 (3%). The top five dam-building countries account for more than three-quarters of all large dams worldwide. Dams generally serve the purpose of retaining water aiming at a) power generation; b) flood control; c) irrigation; d) supply water for drink/industry; and e) riverine communication. Dams help regional development, job creation and so on.⁶

⁴ See, Tortajada, Cecilia, *et.al.*, 2012, *Impacts of Large Dams: A Global Assessment*, Springer, Heidelberg; and Nusser, Marcus, ed., 2014, *Large Dams in Asia, Contested Environments between Technological Hydroscapes and Social Resistance*, Springer, Dordrecht Heidelberg New York London.

⁵ Definition of large dam is given in The World Commission on Dams, 2000, *Dams and Development: A New Framework for decision-Making*, The Report of the World Commission on Dams, An Overview, Earthscan Publications Ltd, London, UK., P.4. Visit, www.dams.org.

⁶ For a discourse on dams, dikes and development, see, Duivendijk, Hans van *et.al.*eds, 2002, *Dams and Dikes in Development*, Proceedings of the Symposium at the Occasion of the World Water Day, 22 March, 2001, A.A. Balkema Publishers, Lisse, Abington, Exton (PA), Tokyo.

World Commission on Dams (WCD) in its report *Dams and Development: A New Framework for Decision-Making* (November 2000) has elaborated adverse impacts of large dams on the environment and ecosystems.⁷ Large dams have led to the loss of forests and wildlife habitat, the loss of species population and degradation of upstream catchment areas due to inundation of the reservoir area; the loss of aquatic biodiversity of upstream and downstream fisheries, and of the services of downstream floodplains, wetlands, and riverine, estuarine and adjacent marine ecosystems; and cumulative impacts on water quality, natural flooding and species composition where a number of dams are sited on the same river. Reservoirs were found to emit greenhouse gases due to the rotting of vegetation and carbon inflows from the catchment.

Impacts of large dams on ecosystems, biodiversity and downstream livelihoods are more negative than positive. They have caused significant and irreversible loss of species and ecosystems. Other effects are a) loss of forests and wildlife habitats; b) loss of aquatic biodiversity of upstream and downstream fisheries; c) adverse impacts on water quality, natural flooding and species composition; d) displacement of people. Some 40-80 million people have been physically displaced so far worldwide due to construction of hydro-projects. There are tragic stories of forcible eviction from historic homelands and concentration in crowded resettlement camps.⁸

Indigenous Peoples and Dams

Large dams have had serious impacts on the lives, livelihoods, cultures and spiritual existence of indigenous and tribal peoples. Special needs and vulnerabilities of indigenous and tribal peoples were not addressed. For indigenous peoples and ethnic minorities, dam-induced displacement can trigger a spiral of events and spreads beyond the submerged area. A case in point is the situation of 100,000 Chakma people displaced by Kaptai hydropower dam in the Chittagong Hill Tracts, Bangladesh. The Chakmas have never gained citizenship for themselves or for their children in India. Conflict triggered by land

⁷ See, The World Commission on Dams, 2000, *Dams and Development: A New Framework for decision-Making*, *Op.Cit.*

⁸ See, Isaacman, Allen F. and Isaacman Barbara S., 2013, *Dams, Displacement, and the Delusion of Development, CahoraBassa and Its Legacies in Mozambique, 1965-2007*, (New African Histories), Ohio University Press, Athens, Ohio.

shortage due to Kaptai inundation resulted in protracted guerrilla warfare claiming around 10,000 since commissioning of the dam in 1962⁹. The indigenous peoples in central India have been waging a prolonged agitation over a series of irrigation and hydro-projects (30 major, 135 medium and 3000 minor) over the *Narmada River* that have displaced huge population and caused siltation and invited floods and landslides.¹⁰

The World Commission on Dams revealed that indigenous and tribal peoples have suffered disproportionately from the negative impacts of large dams, while often being excluded in sharing the benefits. Many international lending agencies have developed project guidelines on Indigenous peoples addressing issues like displacement of population, resettlement, livelihood security and restoration of cultural heritage. The “World Bank’s Resettlement Policy” mentioned that the Bank would only support operations that involve the displacement of indigenous communities or other low income ethnic communities, if it could ascertain that a) the resettlement component will result in direct benefits to the affected community relative to their prior situation; b) customary rights of the affected communities will be fully recognized and fairly compensated; c) compensation options will include land-based settlement; and d) the affected people have given their informed consent to the resettlement and compensation measures.

