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Empowering Internally Displaced Persons (IDPs): A Case Study of
Sandwip (an Island of Bangladesh)

Iqbal Shailo

A Thesis

in

The Department

of

Geography, Planning and Environment

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**Dedicated to my father,
Late (*Marhum*) Al-haj Ali Ahmed Talukder
who is my inspiration for ever**

ABSTRACT

The study explores important public policy issues concerning the Internally Displaced Persons (IDPs) of Bangladesh. It discusses the causes of rapid growth of IDPs in Sandwip, an offshore island of Bangladesh situated in the bank of the Bay of Bengal, in particular and in Bangladesh in general. It looks at the devastation of their homelands and culture, the emotional consequences of their dislocation, and the plans to develop a restoration process. Estimates show that a total of 2,695,048 people in 51 districts of Bangladesh (total 64 districts) have been rendered homeless by river erosion over a period of five years from 1990 to 1994, and 550,207 acres of land has been swallowed by the rivers during the same period. The number of displaced populations is around 250,000 per year, and over 3.5 million people have been forced to lead the so-called floating life in Bangladesh.

In Bangladesh, there are different kinds of displacement, some people are uprooted by flooding, cyclone or tidal surges and some are uprooted for deforestation and increased salinity, and some are the victims of redistribution of land, urbanization and forms of industrialization. In other cases, some are displaced for religious and ethnic causes. This study examines international laws on IDPs established by the United Nations and other global agencies and how far they succeed in protecting the IDPs in nation states, especially in Bangladesh. The study concludes that the IDPs in Bangladesh are insecure because the state is either unable or unwilling to protect them. In a situation like this, IDPs fall into a vacuum of responsibility with and within the state of Bangladesh.

FOREWORDS

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Abbreviations:

ADB	Asian Development Bank
AI	Amnesty International
ARP	Agricultural Rehabilitation Programme
BBS	Bangladesh Bureau of Statistics
BCAS	Bangladesh Centre for Advanced Studies
BIDS	Bangladesh Institute of Development Studies
BSS	<i>Bangladesh Sangbad Sangstha</i>
BWDB	Bangladesh Water Development Board
CEP	Coastal Embankment Project
C. I. Sheets	Corrugated Iron Sheets
CSR	Corporate Social Responsibility
CPPIB	Cyclone Preparedness Program Implementation Board
CSDDWS	Committee for Speedy Dissemination of Disaster Related Warning/Signals
DMB	Disaster Management Bureau
DMTATF	Disaster management Training and Public Awareness Building Task Force
EIA	Environment Impact assessment
EOC	Emergency Operations Centre
EPZ	Export Processing Zone
FAO	Food and Agriculture Organization
HRAs	High Risk Areas
ICRC	International Committee of the Red Cross
IDPs	Internally Displaced Persons
IKS	Indigenous Knowledge System
IMDMCC	Inter-Ministerial Disaster management Co-Ordination Committee
IPCC	Inter-governmental Panel on Climate Change
LRP	Land Reclamation Project
LTTE	Liberation Tigers of Tamil Eelam
MDMR	Ministry of Disaster Management and Relief

MILF	Moro Islamic Liberation Front
NDMC	National Disaster Management Council
NDMAC	National Disaster Management Advisory Committee
NGOCC	NGO Coordination Committee on Disaster Management
NGOs	Non-government Organizations
OAU	Organization of African Unity
PRA	Participatory Rural Appraisal
PRG	Refugee Policy Group
PSU	Primary sampling Unit
SLR	Sea Level Rise
SEA	Strategic Environment Assessment
SPARRSO	Bangladesh Space Research and Remote Sensing Organization
TEK	Traditional; Ecological Knowledge
UNCHR	United Nations Commission on Human Rights
UNHCR	United Nations High Commissioner for Refugees
UDHR	Universal Declaration on Human Rights
UNO	United Nations Organizations

Acronyms and Bengali Terms

<i>Char</i>	New emerging land in the river
<i>Jotedars/Talukders</i>	Landlord
<i>Khas</i> land	Government owned land
Lakh	One hundred thousand
TK.	Currency of Bangladesh (Tk.50, 00 is equivalent to CAN \$ 1 dollar)
UNO	<i>Upazial Nirbahi</i> Office (Chief administrator of an Upazila)
Upazila	an administrative unit below the district and above the union
Union	a group of villages run by an elected chairperson by the votes of local people
<i>Killa</i>	Raised earthen platform used as shelter during the cyclones and tidal surges
<i>Mahajans</i>	Money-lender who impose exorbitant interest return on the poor
<i>Mahallas</i>	a group of houses
Division	a zonal administrative office with a group of districts

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CHAPTER ONE

INTRODUCTION

1.0 Introduction:

Although the notion of internally displaced persons is now widely used by the humanitarian agencies and policy makers, there remains a surprising lack of clarity about its precise meaning. There are proper definitions of ‘Refugees’ and ‘Migrant Workers’. The definition and meaning of refugees is well established in international law, but the term “IDPs” lacks a proper clarity and it needs an acceptable definition. The UNCHR says IDPs are a “very disparate and ill-defined group of people” (Chunkara: 1999). Due to the lack of the proper definition of IDPs, still their fates are vulnerable and they belong to a world of complexity.

The central focus of the study is to examine the experience of the population of Sandwip in respect of their suffering and damages they faced after their displacement and especially it explores that how do these populations cope with a situation that is unbearable and unpredictable and how do these displaced people carry forward their agonies and tragedies years together. The study also explores important public policy issues concerning the Internally Displaced Populations (IDPs) on the island of Sandwip in particular and Bangladesh in general. It discusses the causes of rapid growth of IDPs in Bangladesh, the devastation of their homelands and culture, the emotional consequences of their dislocation, and the plans to develop a restoration process. The study emphasizes that over-eagerness to promote international involvement may in other ways dilute the notion of state responsibility. Rebuilding the state’s capacity by adopting various measures is also considered as an essential process toward safeguarding the IDPs. The very notion of this process of building up the state’s responsibility by making the state or

government or other actors agree on certain principles is the first step and secondly, making them act in a way that is conducive to prevention and resolution of internal problems.

The research further looks at the national law on IDPs established by the United Nations and how far do they work to protect the IDPs in nation states, especially in Bangladesh. IDP policies cannot be equated with refugee policies, and policies towards IDPs can not be equated with war victims. The study focuses on both the causes and effects of population movement on Sandwip, an offshore island of Bangladesh situated in the bank of the Bay of Bengal. IDPs of Sandwip need economic stability and social cohesion in the affected areas which includes a consideration of the capacity building aspects and a rapid action plans for their socio-economic development. A weakened economy leads to communal misunderstandings and a breakdown in law and order. Thus issues of impoverishment are also associated with the security question and it will stop a vicious cycle forcing millions of people to leave their homeland.

1.1 Methodology: An overview

This study deals with nature-triggered disasters, experiences of the displaced people, issues of displacement, disaster preparedness and rehabilitation issues and empowerment of the displaced people. My approach addresses the practical needs of determining where and what type of interventions are required. I feel that natural disasters, their intensity and impacts and the effectiveness of measures and strategies are related both to the nature of geophysical events and the social structure. The impacts of these natural phenomenon become hazardous mainly in terms of the following reasons: i) recurring and random natural events of dispersal; ii) direct loss of wealth and property; iii) “indirect loss through deprivation of disaster victims from social entitlements”; and

iv) psychological and emotional stresses and agonies. This empirical research of Sandwip needs some explanatory variables to assess the coping response behaviour in the study area. They are as follows: i) personal encounter and experience of disaster, ii) attitude towards nature and landscape where river erosion, tidal surge and flooding occur every year; iii) attachment to place and area; iv) familiar with the culture and rituals of the society; v) familiar with hazardousness and disaster; and vi) working with the people in the pre-disastrous period. I will examine these variables not only in terms of an individuals' unique attributes—as put forward by the behavioural-ecological approaches to hazard studies—but also in terms of their relation to larger social characteristics; in other words, encompassing how these explanatory variables are socially constructed (Haque, 1997). And how these natural havocs are becoming a part of their every day life and how theses experience can give a good input to the study of displacement.

The study demonstrates that over the last decade there has been a steady evolution of the concept of population displacement as an increasing number of authors have attempted to describe and define the whole issue. However, much of the research on IDPs remains unfinished, dealing with phenomena that have yet to occur. Many researchers, for example, believe that the term should be defined so that large international organizations and aid agencies could accept “Internally Displaced Persons” as legitimate refugees. My focus is to seek a way how to evaluate the experiences of the displaced people in my study to put forward some proposals in line with the areas of protection and rehabilitation of the displaced population in Sandwip.

My study facilitates some future guidelines and policies on the issue at national and regional levels so that it would receive priority by global humanitarian actors.

Finally, the study is a reminder that geography itself can address the complex power structures that limit the rights of the people and their free will to movement.

1.2 Experiences and Reflections

I have chosen a specific case study in order to examine the broad aspects of the displaced populations in Bangladesh—their situation after displacement, their personal and collective experience about displacement, and rehabilitation and resettlement processes for the victims. During the cyclone of 1991, that engulfed the coastal belt of Bangladesh killing more than 200,000 people in the coastal area, I was deployed in Sandwip to coordinate the activities of NGOs working in the off shore islands. Being an NGO executive, my main task was to fly the coastal areas along with the US task force to guide the local, national and international NGOs working in the affected areas and to avoid overlapping in the relief and rescue operations. At that time hundreds and thousands of US force were stationed in the Gulf (during the Iraq-Kuwait war) and one battalion of the marine force came to help the flood-affected people of Bangladesh and joined the rescue operation and rehabilitation programs.

I have seen the aftermaths of the disaster in 1991 and the crises, cries and catastrophes of the people.* This has given me a lot of expertise and experience to study such massive natural hazards on the island of Sandwip. In addition, being an islander, I was closely related with the cycles of erosion and I spent most of my life in the eroded areas of Sandwip watching the devastation, destruction, and demise of people's land, wealth, property, home and hearth.

*The author worked for the Association of Development Agencies in Bangladesh (ADAB), a coordinating body of more than one thousand local, national and international NGOs working in Bangladesh, in the early 1990s. He served as the chief of the foreign Desk of ADAB.

The study concentrates on the available literature and secondary data, which are largely of a quantitative nature. The research covers information collected from secondary sources such as studies, reports, books, published and unpublished reports of non-profit organizations, academic publications and newspaper reports. I have collected primary information through interviews, public forum, dialogues and group discussions. I have also gathered a lot of valuable information from a host of personal and group discussions with the cyclone victims and flood affected people of the area.

1.3 Data Collection through questionnaire

Data were collected using participant-observation and interviews in the case study area. The analysis of secondary data aims to provide a macro profile and the context of the displacement in line with my study. Community interactions through establishing forum and providing questionnaire help examine community perceptions, coping strategies, identity issues and dynamics of problems in general. I joined the local population of my study area two times within a period of sixteen months. This enabled me to become more close and friendly with the local people. During the visit, I hired a team consisted of three individuals to interview the local people and I have provided them the structured questionnaire (see Appendix-1). During my first visit in the months of July to September, 2003, I observed that the local people were open, cooperative and honest to talk to me about erosion and displacement. During my second visit in the months of December and January 2004-2005, they seem very rigid and demonstrated little enthusiasm to come forward to be interviewed. The reason behind this annoying fact is that they are afraid of any consequences that might take place by the local administration if they (villagers) speak openly or against the authority. A session was

organized to train the team in line with the questionnaire and more over whenever they encounter problems I had to solve those matters right away. I have also discussed some sets of ethical matters and guidelines to work with an active and truthful mind for my study in the locality. It has been found that in some instances, people were happy to talk to the team members, but unhappy to be 'interviewed'. The team interviews some individuals but it did not go well the way we expected. The local people like to talk to the team in a group.

1.4 Public Forum through PRA Method

Prior to interviewing the local people through the structured questionnaire, a public forum was organized to make them more open so that they can express themselves properly. This assists people to open their head and heart among the peer groups and they discuss their own obstacles in their long struggle for survival. This phase of interaction with the local people works well as they become able to discuss their inner sufferings and concerns they are holding for a long period against the government and the local administration as well.

At least fifty people gathered from various professions to discuss the phenomenon of natural hazards at Harishpur, Sandwip. The forum was organized by the survey team in line with the Participatory Rural Appraisal (PRA) to exchange views with the local people taking their experience and knowledge. Participatory Rural Appraisal (PRA) is a participatory approach that emphasizes local knowledge and enables local people to make their own appraisal, analysis and plans. PRA uses group animation and exercises to facilitate information sharing, analysis, and action among different developmental actors. An open meeting generally frames the sequence of PRA activities. The method is a good

icebreaker at the gathering and helps focus the discussion. The facilitator divided the gathering into four groups to come up with new ideas and recommendations along with their ongoing crises and perception about natural hazards.

The PRA exercise finds out three very important issues which are an integral part of the displacement study on the island of Sandwip- a) attitude and perception of the local people towards natural hazards, b) women's needs and constraints during natural hazards, and c) possible alternatives in the form of recommendation to protect the island. Group A was assigned to point out the attitude and perception of the local people on natural hazards; Group B was assigned to look at women's issues during the disaster and both Group C and D were entrusted to put forward some plans and proposals to protect the island.

The survey team has succeeded to make a rapport with the local people and we have ensured them that the findings and outcomes of our discussions and interviews will not be revealed to the local authority, and their active participation will help design a plan and strategy in future to protect the area (where they live) from the attacks of possible disasters. The individuals interviewed were people I knew, or who were recommended by people known to me. Men tend to dominate women and influence women to tell something exactly whatever they said earlier to our team. Some women came forward alleging their counter parts and said that "whatever we know and whatever we understand, we'll be telling your team." This unusual gesture of local women makes our team more enthusiastic about them and their discussions. The team interviewed 21 men, and 5 women of different ages and professions, talked to two NGO workers, one

government official (UNO-the chief administrator of the island), the local MP, one Red Cross executive, the principal of the government college and three local political leaders.

1.5 Focus of my study

The central focus of the study is to examine the experience of the displaced population of Sandwip identifying their socio-economic problems which are vitally important to the government and the international aid agencies as well to formulate a comprehensive plan. The study empirically examines the causes and effects of population displacement on the Island of Sandwip. It is also concerned with the important public policy issues on the Internally Displaced Populations (IDPs) in Bangladesh.

The study generally discusses the growing number of IDPs in Bangladesh, the devastation of their homelands and culture, the emotional consequences of their dislocation, and the plans to develop a restoration process. In certain cases internal displacement in Bangladesh is almost systematic, linked to the nature of the land e.g. displacement caused by river erosion or periodic floods or cyclones. In other cases it is the result of violence caused by a hegemonic political system, which marginalizes and discriminates against religious and ethnic minorities. This study examines the international law on IDPs established by the United Nations and how far do they work to protect the IDPs in nation states, especially in Bangladesh. I believe that it is necessary to go beyond cataloguing the demographics of the displacement, chronicling human hardship and examining legal frameworks to adopt new perspectives on forced migration.

The question of security and protection is obviously associated with the question who is responsible? In fact, the state under whose jurisdiction they are living is supposed to be the protector of its citizen. The IDPs in Bangladesh are insecure because the state is

either unable or unwilling to protect them. In a situation like this, IDPs fall into a vacuum of responsibility with and within the state. The failure of obligation of the state towards its citizens is the main cause that draws attention and subsequently demands the role of protection by the international community. In order to examine these issues as they pertain to the field, my study will include an in-depth-study of two affected villages of Sandwip.

1.6 Thesis Structure

The thesis has been divided into five chapters. Chapter One is an introductory part of the research along with a methodology and personal reflections and experiences on natural hazards that assist to understand and conduct this study. Chapter Two includes a review of the literature which pertains to the topic of displacement and erosion and it provides a general overview of the genesis and growth of the concept of IDPs, Environmental Refugees, forced displacement and environmental migration. The chapter also discusses the causes of population displacement determining the patterns of IDPs movement in the world and it focuses on the growing debate among the international community and a concern for global humanitarian agencies in respect of rehabilitation and resettlement of the IDPs.

Chapter Three provides a general overview of the physical environment of Bangladesh along with its geographical location, climate, settlement patterns and population growth of the country. The chapter has also briefly given an idea of other victims of displacement in Bangladesh due to both natural and man-made causes.

Chapter Four focuses on the geographical location of Sandwip along with its significant role in the economic development of the coastal belt. The chapter also

highlights on how the questionnaire survey was developed to obtain information about the experience of the displaced people on the island and to understand the socio-economic conditions of the victims. It also sheds light on a public forum based on the methods of PRA (Participatory Rural Appraisal) held in the locality to gather information through brainstorming on displacement and erosion. The chapter has shown that the less privileged group of people suffers the most from displacement. This natural tragedy increases landlessness, joblessness, homelessness, marginalization and food insecurity. Displacement needs resettlement and relocation by the development actors and the suffering they face provides a tremendous pressure psychologically and morally.

Chapter five concludes that the government of Bangladesh and other private sectors including corporate people, national and international NGOs and individuals have a great role to mitigate the severe magnitude of vulnerability, damage and destruction and at the same time the displaced people need an immediate action to develop their socioeconomic condition. The IDPs of Bangladesh, especially the displaced and eroded populations of Sandwip deserve to return voluntarily, in safety and dignity, to their homes or places of habitual residence.

1.7 Conclusion

Those who are displaced within a country are often at least as vulnerable and perhaps more, but they receive less attention and can call upon no special international agency. The absence of international law governing internally displaced persons can jeopardize needs and priorities of the victims. Their protection and safety must be included in their resettlement and rehabilitation programs. In fact, the state under whose jurisdiction they are living is supposed to be the protector of its citizens. States and in

specific cases some international agencies are entitled to grant protection to the individuals against states failing to observe norms of international law.

The IDPs of Bangladesh, especially those of Sandwip, are insecure as they fall into a vacuum of responsibility with and within the state. The failure of obligation of the state towards its citizens is the main cause that draws attention and subsequently demands the role of protection by the international community. With high rural population densities and considerable inequalities in income and access to land, rural people of Sandwip take risk to live in the high risk coastal zones. In the coastal areas of Sandwip, the access to resources is quite complex and fragmented. Large landowners, dairy owners, rich farmers, local elites and other powerful agents have various kinds of formal and informal legal and illegal access to the resources available in the land and water. They control coastal land and marine resources. Thus the majority populations of the locality are deprived of opportunities and advantages and the local resources remain in control of a section of the opportunist people.

The next chapter will present a review of the literature which pertains to the topic of displacement, population movement and environmental degradation and it provides a general overview of the genesis and growth of the concept of IDPs, Environmental Refugees, forced displacement and environmental migration.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter examines the published literature on population movements, displacement, internal migration, internal refugees, mass exodus, ecological degradation, and resettlement. It demonstrates that there is an ever increasing volume of available literature describing the concept of population displacement. However, much of the research on displacement deals with phenomena (such as substantial increase in sea-levels) that have yet to occur. Many researchers, for example, believe that the term should be defined so that large international organizations and aid agencies could accept “Internally Displaced Persons” (IDPs) as legitimate victims. This review will stress the relationship between population movements, economic dislocation and environmental problems; and examine the political nexus between them which we have tentatively termed *ecopolitical* displacement. The chapter presents factors causing population displacement along with a brief description of IDPs in the whole world. The aim of this chapter is to place the UN’s “Guiding Principles on Internal Displacement” in a wider context and to highlight the importance of international humanitarian law along with the advantages and shortcomings of the document that covers a very broad range of contexts.

2.1 Definition of IDPs: A Constraint

Uprooted from their homes and trapped within the borders of their own states, the world's 20 to 25 million "Internally Displaced Persons" (IDPs) are a defining feature of the post-Cold War era. Their plight, which now amounts to a global crisis, poses a challenge to established systems of humanitarian relief and protection, as well as to international law's longstanding principle of national sovereignty. Myers and Kent (1995)

project that the total number of environmental displaced persons may even surpass the mark of 50 million by 2010. The United Nations High Commissioner for Refugees (UNHCR) estimates that the number of refugees globally is some 12.1 million.

The term “IDPs” still lacks a proper clarity and it needs an acceptable definition. The working definition the Brookings Institute and the Global IDP Survey use is that IDPs are "persons or groups of persons who have been forced to flee or to leave their homes or places of habitual residence as a result of, or in order to avoid, in particular, the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border." This definition is an improvement on the original working definition used by the Special Representative of the UN Secretary General on Internally Displaced Persons, which included the limiting notion of 'forced to flee suddenly or unexpectedly in large numbers' (Chunkara, 1999).

In protecting the *Displaced*, Roberta Cohen emphasizes that the definition must include the following elements: coercion, which induces displacement, human rights violations as a result of the displacement, and the lack of protection provided by national governments. In her article on ‘State Responsibility for the Prevention and Resolution of Forced Population Displacements in International Law’, Benyani stresses that states should be held responsible for causing displacement. By maintaining ‘supervisory interest over the domestic jurisdiction of other states’, states collectively guard over the protection and promotion of human rights. Unfortunately, states are primarily guided by political concerns and self-interest in these matters, especially as the international legal enforcement mechanisms are not strong enough to stimulate state responsibility as

stipulated in the UN Charter (Chunkara, 1999). In 1998, the "Guiding Principles on Internal Displacement," introduced by the UN identify IDPs as follows:

[P]ersons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters and who have not crossed an internationally recognized State border.

Studies on IDPs in international politics originate from a variety of perspectives, namely development, migration, refugee, humanitarian and security arenas. Among the plethora of writers on IDP policies, the work of Gil Loescher is worth mentioning, because he is one of the pioneering researchers in the field of forced migrations and international politics of resettlement. His interest in refugee crises impact on world politics surfaced also in the publication of *Refugees and International Relations*, a co-edited manual reviewing the issues common to both research areas. In 1996, he wrote with Alan Dowty, a specialist in migration, a paper titled "Refugee Flows as Ground for International Action" in which both the authors explained that mass refugee movements justifying a collective or unilateral intervention against the state responsible for or unable to stop the exodus.

According to Dubernet (2001), Loescher wrote from three perspectives- the refugees, security and humanitarian standpoints and he drew attention to internal displacement. In the early 1990s, he advocated the creation of a "comprehensive strategy" to deal with refugee influxes including the creation of an independent UN monitoring body in charge of the early warning of potential exoduses (Dubernet, 2001). He has linked various fields of studies related to IDPs and he insisted that any international refugee policy should address all forms of forced migration. But ironically,

these two concepts are also very limited in his works. He did not specify the policies designed for people on the move.

Dubernet (2001) has asserted that Loescher “defined the ways in which refugee flow disturbed international security, studied the processes by which crises were resolved, but consistently abstained from any comment on the construction or implementation of the measures that affected displaced persons.” For instance, Loescher and Dowty’s evaluation of the three Cold War interventions in Bangladesh (1997), Cambodia (1978) and Uganda (1979) is limited to recording the toppling of targeted regimes and the return of refugee communities. What happened to the people on the move in the country, either trying to escape or returning remains unstated (Dubernet, 2001). Both the authors have ignored the issue of internal displacement and IDP policies in their works. “They wanted to clarify the conditions under which international actions against a refugee producer state are justifiable rather than study policies on behalf of the uprooted.” Dubernet has asserted that Loescher and Dowty’s article illustrate a flaw of the literature as a whole; because the context of very topical issues such as debates on refugeehood and on the impact of the media, policies towards IDPs were not an object of research *per se* until recently. Depending on their background and purposes, IDPs are considered as the “potential refugees,” the “threat to security and stability,” alternatively “the abused,” “the vulnerable” (Adelman, 1992).