Upstream and Downstream Livelihoods

A dam adversely affects not only upstream but also downstream population. On the upstream, due to creation of water reservoir by inundation, people are displaced requiring resettlement and

⁹ See, Haque, M., 1997, *Ethnic Insurgency and National Integration: A Study of Selected Ethnic Problems in South Asia*, Lancer Books, India, pp.79-80; and Haque, M, 2008, *Trekking the Tracts: Livelihood Security of the Indigenous Peoples in the Chittagong Hill Tracts*, BARCIK, Dhaka, p.29.

¹⁰ For a description on the Narmada Valley hydro-projects, see, Bahadur, Jagdish, 1998, *Tehri Hydro-Electric Project, Narmada Valley Project, Environmental Hotspots*, VigyanPrasar, New Delhi, India, Prologue. Also see, Baviskar, Amita, 1995, *In the Belly of the River, Tribal Conflicts over Development in the Narmada Valley*, Oxford University Press, New Delhi, India; Roy, Arundhati, 1999, *The Greater Common Good*, India Book Distributers (Bombay) Ltd.; Leslie, Jacques, 2005, *Deep Water: The Epic Struggle Over Dams, Displaced People, and the Environment*, Farrar, Straus and Giroux, New York; and Khagram, Sanjeev, 2004, *Dams and Development: Transnational Struggles for Water and Power*, Cornell University press, Ithaca and London.

compensation; forest and aquatic biodiversity depleted; wildlife affected; fish habitat lost; archaeological sites submerged and so on. Downstream people are no less affected. The once flowing river gets dried, river transportation disrupted, indigenous variety of fishes disappeared, riverbanks occupied by agricultural practices and the whole downstream population live under the shadow of a dam failure due to breach.

Downstream impacts can extend for many hundreds of kilometers and well beyond the boundary of the river channel. People are impacted generally after completion and functioning of the project. In general, downstream riverine communities have less social, economic and political power to seek mitigation. At many places, the changed hydrological regime of rivers has adversely affected floodplains that supported local livelihoods through flood recession agriculture, fishing herding and gathering floodplain forest products. The disruption of downstream economies can create uncertainty in livelihoods leading to migration to towns and embrace impoverishment.

Downstream impacts are disruption of water and sediment flow; reduction of biodiversity, suffering of communities increase due to poor water quality; lowering of crop production and decrease fisheries. Dam blocks fish migration; disrupts water and sediment flow; and aging structures pose safety hazards. Reservoir displaces communities; floods and fragments ecosystems; increases waterborne diseases; and triggers earthquakes. Due to rotting vegetation, greenhouse gases are released contributing to global warming, more than that generated from thermal power plant.

Key Indicators of Dams

From an environmental point of view, there are good dams and bad dams. The amount of possible environmental damage from a proposed project is largely determined by the dam sites. “World Bank Guidelines on Large Dams” suggested 13 quantitative easily calculated indicators useful for hydro project site selection from environmental standpoint¹¹. These indicators have high predictive value for likely adverse environmental and social impacts. Indicators are as follows:

¹¹ For key indicators of likely environmental impacts, see, The World Bank, 2003, *Good Dams and Bad Dams: Environmental Criteria for Site Selection of Hydroelectric Projects*, Latin America and Caribbean Region Sustainable Development Working Paper 16, pp.9-14.