It is also crucial to highlight the links between refugees and IDPs and it is obviously a mistake to equate both policies systematically. International action towards displaced persons is not necessarily the same as that for refugees. Measures and actions taken may differ, but policy may not coincide in time. In addition, the resolution of a

refugee crisis can mean an increase in IDPs. For example, the “Memorandum of Understanding” signed between the UN and Iraq on Kurdish refugees in 1991 stated that “The measures to be taken for the benefit of the displaced persons should be based primarily on their personal and safety and the provision of humanitarian assistance and relief for their return and normalization of their places of origin.” But it didn’t specify the concept of home either. To date, there is no comprehensive study of international policies towards displaced persons in Iraq but many incomplete, truncated analyses written to substantiate debate over the related issues (Dubernet, 2001).

Barry Posen’s article “Military Responses to Refugee Disasters,” focuses on the analysis of policies that affected the uprooted. He distinguished three types of protagonists, the “assailants,” the “threatened populations” and the “rescuers,” and argued that “in general rescuers will find themselves practicing coercive diplomacy, that is compellence” (Posen, 1996). His conclusion is a warning against the belief that the use of military resources for humanitarian purposes would fall short of war. In essence, “what good hearted people are proposing is war.” Dubernet asserts that:

Posen’s analysis is enlightening, first because it is an effort to compare policy options, whereas other studies in the same field tend to focus on, say, “the construction of safe areas.” This is why focus is placed on Posen rather than on Tiso, Chimni, Landgren or Frelick who have produced excellent criticisms of safe heaven policies... Furthermore, he proposed a dissuasion/coercion grid of analysis which clarified field experiences. His suggestion that policy makers wrongly saw military humanitarian action as “deterrence” shed light on some of the decision-making processes, for instance in Somalia (Dubernet, 2001).

However, Posen did not explain his acceptance of international organizations’ justification for action. Neither did he acknowledge his position, i.e. “international protection is developed to preempt refugee disasters,” as a working assumption. His analysis displayed an experience of theoretical strategic models and proposed an interesting grasp of the essential issues surrounding the use of the military. The study

remained limited because the purposes for action were not qualitatively explored, and because the issue of cooperation was ignored. Somehow, Posen seemed reluctant to go beyond his model and really grasp the mechanisms rooted in the events. Although he showed interest in policy analysis and therefore was more eager than Loescher in working out what happened, it was discussing military strategies that mattered to him. Once more, although policies for IDPs were part of the analysis, they were not its focal point (Dubernet, 2001).

Two studies – *Masses in Flight* and *The Forsaken People*- were published in 1998 in order to shed light on internal displacement. The authors, Cohen and Deng, explain the international affairs regarding IDPs and they have provided a detailed account of the legal framework and problems faced by various institutions struggling with the issues. Cohen and Deng did not discuss and assess the potential impact of IDPs on humanitarian practices and in their initial review, they have asked “Why do IDPs not become refugees? The authors ignored the mechanism of the protection of the IDPs and they present closed border policies as an additional factor for intervention. The absence of clarity regarding the objectives of international engagement concerning IDPs and their potential impact leads to vagueness in the evaluation of policies, a problem reminiscent of Posen (Dubernet, 2001).

In his short article, “Internal Displacement in Context,” Jon Bennett focuses on the issues of containment, sovereignty and intervention regarding IDPs. He also claims that the concept of IDP strengthens sovereignty by vindicating government responsibility towards its own citizens. However, he still did not expand on how and why intervention and containment were- and still are about disengagement (Dubernet, 2001).

2.2 IDPs and Resettlement

In reviewing the voluminous literature in IDPs and resettlement- a literature that draws from academic and practitioner-oriented writings on subjects as diverse as economic and labour migration, refugee protection and assistance, development induced displacement and resettlement, and disaster-related displacement and relocation- definitions are loose and carelessly applied. The concepts “migrant”, “refugee”, and “internally displaced persons” are often synonymous (Muggah, 2003). Voutira (1997), for example, has observed that the refugee label is sometimes applied to many categories of migrants. But if we consider the criteria framed by the 1951 Convention of the UN, the characteristics of the refugees will be a changing phenomenon from various aspects. Crisp (2001:5) has noted that how the word “refugee” is subject to a range of definitions and interpretations. Due to the broadening of the concept in Africa and Central and South America (i.e. Organization of African Unity (OAU) Convention and Cartagena Declaration), an individual counted as a refugee in one part of the world may not qualify for status in another. In many cases, the IDPs are branded with so many concepts such as “project affected persons”, “displacees”, “forced displacees”, “resettler”, or “relocate”.

Muggah (2003) clarifies that population displacement is an outcome of multiple sets of factors. The many “push factors” leading to internal displacement can be aggregated into a range of overlapping categories: natural and human –made disasters, ethnic or religious persecution, development and conflict. “Displacement” occurs where coercion is employed, where choices are restricted, and where the affected populations are facing more risks than opportunity by staying in their “place” of residence, which distinguishes it from “voluntary” or “economic” migration.

Natural or men-made catastrophe makes hundreds and thousands of people displaced in their own country. The Refugee Charter of the UN did not include the IDPs because they fall under domestic jurisdiction or sovereignty of the states concerned. According to the International Committee of the Red Cross (ICRC, 2005), three factors have fuelled the debate on IDPs—the end of the Cold War, the proliferation of internal conflicts and the awareness that IDPs received insufficient protection. A number of measures have been taken in response to international concerns; among them the appointment of Francis Deng as the Secretary-General's Representative on IDPs in 1992 and the formulation of the "Guiding Principles on Internal Displacement". At the political level, the issue of IDP was taken up by Richard Holbrooke, United States Ambassador to the UN Security Council. In his address in January, 2000, Holbrooke highlighted the inadequacies of inter-institutional coordination for IDPs urging for a single administrative body to deal with the issue.

Muggah (2003) asserts that the resettlement of IDPs has, until recently, been treated as a peripheral issue in the field of forced migration studies. Cernea (1997) clarifies that the reasons for this are varied and interconnected, including the absence of international attention, the marginal status of the displaced populations prior to displacement, and the limited attention devoted to the subject by social scientists. There is also confusion and uncertainty to distinguish between "voluntary" and "involuntary" resettlement. Some critics such as Penz (2003) observe that "if it is voluntary it is not displacement." Muggah (2003) describes that displacement and resettlement become "involuntary" when the choice to remain is not provided.

The issue of IDPs is one of the concerns of the international organizations including UN. The appointment of Francis Deng as Special Representative of the UN Secretary General on IDPs, the drafting of “Guiding Principles on Internal Displacement”, the establishment of the Global IDP project and launch of its Global IDP Database reflect the reality of the issue which is a undeniable factor for peace and human security.

Hear (2000) clarifies that individual migrants, households and communities may experience the full range of compulsion or choice over time. Individual migrants may therefore develop complex migration biographies; many are twice, three times or many times migrants.

2.3 Factors causing population displacement

People who take flight and move immediately within the boundaries of a state to save their lives and to protect themselves from further risk and dire consequences are identified as internally displaced persons. They are seeking safety within the country not through asylum in a second state, but before their own government and within the confines on their national borders.

According to the Global IDP Database (2002) indicates that lack of respect for fundamental human rights and humanitarian law principles has been a leading cause of the mass flight of the civilians. The survey further added that indiscriminate attack, massacres, tortures and other inhuman treatment are part and parcel of the vast majority of conflicts. Civilian populations are not only exposed to the dangers of armed combat, but are even targeted as a result of their presumed affiliation with the opposing forces.

According to the Database, in the first part of 2002, about 25 million people were estimated to be internally displaced, up from an estimated five million people in the 1970. At the end of 2003, Sudan was the country hosting the largest internally displaced population, some 4 million people. The Democratic Republic of Congo (3 million), Colombia (2.9 million), Uganda (1.2 million), Iraq (1.1 million) and Burma (up to one million) are also among the countries with the highest numbers of internally displaced people. IDPs outnumber refugees by nearly two to one; with a particular large number of them- an astonishing 13.5 million- on the African continent (Table-2.2). Across the globe, IDPs are every where from Columbia to Indonesia, Turkey to Afghanistan; some other figures join the IDP list recently due to armed hostilities such as the peoples of Iraq, Azerbaijan and Burma.

The recent Tsunami has increased the number of IDPs in Indonesia, Sri Lanka, India, Maldives, Thailand, Malaysia, Somalia, Seychelles (Table-2.1). The total number of people displaced by the tsunami in 2004 is estimated to be around 553,000. In addition to the displacement caused by the tsunami, more than 350,000 people remain displaced as a result of the conflict between the Liberation Tigers of Tamil Eelam (LTTE) and the Government of Sri Lanka, despite a ceasefire that was signed three years ago (IDP project, 2005). According to IDP Global Project (2003) in the Philippines, 400,000 people are displaced after fighting between the security forces and the rebel Moro Islamic Liberation Front (MILF) in the southern island of Mindanao in early 2003. In Nepal, a ceasefire agreement signed between the government and Maoist rebels at the start of 2003 crumbled after peace talks broke down in August 2003 and fighting resumed. Since the conflict started in the mid-1990s, hundreds of thousands of people have been

uprooted across the country. No reliable figures exist on the total number of people displaced, but the most realistic estimates put their number between 100,000 and 200,000 by end-2003. Most of the displaced have either flocked to the main cities or fled the

Table-2.1 (Tsunami Dec.26, 2004 has added the following in the list of displacement)

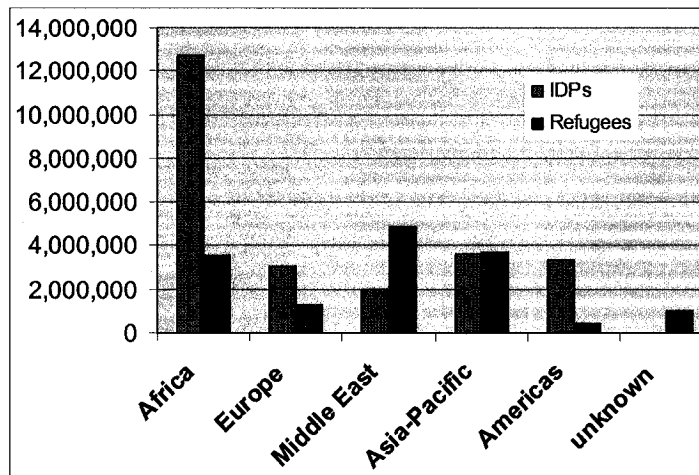
Indonesia	122,232 dead , 113,937 missing	406,156 displaced
Sri Lanka	30,974 dead, 4,698 missing	553,287 displaced
India	10,776 dead, 5,640 missing	112,558 displaced
Maldives	82 dead, 26 missing	11,568 displaced
Thailand	5,395 dead, 3,062 missing	N/A
Malaysia	68 dead, 6 missing	8,000 displaced
Somalia	150 dead	5,000 displaced , 54,000 affected
Seychelles	3 dead	40 households displaced

Source: USAID Fact Sheet # 36 (2005)

conflict to India. The IDP project has further added that in Indonesia in May 2003 the government launched a huge military operation in the western province of Aceh where a rebel group has been operating for more than 25 years. Martial law was imposed and the security forces forcibly displaced more than 100,000 people. In India, attacks by separatist militants in Kashmir continued to create new displacement and prevent the return of an estimated 350,000 IDPs who fled the Kashmir Valley in 1989. Civilians living on both sides of the Line of Control dividing Indian and Pakistani controlled Kashmir continued to be displaced because of shelling by both sides. In north-east India, armed conflicts between numerous local insurgent groups may have displaced more than 250,000 people in recent years. Towards the end of 2003, ethnic violence in the state of Assam led more than 20,000 people to flee and settle in relief camps. An unknown number of people also remain displaced in the state of Gujarat after an outbreak of religiously motivated communal violence in February 2002 (IDP Global Project, 2003).

IDP project (2003) indicates that more than ten million IDPs are being deprived of help from their own governments; the project clarifies that they “were confronted with hostile or at best, indifferent authorities who made no effort to protect them.” The project surveyed 52 countries where IDPs are in a bad shape. 13 countries out of 52 can not count on their government for protection at all. In two cases – Liberia and Somalia – the collapse of state structures prevented any effective government response, but in all other

Table-2.2: Regional distribution of IDPs (2003) and refugees (2002)*



Sources: Global IDP Database, UNHCR, USCR, UNWRA

cases there was no justification for the inaction by governments. Another nine million people in 22 countries were left with only occasional and fragmentary protection. A mere third of the governments really made an effort to protect the IDPs on their territory (IDP project, 2003). The condition of Burma (presently Myanmar) is much worst and their treatment with the IDPs raises a lot of questions. More than one million people are being displaced and even crossed the border to come to Bangladesh after the persecution and brutal treatment of military regime to its minorities. They are suspected of being helping hands towards rebel groups operating along the countries eastern borders. IDP project

* The Global IDP Databases has not collected the country figures itself, but relies on information made available by different public sources.

(2003) mentioned that Burma's IDPs were exposed to ongoing violence and systematic human rights abuses at the hands of government troops.

Further to the civilians displaced as a result of direct exposure to armed hostilities, environmental and man-made disasters also displace a large number of people. Parveen and Faisal (2002) affirms that all over the world, there are more than 15,000 large and numerous other small dams that have displaced some 60 million people from their homelands. In recent past, Turkey has built the Ataturk Dam in the Kurdish region, where some 60,000 people were displaced. Another project in this region, the Illisu dam, will affect about 75,000 people of the Kurdish region. Such encroachments on the resources and rights of the people of the land are not isolated—the Narmada in India, The Three Gorges in China, the Nam Theun II in Laos and the Itoiz in Spain are just a few examples of such displacements (Parveen and Faisal, 2002). An UN survey estimates that around a third of the world's total land is in the process of becoming infertile. While massive man-made projects like China's Three Gorges dam are driving more than one million people from their homes. Other studies predict that 100 million of 135 million living in the areas of desertification will be displaced in the next 20 years (Townsend, 2002).

2.4 Political and Religious Refugees

A political or religious refugee is defined by international law and custom as a person "having a well-founded fear of being persecuted in his or her country of origin for reasons of race, religion, nationality, membership in a particular social group or political opinion" (Oregon, 1991). The idea that the migration is forced or involuntary is important

to the definition, and it is assumed that an individual would return home if conditions changed.

Refugees are generally thought of as people in flight, searching for a better way of life, but “refugees are officially defined by the UN as those who are forced to look for asylum outside of their home nation out of fear of political, racial or religious persecution” (Jacobson, 1988). Smyser (1987) outlines the evolution of the definition of a refugee since the end of the Second World War. The 1951 Convention on the status of refugees established refugee status for those who had left their country of origin because of a well-founded fear of being persecuted. As Smyser (1987) notes, the use of official definition of a refugee has evolved since 1951, and the activities of the UNCHR have influenced the working definition of a refugee. In 1969, an Organization of African Unity Convention on Refugee Problems in Africa again considered the definition of officially recognized refugees, which resulted in recognition of every person who, “owing to external aggression, occupation, foreign domination or events seriously disturbing public order” in their nation of origin, seeks refuge outside that country. Olson (1979, cited in Hugo et.al., 1987), identifies five external forces creating refugee movements: i) physical danger (e.g. floods, volcanic eruptions); ii) economic insufficiency (e.g. drought, famine); iii) religious persecution; iv) ethnic persecution; and v) ideological persecution. Gordeneker (1987) claims that refugees are human rights victims, or people who have been denied some form of basic security and or fear for their safety, forcing them to take the extraordinary step of leaving their homeland.

2.5 Similarities and Dissimilarities between “IDPs” and “ERs” (Environmental Refugees)

The term “environmental refugees” has passed into common usage in the last 20 years. For example, notable scholars have said that environmental refugees are becoming as a significant proportion of the world’s displaced peoples. Norman Myers, an Oxford University ecologist, estimated that in 1996 about 25 million people worldwide had been uprooted for environmental causes, exceeding the 22 million refugees from civil war and persecution in that year (Myers, 1996).

Jacobson suggests that "environmental refugees have become the single largest class of displaced persons in the world" and estimated that there were 10 million in the late 1980s (Flintan, 2001). A survey estimates that numbers may be as high as 25 million in 1996 (Myers, 1996) and the International Organization of Migration suggested in 1992, that by the turn of the century there would be one billion persons who have been environmentally displaced from their original habitat (Lonergan, 1998). Jacobson concludes by stating that the “permanently displaced” is the largest and fastest growing group of refugees in the world today, due mostly to large-scale land degradation in developing countries of Africa and Asia. However, some authors working in the area of environmental migration feel that this statement is impossible to prove because no numbers are available to support such a conclusion (Kritz, 1990; Mougeot, 1992; Lonergan, 1995).

Even if the concept of “environmental refugees” is extremely difficult to define, the situation is further complicated by a combination of physical and human factors. By including this group within the central definition of refugees, scholars suggest it would distort the definitions used for Convention (or “political”) and strain the few resources

available for international programs that aid refugees (Suhrke, 1994). Because of this factor, most governing bodies, including the U.S. State Department and the U.N. High Commissioner for Refugees, choose to ignore the issue (Hugo, 1996). Also, because these agencies do not collect data on this issue, research is extremely difficult due to a significant lack of information. The categorization can also be ambiguous; for example volcanoes can cause both permanent and temporary displacement, and the definition of 'permanent' could be defined as 20 years or 200.

The United Nations defines environmental refugees as:

those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected their quality of life (Hinnawi 1985:4).

Environmental refugees are defined by El-Hinnawi (1985:4) as "those people who have been forced to leave their traditional habitat...because of a marked environmental disruption...that jeopardized their existence and/or seriously affected the quality of their life". El-Hinnawi notes three categories:

- Those temporarily displaced because of an environmental stress such as an earthquake or cyclone;
- Those permanently displaced because of permanent changes to their habitat, such as dams or lakes; and
- Those who are permanently displaced because their original habitat can no longer provide for their basic needs.

To demonstrate the necessity of the inclusion of environmental refugees in the UN's overall classification of refugees, it is worth remembering that the refugees status is important because it determines who receives aid and resettlement. For nearly the past 30 years, the United Nations has been using the definition of refugees as persons who:

owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership in a particular social group, or political opinion, is outside the country of his

nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country" (UNHCR, 2000).

The United States also assigned its own definition in the Refugee Act- 1980 which described refugees as:

any person who is outside any country of such person's nationality or, in the case of a person having no nationality, is outside any country in which such person last habitually resided, and who is unable or unwilling to return to, and is unable or unwilling to avail himself or herself of the protection of, that country because of persecution or a well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion...(Holman 1997:13-14).

Before El-Hinnawi, the problem of environmental degradation causing migration was examined by Sadruddin Aga Khan in 1981 in his study on Human Rights and Massive Exoduses (Perout, 1995). This study, conducted at the request of the United Nations Commission on Human Rights (UNCHR), was mandated to investigate the increase in refugees and displaced persons, particularly in Asia and Africa. The study observed that "the international community is increasingly concerned with causes behind mass exodus and measures to avert new flows of refugees." While Khan's study clarified many aspects of "mass exodus", such as classifying mass exodus migration in quantitative and qualitative terms, there still remained a lack of any comprehensive terminology describing the various groups of migrants. The study also emphasized the point that countries with unstable political situations, mostly situated in the developing world, were bearing the brunt of refugee migration by stating that

All mass exoduses which took place during the decade under review [1971 to 1981] poured forth from regions where the prevailing situation prevented citizens from exercising their political rights (Perout, 1995)

Khan identifies three broad categories of environmental refugees (Perout, 1995): The first category includes individuals fleeing natural disasters such as earthquakes, cyclones or floods, and tends mostly to affect the poor in developing countries. In these

situations the majority of refugees will return to their country or region of origin once the crisis has passed. The second category includes people who are permanently displaced within their own country due to the construction of a dam, a mine, or other large project which might affect a previously inhabited area of land. The third category includes persons who have been forced to flee their homes suddenly or unexpectedly in large numbers, as a result of armed conflict, internal strife, systematic violations of human rights or natural or man-made disasters.

In his study on *Human and Global Security*, Stoett (1999) examined the contemporary meaning of the term “refugee” and commented on its appropriateness with regard to activities of the UNCHR. He also briefly discussed a model of contemporary refugee problems that was introduced by Harto Hakovirta in 1993. Stoett claimed that environmental refugees would also include those forced to move due to planetary warming, increased ultraviolet radiation, loss of productive soil, loss of fisheries resources, natural hazards such as volcanoes and hurricane and industrial hazards such as toxic waste dumping and lethal accidents. “The analytical focus so far has been on the factors that force people to leave their homes; less attention has been paid to where they will go?” (Stoett, 1999:78).

Stoett looked at the definition of refugees in two ways: a “minimalist” definition and a “maximalist.” A minimalist definition of the term refugees is based on recognizing the political persecution of individuals who have crossed internally recognized borders. A maximalist definition would expand the minimalist one in a number of ways. It would include those moving in search of more hospitable ground, be they in search of jobs or

clean drinking water. And it might also include internal displacees, who have not crossed borders.

In addition, some argue that the term 'environmental refugees' is misleading. The term was first popularized by Lester Brown of the Worldwatch Institute in the 1970s (Saunders, 2000). Since then it has been the subject of numerous contributions (including Khan, 1981; El-Hinnawi, 1985; Jacobson, 1988; Myers and Kent, 1995; Black, 2001), and more recently, criticisms (see Kibreab, 1994; Stranks, 1997; Saunders, 2000). According to Bates (2002), a working definition of environmental refugees includes people who migrate from their usual residence due to changes in their ambient non-human environment. This definition remains necessarily vague in order to incorporate the two most important features of environmental refugees: the transformation of the environment to one less suitable for human understanding and the acknowledgement that this causes migration (Bates, 2002). A framework which could permit a greater understanding of the relationship between environmental degradation and refugee flows was proposed in January 1992 by the Refugee Policy Group (RPG). The RPG identified six causes of environmental migration: *elemental disruption; biological disruptions; slow onset disruptions; accidental disruptions; disruptions caused by development; and environmental warfare*.

Thomas Homer-Dixon and Jessica Blitt (1998) argue that much research shows that various kinds of environmental scarcity – including loss of topsoil, deforestation, water scarcities and potentially, global warming – can have a strong negative effect on both agricultural and economic production. However, in most developing countries the weight of this hardship is not carried equally across society, because of structural

inequalities in wealth and power. Much of the negative effect of environmental scarcity on agriculture and the economy is felt by the least advantaged groups in society, especially those who are most dependent on local renewable for their day-to day livelihoods. In contrast, more powerful groups can often shift laws in their favour and take advantage of profit opportunities that scarcities present.

In his study on “Environmental Refugees: Consequences and Policies from a Western Perspective,” Nash (1998) referred to some significant aspects of a definition of environmental refugees. He mentioned that Rizvi has sought to divide the factors responsible for refugee movements in general into three groups as follows: “primary factors”, which include those human rights violations enumerated in 1951 Convention; “secondary factors”, such as civil war, that are partly enumerated in the 1969 Convention adopted by the Organization of African Unity; and finally, “auxiliary factors”, which Rizvi argues are newly recognized and considered excluded from traditional concepts of refugee status. These include economic, demographic and ecological factors (Rizvi, 1988:110). Nash has concluded the debate on the definition of environmental refugees by saying that

Rizvi’s “auxiliary factors” may trigger movement because of a denial of rights that are guaranteed by the International Covenant on Economic and Social Rights, but environmental or economic causes in themselves are not recognized by the 1951 Convention as ones defining refugee status... Thus environmental and economic migrants cannot earn either the official designation of “Convention refugee” or the protection from refoulement and financial assistance that this situation affords.

Stoett said that in this age of globalization that borders are becoming irrelevant and we are losing our loyalty to nation-state, thus we are all refugees of a sort (Stoett, 1999). If we were to label all those displaced by environmental problems as refugees, the internally displaced—those affected not only by desertification, drought and landslide,

but also by infrastructural projects and mining or industrial zone developments- would become even less visible. With regard to emergency situations cross-border movements, precedent already exists for treating environmental refugees as legal refugees (Stoett 1999).

Like environmental refugees, internally displaced populations (IDPs) share many of the characters of refugees and asylum seekers. As stated in the World Refugee Survey (2001), "Today's internally displaced person may be tomorrow's refugee." However, internal migration can be defined as a relatively permanent movement of an individual or a group of people over a significance distance (Gomes, 1983). IDPs have become central to the debate on the refugee condition. In addition, debates on "regional security," "weak or failed states," "ethnic wars" and societal security," "resettlement," "responsibility of states" and "role of international community/agency" have much to do with forced migration and displacement issues. There are numerous researchers who refer to IDPs in the study of international politics and they have assessed some of the implications of refugee policy changes for displaced persons (Dubernet: 2001). For instance, Adelman has discussed the Kurdish displaced people of northern Iraq (Adelman: 1992); and Andrew Shacknove, Michael Barutciski and Bill Frelick who have focused on how European governments' perception of IDPs grounded the evolution of asylum practices in the 1990s (Shacknove, 1993).

Barry Posen focused on the analysis of policies that affected the uprooted. His insight into policies for the uprooted remains limited and some how narrowed. For Posen, interventions were mainly about protecting people so as to forestall their exodus, either by creating protected zones or by pressuring abusive powers into stopping persecutions

(Posen, 1996). He reproduced a conventional justification of international humanitarian interventions without questioning it. Neither did he contemplate the possibility that intervention was a direct way of containing people within the confines of trouble states. As a result, he sometimes provided inaccurate depictions of humanitarian action.

In a study of international refugee policy in Bosnia, Michael Barutciski discussed the implications of containment approaches. He started with highlighting that in-country protection was a convenient concept for affluent states reluctant to accept refugees. He then dismantled the concept of “preventive protection” promoted by the Office of the United Nations High Commissioner for Refugees (UNHCR). In fact, as both his introduction and conclusion made clear, Barutciski’s ultimate concern was the evolution of international refugee law. Thus, although he devoted a substantial part of his paper to assessing in-country protection, understanding policies for IDPs was not an object *per se* but was instrumental in his analysis of the evolution of asylum practices. Barutciski did not systematically study practices for displaced persons and as a result, its conclusion may not necessarily apply to them.

The authors like Loescher, Posen, and even Barutciski asked fascinating questions related to IDPs, but ultimately, were interested in other matters. By contrast, recent work is focused on IDPs consists mainly in gathering field reports on case studies which, although fascinating, provide little analytical and comparative grasp of the policies. Academics, including those working on internal displacement and international relations, were more concerned with humanitarian intervention, regional security or the prevention of refugee disasters, than IDPs. International action towards displaced persons is not necessarily the same as that for refugees. In addition, the resolution of a refugee crisis can

mean an increase in IDPs. It is a mistake to equate both policies of IDPs and refugees systematically but there is way to highlight the links between them. Still, whereas IDPs issues were part of many debates, they were the focal point of none.

2.6 Forced displacement and migration

Over the past decade, most of the refugee flows are the result of armed conflicts and civil strife. Ethnic intolerance, the abuse of human rights, the monopolization of political and economic power, refusal to respect democracy or the results of free and fair elections, resistance to popular participation in governance, and poor management of public affairs- all play a part in forcing people to flee their normal places of residence. All these factors contribute in one or- another way to the root causes of displacement. Examples of forced resettlement of vulnerable population groups are numerous in South and South-East Asia. Laissailly-Jacob and Zmolek (1992) note that “industrialization, developments schemes and subsequent land speculations have resulted in a plethora of environmental catastrophes for rural and indigenous peoples, often resulting not only displacement, but repeated displacement.”

2.7 Environmental displacement and migration

According to Townsend (2002), 25 million people worldwide have been forced to forever abandon their lands through a complex myriad of causes involving flooding, drought, soil erosion, deforestation, earthquakes, nuclear accidents and toxic spills. Townsend, an environmental journalist by profession, has pointed out that the million of people who are living in low-lying countries and said that under official predictions, their islands and coastlines will soon start sliding into the rising tide as climate change propels the planet a new stratosphere of catastrophe. Even greater number will be forced to

scratch harder for a living on less and less land- land which is already struggling to sustain current demands.

Voluntary migrants have a variety of motives; the most common involves the desire for economic improvement. Refugees, in the broadest sense of the term, are people forced or compelled to relocate by external forces (Bates, 2002). Among others, the following categories are those that cause environmental migration - though these are often interrelated and connected to other factors of a non-environmental nature.

Firstly, human-induced environmental disasters cost the most in terms of human suffering, loss of life and long term damage to a country's economic and productive capacity such as the Chernobyl and Bhopal chemical accidents. A similar tragedy also happened in El Salvador. Government's troops used land mines and bombed fields to undermine agricultural production and force rural people from their land into cities or refugee camps (Bates, 2002). Another example of man-made disaster is the release of radioactive cloud from the Three Mile Island Nuclear Power Station that displaced 144,000 people in 1979 (Miller, 1991).

Desertification and drought are also viewed by many environmentalists as the result of long term land degradation. It is a slow-moving disaster that destroys fertility of the land and soil, kills human beings and animals and has long-term effects on the environment. As Jacobson (1988:6) notes, 'desertification...has irreparably damaged millions of hectares of once productive land and made refugees out of millions of sub-Saharan African farmers.' The 1994 UN symposium on 'Desertification and Migration' stated that each and every year, 3 million people join the migrant peoples and these increases are largely of rural origin and related to land degradation. It is estimated that

over 135 million people may be at risk of being displaced as a consequence of severe desertification" (INCCCD, 1994).

Secondly, natural disasters also result in migration, yet they are different from other disasters because of a significant difference in origin. These disasters include hurricanes, floods, tornadoes, earthquakes or many other environmental events that force people out of their habitation permanently or temporarily (Bates, 2002). Natural disasters displace millions of people every year. In India alone, approximately 15 million people are negatively impacted by natural disasters each year (Gadgil, Madhav and Ramachandra Guha, 1995). Other examples include migration due to the degradation of agricultural lands in Mexico (Leighton-Schwartz, 1994); and the excessive and inappropriate use of water resources within the watershed of the Aral Sea (Glazovsky and Shestakov, undated). For example, a million people were displaced in central and southern part of Mozambique in the floods of March in 2002 (Black, 2001). The building of habitation in flood plains or in earthquake zones raises the likelihood and seriousness of natural disasters (Stranks, 1997). A good example of a natural disaster was the 1995—8 eruptions of the Soufriere Hills Volcano on the Caribbean island of Montserrat. These eruptions forced 7000 residents to evacuate (Bates, 2002).

Thirdly, deforestation—the cutting of forests (for the purpose of fuel or for economic gain) and burning of ground cover—causes more and longer periods of drought, and exposes the soil to nutrient leaching (Douglas, 1996). In Haiti, intense population growth caused deforestation by increasing demands on the resources. This led to severe soil erosion, which increased poverty because the inhabitants could not produce for themselves. Eventually this led to the abandonment of the land (Suhrke, 1994).

Fourthly, an increasing sea level is also considered as one of the causes of environmental degradation. Increasing sea levels are affecting coastal populations in China, Bangladesh, and Egypt, islands in the South Pacific and the Maldives, and urban populations in Karachi of Pakistan, and Dhaka of Bangladesh (Suhrike 1994; Douglas 1996). However, this problem has not been directly linked to humans and remains highly controversial. Preliminary estimates indicate that the total number of people at risk from sea-level rise in Bangladesh could be 26 million, in Egypt 12 million, in China 73 million, in India 20 million, and elsewhere, including small island states, 31 million—a total of 162 million. At the same time, at least 50 million people could be at risk through increased droughts and other climate dislocations (Myers, 1995).

Fifthly, migration could be induced by military and political upheavals which can involve the conscious and systematic destruction of the environment as an instrument of war or a genocidal policy (Flintan, 2001). “Examples include the US policy during the Vietnam War and the systematic destruction of the marshes of southern Iraq by the Iraqi government since 1991 which forced 350,000 Marsh Arabs to flee to south-west Iran or become internally displaced persons (IDPs)” (Franckee et al., 1996). Warfare generates a distinct type of people displaced by expropriation. *Ecocide* is the intentional destruction of human environments in order to strategically relocate a target population during a period of war. The most notorious case involves the massive displacement of rural Vietnamese following the use of defoliants by the United States in the 1960s and 1970s. The application of herbicides, including Agent Orange, destroyed crops and forests resources, compelling rural people to migrate to cities to survive (Bates, 2002).

2.8 UN's Guiding Principles on internal displacement

Despite the world's growing interest in the situation of internally displaced people and other war affected populations, many humanitarian issues associated with their plight remain to be resolved. The UNCHR says IDPs are a "very disparate and ill-defined group of people" (Chankara, 1999). The government of Bangladesh has been an actor unwilling to solve these problems properly despite the fact that these people are the internal problem of a sovereign state like Bangladesh.

However, the Guiding Principles on Internal Displacement, presented to the UN Commission on Human Rights in 1998 by Francis M. Deng, Representative of the UN Secretary General on internal displacement, is one of the most encouraging initiatives at the international level to advance the cause of IDPs. It appears in the UN document entitled "Guiding Principles on Internal Displacement" and runs as follows:

"[I]nternally displaced persons are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border".

The Guiding Principles fill a gap in the international protection measures for the internally displaced persons worldwide. Unfortunately, states are primarily guided by political concerns and self-interest in these matters; especially as international legal enforcement mechanisms are not strong enough to stimulate state responsibility as stipulated in the UN Charter (Deng: 2000). States should be held responsible for causing displacement and states should collectively protect and promote human rights. There should be objectives such as promoting economic stability and social cohesion in the affected areas. They will help governments, aid agencies, civil societies and other actors to better understand the motivations behind displacement, to identify vulnerable groups

and geographical locations, and better manage social and economic disruption associated with displacement.

The International Committee of the Red Cross (ICRC) believes that the present definition of IDPs is not easy to apply in an operational context because it is very broad and includes many groups with different needs under the same heading. Moreover, it creates the risk of diminishing the protection to which the civilian population as a whole is entitled. According to UNCHR, the United Nations High Commissioner for Refugees (UNHCR) has published an information paper in May 2000 under the title “Internally displaced persons: The role of the United Nations High Commissioner for Refugees”, which outlines the leading role that UNHCR is prepared to play in protecting and assisting IDPs, given the increasing similarity between their plight and that of refugees. In December 1999, through the Inter-Agency Standing Committee, the institutions of the UN system adopted a policy document on the protection of IDPs, with guidelines for inter-agency coordination. The Standing Committee also established mechanisms to improve the humanitarian response to the needs of IDPs. Of particular note are the Senior Inter-Agency Network on Internal Displacement, set up in July 2000, and the IDP Unit, set up in January 2002.

2.9 IDPs and International Humanitarian Law

Existing international humanitarian law may provide some protection in certain situations. These provisions of protection are found in the International Bill of Rights, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economics, Social and Cultural Rights. Unfortunately, the fundamental protections under humanitarian law and many

international humanitarian instruments do not contain effective enforcement mechanisms. In addition, humanitarian law is generally not applicable to situations of internal tensions and disturbances falling short of internal armed conflict. Lavoyer (1998) affirms that Internally Displaced Populations do not fall into a separate category under humanitarian law. They are included in the term “civilian population”, and thus benefit from all provisions that afford protection to civilians. While concern for internally displaced populations is indeed crucial, there are obviously other categories of people whose needs may be just as presenting and just as acute—for example the wounded and the sick, children separated from their families, persons deprived of their freedom, and all those who find themselves trapped in the fighting and who want to flee but are unable to do so. A global view of the different needs and an impartial response to them will prevent an unjustified distinction between various categories of victims (Lavoyer, 1998).

The lack of protection for the millions of displaced populations in the world raises a host of questions and what should be the role of a sovereign nation to save them. In 1991, the then United Nations Secretary General, Perez de Cuallar, commented that it is now increasingly felt that the principle of non-interference with the essential domestic jurisdiction of states cannot be regarded as a protective barrier behind which human rights could be massively or systematically violated without impunity (Perez, 1991). It has been learnt that Washington College of Law professor Robert K. Goldman, the international Human Rights Law Group, and the American Society of International Law have undertaken a joint project for Dr. Deng to find out any deficiencies and gap in order to bridge between the concepts of IDPs and International Humanitarian Law. This joint

project will also formulate, if necessary, some legal norms to develop the guiding principles.

2.10 Conclusion

There are many difficulties in discussing the relationship between environmental degradation and population displacement. There should be a concerted effort to explore the complexities of forced migration, and to make an intimate connection between the diverse forms of migration, internal displacement and migration beyond borders. By refining how IDPs are conceptualized and by recognizing similarities and differences between refugee populations, researchers and policy makers can more clearly identify underlying causes and offer more helpful ideas to prevent and relieve the growing numbers of people displaced by environmental change (Bates, 2002).

If Internally Displaced Persons are to be eventually recognized, this review has shown that further research is clearly required to acquire a greater understanding of the causes of forced migration and displaced people. My study will be a potential and logical step towards clearly defining and identifying the concept of IDPs and subsequently solving the continued problem of displacement and environmental deterioration on the island of Sandwip in particular and the whole displaced people of Bangladesh in general. My study will highlight that the absence of international law governing internally displaced persons can jeopardize needs and priorities of the victims. Their protection and safety must be included in their resettlement and rehabilitation programs. Those who are displaced within a country are often at least as vulnerable and perhaps more, but they receive less attention and can call upon no special international agency. The research will show that the IDPs in Bangladesh are insecure as they fall into a vacuum of responsibility

with and within the state. The failure of obligation of the state towards its citizens is the main cause that draws attention and subsequently demands the role of protection by the international community.

The next chapter will deal with the geographical location of Bangladesh, its physical environment, coastal morphology, patterns of hazards, climate and land loss due to erosion. This chapter will highlight that due to the geographical location of Bangladesh, the Bay of Bengal plays a crucial role to generate storms and cyclones and at the same time it contributes to marine resources for the economic growth and development of the whole region. It will elaborate the causes of erosion in the coastal belt and will briefly discuss other groups of the population who are displaced by both natural and man-made causes.

CHAPTER THREE

PHYSICAL ENVIRONMENT OF BANGLADESH, THE BAY OF BENGAL, COASTAL REGION AND CAUSES OF EROSION

3.0 Introduction

This chapter provides a general overview of the physical environment of Bangladesh along with its geographical location, its climate and soils, settlement patterns and population growth of the country. This chapter highlights the role of the Bay of Bengal as it has been playing a great role in the region, especially in the coastal belt of Bangladesh since time immemorial. It has a tremendous role in the economy of the region as it has potential reserves for fish, shrimp and sea foods in one hand, and on the other, it causes natural hazards and environmental catastrophes in the region, especially on the offshore islands. It deals with coastal and offshore topography and morphology in order to highlight the severity of the tidal surges, erosion and cyclones in the coastal belt of Bangladesh. The chapter has also briefly given an idea of other victims of displacement in Bangladesh due to both natural and man-made causes.

3.1 Bangladesh and its location

Bangladesh is a South Asian developing country located between 20°34' to 26° 38' North latitude and 88° 01' East longitude with an area of 147,570 sq. km. (BBS: 1997a). Geologically it is a part of the Bengal Basin filled by South Asia sediments washed down from the highlands on three sides of it, and especially from the Himalayas, where the slopes are steeper. It is bordered on the west, north and east by India, on the south- east by Myanmar (Burma) and on the south by the Bay of Bengal (Fig: 3.1). It lies at the junction of the Indian and Malayan sub-regions of the Indo-Malayan zoogeographic realm (Pernetta, 1993). A number of South Asia's largest rivers, including

the Ganges and the Brahmaputra on the north and the Irrawady on the east, flow into the Bay of Bengal. The bay has an average depth of more than 2,600 feet (800m); and a maximum depth of 14,764 feet (4,500 m) is reached in the extreme south near the Nicobar-Sumatra mainlands (Encyclopedia Britannica, 2002).

Fig.3.1: Map of Bangladesh in South Asia



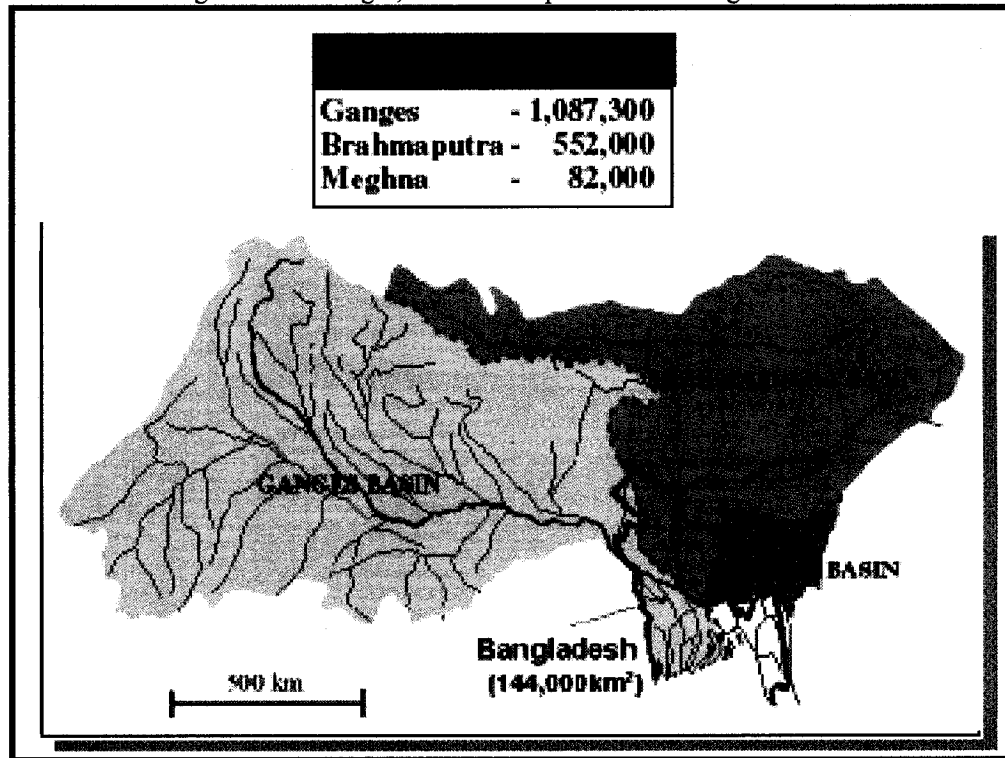
Source: ©1999 MAGELLAN Geographix SM

Bangladesh is a predominantly low-lying country, criss-crossed with hundred of rivers, comprising the delta at the confluence of the Ganges, the Brahmaputra and the Meghna river basins draining the Himalayan mountains through India and other neighbouring countries into the Bay of Bengal (Jorgensen and Madsen, 1997) (Fig:3.2). The interface of two contrasting settings of Bangladesh with the Bay of Bengal and the North Indian Ocean to the south and the Himalayas to the north gives the country the life giving monsoon, on one hand, and the catastrophic disasters like tropical cyclones, storm surges, floods, droughts and erosion, on the other.

3.2 Bangladesh and its climate

According to Pernetta (1993), Bangladesh has a typical monsoon climate characterized by rain-bearing winds, moderately warm temperatures, and high humidity.

Fig. 3.2: The Ganges, the Brahmaputra and the Meghna basins



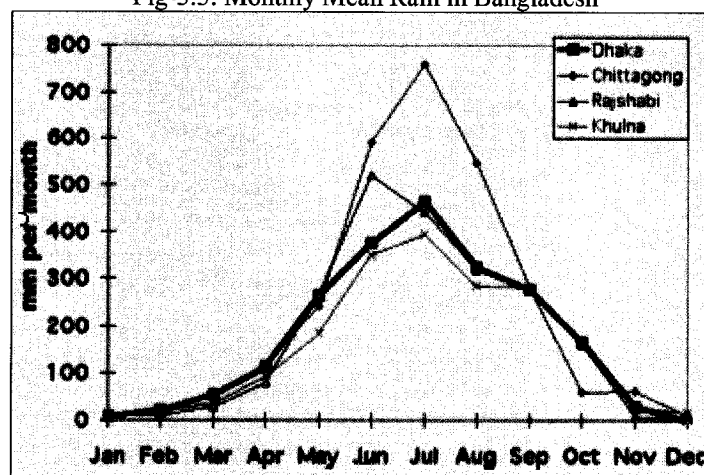
Source: Danish Hydraulic Institute, Denmark (1997)

From December to February, the climate is mild and dry, with minimum temperatures varying from about 7.2° C to 12.8° C and maximum temperatures from 23.9° C to 31.10°. The winds are northeasterly at the beginning of the winter but become northwesterly by the end. The Monsoon season is preceded and followed by periods of thunderstorms from March to early May and from October to November. May is the hottest month and temperatures may reach 40° C. Temperatures during the monsoon season usually reach a maximum of about 37. ° C, but temperatures in excess of 40° C have been recorded. Relative humidity ranges from about 75% in February and March to 85-90% from June to September (Pernetta: 1993).

Bangladesh receives heavy rainfall; except for some parts in the west, it generally exceeds 60 inches (150 millimeters) annually. Large areas of the south, southeast, north and northeast receive from 80 to 100 inches, and the northern and northwestern parts of the Sylhet area receive from 150 to 200 inches. The maximum rainfall occurs during the monsoon period, from June to September or early October. According to Mahtab (1989), annual rainfall varies from a mean of 1,250 mm in the west to 6,000 mm in the northeast, and the average is 1,500-3,000 mm.

Rainwater is used as an alternative source of water supply in Bangladesh, especially in the rural areas. In Bangladesh 48% of the households have Corrugated Iron (C.I.) sheets, tiles and *pucca* roofs suitable for the collection of rainwater (BBS, 1999). The disadvantaged people utilize rainwater as a source of water supply. The spatial distribution of normal rainfall in Bangladesh has been shown in Figure 3.3. The figure shows that relatively higher rainfalls occur in the north eastern part and eastern part and eastern part of the coastal area. It further shows that the 75% of the rainfall occurs during May to October. The main problems of rainwater harvesting are easy access to surface and groundwater sources, lack of initiatives and management. Storage and maintenance of quality of water from bacteriological perspective are also significant problems in Bangladesh. Globally, one in three people face acute water shortages as water use is expected to increase by 40 per cent over the next 20 years. Many of these people will be forced from their homes to seek clean water supplies elsewhere. Countries like Jordan, Egypt and Pakistan will be particularly affected. India's breadbasket-the huge agricultural plains of Punjab- is already more than half eroded (Townsend, 2002).