- a. **Reservoir Surface Area:** Size of the area flooded by the reservoir is an important variable to evaluate environmental and social impacts. A large reservoir area implies the loss of much natural habitat and wildlife and displacement of people. Large reservoirs are typically in the lowlands and usually occupy larger rivers with more fish and other aquatic species at risk. A very useful measure of environmental costs relative to economic benefits is the ratio of inundated hectare per megawatt (ha/MW) of electricity. The global average of all large hydroelectric dams constructed to date is about 60 ha/MW. It would be environmentally highly desirable for this average to be much reduced in future hydro projects. For Kaptai (Bangladesh), the lone hydro-project, this ratio is 235ha/MW, meaning 650 sqkms of land inundated to generate 230 MW of electricity, to be considered as bad dam.
- b. **Water Retention time in Reservoir:** Mean water retention time during normal operation (the shorter, the better) is very useful in estimating the extent to which reservoirs will have long-term water quality problems. This figure (number of days) is calculated as a function of reservoir volume (cubic meters) and mean river flow (cubic litres/second). For Kaptai (Bangladesh), the reservoir volume is 5,00,000 cubic meters and water is retained round the year at 76 ft MSL (min) on 1 June and 109 ft MSL (Max) on 1 November. The longer time of water retention would affect more the quality of water.
- c. **Flooding of Biomass:** For good reservoir water quality, dams should minimize flooding of forests (which have biomass content). Flooding native forests also threatens biodiversity and releases greenhouse gases. Biomass flooded is calculated in tons per hectare based on the percent cover of different vegetation types in the reservoir area. Kaptai inundated a large tract of forest area in the south-eastern hills of Bangladesh.
- d. **Length of River Occupied:** Dam sites should minimize the length (km) of upstream river occupied by the reservoir (measured during high flow period) in order to conserve aquatic and riparian biodiversity. Ideally, hilly rivers with gorges would allow less area of the river for creation of the reservoir. For Kaptai, Bangladesh, a large area (80,000 acre of shallow land) of upstream river Karnaphuli has been occupied turning it into a bad dam.

- e. Length of River Left Dry: The length of the dried up river bed below the dam should be minimized. It would have less adverse effects on fisheries, aquatic life, ecosystems, human water supply and agriculture downstream. This measures the kilometers of river left dry.
- f. Number of Downriver Tributaries: The more tributaries downriver of the dam site, the better in terms of maintaining accessible habitat for migratory fish, the natural flooding regime for riverine ecosystems and nutrient needed for rich biodiversity of estuaries.
- g. Reservoir Life: Useful reservoir life is the expected number of years required to fill up the reservoir's dead storage to that extent that any further sedimentation would reduce the live storage and curtail power generation. Dead storage comprises all reservoir water beneath the level of the intakes for the dam's turbines.
- h. Persons Requiring Resettlement: Dam sites should generally seek to minimize the number of individuals or households requiring resettlement from land affected by the reservoir and complimentary civil work. It is especially important to minimize the number of people seeking resettlement and quantified as people displaced/MW. For example, the ratio is as low as 0/MW (Pehuenche, Chile); 1/MW (Fortuna, Panama); AND 2/MW (Arun II, Nepal). These are good dams as per the definition. On the other hand, there are dams with high ratio as 71/MW (Three Georges, China); 214/MW (Victoria, Sri Lanka); 1000/MW (Kedung Ombo, Indonesia). These are bad dams. For Kaptai (Bangladesh) this ratio is 435/MW, meaning 100,000 people displaced to produce only 230 MW of electricity, which may also be considered as a bad dam.
- i. Loss of Natural Habitat: Hectares of critical natural habitats that would be lost due to inundation and other project components need to be examined. World Bank's Natural Habitat Policy for hydro-electricity projects ensured no significant loss or degradation of critical natural habitats.
- j. Loss of Fish Species Diversity: Fish species diversity in the dam, reservoir and downstream zone need to be looked into. Generally, lowland rivers in warm (tropical or sub-tropical) climate have a high diversity of native fish and other aquatic organisms, while small rivers in cold (tropical highland or temperate) climate have relatively low diversity. Large, lowland rivers are also more likely

to have significant seasonal fish migrations, which are blocked by many dams.

- k. Loss of Cultural property: An indication of the cultural significance of the area to be inundated is the number of cultural objects (archaeological, historical, paleontological, or religious) or sites to be affected. Such cultural property at the project site to be salvaged.

Dam Failure

Hundreds of dam failures have occurred throughout U.S. history. These failures have caused immense property and environmental damages and have taken thousands of lives. As the nation's dams age and population increases, the potential for deadly dam failures grows. No one knows precisely how many dam failures have occurred in the U.S., but they have been documented in every state. From Jan. 1, 2005 through June 2013, state dam safety programs reported 173 dam failures and 587 "incidents" - episodes that, without intervention, would likely have resulted in dam failure.

In 1975 the failure of the Banqiao Reservoir Dam and other dams in Henan Province, China caused more casualties than any other dam failure in history. The disaster killed an estimated 171,000 people and 11 million people lost their homes. In 2012 a dam in northern state of Rio de Janeiro, Brazil failed forcing thousands of people from homes.

Overtopping of a dam, is often a precursor of dam failure. National statistics show that overtopping due to inadequate spillway design, debris blockage of spillways, or settlement of the dam crest account for approximately 34% of all U.S. dam failures. Foundation defects, including settlement and slope instability, cause about 30% of all dam failures. Another 20% of U.S. dam failures have been caused by piping (internal erosion caused by seepage). Seepage often occurs around hydraulic structures, such as pipes and spillways; through animal burrows; around roots of woody vegetation; and through cracks in dams, dam appurtenances, and dam foundations.¹² There is a growing

¹² Visit Association of State Dam Safety Officials (info@damsafety.org); and Wikipedia on "Dam Failure". The ASDSO (Association of State Dam Safety Officials) Dam Failures & Incidents Committee (DFIC) in the US has a mission to assist the states to improve the practice of investigating/learning from dam failures and incidents.

trend among the hydropower engineers for undertaking measures on dam safety.¹³

Myths about Dams

There are myths surrounding a hydro dam. It is said that hydropower is the cheapest, clean and environment-friendly. The argument regarding hydropower is cheap is a myth. It is cheap to produce hydroelectricity, once the dams are built. But dams are hugely expensive to build and their costs are usually far higher than estimated. The WCD found that on average dams end up costing 56 percent more to build than predicted. Climate change is expected to increase the frequency and severity of droughts, reducing hydropower production. When these factors are considered, hydropower is frequently a very costly form of power generation. There is another argument that hydropower is the cleanest. Hydropower dams cannot be considered a clean source of electricity because of their serious social and environmental impacts. In addition, reservoirs emit Methane gas (CH₄) gas- a potential GHG due to rotting of flooded vegetation, aquatic plants and organic matter flowing in from upstream. Emissions of carbon dioxide and methane are particularly high from reservoirs in the lowland tropics. In some cases, reservoirs may have a greater impact on global warming than similar-sized thermal power stations.

It is said that dams control flooding. Dams can stop regular annual floods but often fail to hold back large floods. Dams provide a false sense of security. When a large flood occurs, damages are devastating. Between 1960 and 1985, the US government spent \$38 billion on flood control, mostly on dams. It is further said that dams reduce hunger through agricultural practices. The benefits of large dam-and-canal irrigation schemes have been overstated. These schemes are invariably mismanaged and waste huge amounts of water. They frequently destroy huge tracts of formerly fertile lands through salinization and water logging. The construction of reservoirs and canals itself consumes large amounts of fertile land. Irrigation schemes are typically used to produce crops for agribusiness and export rather than for local consumption, as only large producers can afford to pay for the water.

It is said that hydropower is a green energy. Recent scientific data disclosed that methane emissions from big hydroelectric dams in the tropics outweigh the benefits that this form of renewable energy

¹³ See Bradlow, Daniel, D., 2002, *Regulatory Frameworks for Dam Safety: A Comparative Study* (Law, Justice and Development Series).

provides. Researchers at Brazil's National Institute for Space Research calculated that the world's largest dams emitted 104 million tons of methane annually and were responsible for 4 percent of the human contribution of GHGs to climate change¹⁴.