Fig-3.3: Monthly Mean Rain in Bangladesh

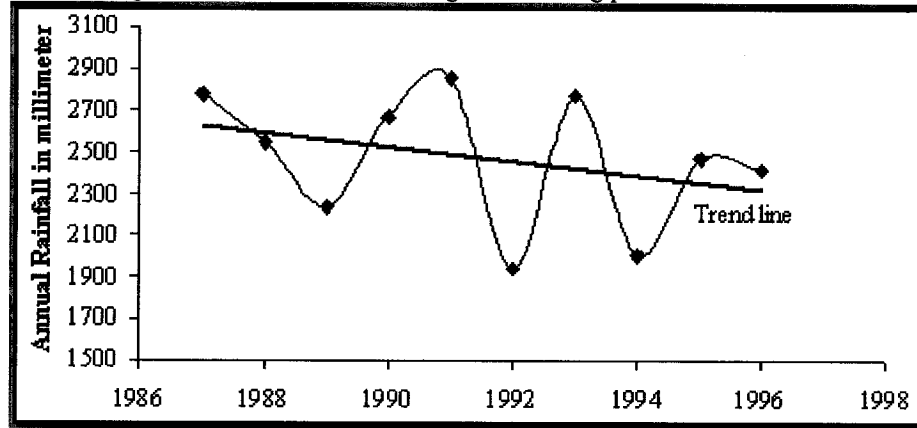


Source: various data of the rainfall

The FAO Country Report for Bangladesh (2000) has highlighted the rainfall of Bangladesh and divided the country into three zones. Areas receiving average rainfall between 1,500 to 2000 mm, 2000 to 3,000 mm, and more than 3,000 mm. Most of the country receives more than 1,500 mm of rainfall. Large areas of the south, southeast, north and northeast of Bangladesh receive from 2,000 mm to 2,500 mm of rainfall. The northern and northwestern parts of the Sylhet area receive from 3,500 to 5000 (Fig.-3.3) (FAO Report, 2000). Figure-3.4 shows that during the period covering 1986 to 1998, the annual average rainfall has varied between about 1900 mm to 2800 mm and shows a decline over last ten years. The Report says that on temporal scale about eighty percent of the rainfall occurs during the monsoon period, from June to September or early October. During the South Asian winter, the global circulation pattern drives the upper level of the atmosphere to flow from north to south. This brings south the cold Siberian air mass that, unmodified, would bring harsh, frigid winters into South Asia, but the Himalayan mountains prevent that from occurring. This allows a very warm air mass to form over the Indo-Gangetic Plane during the months of April and May (Gunnell, 1997). At this

time temperature in the region goes to 110 degrees Fahrenheit or more. This air eventually sinks back to the surface over Bangladesh causing the intense heat. Since the

Fig-3.4: Rainfall Pattern in Bangladesh during period of 1986-1998



Source: FAO country Report 2000

temperature over the region are very high and temperature is directly related to the moisture content of the air, the air mass in place over the Indo-Gangetic plane can hold tremendous amounts of moisture. The warm-moist air wedges itself under the existing dry air mass (Gunnell, 1997). This results in a thermodynamically unstable situation which allows significant rising motion in the lower levels of the troposphere which leads to clouds and eventually rain. The summer monsoon flow of the Indian Ocean has two branches—the Arabian Sea branch and the Bay of Bengal branch. The Arabian sea branch dominates the weather scenes in Bangladesh, northeastern India, Gangetic Plain and the southern slopes of the Himalayas. It enters Bangladesh in late may or early June, and continues to flow toward the centre of low pressure that lies over the west central part of India (Bangalpedia, 2004).

Bangladesh has a tropical monsoon climate, and there are four main seasons in Bangladesh (Brammer, 1996). The period covering March to May has the highest temperatures and evapotranspiration rates and it is called the pre-monsoon season. The

characteristics of this period include heavy thunderstorm with strong winds; and tropical cyclones (typhoons) usually affect coastal areas. The period covering June to September is the period of the highest rainfall. This is called the monsoon season and the characteristics of the period include humidity, cloudiness and foggy weather. More than 80% of the annual rainfall normally occurs during this period. The period covering October to November is called the post-monsoon season. It is hot and humid but sunny with heavy dew at night (Krantz, 1999). The period covering December to February is called the dry season. This period is relatively cold, dry and sunny (Krantz, 1999).

The Meteorological Department and the Bangladesh Water Development Board experts predict that the flooding worsens due to heavy rainfall expected in July in Ganga-Padma, Brammaputra-Jumuna and the Meghna river basin (Act International, 2002). The reports of Geneva based Act International further states that the rainfall during July is being influenced by one to two seasonal depressions in the Bay of Bengal and Bangladesh experiences massive flooding in the middle or third quarter of July when the monsoon is in full fury.

3.3 Population and Settlement patterns of Bangladesh

Bangladesh has a very large population and it is densely populated with about 755 persons per sq. km. (World Bank: 1997). Bangladesh has a population of 141, 340, 476 where 33.5% are younger than 14 years and the population growth rate is 2.08 % (CIA World Factbook, July 2004). According to Huq & Assaduzzam (1999), the total number of households in the country is 22.3 million out of which 20 million are rural and remaining 02.3 million are municipal households. Rural land is densely settled, especially

in the more fertile areas where alluvial soils support such crops as rice, jute, fruit and vegetables (Ericksen, Ahmad and Chowdhury, 1997).

Ericksen, Ahmad and Chowdhury (1997) have mentioned that the main factor for continued high population growth in Bangladesh can be seen in the subdivided bars in Figure 3.5. In 1991, nearly half the population (47 per cent) were children under 15 years of age, poised to marry and have children, and 40 percent of the total population are already in the child-bearing group of 15 to 44 years old. The total fertility rate fell from 6.78 in 1961 to 5.00 in 1981, and then to 4.33 in Figure 3.6 shows that population will continue to grow quickly in the foreseeable future.

Low and high projection suggest that by 2025 AD the population will be between 213 million and 291 million with a medium projection of 235 million. An extrapolation of the medium population of 305 million in 2050 AD—the end point for the climate change scenarios (Ericksen, Ahmad and Chowdhury, 1997). Because of flooding in the rainy seasons, settlements in low basins, floodplains, and the delta are sited on natural or artificially raised land. Thus, linear settlements are the norm. About half of rural settlement in Bangladesh is of this type (Ericksen, Ahmad and Chowdhury, 1997). The remainder—in areas of Medium Highland and Highland types—the settlement pattern is either semi-nucleated or scattered. In low-lying basins, homestead mounds maybe 3-5 meters high (Sultana, 1993).

The rural area is thickly settled and the pattern of individual villages is not well-defined. When waters start inundating the areas in the monsoon seasons, people can only recognize their houses and places due to old and tallest trees which are standing in the watery areas. The inundation of most of the fields during the rainy season compels the

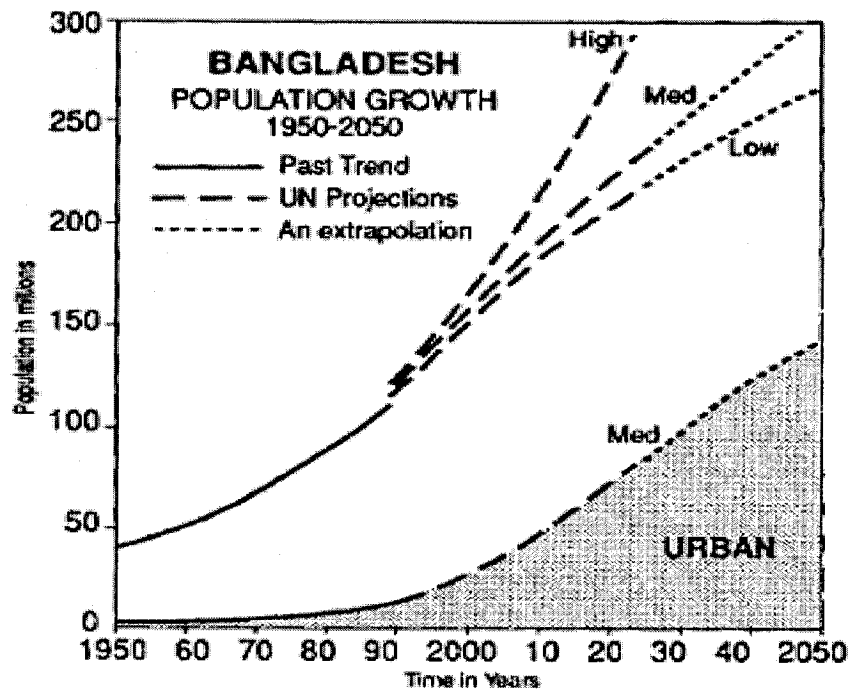


Fig. 3.5: Historical growth in total and urban population in 30 year periods, Source: Ericksen, Ahmad and Chowdhury, 1997

villagers to leave their homes and hearth and they build houses on higher ground. Some time they live permanently and some time they had to build the houses in order to waiting for the recession of water.

The settlements along road sides are common. They also build houses on the embankment erected on the bank of the rivers. People are settling over there for two reasons: because a) these are the government lands and they should not pay any kinds of taxes and b) they can fish in the river and local lakes and reservoirs very easily. There seems little hope that this basic rural settlement pattern will alter over the next 40 years.

The aforesaid groups are always looking for small area of land for homestead and they are more vulnerable with climate and sea level changes in Bangladesh. The density of rural settlement will significantly be increased, and in the next 50 to 60 years the population will be a big factor in Bangladesh. The land gradually will lose its fertility and

it can not accommodate this huge population and they will really be at risk from climatic variations and overpopulation crises.

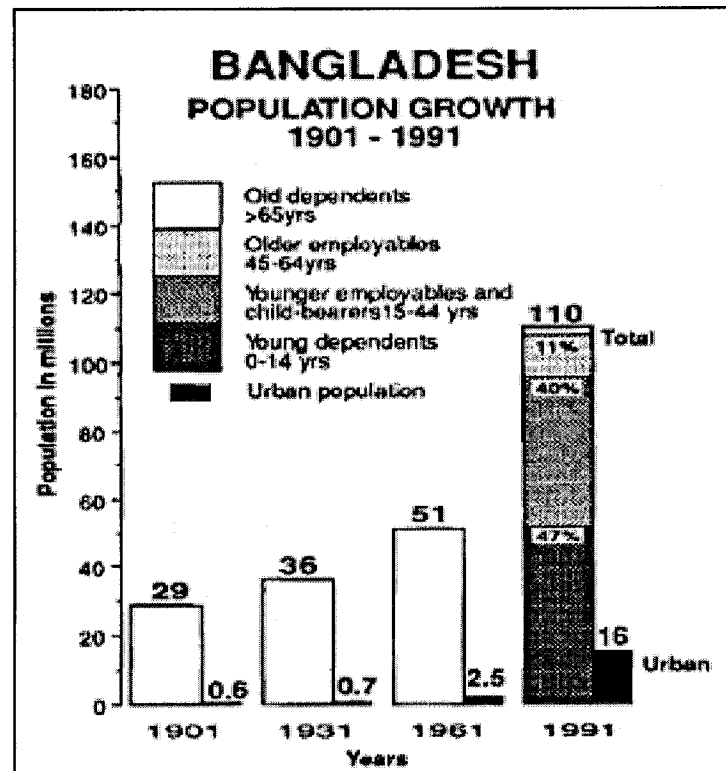


Fig. 3.6: Growth in total population from 1950 to UN projection to 2050 and extrapopulation to 2050 for low, medium and high variations of fertility; Source: Ericksen, Ahmad and Chowdhury, 1997

The shift of large number of people into the cities in Bangladesh is in part due to a society in transition and the breakdown of traditional activities and ways of coping in rural areas as alternatives are sought in the cities. Under these circumstances, the vulnerability of people from social and environmental stresses increases, regardless of actual impacts of climate change and sea level rise (Ericksen, Ahmad and Chowdhury, 1997).

3.4 The Bay of Bengal and its role in the coastal belt of Bangladesh

According to Banglapedia (2004), the Bay of Bengal a northern extended arm of the Indian Ocean, is located between latitudes 5°N and 22°N and longitudes 80°E

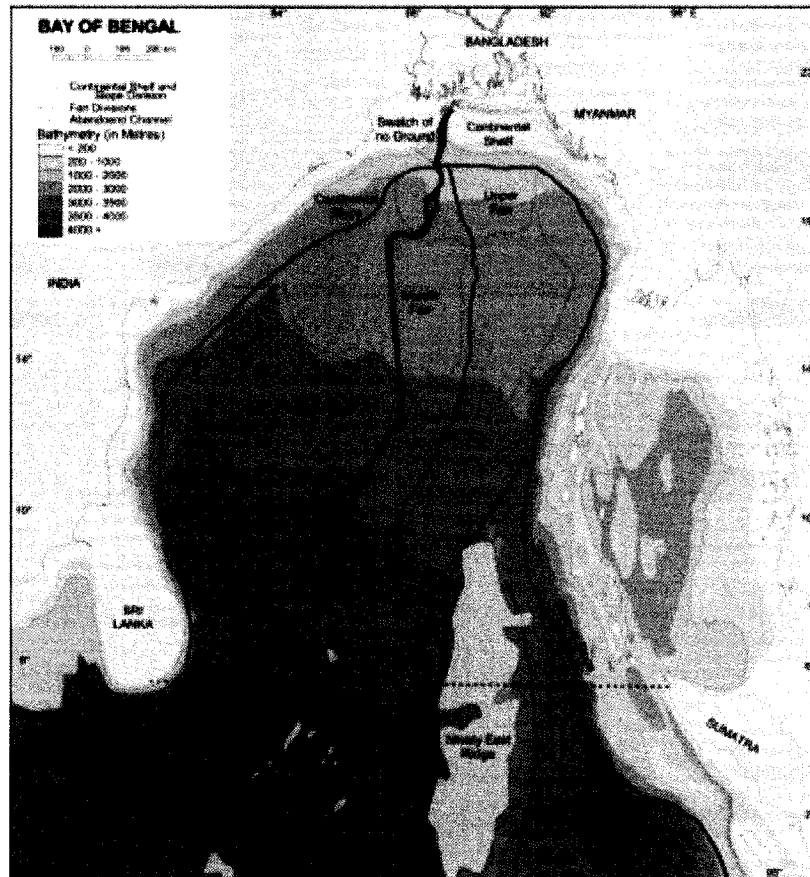
and 100°E. It is bounded in the west by the east coasts of Sri Lanka and India, on the north by the deltaic region of the Ganges-Brahmaputra-Meghna river system, and on the east by the Myanmar peninsula extended up to the Andaman-Nicobar ridges. The southern boundary of the Bay is approximately along the line drawn from Dondra Head in the south of Sri Lanka to the north tip of Sumatra.

The Bay occupies an area of about 2.2 million sq km and the average depth is 2,600m with a maximum depth of 5,258m. Bangladesh is situated at the head of the Bay of Bengal (Banglapedia 2004). The Bay of Bengal drains the combined discharges of the Ganges, the Brahmaputra and Meghna rivers amounting on the average to 35 000 m³/s, (Fig. 3.7) and these three rivers drain about 85% of the total volume of water brought into Bangladesh (Krantz, 1999). The average annual sediment load carried by the rivers to the Bay of Bengal is around 2 billion tons annually (Viles and Spencer, 1995). The Ganges and the Brahmaputra are heavily laden with fine sediments. The Ganges carries fine sediments with a heavy clay load whereas the Brahmaputra particularly transports fine sand and silt in suspension.

Banglapedia (2004) states that because of the funnel shaped coast of the Bay of Bengal, Bangladesh very often becomes the landing ground of cyclones formed in the Bay of Bengal. The Bay cyclones also move towards the eastern coast of India, towards Myanmar and occasionally into Sri Lanka. But they cause the maximum damage when they come into Bangladesh, West Bengal and Orissa of India. This is because of the low flat terrain and the high density of population poorly built houses. Most of the damage occurs in the coastal regions of Khulna, Patuakhali, Barisal, Noakhali and Chittagong and the offshore islands of Bhola, Hatiya, Sandwip,

Manpura, Kutubdia, Maheshkhali, Nijhum Dwip, Urir Char and other newly formed islands.

Fig. 3.7: Map of the Bay of Bengal



3.5 Bangladesh and its coastal and offshore topography and morphology:

Three major rivers—the Brahmaputra, the Ganges, and the Meghna—flow through the most part of Bangladesh. These rivers and their branches overflow during the rainy season and deposit fertile soil along their banks (World Book Encyclopedia, 2003). The coastal area of Bangladesh is endowed with the largest mangrove forest in the world, a resource that displays a rich biodiversity. The floodplains and coastal mangrove swamps of this delta cover almost one-third of the total area of the country. The uses to which coastal areas are put include agriculture,

recreation, leisure activities and tourism, anchorage, marine fishing and associated activities, drainage, landfill and construction for domestic, industrial, commercial and municipal purposes, mining and pumped extraction of mineral resources and waste disposal that includes both liquid effluent and solid waste. The result of this, variously, can be encroachment on, and destruction of, important ecological resources, pollution and the degeneration of water quality, inappropriate development leading to catastrophic flooding and wholesale coastal erosion (or accretion in the other areas) accompanied by the depletion of other resources (Chadwick, undated).

Most of the country lies within 10m above mean sea level and extensive coastline extends for some 710 km (excluding major indentations) from the Indian border in the west to the border with Myanmar in the southeast. The coastal area encompasses the regions of Cox's Bazar, Chittagong, Noakhali, Barisal, Patukahali and Khulna and includes some 2.5 million hectares of coastal tidal lands.

As a maritime country, Bangladesh has about 9,000 sq nautical miles of territorial waters and 20,000 sq. nautical mile of economic resources zone in the sea. The bottom topography of the Bay of Bengal plays a dominant role in the dynamic processes in the North Bay and Bangladesh coast. In his study, Ali (1991) focuses on the salient and major features of coastal morphology of Bangladesh and they are, among others, as follows: Local coastal bottom topography; low coastal land topography; a large networks of rivers; canals and steams; a huge discharge of river water heavily laden with sediments; Swatch of No Ground apparently controlling to a great extent the flow dynamics; a funnel shaped Bay converging northward and meeting the Bangladesh coast; high wind and tidal actions; frequently occurring

tropical cyclones and storm surges; a vast tract of mangrove forests influencing the flow dynamics and a large continental shelf particularly near the Meghna estuary.

Under the given conditions of geomorphological features, circulation dynamics, topographical settings, coastal configuration, hydrological regimes/features, etc., the coast of Bangladesh has been divided into three distinct regions- the eastern, central and western regions (Fig. 3.8), (Islam, Huq and Ali, 1999). These three regions-eastern, central and western are all vulnerable to erosion to different degrees. The east coast, runs from Big Feni River to Badar Mokam, is more or less regular and unbroken and protected from the sea by mud flats and sandy shores. A long sandy beach of about 145 km runs from Cox's Bazar to Bandar Mokam (Islam, Huq and Ali, 1999). This region, particularly its southern part, is less vulnerable. Big Feni River including Meghna estuary, is a highly broken coastline. It has a lot of small and big islands with a lot of channels and rivers. It has heavy sediment load and fresh water discharges, accretion and erosion. This is a highly risky zone in Bangladesh where tropical cyclones, storm and tidal surges are occurring with a dead hit. The western region holds the area west of Tetulia River and up to the boundary with India with a large tract of mangrove forests. This area has less erosion in the region.

3.6 Causes of erosion in the Coastal belt

According to Islam, Huq and Ali (1999), erosion occurs in the coastal belt for the following causes- a) heavy discharge current; b) astronomical tides; c) monsoon water current and d) high storm surges.

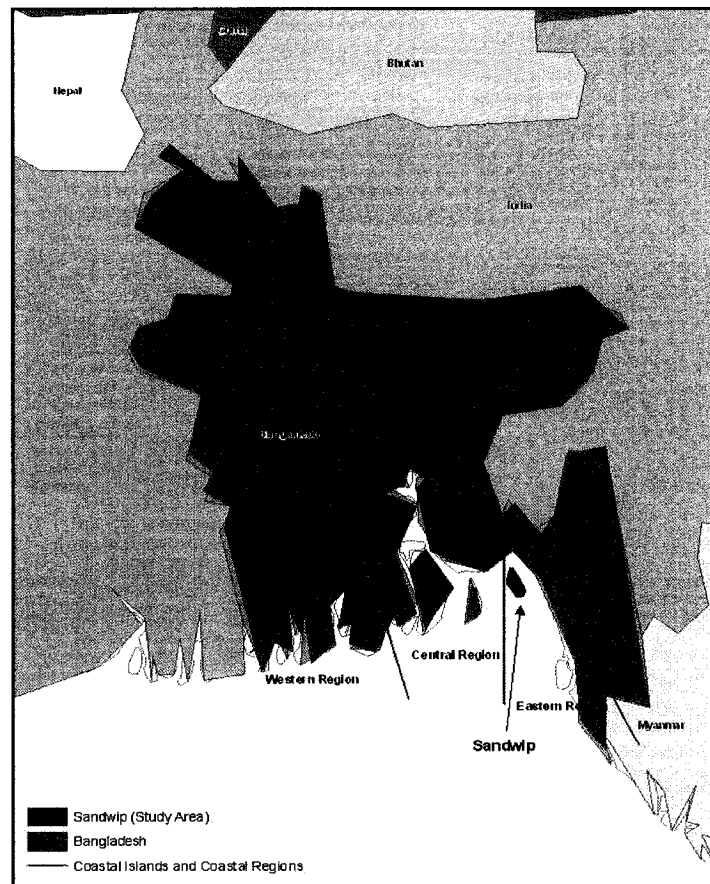
a) Heavy Discharge Current:

A huge amount of water discharges through and from Bangladesh into the Bay of Bengal (Ali, Huq and Islam, 1999). According to Islam, Huq and Ali (1999), the strong discharge currents cause considerable erosion in the coastal area. The main thrust is on the Meghna estuary at the north-east corner of the Bay of Bengal. The sea level rise will push the coast line as well as the river mouth that modifies the current and also the erosion.

b) Astronomical Tide:

The Tide is one of the main causes of coastal erosion in Bangladesh. Erosion,

Fig.3.8: Map shows three regions of the coastal area of Bangladesh



if it is little or large scale happens due to this tide causing a great human disaster in the region. Tides in the Bay of Bengal originate in the Indian Ocean and get amplified at Head Bay due mainly to the nonlinear shallow water effect and the northward convergence of the Bay of Bengal. The high tidal water action thus contributes to the erosion problem in Bangladesh. The rise in sea level is likely to increase the tidal range in Bangladesh coast (Islam, Huq and Ali, 1999).

c) Monsoon Water Current:

Excessive rainfall during the monsoon season, in conjunction with the already swollen rivers and saturated soils, resulted in severe floods in the region which creates erosion. The flows over the Indian Ocean generate strong water waves and currents in the area which causes heavy erosions in the coastal region of Bangladesh, particularly in the Meghna estuary. The areas likely to be inundated by Sea Level Rise (SLR) maybe subjected to wind effect, thereby causing more erosion in the area (Islam, Huq and Ali, 1999).

d) Storm Surges:

The severity of the surge depends on its timing relative to the tidal cycle and most dangerous storm surges are produced by lasting storm systems. Cyclone tracks over the Bay of Bengal move pole ward parallel to the Indian coast. The constant pounding from the sea under the lashing of the storm is a dangerous for the land and its inhabitants. The storm surges are among the highest in the world that causes innumerable losses to the life and property in Bangladesh. According to Islam, Huq and Ali (1999), they are responsible for changes in the coastal configuration, causing erosion and accretion.

3.7 Sea Level Rise and causes of displacement in coastal belt

The Intergovernmental Panel on Climate Change's forecast of a one-metre sea-level rise this century pose one of the largest dilemmas yet to face the human race. The prospect is particularly bleak given the fact half the planet's people are already eroded into coastal zones. Some 10 million of these people are at constant risk of flooding (Townsend, 2002). In Bangladesh alone a one metre rise would uproot 20 million people. Then there are the vast rice growing river floodplains of Thailand, Indonesia and India, among others (Townsend, 2002).

Sea level rise is one of the main causes of coastal erosion in Bangladesh. The sea level has an indirect effect on coastal erosion. According to Vellinga (1986) the coastal erosion has occurred due to the following reasons:

- By a rise in water level, the water line will shift landward;
- As the coastal profile becomes steeper, erosion will occur until a new dynamic equilibrium is reached at a higher level;
- The natural filling rate of lagoons and tidal basins will increase with an accelerate rise in sea level; the sediments required for the filling will come largely from the surrounding areas through erosion.
- Rising sea level will cause a shoaling effect in rivers as a consequence of which shoaling sediment yields from rivers will reduce; these sediments will not be available to compensate for any erosion in the coastal area.

According to the estimates of United Nations Inter-governmental Panel on Climate Change (IPCC), the sea level rise in Bangladesh will be in the range of 15 cm to 95 cm by the year 2100. On the high end of sea level, the rise could be about 30 cm by the year 2030. Even a 10 cm sea level rise, which will most likely happen well before the year 2030 by even the most cautious IPCC projections, will inundate 2,500

square kms, about 2 per cent of the total land area of Bangladesh. The Patuakhali, Khulna and Barisal regions are at most risk from the sea level rise as the sea on an average will move in about 10 kms. The sea is likely to move in further in the Khulna region, says a study report of World Bank published in June 2003.

"While Bangladeshis do not have a major role in terms of measures to stabilize human induced green house gas emissions leading to climate change, they remain on the receiving end to suffer from its consequences," observes the study on "Bangladesh: Climate Change and Sustainable Development." The study adds that the impacts of temperature increases could be quite substantial, resulting together with other effects in an overall 32 per cent and 31 per cent decline respectively in *Boro* rice and Wheat production.

According to a study, reported by the Bangladesh Sangbad Sangstha (BSS), Bangladesh is also subjected to increased annual precipitation with the existing climatic events like flood, droughts and cyclones, contributing to a 10 per cent rise that may increase the probability of an extremely wet year by 700 per cent. "There is an urgent need for Bangladesh to develop mechanisms to better adapt to the climate change impacts as the sea level along the country is rising at about 3 mm a year," the study said.

Most of the studies on erosion and accretion in Bangladesh are not made systematically and they do not serve the picture of the whole country. According to Islam, Huq and Ali (1999), erosions was observed in [a] major islands, namely Bhola (accretion 85 km² and erosion 376 km²), Hatiya (accretion 64 km² and erosion 172 km²), Sandwip (accretion 35 km² and ersion 277 km²). During the period, many small

chars such as Char Udaykal and Char Clark, Char Shabani, Nijhumdwip were formed.

3.8 Erosion in the coastal belt

Coastal erosion in Bangladesh is causing serious problems for the country's economy. The major rivers of Bangladesh are in a constant mode of change, often forming unpredictable courses, making the riverbanks unstable. A common phenomenon in the Brahmaputra, the Ganges and the Meghna rivers is the erosion of river banks in some areas and formation of new islands in other areas. The hydro-morphological features of these rivers vary widely, which also influence the characteristics of erosion and accretion (EGIS, 2000). Coastal erosion is severe in the southern part of the Bay of Bengal (Fig.3.9). The accretion of new land has been low, which will take a couple of decades to prompt people to settle on the new and low island. In his study, Krantz (1999) mentioned that 66 upazilas (sub-districts) out of

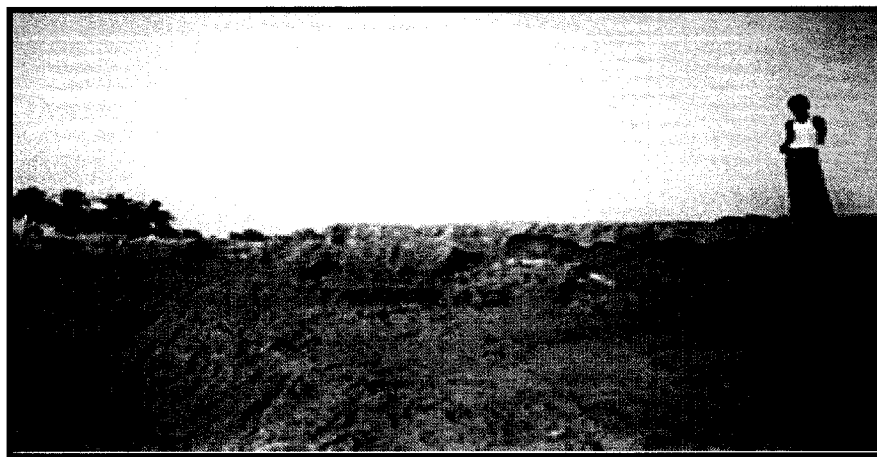


Fig. 3:9 Erosion goes on Sandwip

photo: author

600 are vulnerable to riverbank erosion. It is estimated that about 19 million residents in rural areas are at risk of riverbank erosion in the Padma- Jamuna flood plain region covering more than 12 485 km². Between 1973 to 1980, the land eroded in the Padma-

Jamuna flood region was 1198 km². Most areas of the delta are dominated by mesotidal activity (mean tidal range between 2m and 4m), while a small area near Sandwip is macrotidal (mean tidal range greater than 4m) Barua (1997).

According to Banglapedia (2004), in areas north, south and western part of Sandwip Island, tidal bores occur during the spring time with spectacular meetings of the two bores coming through the Sandwip and Hatiya channels. Sedimentary characteristics of different channels indicate that the Sandwip and Hatiya channels have a silty environment and the Shahabazpur and Tetulia channels have a fine sandy environment.

3.9 Groups of displaced people in Bangladesh: a brief sketch

In the following paragraphs, I will discuss briefly major groups of displacees in Bangladesh including Sandwip who are mostly affected by floods and cyclone. They are most vulnerable group in the society. These floods and cyclones not only touch the specific sections of the people but the population as a whole. Bangladesh cannot take the burden of such natural calamities each and every year which has been paralyzing country's productivity and economic growth.

a) Erosion causes permanent displacement

There are no accurate statistics as of today about the erosion in the coastal belt of Bangladesh. According to Kafi (1995), at least 283 locations as well as 85 towns and growth centres along the long bank line have seriously been affected by river erosion and another 1200 kms of bank line has been identified as vulnerable to erosion. In a period of 25 years from 1954 to 1988, 2000 square kms of land has been devoured by river erosion. A total of 2,695,048 people in 51 districts of Bangladesh (total 64 districts) have been rendered homeless by river erosion over a period of five

years from 1990 to 1994, and 550,207 acres of land has been swallowed by the rivers during the same period. Kafi (1995), adds that the number of displaced populations is around 250,000 per year. Estimate shows that over 3.5 million people have been forced to lead the so-called floating life in Bangladesh. Preliminary estimates indicate that the total number of people at risk from sea-level rise in Bangladesh could be 26 million (for comparison: in Egypt 12 million, in China 73 million, in India 20 million, and elsewhere, including small island states, 31 million—a total of 162 million. At the same time, at least 50 million people could be at risk worldwide through increased droughts and other climate dislocations (Myers, 1995)).

b) Floods cause temporary displacement

Since 1950s, Bangladesh has had 28 major floods, an average of at least one every other year (Paul, 1998). The floods of the summer of 1998 were very remarkable as they had engulfed half of the entire country, and virtually the country became a part of the ocean. According to Paul (1998), nearly 2,400 people were killed, and 40 million people were displaced with an overall loss of 2 billion US dollars. According to Ali (2004), the floods of 2004 in Bangladesh affected 22.5 million people or about 14 percent of the total population. Thirty-five districts or about 55 percent of the total number of 64 districts have been affected, of which 17 districts have been very badly affected. Published information also indicates that 20,166 square miles, or about 37 percent of the total area of the country, have been affected by floods.

The government has assessed the crop damage until July 26, 2004. The estimated damage for both crop and non-crop sector stands at Tk. 23 billion. The number of affected farmers is about 3.7 million. The major crops affected include

Aus, *Aman* seedlings, *B-Aman*, *T-Aman*, jute, vegetables, and others. The non-crop damage includes livestock and poultry. The total cultivated area submerged under water is said to be 0.69 million hectares, which constitutes 44 percent of the cultivated area of the districts affected by floods (Ali, 2004).

According to the Bangladesh Economic Survey (2001), 3.37 million tons of food crops for 1.73 million hectares of land were damaged in the 1998 floods. The total area under crops damaged in 1999 was only 0.12 million hectares and the production loss was 0.38 million tons. The government allocated Tk. 300 million that resulted in unprecedented level of production of *Boro* and wheat crops. In addition to the government sources, different donors and private organizations contributed Tk. 92.9 million for Agricultural Rehabilitation Programme (ARP). Besides, 81 NGOs of Bangladesh spent Tk. 382.4 million for rehabilitation in the crop sector. The total amount spent in 1998 was Tk. 774.6. One million four hundred thousand farmers benefited from ARP in 1998. Seeds for *Aman* and wheat crops were imported from both India and Pakistan and made available to the farmers under ARP, which contributed to higher production of such crops.

c) Cyclones cause temporary displacement

Cyclones appear suddenly out of the Bay of Bengal and their paths are relatively unpredictable. Cyclones are frequent and often followed by destructive surge waves and extreme high tides, affecting the economic development of some 18, 130 km² of the coastal region (Rahman: 1983). Most of the year there are cyclones and the century's worst cyclone in 1991 displaced hundreds and thousands of people in the coastal belt. During the night of April 29, 1991, one of the severest cyclones hit the coastal belt of Bangladesh. An estimated 200,000 people were killed and 10

million people became homeless (Table: 3.3). As an island, Sandwip is always worst hit by the cyclones and tidal surges that kill islanders and damage houses, property and wealth. Such disasters leave destruction in socioeconomic infrastructures including roads, culverts, sluice gates, and embankments. Cultivable land, plants, fisheries, wildlife and houses were damaged and the socio-economic infrastructure as well as social environment was severely affected. The death toll in Sandwip was estimated at 29,090 in 1991 and most individuals living in the affected areas lost their houses and hearths forcing them to take shelter in the cyclone centers, in the schools,

Table-3.3: Major Environmental Disasters in Bangladesh, almost all of them hit Sandwip

Year of	Event	Impact/Human casualties
1769-76	Great Bengal famine	"eliminated almost a third of Bengal's population"
1784-88	Floods and famine; radical shift in course of the Brahmaputra River (commenced in 1787)	Unknown
1873-74	Famine	Unknown
1876	Bakerganj Cyclone and tidal waves	400,000 deaths
1845-85	Famine	Unknown
1897	Chittagong Cyclone	175,000 deaths
1918-19	Influenza epidemic	400,000
1970	November 12 Cyclone and tidal waves	400,000-500,000 deaths
1974	Famine	500,000 deaths (official count 30,000 deaths)
1987	Floods	1,657 deaths
1988	Floods	2,379 deaths
1991	April 29 Cyclone and tidal waves	150,000-200,000 deaths*
1994	Cyclone	400 deaths
1995	Cyclone	650 deaths
1997	Cyclone	126 deaths
Source: C. Emdad Haque (1997), Hazards in a Fickle Environment: Bangladesh and Banglapedia, 2004 * The 1991 Cyclone and tidal waves mainly hit Sandwip and its adjacent islands killing more than 200,000 people leaving a trail of devastation including more than 29,090 people killed in Sandwip.		

and on embankments and on roadside. This severe cyclone had a surge height in places of over 7 meters and winds of up to 235 km per hour.

d) Development initiatives and projects displace people

The Kapti Dam of the Chittagong Hill Tracts (CHT), Bangladesh displaced close to 90,000 members of native hilly tribes of 13 different ethnic groups including *Chakmas* and *Jummas*. The dam, completed in 1961, and the displaced were never adequately rehabilitated. During construction, the dam flooded an area of some 655km², which included about 22,000 hectare of cultivable land—40% of all such land in the CHT. The lake took away the homes of 18,000 families and displaced 100,000 tribal people, of which 70% were *Chakma* (The Government of Bangladesh, 1975). The dam also flooded the original Rangamati town and the palace of The *Chakma* King. Kaptai dam is the only hydropower source in Bangladesh, with an installed capacity of 230 MW; about 5% of the electricity consumed in the country is produced there (Parveen and Faisal: 2002).

Recently, the Power Development Board (PDB) of Bangladesh has announced a plan to install two new 50 MW units that will bring the capacity of the dam to 330 MW. This plan will cause the reservoir water level to rise and may take away about 7500 hectares of land of the fringe land, which the tribal people use for rice cultivation during the April-August period each year (Parveen and Faisal, 2002). This ethnic plight is one of the largest occurrences of internal displacement in Bangladesh. Despite government efforts to provide arable land to 100,000 people displaced, many *Chakmas* were unable to maintain traditional livelihoods (Kharat, 2003). Three decades after their first displacement, more than 60,000 *Chakmas* and *Jummas* are still IDPs (Kharat, 2003). Recently the government of Bangladesh has made an agreement with them to rehabilitate and to facilitate them with their needs and demands.

e) Economic benefit displaces people destroying eco-system

The south-west part of Bangladesh is adjacent to the *Sundarbans* mangroves, an area traditionally well-known for its bio-diversity but is gradually succumbing to the threat of the mono-culture of shrimp cultivation. With a total land and water area of approximately 1,000,000 hectares, the entire *Sundarbans* ecosystem of India and Bangladesh supports the world's largest mangrove block, a well-known ecosystem of the tropics. Almost 62% percent of the *Sundarbans* is situated in Bangladesh, while the remaining 33%- the western sector lies- within India (Mitra, et al. 2001).

Shrimp cultivation in the coastal areas of Bangladesh rapidly expanded in the last two decades in unplanned and unregulated ways. This industry is expanding so fast that it is taking up not only agricultural lands in the area, but also much of the *khas* or government land by the roadside, which by law, is to be distributed by the local government to the landless. Lack of fodder also prevents poor people from raising goats and poultry as income-generation activities. They are bearing the brunt of an encroaching global economy and the resulting disarticulation of a traditional peasant economy.

3.10 Conclusion

This chapter has demonstrated that due to the geographical location of Bangladesh, the Bay of Bengal plays a crucial role to generate storms and cyclones and at the same time it contributes to marine resources for the economic growth and development of the whole region. Erosion has a socio-economic disastrous effect in the lives of the coast area population. Eroded people are always disadvantaged population in the society and they encounter socioeconomic problems in their everyday life. The socioeconomic condition of the displacees is significantly different

from other people those who are not displaced. Those who have something on the island, they can survive in the cycles of poverty and most of them live in the squatters, shanties or on the embankments or beside the road in the government *khas* land. Most of the households are poor and they don't have any choice for their survival.

The next chapter will focus on how the questionnaire survey was developed to obtain information about displacement on the island and to understand the experience of the affected people and the socio-economic conditions of the displacees. The following chapter also sheds light on a public forum based on the methods of PRA (Participatory Rural Appraisal) held in the locality to gather information through brainstorming on displacement and erosion.

CHAPTER FOUR

SANDWIP—A STUDY OF DISPLACEMENT

4.0 Introduction

The previous chapter has described the overall physical environment of Bangladesh along with the other characteristics and phenomenon that has made the whole country vulnerable. This chapter focuses on the location of Sandwip along with its role to play in the economy of the coastal belt of Bangladesh. It describes on how the questionnaire survey was developed to obtain information about displacement, people's miseries and economic crises. The questionnaire also deals with the issues of resettlement, rehabilitation programs and social vulnerability of the poor people in the locality. The questionnaire covers two unions (a group of villages) of Sandwip which works as primary sampling units (PSUs) to understand the aftermath of displacement and the socio-economic conditions of the displaced persons on the island. The following section will also shed light on a public forum based on the methods of PRA (Participatory Rural Appraisal) held in the locality to gather information through brainstorming on displacement and erosion.

4.1 Sandwip and its geographic location

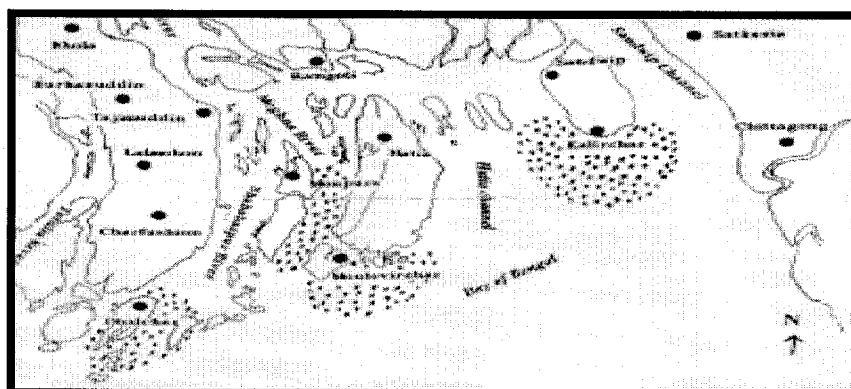
Sandwip is a historic island with an area of 762.42 sq km, bounded by Companiganj Upazila of Noakhali District on the north, Bay of Bengal on the South, Sitakundha and Mirsharai Upazilas, and Sandwip Channel on the east, Noakhali Sadar upazila. Hatiya Island and Meghna Estuary on the west (Fig.4.3). Sandwip Upazila has 16 Union Parishads (village level administrative area), 31 *Mouzas* and 34 villages (Table-4.1). The island had a central town situated at Harishpur called Sandwip town (now disappeared), having an area of 23.12 sq km, consists of 9 wards

and 5 *mahallas*. It had a population of 41488; male 47.48% and female 52.52%. Literacy rate among the town people is 40.4%. The total population of the island stands at 272,179, male 49 49.68%, female 50.32%, Muslim 87.91%, Hindu 11.51% and others 0.58%. Main occupations include: agriculture 17.23%, fishing 4.12%, agricultural labourers 22.98%, wage labourers 5.48%, transport 2.11%, commerce 10.36%, renting house 2.45% and others 16.42% (Sandwip UNO Office).

4.2 Coastal belt and the economy of Bangladesh: the role of Sandwip

The coastal areas play a very important role contributing a lot to the economy of Bangladesh. The coastal waters along with its all rivers are a big source of marine, coastal fisheries, inland and marine transport. In addition, shrimp culture has been a lucrative business at home and abroad. Shrimp cultivation in the coastal areas of Bangladesh rapidly expanded in the last two decades. The country has a coast line of 720 km and there are two sea ports located in the coastal area—Chittagong and Mongla. They also harbour numerous ships each day by which the government makes huge revenue per year. A number of industrial complexes are situated in the coastal areas; especially the port of Chittagong is mostly famous for its new EPZ (Export Processing Zone).

Fig. 4.1: Map of the coastal area of Sandwip that are the breeding ground for *Hilsha* fish



Source: Shad Journal 1998

The island of Sandwip and its adjacent area is one of the major breeding grounds for the *hilsa* shad, *Tenualosa ilisia* (Hamilton), the largest single species of fishery in Bangladesh (Shad, 1998) (Fig. 4.1). The *hilsa* Shad contributes some 200,000 metric tons to the total national fish production (20 per cent of the total national fish production) and employs about 2.5 million people. Bangladeshis glorify *hilsa** as the king of fishes and its taste is said to surpass nectar (Haroon, 1998). The coastal area is very fertile for rice cultivation. A lot of local and international companies are working in the coastal areas to explore oil and gases. Some people of the island migrate to different countries of the world and thus it gives a good remittance to the Sandwip. The island sends fishes (Fig. 4.2) to different cities



Fig. 4.2: Fishermen sell fishes in the local market photo: author

of the country. It has also other products including coconut, betel-nut, betel leaf, sugarcane, rice and vegetables.

4.3 The Island of Sandwip: a tale of sorrows

Sandwip has reduced in size over last 200 years. Sandwip Channel was nearly isolated from the main distributory network of the rivers in 1764-1793. According to Barua (1997), Sandwip is surrounded by the tide-dominated East Hatiya Channel,

*The fish-loving *Bengalese* of the West Bengal of India hold *hilsa* in similar esteem and according to Hindu mythology, a pair of *hilsa* is offered to the *Goddess Durga* on *vijaya dashami* day (one of the festivities of Hindus) (Hilsa shad, 1998).

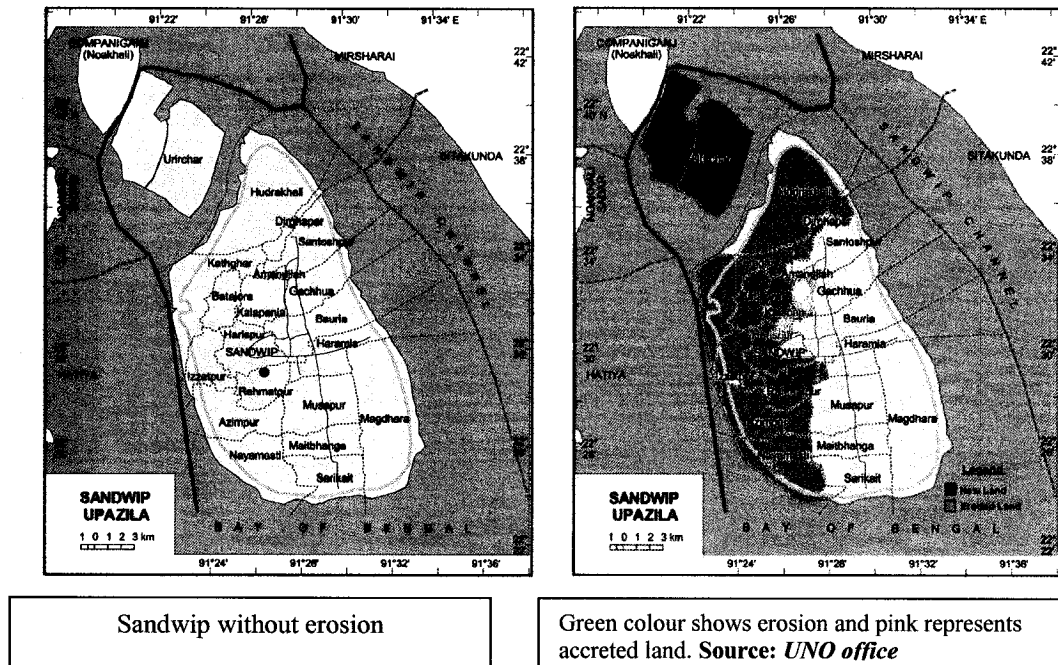
linking Urir-char. Available data for the last 75 years (1913-1988) show that Sandwip is reduced to about 50% of its original size (Fig. 4.3), with considerable erosion northwest and accretion southeast. Both maps show that erosion on the northwest coast of Sandwip accelerated after 1963. "It was about 200m per year between 1913 and 1963 and about 350m per year between 1963 and 1984 (Barua, 1997).

According to a report by Bangladesh Space Research and Remote Sensing Organization SPARRSO (1987), a net accretion of land by about 213 km² during the period 1972-79 was emerged. The study elaborates that erosion is severely affecting the north-eastern part of Bhola, northern part of Hatiya and north-western part of Sandwip. But it is reported that some surrounding places of Sandwip got some new emerging land during the 1970s and early part of 1980s. Urir-char, located in a north-western part of Sandwip with a one fourth km from Sandwip, grew from 3 sq km in 1963 to 46 sq km by 1981" (Barua, 1997). Barua (1997) and other researchers describe that the newly emerging land beside Sandwip is Urir-char which is the creation of washed soils of Sandwip and presently it is one of the unions of Sandwip (Fig. 4.3).

According to the local people, in 1960s and 70s, the local people of Kalapania, a union of Sandwip which is very close to Urir-char, used to believe that the emerging land on the channel might be the backside of a big fish coming here for relaxation or giving births. It remains one of the sagas in the rural areas; later some fishermen went to the area to see the fish and they found it as an emerging new muddy land. The very name of Urir-char means a land of tall green grasses and this

small island expands with these grasses all over its land. On this island, in the late 70s and early 80s hundreds of displaced families started to make their habitation over

Fig.4.3: Map of Sandwip, *Source, Banglapedia*



there and resettled finally. It came under crop cultivation in the early eighties.