Alternatives to Hydropower

Viable alternatives to dams do exist, and are frequently more sustainable and cheaper. The most important alternative is to improve the efficiency of existing water supply and energy systems. This may involve reducing leaks in water pipes, retrofitting power plants and irrigation systems with modern equipment or reducing losses in power transmission lines. Another simple and economical option is to reduce the demand for water and energy. This can include recycling, shifting to less water-intensive crops and encouraging the use of more efficient electrical appliances. These options can diminish the need for new or existing sources of supply. When efforts to conserve resources and improve the efficiency of existing power plants are not enough to meet growing demand, renewable energy supply options should be considered. Renewable options include efficient and sustainable biomass, wind, solar, geothermal, and eventually ocean energy sources and fuel cells. Wind power is one of the fastest growing renewable energy options. The cost of wind power in good locations is now comparable to or cheaper than that of conventional sources.

Some estimate that 10 percent of the world's electricity could be supplied by wind power by the year 2020. Solar energy technologies are coming down in price and have huge long-term potential. Small-scale decentralized options have the biggest potential for supplying water and power to rural communities. Rainwater harvesting and micro-hydro dams are easier to implement cost less and have lower environmental impacts than large-scale infrastructure. The construction of small damsto impounds rainwater in India's desert state of Rajasthan hasrecharged groundwater supplies and increased food securityand incomes for hundreds of thousands of farming families. In some places, rubber dams are being used to generate hydropower, relatively smaller in size, which are manageable during onrush of flood water.

¹⁴ See, *International Rivers Features*, "Drowned Tropical Forests Exacerbate Climate Change", 11 September 2014; also see, "Methane Blow-Holes, Sign of Runaway Climate Change?" 2 August 2014; "Is Renewable Energy Really Green", *FORBES*, 24 September 2014; and "How Hydropower Contributes to Climate Change", *Ecowatch*, 29 October 2014.

Dam Decommissioning

Dams do not live forever. A dead or dying dam may have silted up, stopped producing electricity, or become increasingly unsafe, at a point, it may be a candidate for removal. Not only for safety reason, but also for decimation of fisheries, activists demand removal of dams. Although, dams have been found unsafe or destructive of fish habitat in many parts of the world, few major dams have yet been removed. The engineering of dam removal is still young and untested, and the cost of dam-removal is still ignored when construction costs are estimated.

Momentum is gaining ground to remove age-old dams found to be ineffective or prohibitive to run economically and to restore the rivers they impounded. Around the world, some 5,000 large dams are now more than 50 years old, and many more reaching their half century is increasing. The average age of dams in the US is now around 40 years. Over 450 dams have been removed in the US alone, with some of the largest being hydro dams.¹⁵ According to ICOLD's 1991 congress, "in the future, attention and activity (will) be more shifted from the design and construction of new dams to the restoration of the structural and operational safety of existing dams"¹⁶

Dam decommissioning has recently been forced into the agenda of an unwilling hydropower industry in the US. More than 500 of the 50-year license given by the US Federal Energy Regulatory Commission (FERC) to private hydro dam operators expire between 1989 and 2004. Sediment removal is a major consideration in dam removal. It was found that the cost of sediment removal in some cases was 181% of cost of building equivalent new hydroelectric power plants. Removal costs are typically 5 to 50% of construction costs. Let the river erode the accumulated sediments, works better. There is some evidence that hydro dam removals are getting costlier.¹⁷

¹⁵ Visit Association of State Dam Safety Officials (info@damsafety.org); and Wikipedia on "Dam Failure". The ASDSO (Association of State Dam Safety Officials) Dam Failures & Incidents Committee (DFIC) in the US has a mission to assist the states to improve the practice of investigating/learning from dam failures and incidents

¹⁶ McCully, P., 1996, *Silenced Rivers: The Ecology and Politics of Large Dams*, Zed Books, London, cited by International Commission on Large Dams.

¹⁷ United State Society on Dams (USSD) has established a "Committee on Dam Commissioning" to act as a forum where members and interested people can discuss issues related to decommissioning of dams and to prepare a "guidelines" for possible national use. Among the issues to be considered for

Revisiting the Kaptai Dam, Bangladesh

Kaptai Hydro electricity project commissioned in 1962 with a capacity to generate 230 MW of electricity/day is the lone hydro project in Bangladesh. A dam of 666 meters long and 43 meters high with 16 spillways over the river Karnaphuli inundated an area of 650 sq km covering 54,000 acres of plough land (40% of cultivable land) of the Chittagong Hill Tracts. The objectives of the project were to generate electricity; to provide irrigation and drainage; to ensure riverine communication; to cultivate fisheries; to ensure flood control; and to transport harvested forest resources. Around 100,000 (mostly *Chakma*) people were displaced by the reservoir. They were resettled in the inferior and infertile land in the north with poor or no compensation package. Local communities, particularly the indigenous communities were not consulted.