4.4 Studies on Displacement on the Island of Sandwip

4.4.1 Phase-1: questionnaire on displacement

A questionnaire (Appendix-1) was developed to obtain information about the erosion that has displaced hundreds of people on the Island of Sandwip (Table: 4.1). The responding individuals will remain anonymous in the study and the questionnaire consists of multiple choice or single word answers to ensure that respondents can identify the core issue of erosion and the displacement. The purpose of this questionnaire is to help policy design, in particular policies to support the settlement issues of the eroded people on the island. Based on detailed household information the questionnaire focuses on four major issues: (i) what are the substantial losses the

displaced people incurred during the erosion?; (ii) what are the effects of displacement in their social and economic life?; (iii) what are the possible suggestions to upgrade their livelihood and to integrate them into labour market?; and (iv) what are the immediate actions to save the island from rapid disappearance?

There is no available information about the policies and programs undertaken by the government to prevent erosion and mitigate displacement on the Island of Sandwip and this makes difficult to determine what would constitute a policy that would in some sense be adequate to the importance of the problem.

Survey data contains information on 26 households whom we have interviewed. In addition, we have talked to 10 other people of the locality who are of different professions. The questionnaire provides relatively detailed information on household characteristics, nature of displacement and economic activities, thus constituting an excellent source for statistical and economic analysis of displacement. Interviews were carried out in two unions on the island in order to investigate how

Table-4.1: Sandwip was consisted of the following unions under the Chittagong District Administration

No	Chittagong District		Sandwip Upazila (sub-district)	Affected Unions
1			Amanullah Union	Disappeared
2			Azimpur Union	Disappeared
3			Bauria Union	
4			Gachua Union	Disappeared
5			Haramia Union	
6	Erosion study area	<i>Interview area</i>	Harishpur Union	Most of the parts disappeared
7			Izzatpur Union	Disappeared
8			Kalapania Union	Two thirds disappeared
9			Magddhra Union	
10			Maitbhanga Union	
11			Musapur Union	
12			Neamasti Union	Disappeared
13	Erosion study area	<i>Interview area</i>	Rahmatpur Union	Most of the parts disappeared
14			Santoshpur Union	Disappeared
15	Erosion study area		Sarikait Union	
16			Urirchar Union	

Source: Sandwip UNO office, 2004

erosion had affected the people living in the villages and how many times they have had to move and how they managed to live after erosion. The team interviewed 26 households from two unions of Sandwip- Harishpur and Rahmatpur. Located in Harishpur, the central town of Sandwip is now under the water; the Meghan River has been devouring the eighth-tenths of the area since last century. Most of the areas of Rahmatpur are also under water.

All respondents of the questionnaire are displacees and they are from various professions. The team interviewed 21 men and 5 women of different ages and professions. The average age of the respondents of the structured questionnaire (Appendix-1) is between 20 to 60 years. The interviewees include four fishing people, four agri-labourers, three farmers, two business persons, two rickshaw pullers, two wood-cutters, three teachers, one vendor and one lawyer.

4.4.2 General Attributes of Questionnaire Respondents

Table 4.2 below shows the respondents' age ¹ and gender distribution. Among the questionnaire respondents, 21 were male and 5 were female. The respondents were divided into two categories—a) age 20 to 40 and b) age 41 to 60. There are about 10 respondents in category-A and rest of them belong to Category –B. The category B is more experienced about erosion and displacement as they got eroded several times in their life time. The interviewees spoke on various issues and many of the respondents expressed their concerns explaining their socio-economic conditions. They informed that recurrent displacements and presumable failures in the local support system, eventually forced most of the displacees to move to town or other places or to their

¹ They were asked to tell their age tentatively, but not their date of birth as they don't have any record of their birth in the local government offices.

own relatives. The questionnaire provides systematic data to analyze the relationships of the hazard phenomenon to pertinent socioeconomic variables. The characteristics of the respondents are made according to the following: displacement status, displacement frequency and mobility. The questionnaire acts as a primary sample unit (PSU) of the huge population who are displaced several times in their life on this island. According to the local administration of Sandwip, about 150,000 populations have been displaced in the past couple of decades (Sandwip UNO Office, 2004). About two thirds of the respondents were chosen from Harishpur and the rest of them

Table.4.2: Age category 20 to 40 and 41 to 60 (blue colour indicates 41-60 age group; red colour indicates 20-40 age group)

respondents	sex	age	occupation	how often (number of displacement events)
1	f	30	fishing	3
2	f	25	fishing	3
3	f	27	fishing	3
4	m	55	fishing	11
5	f	45	service	1
6	m	49	service	3
7	m	40	business	1
8	m	53	business	1
9	m	23	rickshaw-puller	3
10	m	35	rickshaw-puller	1
11	m	28	farmer	2
12	m	60	farmer	3
13	m	48	farmer	1
14	m	20	student	1
15	m	52	social worker	2
16	m	48	vendor	3
17	f	32	agri-labourer	2
18	m	46	agri-labourer	4
19	m	52	agri-labourer	4
20	m	50	agri-labourer	5
21	m	38	lawyer	2
22	m	38	teacher	2
23	m	37	teacher	2
24	m	56	teacher	2
25	m	41	wood-cutter	3
26	m	36	wood-cutter	2

from Rahmatpur. The ratio of women is four times less than the male respondents because women were shy and they usually did not like to talk to strangers. Another reason is that some time they are opposed by their husbands, relatives or by the elderly of the locality not to show up in front of the survey team. Usually they do not like to express themselves publicly. These five female respondents seem to be progressive in the locality and they are associated with the local non-profit and cooperative organizations.

4.4.3 How many times they are displaced

Both Table 4.2 and Fig. 4.5 reveal that all of the respondents are displacees and they have lost their properties, business, firms and other crop lands. The same Table shows that most of the respondents are from the working class. Out of 26 respondents, 9 are educated with dignified professions such as teaching, law, social work and service. The proportion of respondents with post secondary qualification was chosen to balance with other respondents who are illiterate and do not have any school diploma. The educated households will be able to focus their ideas and predicament and can easily describe the situation in respect of the socioeconomic condition of the island. The number of each household varies from each other and according to Table 4.5, the minimum family number stands at 3 and the highest one is 10. If we calculate all the family members of the 26 households, then the total family number stands at 175 members. The same Table shows that among 26 households, 7 families displaced one time, 8 families moved two times, 8 of them displaced three times, two families moved four times, one family moved for five times and another one displaced for 11 times. The person, who moved 11 times since 1949, said that his

family got eroded since 1949 and still the family is back and forth erecting houses in the erosion prone areas (Fig. 4.4). Replying to a question, he answered that “still I hope that the flow of the river will change and I might see all of a sudden that my

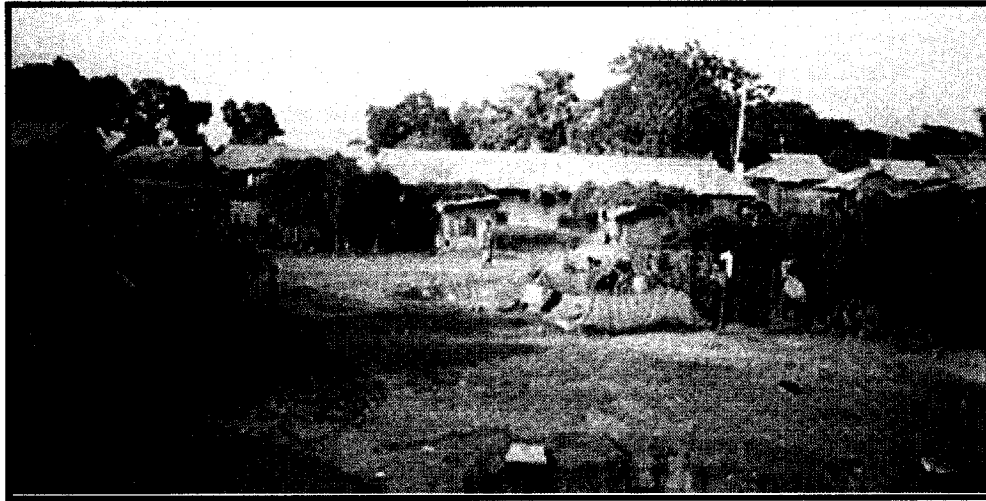


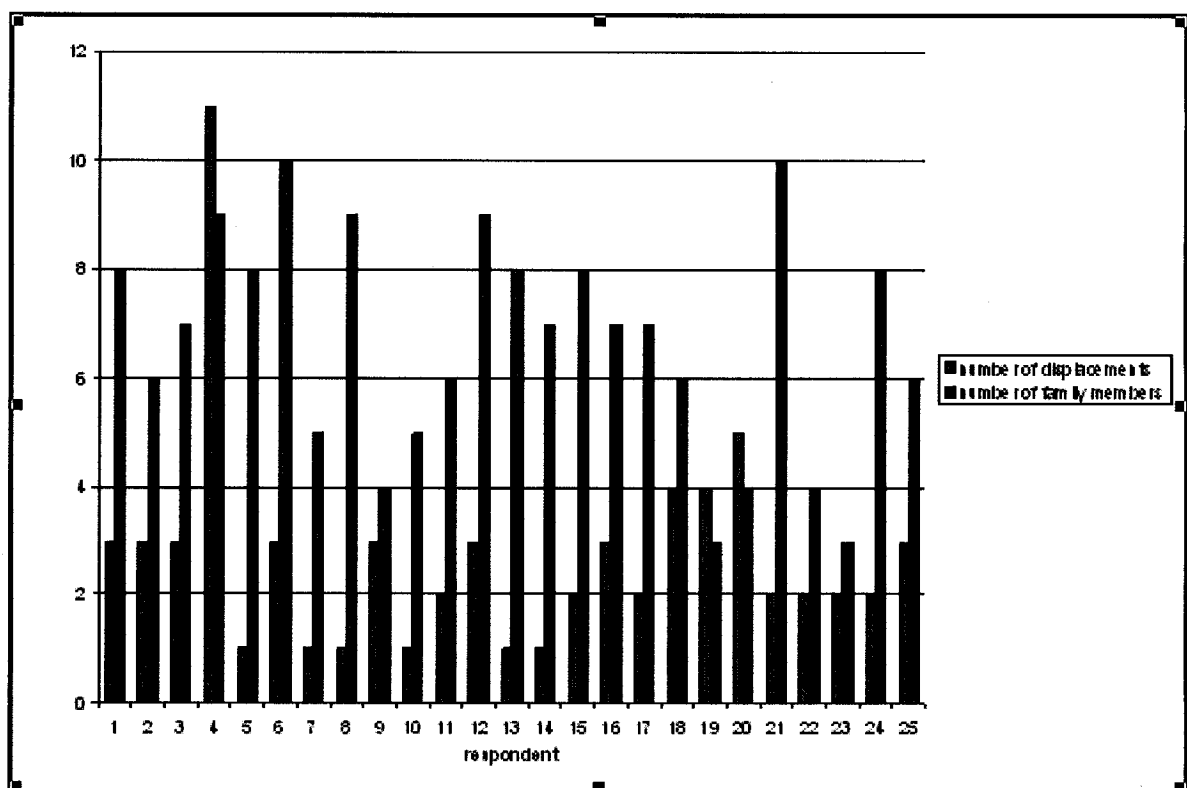
Fig. 4.4: Displacees of Sandwip live in squatters

photo: author

eroded land would be emerged in the areas from where I have moved and I believe that the Almighty has the power to change the cycles of life. I don't have any complaint as yet and this is the cycle of life and we all have to accept it.” He further added that “I have nine family members and we are all surviving. Maybe we don't have that much wealth to enjoy, but my profession (fishing) is a hope to my family. I have one daughter who got married with a person from my own clan and they are also surviving whatever they have.” “Some time I give them money, if they need, mostly they take loan for farming for one season and the next season they pay their loans back and I am happy whatever I am doing for me and for my family,” he replied. One female respondent who is working for the local administration said that she got displaced only once along with her 8 family members. “I am not affluent, but I can survive with my family in this miserable situation.” She is the only bread-winner of

her family and she has to look after her little kids who always remain sick. “I am waiting for the bright future of my kids and I would like to see all of my kids get educated and all of them are working independently,” she expressed. One respondent, who is a rickshaw-puller by profession, said that he did not want to survive the way he lived now. He has lost every thing whatever he inherited from his father. “Once I had everything, such as pairs of buffaloes, cultivating lands, fruit trees and milch cows; and I used to sell yogurt in the evening market in our locality, but now I don’t have anything to possess and I have lost my father’s land, the “killer” river devoured my every thing,” he expressed with his frustration. He told that his homestead was eroded three times since 1991 and he has to look after a family of four members (Fig. 4.5).

Fig. 4.5: Number of displacements



Respondent number # 18 was a rich person once in the locality; he had a plenty of farming land, full of fishes in his ponds, jute, crops and vegetables in his own meadow, but now he is waiting to work for other farmers as an agri-labourer. “It is sad for me, once I had a lot and I used to hire day-labourers for my land and these days I had to wait to get work done for other people. I don’t understand. I am getting lost and how long I have to wait for to get rid of this situation.” He said that he moved three times since 1991 and still he lives nearby the river and he has to move soon if the flow of the river goes this way. Respondent number # 3 is a lady who buys fishes caught by the local fishermen from the deep sea. She supplies it to local market for consumption and thus she makes money. She has told that she lost her home three times in last 13 years. “I came from one of the villages of Harishpur union that does not exist now. Now where I stand before you and running my business, two years later no such a place will exist here. Does God tell me that every thing is temporary and is this his plan,” she emphasized. Now she lives in the squatter.

Respondent number # 12, a farmer of 60 years old, moved 7 times in his whole life who has 9 family members. He is now totally depressed. He makes living as a farming worker for others with an agreement to share two-thirds of its harvest to the owner. “I have to make the land fertilized providing composts, so that I can make good amount of crops.” How do I deal with such a tragedy, I don’t have to say anything to any one, the river eroded me 7 times and a couple of cyclones made me poor. I can’t earn much for my family and I am sad when I see my wife is yelling when I can’t buy so many essential things for her and for my children.” “I am

depressed sir, can you arrange some money for me from any sources, I will be grateful,” he reiterated.

People of the case study areas bear no hope, most of them are grieved; neither are they optimistic about the changes in their life nor they do count their days for a better condition. “No body takes care of us; we see some rich people (who are the contractors) come here and start measuring the embankments in order to construct embankments where we have built our homestead. They don’t feel to tell us something, and we are like animals to them. They put a deadline to evict our houses from the embankment,” says respondent number # 26 who is a wood-cutter by profession and he does not have any piece of land to survive and to put his family under a roof. He further noted that “The local contractors do rush to repair embankments on the land where we build our houses temporarily; they do it for their own sake and for getting bills from the local administration. They don’t follow the design to erect the embankments. “They overcome all of these illegal acts through bribing the local engineers and other executives from the administration.”

Respondent number # 24 is a teacher by profession. He is very active and courageous in the locality who always organizes people to demonstrate in the street if something goes against their interest. He commands the local people for any good cause. The local people listen to him as somehow he happens to be a teacher of most of the local people. “When I start criticizing the local administration and other elites of the society, including local representatives, they simply ignore me and start back-biting against me. But I know I am doing better and I don’t care for any thing. My manifestation makes them fearful and weak,” he said. Respondent # 21 is an activist

and who is a lawyer by a profession, belongs to a dignified family in the society. He moved 10 times and still he does not have any sign of depression and sadness. He knows that as he lives on the island, none can save him from the natural hazards and he is ready to accommodate himself with any obstacle he encounters. "I can not leave the area and I can't go to district town to start my law profession, if I do that then how will these people exercise their rights in this rotten place; perhaps they would be more vulnerable in the society rather than erosion. They will be losing their last hope if I leave them."

Respondent number # 15 is a male social worker in the locality. He moved 8 times and "erosion is always running after me." While asked about the migration to other places, he simply replied that he does not like to leave his ancestral place where he finds his roots and culture. "In another place, I might go and I will have my job there too. But my sixth sense always stops me not to go anywhere. My first place where I was born, disappeared 30 years ago and then I moved to nearby and then to Harishpur and I don't know this time," he expressed with a sad tone.

4.5 Phase-2: Organizing a public forum through PRA methods on natural hazards on Sandwip

Prior to interviewing the local people through the structured questionnaire, a public forum was organized to make them more open so that they can express themselves properly. This assists people to open their head and heart among the peer groups and discuss their own obstacles in the long struggle with their survival. This phase of interaction with the local people works well as they discuss their inner

sufferings and concerns they are holding for a long period against the government and the local administration.

At least fifty people gathered from various professions to discuss the phenomenon of natural hazards at Harishpur on January 03, 2005. The forum was organized by the survey team in line with Participatory Rural Appraisal (PRA) to exchange views with the local people taking their experience and knowledge they have gathered since long. PRA is a participatory approach that emphasizes local knowledge and enables local people to make their own appraisal, analysis and plans. PRA uses group animation and exercises to facilitate information sharing, analysis, and action among different developmental actors. An open meeting generally frames the sequence of PRA activities. The method is a good icebreaker at the gathering and helps focus the discussion. The survey team who acts as the facilitators of the forum divided the gathering into four groups to come up with new ideas and recommendations on their ongoing crises and perception about natural hazards.

The PRA exercise finds out three very important issues which are an integral part of the displacement study on the island of Sandwip- a) attitude and perception of the local people towards natural hazards, b) women's needs and constraints during natural hazards, c) possible alternatives to protect the island. Group A was assigned to point out the attitude and perception of the local people on natural hazards; Group B was assigned to look at women's issues during the disaster and both Group C and D were entrusted to put forward some plans and alternative proposals to mitigate the erosion and to protect the island.

4.5.a) Attitude and perception of the local people towards natural hazards:

Group A observed that the majority of the population living in the ‘High Risk Areas’ (HRAs) of Sandwip are day labourers and farming workers who constitute 80% per cent of the locality. Most of the participants highlight that erosion, floods and cyclone cause risk and vulnerability in the locality. By these natural hazards, they lose their paddy fields, homestead gardening (vegetables), large number of live stocks and poultry and other household assets. Most of the people who live in the HRAs and in the eroded belt, accept the vulnerability and believe that one day the erosion would be stopped and “Almighty would listen to their prayers.” They accept this truth that no disaster can take away their lives unless and until it is predestined by the Almighty.

The group further highlighted that the process of land erosion, cyclone and tidal surges pose a constant danger to their life and property. Most participants describe the severity of the 1991 cyclone that made them vulnerable for quite a long time. A majority of the participants criticized the signals and warnings of the impending disaster because such warnings turn into a false and ineffective message to the community several times.

4.5.b) Women’s needs and constraints

Group B noted that women, who constitute more than 50% percent of the population in the whole island, are always vulnerable if hazards come to their doorsteps. When erosion occurs, woman has to take care of every thing including children. During the disaster women suffer a lot and they become depressed with a lot of burdens, especially when the warning of cyclones is disseminated through the electronic media, they do not feel able to take refuge in cyclone shelters as they must

always take care of their cattle, chicken, homesteads materials, crops and other household belongings. The group feels that women recognize themselves as the responsible for their assets in the absence of their husbands or male head of household. During the warning of cyclone or any disasters they prepare fodder and water for their livestock as well as their family members. They further pointed out that women are always religious and God-fearing, and usually they don't like to go to a shelter during the disaster for two reasons— a) distance of the shelter from the locality and b) lack of space in the shelter due to presence of excessive male crowd.

4.5.c) Possible alternatives in the form of recommendations

Group C and D put forward the following possible alternatives that came up throughout their candid discussions:

Alternative-1: Cross Dam

Group C and D believe that the immediate task of the government is to build a Cross Dam for the island so that new (accreted) land will emerge where the eroded persons can settle their lives. They clarify that the proposed Cross dam would not only save Sandwip from erosion but also help accretion of new land of some 100 km long causing deposition of alluvial soil carried by the Meghna River, where it would be possible to rehabilitate about 10,000 distressed families. Arguing their claims, they mentioned that the government undertook such a project in 1980s to reduce the erosion and to rehabilitate hundreds and thousands of people in the locality. The people of Bhola, a neighbouring island of Sandwip, had been opposing any project to protect Sandwip. They feel that if Sandwip is saved from erosion, the flow of the river might change its way and could hit their island that might be a cause of the disappearance of their island. They demonstrated against this project and lobbied

with the government not to implement such a project in the offshore island of Sandwip.¹

Alternative-2: Boulder Embankment:

The groups recommend that big ships or iron-made large scraps or ship breakings or other kinds of boulder might help to reduce erosion in the area. This mechanism will help reduce the flow of the river and will not affect the river bank to get eroded. The river will change its flow to another channel that might help the islanders save themselves from erosion.²

Alternative-3: Coastal Embankments

One of the recommendations of both the groups is to erect embankments around the whole island with a good height so that tidal surges can not enter into the land. The (CEP), which was taken up and completed in the sixties. These embankments were designed to contain high spring tide level with 0.9-1.5 meter free board. The aim of the embankment was to prevent tidal surges and some irregular periodic inundation. It has proved to be useful in protecting against storm surges of lower heights,³ and entire coastal belt of Sandwip was covered by the coastal embankment project

¹ BCAS study (1992) highlighted that in 1988 a team from the Netherlands government visited Sandwip for a feasibility study and they suggested only a 90 km long cross dam from the southwest side to Char Lakkhee could save the island. The budget for this project was estimated at TK 1000 million (BCAS: 1992).

² Bangladesh Water Development Board (BWDB) submitted a project in 1988 suggesting a 2.74 km long boulder embankment which would be highly effective in stopping erosion caused by changes in the water and current of Meghna. An amount of TK 480 million was estimated to complete the project, the scheme didn't go through and by this period the whole town is now under the water (BCAS: 1992).

³ In the 1991 cyclone, out of the 62.62 km long embankment, 58.12 km of the embankment was damaged, rendering the island totally vulnerable to intrusion of saline water from the sea (BCAS:1992). According to the BCAS study, the Bangladesh Water Development Board (BWDB) undertook a repair work scheme on the emergency basis through the food for work program. It took about 5 months (May-September 1991) to complete this work and about 15,46.17 metric tons of wheat have been distributed while employing some 193,251,71 workers over the entire period. The individual allocation for of wheat is 6kg/100 cft per person per day. This newly constructed embankment also called Draft Embankment is 2, 44 meters high from the ground level and its length is 34.71 km.

Alternative-4: Coastal Forestry Planning

The groups suggest that the Coastal Forestry Plan can reduce the vulnerability and erosion in the high risk areas with appropriate mangrove species and in addition, it will assist in land stabilization and dissipation of wave energy, at the same time making productive use of the land. And such programs need to be participated by the local people to look after the plants and trees. They emphasize that the Island needs to be fallen under the government scheme of the reforestation program.

Alternative-5: Resettlement project

The group recommend for a resettlement project in a new place where displaced people can live together in groups to preserve their social neighbourhood, networks and local forms of organizations.

Alternative-6: Cyclone Forecasting and Warning System

The group C and D discuss the role of communication which is very effective during the cyclone period. They said that short wave radios appear to be the best medium communicating warning of impending cyclones. Wireless set and ham radio are very useful to communicate and disseminate information from one village to other villages. The local people by listening to the radio and watching TV can take the decision to go to the shelter or to the safest place.

4.6 Experiences and reflections of the displaced people of Sandwip: An overview

The loss of home and hearth through erosion causes serious havoc in every day lives of the displaced people of Sandwip. Some of them prefer to go to a distance place far from the erosion and most of them like to stay in the same areas. But those who are affluent and rich they move fast for the safety of their family members. They prefer to see their generation educated and it is their firm belief that education, health

and employment are only possible in the city or suburbs. They already know that their decision to stay again in the flood prone areas will put them again into trouble. As a consequence of disaster experience, displaced people develop a very different set of characteristics than those of non-displaced people. The people who moved for a distance of more than two or three kilometers to take shelter on some abandoned place or government land. The mainland areas along the bank line of the erosion zone contain both permanent and displacees.

During the survey it is found that displaced people tend to move only very short distances and according to them there are two causes that drive them to a stay on short-distance:: a) a portion of the displaced people can not afford to move greater distances because of their inability to bear the initial expense, costs of moving and building houses; b) The majority of the displaced population (as I have discussed earlier) had strong belief that the eroded land will be reemerged soon and as soon as it happens they will move there fast and reestablish their all facilities over there.

They noted that those who moved on short-distance area they get different facilities from their own relatives and friends such as land, loan and materials for the making of houses. Their selection to remain close to their own people reflects their close tie with the society they live for a long time. They know that this place will be eroded again soon and they have to move to other place for which they have to pay big prices.

The displaced people are suffering from health care medication. They have to travel a long way to the nearest hospital and they in many cases can not afford the medicine they need to use. They don't have enough drinking water too. They have to

walk long distance to collect their waster from tube-wells. They have also sanitation problem in the locality.

They are also concerned about the illegal occupation of accreted *khas* land and typically it reflects the hierarchical social and political structures of the coastal areas. The local power holders (*joterdars/talukders*) use a combination of patronage and coercion to recruit homeless people to act as colonies of their new world. They build big farmhouse, crop lands or construct other small industries such as units of fishing supply or paddy husking where their recruited landless people work with a minimum wages. They have bad experience about the authority concerned who does promise a lot to them when they face disaster such as offering grants and replacement land, but eventually they don't do any thing. According to them the traditional rural villages has a culture based on land and agriculture which was destroyed due to this displacement because they had to switch to another occupation. Displaced people are running after various economic activities that are available in the new area.

4.7 Common Problems of the displaced people on Sandwip

a) Fear of eviction from their shanties

The respondents were categorized according to these problem sectors: problems for fishermen, farmers, agri-labourers, wood-cutters and vendor. Most of the respondents are poor and they live on other's mercy as they have built their houses on the embankments or on the government's *khas* (abandoned land owned by the government) land. The land was encroached by the government with a good price. The previous owners of the land took advantage of their earlier ownership. Most of the time, they intimidate the displacees of having dire consequences including expelling from the embankments if they don't listen to them (earlier owners). The

displaced people can not take any measures against them because many of the residents feel that they live illegally on the embankments.

b) Fishermen get robbed of their fishing equipment

Our survey team found that the main problem for the fishermen of the locality is robbery of their boats, nets and some time their catches. Fishing equipments, engine boats, trawlers and a big chunk of fishes are the objects of robbery for an organized gang in the locality. Some time they have their own boats and they kill the fishermen in the deep sea or they simply throw them in the water. They sell the boats, nets and catches to other organized gangs right a way in the sea. There is not enough police protection in the sea routes and the police and the coast guard cannot do any thing against them. Some times these gangs reportedly have a hidden linkage of money sharing with law enforcing agencies.

c) They never own new emerging (accreted) lands

Displacees are always shocked and sad when they see that they don't belong to new emerging (accreted) lands and it is occupied by the feudal lords (*jotdars/talukders*). Though the government has its own rules and regulation, these known and identified people don't pay attention to those of set rules and regulations, and with them the local administration works secretly after having been bribed or receiving a promised portion of money. In Fig: 4.3, there is a spot which is shown as pink colour (a union of Sandwip which is called Urir-char) is occupied by hundred displaced families of Sandwip in 1970s and 1980s, and they started harvest and cultivation over there by the permission of the local administration. According to them, the local feudal lords attacked them several times and evicted them from the lands and confiscated their harvest worth hundred and thousands of Canadian dollars.

“Not only they occupy our houses and belongings, but and they put their own people in our houses replacing us, and no body takes actions against them,” one of the sufferers alleged.

d) Loan with high interest

The local people take loans from the rich people of the locality or from the non-profit organizations, but “their interest is so high that sometimes we can not make it,” said respondent # 16. “If we fail to give any installment on the fixed day, the people from NGOs or land lords come to our houses and they start “yelling and screaming” and “give us a deadline to pay back, though we are stuck by the cyclones or other natural hazards and they know it and they know that we don’t have capabilities, instead still we have our good intention to pay money back,” he lamented.

4.8 Socio-cultural and economic effects of displacement on the Island: a sketch

Poor people have been living along coasts since antiquity. Cyclonic storms and tidal surges do not affect all coasts equally. The people who live in the interior area do not suffer as much as the coastal inhabitants suffered. Those who are rich and well-off, their sufferings are less because after a certain period they can recuperate their losses and damages. But for the poor, such disasters appear as an ominous sign for their survival and livelihood. Displacement causes the following socio-economic effects for the lives and livelihood of the poor islanders of Sandwip in particular and Bangladesh in general. Basically it:

a) handicaps local economy

Erosion is the prime cause of sufferings in the lives of the people of Sandwip. Most of them are not able to reconstruct their lives rapidly. Cyclonic actions have immediate effects on the society, but erosion handicaps the economy and growth of production for months and years in the locality. Those who are rich start to migrate to cities and other suitable places for their survival. Those who are poor try to migrate to cities or to suburbs to get rid of bleak future. But they can not exist there either to some powerful agents standing in the way of their growth and livelihood. They have to share their wages with their middlemen who helped them get a job, and in the evening they don't get expected wages from their employers. Their earning is less than the other people who are working on the same job. Eventually, they have to accept whatever their employers give them as their wages.

b) pushes towards migration

There are no official statistics about the portion of the displaced people who have migrated from the island to other cities, place or other islands. Landless, unemployed, uprooted and displaced people go to new places with a hope of obtaining employment to lead their life. They scatter in the city and occupy a small pocket of public land or abandoned area or go to the squatters or rent a *kuccha* (bamboo-made) room from the occupier or go to railway slopes or live in the bush. There is no waste disposal and no electricity or sanitary toilets. They exploit the ecological balance due to lack of proper resettlement and

guidance by the appropriate authorities. These floating people some time enter into a dark phase of criminal world creating instability in the society.

The UNO office of Sandwip indicates that the displaced people who migrate to cities become involved in different kinds of occupation to support themselves. They become rickshaw pullers, domestic servants, manual labourers, vendors, and small shopkeepers. It is ironic that the migrating poor people are considered as the roots of all evil and social tensions in cities and sub-urban areas and police nab most of them for any incidents in the areas. Knowing such a reality, most of the displaced people on the island don't like to move to other places for a new life. They remain in the areas and looking for any opportunities they might get in days to come.

Besides erosion, tropical storms striking may mean large economic losses to the land owners, and cause nonavailability of work in the locality. Riverine flooding, tidal surges and other disasters deny the landless and displaced people any employment for cultivating lands such as rice and jute fields which are more prosperous work to make much money. Typically, the harvest season is the way to get the poor people involved in the job market and it helps a large number of the rural people to get engaged in temporary work on the harvest fields and plantations.

c) denies access to land and aquatic resources

With high rural population densities and considerable inequalities in income and access to land, the rural people of Sandwip take risk to live in the high risk coastal zones. In the coastal areas of Sandwip, the access to resources is

quite complex and fragmented. Large landowners, dairy owners, rich farmers, and other powerful people have various kinds of formal and informal legal and illegal access to the resources available in the land and water. They control coastal land and marine resources. Thus the majority populations of the locality are deprived of opportunities and they remain in the control of the vested section of the people.

d) effects on people's income and standard of life

While interviewing the displaced people, they reported that their living standard had fallen and their incomes reduced severely. They need a resettlement site by the government to start fresh their lives again. Before their displacement, they cultivated different vegetables in the land they have near their homesteads and most of them raised poultry and cattle. But now they have to buy every thing from the local market which is very expensive as the prices of essential commodities have been increasing day by day. There were hotels, restaurants, small fishery industries, transports, boats and other related works in the locality, but due to erosion most of the local people are jobless and there is no hope for any small or big establishment soon.

e) damages social solidarity and kinship

There is a strong family bond and kinship among the people of the coastal areas of the island. Erosion destroys this fellowship and the trend of kinship. When the people become displaced their ties with the kins loosen. It is important to preserve kinship in terms of village and locality, and it is only possible if they resettle in a place or a site all together. If they resettle in

several different villages then they cannot maintain their identity and group solidarity. Displaced people should move in groups, as social units of different kinds, to preserve the preexistent social networks and local forms of organizations. Their integration and resettlement together into the surrounding social and natural environment will provide them with the economic and natural resource potential at the new site.

f) segregates social and political interaction

In the locality, there is also an informal council of elderly people who usually settle disputes of the areas mutually. This is a major dynamic of social and political interaction in any villages of Bangladesh. But displaced people get deprived of such a familial village council and if they are segregated, they have to face difficulty with integrating themselves in the new area's social and political life.

g) deprives of opportunities and advantages

In general, fish is considered as the major source of protein in Bangladesh and fisheries create job and employment in the locality, especially most of the displaced people used to fish in the river, reservoirs, lakes, marshes and paddy lands. They consume fishes for themselves and at the same time they sell it in the local market.

The displaced people alleged that they borrow money from local *mahajans* (money lenders) and financial institutions and they charge heavy interests, thus they can not do their business properly. Even some NGOs are also charging high interest. The major problem they are facing is that the local

vested elites take control over their business. They have to sell fish at a minimum rate to them, otherwise they have to suffer and lose a lot. If they don't listen to them, the next day they lose their boats, fishing nets and equipment. And it is impossible for them to start again their business by purchasing boats, nets and equipments and hiring people to go to the deep sea for their catches.

h) denies access to credit from financial institutions

Class relations and structures of domination influence the new array of livelihood options. They lose agricultural lands and as they don't have any cultivable land, they don't get any assistance from financial institutions. The farmers as well as farming labours don't have any job available for their livelihood. They don't have enough money to purchase a piece of land to build their houses again. Displaced poor populations are not able to pay off loans or meet other obligations. Credit provided by the government and other sources may not be obtained so easily by the poor and they have to depend again on social influential groups who take some percentage from them as bribes.

i) begets spatial and temporal constraints

The livelihood systems of the rural poor in the eroded areas are heavily influenced by spatial and temporal constraints. Vulnerability has its own rhythms in the society and loss of labour and work makes it harder for the displaced people to recover economically. They have lost their assets and more in absolute terms, their total property. Thus it becomes more

complicated to them to go for recovery from nothing. During their initial displacement, they face a lot of problems. The erosion not only erodes one or two houses or two or three families, but it displaced hundreds of people from the whole coastal belt of Sandwip in one night. They have to build temporary houses for the settlement of their families, prepare sow fields and adjust to new neighbours. Displaced persons should get a compensation package for their losses at replacement cost, and they should receive money for their moving and relocation during this transition period.

j) reduces land to cultivate

Land is a crucial factor for the settlement processes of the displaced people of Sandwip. Since the majority populations are farmers and labourers, the availability of land is essential to encourage them in their self earning and self-reliance. If possible, the development agencies reestablish them in a small scale industry sector or service sectors. Vocational jobs are really not enough to restore income unless they can get jobs in the field of their new acquired skills.

k) causes vulnerability to women and children

Vulnerability of the comparatively disadvantaged- women and children looms large at times of crises, especially when natural disasters hit the doors. For cultural reasons, women are less likely to evacuate until the time is too short to go for safety. Women are generally responsible for managing and supervising homes and children and they usually do double duty while natural hazards come to save their children and themselves too. The survey team

found that children and their mothers are more malnourished than others in the family and they also get less attention from the authorities concerned.

k) weakens self-mobilizing capacities

Displacement weakens the strong self-mobilizing capacities of the whole community and induces helplessness and social apathy. The displaced community needs to maintain responsibility for their own resettlement and development. Turning the issue of displacement into an act of development is a challenging one, which enhances planning, facilities and services.

In view of the above discussion, it seems that the settlement of displaced people must be done with the following social, political and ecological dimensions kept in mind: a) building new community putting people's hopes and aspirations first; b) building houses for each household; c) allocating sufficient land so that their previous income level maybe sufficiently attained; d) ensuring their work on sharecropping or farming labour; e) arranging a program called "food for work" by the government as long as they need; f) providing a handsome amount of money as a loan without any interest to start any venture in the locality, g) establishing a public assistance for a certain period; and g) ensuring minimum facilities to avoid epidemic disease (such as poor sanitary conditions, the lack of clean drinking water).

4.9 Conclusion

This chapter has examined the social, cultural and economic problems faced by the displaced people of Sandwip. Analysis of the existing data shows that the affected people face a lot of unseen difficulties which cause not only the destruction of their social integration, kinship and culture, but also the moral and economic life of

their society as a whole. Erosion separates them from their forefathers' homestead, evicts them from their agricultural lands and strips them of their own culture and kinship. The chapter has shown that the less privileged group of people suffers the most from displacement. This natural tragedy increases landlessness, joblessness, homelessness, marginalization and food insecurity. Displacement needs resettlement and relocation by the development actors and the suffering they face provides a tremendous pressure psychologically and morally. The data further show that there is a lack of administrative initiatives and political determination to deal effectively with the problems of the displaced people of the island in particular and the displaced population as a whole in the country.

The next chapter will present the policy issues including the role of the government, NGOs and private sector to mitigate such a massive natural hazard. This concluding chapter will put forward a host of recommendations at the policy level to reduce vulnerability on the Island of Sandwip in particular and the whole coastal belt of Bangladesh in general.

CHAPTER FIVE

CONCLUDING REMARKS: EMPOWERING THE ISLANDERS—A BIG CHALLENGE

5.0 Introduction

This concluding chapter will put forward some proposals in respect of concerns raised by the displaced people of the study areas. It will conclude that the legal and institutional framework for planning and implementation for rehabilitation of the islanders is not enough; there is a lack of administrative initiatives and political determination to deal effectively with the problem. The chapter emphasizes that the private sector including corporate people, national and international NGOs and individuals have a great role to play in mitigating the severe magnitude of vulnerability, damages and destruction of the island.

This chapter will review and analyze the issue of displacement in Bangladesh highlighting the fact that the IDPs of Bangladesh deserve to return voluntarily or resettle in safety and dignity, to their homes or places of habitual residence. The UN's Guiding Principles on Internal Displacement and other international laws including International Humanitarian Laws, Universal Declaration on Human Rights (UDHR), and the rules and regulation of Amnesty International have a great role in rehabilitating this helpless and distressed population of the society.

5.1 IDPs of Sandwip- their experiences and concerns

Erosion is the prime cause of sufferings in the lives of hundred and thousands of people of Sandwip. Most of them are not able to reconstruct their lives rapidly. It is well known that cyclonic actions have immediate effects on the society, but erosion handicaps the economy and growth of production for months and years in the locality.

Our findings find that erosion, riverine flooding, tidal surges and other disasters deny the landless and displaced people for any employment for cultivating lands such as rice and jute fields which are more prosperous to make money and keep labourers busy with the jobs. Harvest seasons are the way to get the working class involved in the job market and engage a large number of the rural people in temporary work on the harvest fields and plantations. There were hotels, restaurants, small fishery industries, transports, boats and other related works in the locality, but due to erosion most of the local people are jobless and there is no hope for any small or big establishment soon.

With high rural population densities and considerable inequalities in income and access to land, rural people of Sandwip take risks to live in the high risk coastal zones. In the coastal areas of Sandwip, the access to resources is quite complex and fragmented. Large landowners, dairy owners, rich farmers, local elites and other powerful agents have various kinds of formal and informal legal and illegal access to the resources available in the land and water. They control over coastal land and marine resources and thus majority populations are deprived of opportunities to get access in the local aquatic and other resources.

When interviewing the displaced people, they reported that their living standard had fallen and their incomes reduced severely. They need a resettlement site by the government to start fresh their lives again. Before their displacement, they cultivated different vegetables in the land they possessed near their homesteads and most of them raised poultry and cattle. But now they have to buy every thing from the

local market which is very expensive as the prices of essentials commodities have been increasing day by day.

There is a strong family bond and kinship among the people of the coastal areas of the island. Erosion destroys this fellowship, brotherhood and kinship. Displaced people should move in groups, as social units of different kinds, to preserve the preexistent social networks and local forms of organizations. Their integration and resettlement together into the surrounding social and natural environment will provide them the economic and natural resource potential at the new site.

Class relations and structures of domination influence the new array of livelihood options. They lose agricultural lands. As they don't have any cultivable land, they don't get any assistance from financial institutions. The farmers as well as who are working in the farming lands, they don't have any job available for their livelihood. They don't have enough money to purchase a piece of land to build their houses again. Displaced poor populations are not able to pay off loans or meet other obligations. Credit provided by the government and other sources may not be obtained so easily by the displaced poor people. They have lost their assets and more in absolute terms, their total property. Thus it becomes more complicated to them to go for recovery from nothing. During their initial displacement, they face a lot of problems. The erosion not only erodes one or two houses or two or three families at a time, but it displaced hundreds of people in one night who live on parallel line around the whole coastal belt of Sandwip. They have to build temporary houses for the settlement of their families, prepare sow fields and adjust to new neighbours. During

our survey, displaced people urge for getting a compensation package for their losses at replacement cost, and they need to receive money for their moving and relocation during this transition period.

Land is a crucial factor for the settlement processes of the displaced people of Sandwip. They need cultivable lands to start their new lives and as the majority populations of them are farmers and labourers. The authority concerned may provide them land in the new emerging lands (*chars*) which is essential to encourage them in their self-earning and self-reliance. If possible, the development agencies may reestablish them in the small scale industry sector or service sectors.

Vulnerability of the comparatively disadvantaged section of the society- women and children- looms large at times of crises, especially when natural disasters hit the doors. Women as for cultural reasons are less likely to evacuate until the time is too short to go for safety. The survey team found that children and their mothers are more malnourished than others in the family and they also get less attention from the authorities concerned.

Displacement virtually weakens strong self-mobilizing capacities of the whole community and induces helplessness and social apathy. The displaced community needs to maintain responsibility of their own re settlement and development.

5.2 Revisited the definition of IDPs and their protection in Bangladesh

Numerous factors and forces affecting population movements lead to various patterns of migration ranging from voluntary, seasonal, periodic, forced migration due to political religious persecution. People migrate mostly, if there is no armed conflict, to avoid hazards and natural calamities. Thus the concept of pervasive-

intensive comes up in line with the events of hazards. Displacements occur due to natural causes such as earthquakes, volcanic eruptions and flooding and anthropogenic causes such as global warming, acid rain, pollution of riverways, industrial accidents, nuclear testing, arsenic, reservoir construction, depletion of ecological resources and consequent environmental degradation.

Until the beginning of the 1990s, Internally Displaced Populations were people who fled their homes, but who were not refugees (having remained in the country). It is only recently that some efforts have been made to devise a comprehensive definition of internally displaced populations. Phung (2004) affirms that while not defined as refugees, internally displaced populations have been dealt with by refugee structures such as UNCHR which provides protection and assistance to them (mostly in returnee-linked programs), when they are found in the same areas as refugees, and when it considers that this forms an integral part of a comprehensive solution to the refugee problems. Internal displacement constitutes a distinct problem which has to be dealt with not only in conjunction with the refugee problems, but also separately as it raises issues of a different nature (Phung, 2004).

My research findings explore that the concept and theory of IDPs is a bit problematic; some times it mixes up with environmental refugees. It lacks analytical clarity and some issues are still obscure in defining the term developed by Deng. The definition of IDPs is too idealized and does not capture the reality of the experience of the population. The developed world is concerned with internally displaced persons for two reasons of a very different nature--one being humanitarian and the other more political, i.e. to prevent IDPs from becoming refugees. Refugees cannot

cross the border now; their movements are restricted and they can not move from country to country as easy as it was earlier.

The guidelines mostly talk about the dispersed and displacements that take place under the arm struggle and other clauses of the Guidelines do not clearly express the people who are for some reason are displaced. It overlooks the importance of sovereignty in the state system. After 9/11 most of the mechanisms are changed and the genuine asylum seekers are not getting their rights in the developed country. They suspect refugees and oppose their movements in their countries. Nevertheless, the current interest in internally displaced persons is not solely motivated by the intentions of states trying to prevent cross-border movements into their territory, and the terms of the debate are actually more complex than this (Phung, 2004).

5.3 Where do the IDPs of Sandwip in particular and Bangladesh in general stand?

In Bangladesh, internal displacement has been growing since time immemorial. There is erosion, drought, cyclone and floods in every part of this deltaic land. Indeed, in a situation of danger, the people prefer to live in their own community or at least within their own country. A lot of people who lost their homes and hearth went to the mountain areas for their survival. They start their own life with only with a pair of buffalos to till the land for the harvest. Because no adequate land is left in the locality for the survival, either their land is swallowed by the river or it is occupied by *jotdars* (feudal lords). The landless people do not have that kind of strength inside to stay or fight with the natural calamities or with the people having power and wealth (Fig. 5.1). According to a Bangladesh Statistics Bureau (BSB), the population of the country was 75 million in the early 70s, now this has jumped to

more than 114 million people. The lands are becoming squeezed day by day due to urbanization and new development projects in the rural, sub urban and city areas. The real estate business is booming in Bangladesh and developers started to establish new cities in the sub-urban areas. The country is densely populated. They occupy reservoirs, canals, lake and marshy lands to establish city or community. This is also not environmentally sound (Fig.5.2).

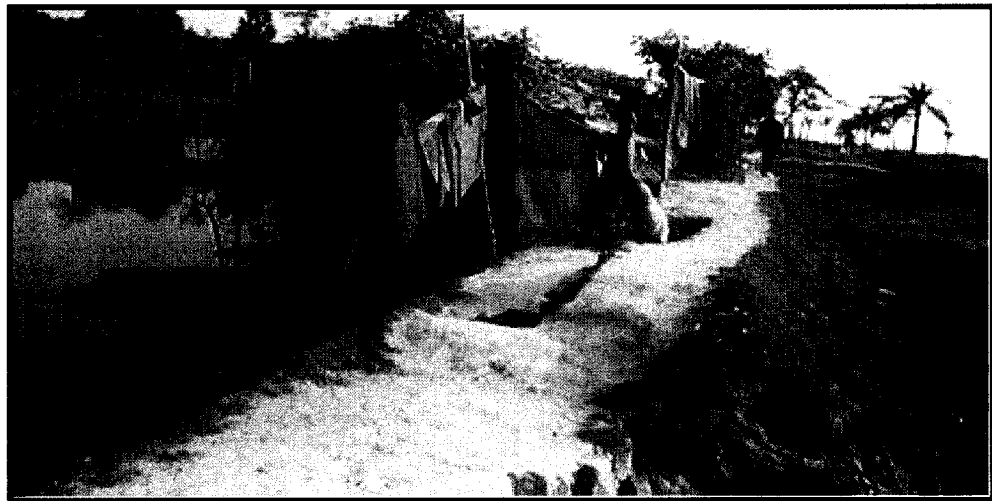


Fig. 5.1: People are living on the embankment using unclean water

photo: author

The IDPs of Bangladesh and as well as IDPs of Sandwip remain under the laws of Guiding Principles on Internal Displacement and under the charter of the Universal Declaration of Human Rights. The government of Bangladesh should take appropriate measures to save and protect the IDPs in Bangladesh. The Section 1 of the Guiding Principles clearly indicates that they “shall not be discriminated against in the enjoyment of any rights and freedom on the ground that they are internally displaced.” Principle 8 warns that displacement shall not be carried out in a manner that violates the rights to life, dignity, liberty and security of those affected. Principle 9 emphasizes protecting against the displacement of indigenous peoples, minorities, peasants, and other groups with a special dependency on and attachment to their land.

Principle 6 provides that every IDP has the right to be protected against being arbitrarily displaced from his or her home or place of habitual residence. Principle 14 provides that every IDP “has the right to liberty and freedom to choose his or her residence. Section V of



Fig. 5.2: Rivers are their friend

photo: author

the Guiding Principles emphasizes on return, resettlement and reintegration of IDPs. It recalls the primary responsibility of authorities to establish conditions that will allow IDPs to return voluntarily, in safety and dignity, to their homes or places of habitual residence. Principles 24 to 27 in Section IV speak of principles relating to humanitarian assistance.