Presently, the project is suffering from decreased electricity production; decreased fisheries yield; navigation disrupted for 5 months; siltation of the lake causing flooding; flash floods disaster; and decreased fringe land cultivation. The country presently generates 5735 MW (Day Peak); 6676 MW (Evening Peak) against a growing demand of 6270 MW/day. PDB's official website says that the country-wide load shedding was only 202 MW (with 66 MW in Dhaka) on 20 August 2014¹⁸. Based on 7% GDP, anticipated peak demand would be 10,283 MW in 2015; 17,304 MW in 2020; and 25,199 MW in 2025.¹⁹ Even, Kaptai produces a full capacity of 230 MW/day it would hardly contribute 3% of the total generation of the country (20 August 2014). Question arises, how long we are to harness such a negligible quantity of hydro-electricity at what socio-economic and environmental costs?

Decommissioning of the Kaptai Dam?

If not today, may be not in too distant future, the policy makers of the country may decide to dismantle this age-old hydro dam (commissioned in 1962) having insignificant contribution to national economy in return of high socio-economic and environmental costs. This is the lone hydro project of the country, which saw exodus of

dam decommissioning, they have suggested that beside economic, environmental considerations are to be looked into. They have detailed out a "Dam Decommissioning Process". For details, visit www.usdams.org.

¹⁸ Ref: Bangladesh Power Development Board website (www.bpdb.gov.bd) as visited on 22 August 2014. Official site of BPDB is rather conservative in admitting on load shedding. Might be the issue of "system loss" due to unauthorized connections has not been accounted for.

¹⁹ See, Bangladesh Power Development Board, *Power System Master Plan (PSMP)-2010*. www.bpdb.org

100,000 people and the displaced people, mostly local indigenous community, were never compensated or rehabilitated with proper livelihood. Their displacement ignited the two decade-old insurgency, which took many lives and warranted stationing of Bangladesh Army at a high cost as of today. Attempts to rehabilitate the homeless, river-erosion affected non-hill people from the plains turned abortive.

A large area of 650 sqkms continued to remain inundated taxing on the available 40% of the scarce cultivable land of the area-may not be acceptable for long. Furthermore, a huge shallow area in Baghaichhari in the north kept water logged in order to allow regular water supply to run the turbines round the year. Meanwhile, the Kaptai Lake continued to get silted over the years and during winter, water recedes to a point threatening the project to shut down. Fisheries yield falling down, navigation gets disrupted five months a year, fringe land cultivation becoming difficult due to arbitrary maintenance of the faulty “Rule Curve” by the project officials.

Conclusion

Dams continue to attract the policy planners in the government for harnessing potential hydro power in order to meet increasing demand for energy, as it is environment-friendly and the cheapest source of energy. Considering the environmental and social impacts, large dams should be avoided. The key indicators are to be strictly followed in order to get benefits out of a dam. In every development efforts there are some damages. We may go for dams causing minimum damage to the environment. Again, the question comes, how much damage is acceptable? How much damage can offset the benefits? It's true that all dams are not bad. There are good dams as well as bad dams. Prior to undertaking of hydro-projects, our planners are to seriously examine the site selection criteria for such projects.

As we frequently encounter adverse effects of dams due to displacement of people and related compensation and resettlement, question arises, is it worth to go for such a project considering unacceptably high environmental damages? Both borrowers and lenders are to re-examine this question in the coming days. Against the backdrop of unacceptably high socio-environmental costs due to construction of hydro projects worldwide, it is high time that we explore other sources of energy, especially renewable energy like, biogas plants, solar energy, wind and wave energy as well as promote fossil fuels, like natural gas, which is environmentally more benign than petroleum or coal.

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