The urgent need for protection is a matter of human rights protection. The IDPs of Sandwip are to be considered in light with the Universal Declaration of Human Rights, Guiding Principles on Internal Displacement and International Humanitarian Laws. The most important and urgent need is to ensure wide acceptance for the Principles so that they can be used and implemented by respective actors in a poor country like Bangladesh. The efforts of the UN to protect and assist IDPs with the adoption of the Guiding Principles has proved the UN’s effectiveness and best will in developing international law. Deng has called for a doctrine of

‘protection specifically tailored to the needs of the internally displaced’ and it is still a challenge for the UN to implement the Guiding Principles as the basis for an international treaty on IDPs.

5.4 Disaster mitigation and Sandwip: the role of development actors

Our findings suggest that the legal and institutional framework for planning and implementation for rehabilitation of the islanders is not enough, there is a lack of administration and political experience to deal effectively with the problems. Field assessments reveal that most of the residents of the coastal belt of Sandwip intend to continue to live there, despite the disadvantages of frequent natural hazards and erosion. The fertility of the land in the coastal areas and the resources provided by the rivers and seas provide opportunities for subsistence that may not be present or found in other areas of densely populated Bangladesh.

The following development actors including the Government of Bangladesh should take an immediate action to save the islanders.

5.4 a The role of the government

Over a long period of time, the government of Bangladesh has undertaken some steps to protect the coastal belt and off-shore islands. Most of them include consultations and impact assessment reviews and it takes a long time to make a feasibility study of any plan and program. The government sometimes feels encouraged to implement development policies in the disaster-prone areas, but due to bureaucratic bottlenecks and red-tapism, some of the development works do not see the morning’s sun and besides, the changes of the government is the main factor to start any development work. The government of Bangladesh did not pay that much

attention to protect erosion and save the island from the disappearance of the land. The government has already done something on cyclone and tidal surges. Each of the shelters has the capacity to accommodate only 650 people. According to the UNO office of Sandwip, the total number of the shelters on Sandwip is now 110 which can give shelter to 20% of the total population (Table-5.1).

Table: 5.1 Cyclone Shelters in Sandwip

Organization	Earlier (1992)	Now (2004)	Comment
EEC	34		Various organizations
CARITAS	14		including
Red Crescent	6		governments
Total	34	110	erected them.

Source: UNO Office, Sandwip

According to a source of the Disaster Management Bureau (DMD), the government has emphasized on its structural mitigation of natural hazards and has constructed 110 cyclone shelters and in addition it has constructed about 3931 km long coastal embankments throughout the whole coastal belt to protect the coastal land from the inundation of the water. Non-structural mitigation of the government includes legislation, policies, training and public awareness, warning systems, local action plan and institutional arrangements. The government has taken the following steps to combat the disaster for building up institutional arrangements from the national level to the village level:

- Establishment of Disaster Management Bureau (DMB) in 1993;
- Renaming of the Ministry of Disaster Management and Relief (MDMR); earlier the ministry was under the name of Ministry of Relief and Rehabilitation;
- Founding of Emergency Operations Centre (EOC) at MDMR;
- National Disaster Management Council (NDMC);
- Cyclone Preparedness Program Implementation Board (CPPIB);
- National Disaster Management Advisory Committee (NDMAC);

- Inter-Ministerial Disaster management Co-Ordination Committee (IMDMCC);
- Disaster management Training and Public Awareness Building Task Force (DMTATF);
- NGO Coordination Committee on Disaster Management (NGOCC);
- Committee for Speedy Dissemination of Disaster Related Warning/Signals (CSDDWS)

5.4.b The role of NGOs

Funding for disaster response has not been a problem for the NGO sector in Bangladesh. The immediate response from international communities and aid agencies are available after the disasters to rescue and save the people. But funds are not available for the long-term disaster preparedness programs as it takes a couple of months or years and sometimes the committed funds do not reach in due time. The culture of response is positive from the donor community, but long term disaster mitigation is not encouraged by the aid agencies, and IMF and the World Bank gives some loan with a lot of restricted approaches. Though recent studies noted that disaster preparedness seemed to be increasingly incorporated in the policy documents of NGOs, linking of disaster mitigation concerns as an integral part of development plans and programs is yet to emerge.

Notable contributions have been made by NGOs in developing institutions of the poor. NGOs initiate people's organizations at the grass-root levels and facilitate the release of latent but potent social energy to mobilize resources and to have political expression for distributive justice (Shailo, 1994). NGOs are working throughout the country, but a few NGOs are working in Sandwip.

5.4.c Corporate Sector of Bangladesh

The corporate sector of Bangladesh lacks interest and responsibility towards the requirements of a sustainable long-term mitigation program for the affected areas. They really think that the NGO sector has taken over the responsibility of welfare and mitigation of disaster-led vulnerabilities (Matin, 2003). The private sector intends to go for charitable activities once a time in their locality or some time donate some money to the hands of the Prime Minister and they do feel that that's enough for them. Matin (2002) noted that:

...the initiatives of CSR [Corporate Social Responsibility] in natural disaster mitigation are in the category of charitable or philanthropic activities. These typically include donations and grants, in cash or in kind to flood affected people or to other groups working in disaster relief.

The characteristics of these activities are presented below:

- altruistic, although in the process may gain good publicity;
- business decides what to do, whom to assist, and how to assist.
- typically one-to-one relationships between the business and the recipient, without the involvement of other stakeholders.
- mostly informal, but may in some cases be based on formal agreement.
- typically short-term and one-off interventions.

5.5 Emergency Preparedness for Disaster

In line with the physical resources and socio-economic condition two kinds of steps are needed to combat such a situation to stop such environmental hazards—a)

Structural Options and measures; and b) Non-structural Options and Measures.

a) Structural Options and Measures

- Designing of the embankments in a way that highest waves or tidal surges cannot enter the land;
- Reforestation programs can be taken in the land between the river and the embankment; so that it can hold the speeds of wind. Some times this reforestation also reduces erosion in the coastal belt;

- Construction of high rise or multi-storey building for shelter during disasters and on the other, they will work as clinics, schools or other non-profitable purposes;
- *Killas* to be built by the local people for livestock refuge and other essential goods such as seeds and homely objects;
- Mangrove planting and community reforestation in the coastal green belt should be taken up so that the benefit of the activities can be shared within the community.
- Ensuring of water supply through tub-wells or water-purified tablets or by other mechanisms.

b) Non-structural Options and Measures

- An Environment Impact Assessment (EIA) survey is needed to identify the present and possible vulnerabilities in the Island of Sandwip.
- Enhance priority to prepare a comprehensive planning on the coastal management to ensure the implementation of the decisions taken;
- Identify the vulnerable areas on the coastal areas of the island where severe erosion takes place and to strengthen coastal resilience by restoring the sediment balance;
- The Strategic Environmental Assessment (SEA) might provide a better result to identify and prevent adverse impacts of coastal development plans;
- The issue of erosion should be raised in the parliament for an effective step for the victims;
- Strengthen the knowledge base of coastal erosion management and planning and students in primary and high schools should study compulsory subjects on ecosystem, space and remote sensing science to create awareness among them;
- Provide rehearsal to the community and show how to act when disaster strikes (it is the same way, the way fire fighters do in their training imagining that there is a fire or there is a cyclone);
- Supply of temporary shelters and tents to the victims so that they can at least survive with their found or unaffected materials;

- Supply of housing materials and sanitary latrines;
- Installation of deep or shallow tube wells right away in the community.

5.6 Empowering the Islanders: a big Challenge

To empower the displaced people of the island, the following should be considered in the policy design and implementation level:

- a) Education: It includes basic and compulsory education, short period of training, and skill development course on technical sides.
- b) Credit and Income-generating activities: The displacees will be benefited if they are being provided with credit support and facilitating their involvement in collective economic activities. The government and cooperative banks should come forward to help them. Interest for loan should be less so that the poor can avoid *mahajans* (money-lender who impose exorbitant interest return on the poor) and they can start small scale business like paddy-husking, poultry rearing, animal husbandry, knitting, sewing and weaving.
- c) Housing for women: Meeting the housing requirements of low income displaced women will help remove conventional barriers and they can easily understand their importance in the family.
- d) Youth and employment: The government should adopt a policy to make the flux of unskilled youth of the locality into the arena employment that could reduce vulnerability and crime rate in the area.
- e) Health, family planning, water and sanitation: There should be a rapid action to facilitate the services for the destitute and dispersed section of the locality. They should get free doctor's advice, free medication and free health check-up. Clean water should ensure in the locality and to install sanitary latrines in the community and to take measures to improve its nutritional status.

The ever-eagerness of international communities to work for the destitute people might divert the government's notion to another direction. The state's capacity should enhance to reduce the vulnerability of the Internally Displaced Persons (IDPs) of Sandwip. The country should make an effort to organize aid agencies and donor communities to work on certain principles under a well-planned strategy at the first step and secondly, the atmosphere of the work should be more conducive so that the protection and rehabilitation of the victims can be done in a proper way.

The civil society, community leaders and NGOs should lobby with the government to gear up the government's responsibility in the process of building up the infrastructure for the IDP victims of Sandwip. And media should highlight the issue and can bring the obstacles of the planning and implementation to the notice of the government and appropriate agencies of the country. The following issues may be consider in order to protect the displaced people of Sandwip as well as other displaced people in various locations of Bangladesh to ensure the protection, socio-economic well-being and psychological welfare of displace persons and ultimately their repatriation, reintegration and resettlement:

- Program and activities should go directly to the victims or the money sanctioned by the state or international community should go to them directly without having interference by any quarters;
- Contribute to dissemination and act as pressure group including Amnesty International and other humanitarian organizations to place UN's "Guiding Principles on Internal Displacement."
- Monitor the implementations of Universal Declaration of Human Rights (UDHR) and International Humanitarian Law;
- Involve the displaced people in mechanisms that enable them to participate in the planning of their own future;

- Educate the young generation of the displaced people so that they can assist their families in future;
- Strengthen the knowledge base of coastal erosion management and planning to ensure informed decisions and the application of best practice.

5.7 Policy issues to empower and save the generations

The role and responsibilities of individuals and collectivities vary from society to society in mitigating disasters and natural hazards. In some instances they are relatively well-defined while in other cases ambiguities are not uncommon (Haque, 1997). Burton et al., (1993) has rightly said that an individual household may be reluctant to take precautions against a snow avalanche because he believes that precautions should be carried out by the community or because community views or policies do not favor such adjustment actions. Collective authorities which include all levels of government and NGOs deal with three main policy areas (Haque, 1997) of disaster prevention and mitigation. First, collective authorities primarily reduce or prevent damages or distribute the burden of damages which exceed the capacity of individuals. Second, “institutions or governments make decisions concerning the development of ‘common property resources,’ such as water, air, and forests, which may have direct implications for hazard vulnerability.” Third, “macro-level entities which include local, national governments set laws, regulations, incentives and penalties to guide citizens’ behavior in a private capacity.”

Bangladesh’s economy is weak and burdened with heavy liabilities of loans from the IMF, the World Bank, the other developed countries, and each year’s disaster breaks its backbone that does not help the country stand on its own feet. Since the flooding, cyclone and riverbank erosion are a recurrent phenomenon, their

adverse impacts fall upon the shoulders of farmers, common mass and the economy of the country in general. The scale of aid depends on the magnitude of the disaster. The challenge for Bangladesh is to pursue a development strategy which accelerates economic growth and equitably distributes the benefits towards alleviating poverty while at the same time sustaining its limited natural resources for future generations (Ahmad and Mirza, 1992).

The direction to mitigate the climatic hazards is a great challenge to Bangladesh with its limited resources. Socio-economic growth and poverty alleviation strategies are needed to accelerate the country's economy. Such strategy must be people-centered so that the best possible utilization of available resources goes to the poor section of people. If people at large are going to participate in the socio economic transformation process, then activities must be planned at local places, with adequate administrative decentralization and political devolution to appropriate levels being essential prerequisites. The following are examples of policies that can be taken for socio economic and sustainable development in Sandwip in particular and other coastal regions in general (Fig.5.3):

a. Policies aiming at socio-economic development through

- Income generation program
- Increase employment
- Providing loan on low interest
- Facilitate training on small scale activities
- Education
- Reduction poverty
- Reduced population growth
- Health care
- Sanitary toilets
- Training for encountering hazards
- Entertainment

b. Policies aiming at mitigating natural hazards through

- Cross Dam
- Coastal embankments
- Boulders in the beach
- Reforestation
- Resettlement on chars and *Khas* land
- Reintegration
- Irrigation
- Seed supply
- Land use management

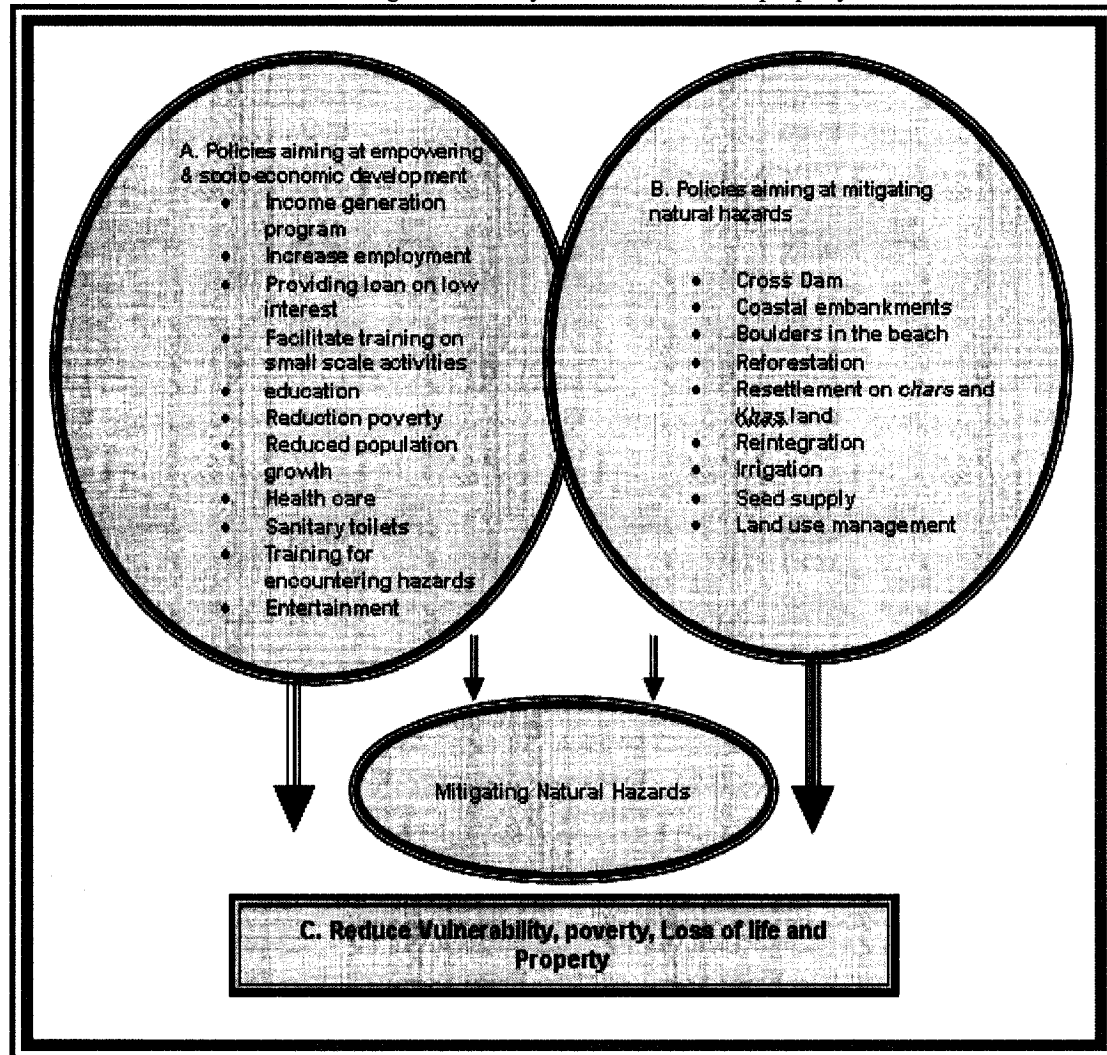
5.8 Conclusion

Study's findings emphasized that emergency projects can be made for the eroded persons, at least for six months to give them food security support and if needed to build up houses or tents. And it will be better if NGOs, corporate sector and other organizations come forward with major steps to emergency assistance and rehabilitation programs for the internally displaced persons. In addition, easy bank loans with a minimum interest should be provided to them to fresh start in income generating activities.

In Bangladesh, there are different kinds of displacement, some people are uprooted by flooding, cyclone or tidal surges and some are uprooted for deforestation and increased salinity, and some are the victims of redistribution of land, urbanization and forms of industrialization. The government of Bangladesh must recognize the need for improved legislation, better compensation and an institutional framework for the rehabilitation and resettlement of all kinds of displaced people in Bangladesh. The main thrust of this study is to determine the impact of erosion on the island of Sandwip, the socio-economic condition of hundreds and thousands of river eroded families and their present conditions. How do they live and what are their means of

survival and what considerations should be taken by the government and other development agencies to save the island, its unique culture and rich heritage. The study analyses the present trend of erosion on the island and if the erosion goes in this way, Sandwip will be disappearing very soon from the world's map. Though the

Fig: 5.3- A schematic diagram showing the main relationship between three main elements for reducing vulnerability and loss of life and property:



study has focused only on erosion, there are other natural hazards, as I have mentioned above which affect the life of the whole population of Sandwip. Our survey exhibits that the cognitive and perpetual abilities and collective initiatives are not well-developed among most of the poor and illiterate people on the island. It

needs an access of education and information of resources and at the same time they need to develop their skills through trainings.

Bangladesh must assess fully the public policies related to coastal management, riverine disaster prevention, agriculture and irrigation, relocation and resettlement of the disaster induced displaced people. The country should follow and abide by the principles enshrined by the United Nations and other international humanitarian agencies in respect of internally displaced people. The government also needs to develop a coastal management plan with a specific interest to prevent vulnerabilities of the people and the ongoing project titled the Coastal Embankment Project (CEP) should continue on the offshore island belt to control tidal surges and flooding. Besides, the government should take Land Reclamation Project (LRP) very seriously to distribute lands to the displacees protecting them from the invasion of local feudal lords who evict them from their lands and occupy all of their soils, harvest, crops and belongings.

Many of the findings of this study recommend that that the government along with other key development agencies in the sector should prepare a long term plan for the socio-economic development of the islanders. The plan should include socio-economic policies to empower the victims (as mentioned in schematic diagram section-A) along with implementing programs and activities (as indicated in section-B) to mitigate natural hazards and thus to reduce vulnerability, poverty, loss of life and property.

Such policies would assist every household to improve their position and they might be able, both as individuals and as a unit, to promote themselves further to

withstand difficulties. It may be mentioned here that various types of skill-training, health and nutrition education and general awareness raising will also improve human resource aspects of the individuals and household.

Since there is an intimate inner-relationship between state, community and household, there is no denying that policy attention needs to be focused at the level of state economic management. The study further enhances that the role of civil society, media and NGOs is an integral part to uphold and promote the state's responsibility to look at the interest of the displaced populations. A collaborative and responsive network of both national and international footing is important to enhance the process of building up the state's responsibility. It will assist governments, aid agencies, civil societies and other actors to better understand the motivations behind displacement, to identify vulnerable groups and geographical locations, and better manage social and economic disruption associated with displacement. The authority concerned should prepare a people-centered sustainable plan for the victims of erosion, cyclone and floods on Sandwip in particular and the people of coastal belt in general.

The on-going UN's Global Consultations process will help shape the Agenda for Protection for the IDPs in the coming years. It will be a sort of road map informed by the discussions and conclusions stemming from the various meetings, setting out shared strategic goals, while identifying some key actions needed to attain those goals. While problems have plagued UN efforts to protect and assist IDPs, the adoption of the *Guiding Principles* has proved the UN's effectiveness in developing international law. Deng has long called for 'a doctrine of protection specifically tailored to the needs of the internally displaced' challenge for the UN to develop new

legal tools, using the *Guiding Principles* as the basis for an international treaty on IDPs. A future UN role may also be salvaged from its dubious record of protecting and assisting IDPs. It has been shown that UN is too political to provide protection and assistance in many cases in sensitive situations. Deng correctly argues that the international community is unlikely to agree upon 'such a radical step' as broadening the refugee definition, which a holistic approach entails. Instead, the development of a separate international treaty on IDPs is a realistic future role for the UN.

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Questionnaire on Empowering
Internally Displaced Persons (IDPs): A Case Study of
Sandwip (an Island of Bangladesh)

[Hello, my name is Iqbal Shailo and I am a graduate student at Concordia University, Montreal, Canada. The following questionnaire is a part of the fieldwork I am conducting for my Thesis on Internally Displaced Populations (IDPs) in your area. This study is concerned with two villages of Harishpur of Sandwip, Bangladesh. The purpose of this questionnaire is to gather some information about the IDPs in your village with an aim to understand a brief picture of damages and sufferings caused by the natural disasters in the past few years. In addition, this survey will assist me in determining the level of awareness and as well as your perception of how do you cope with such a tragedy. The interaction through this survey or interview will benefit me to be familiar with your loss of wealth, property and kinship and how does it affect you and your family socially, economically and culturally.]

Please note that all information is confidential and the names of the respondents will not be used in my thesis. This study will help me analyze my focus on displacement you are encountering each time and I will put together your concerns about your protection and rehabilitation in my study. Since the survey is completely anonymous, please feel free to answer as frankly as you wish. If you are not able to write and read the questionnaire, please take assistance from the surveyors to fill it. You are simply asked to answer by checking the proper option (e.g.: (✓).]

Thank you for your help and patience in filling in the questionnaire.

Section A

Personal:

Male ☐ Female ☐ Age

Village

Police Station District

a. What is your profession?

b. Farmer ☐ Fisherman ☐ Agricultural labourer ☐ Wood-cutter ☐ Vendor ☐
 Businessman ☐ Rickshaw puller ☐ Social worker ☐ Teacher ☐ Other ☐

c. How many family members do you have?

Do you live with your family? No ☐ Yes ☐ If yes, who do you live with?

.....

Section B

Causes of Displacement:

- a. How often have you been displaced since 1990? If yes, how many time since 1990?
- b. In what year and month did your most recent displacement occur?
.....
- c. Is this your first time? Yes ☐ No ☐
- d. Why? Please specify the reason:
Flood ☐ Erosion ☐ Other ☐
- e. While you were displaced, where did you reside for the majority of your time?
Please specify: Temporary Shelter ☐ Nearby city/locality ☐ Other ☐

Section C

Before Displacement:

- a. Did you have any land before displacement? Yes ☐ No ☐
If yes, how much land did you have before displacement? Acres
- b. Did you cultivate crops and vegetables in your land before displacement? Yes ☐ No ☐
If yes, how much money were they worth? BD Taka.....
- c. Did you own any property? Yes ☐ No ☐
If yes, how much money were they worth? BD Taka
- d. Did you have any cattle before displacement? Yes ☐ No ☐
If yes, how much money were they worth? BD Taka
- e. Did you have any houses before displacement? Yes ☐ No ☐
If yes, how many houses (*pucca* or *kuccha*) did you have? Numbers.....
And how much money were they worth? BD Taka
- f. Did you have any other resources for your livelihood? Yes ☐ No ☐

If yes, what were they?

And how much money were they worth? BD Taka

- g. Did you sell any or all of the property you owned before you left? Yes ☐ No ☐

If yes, please specify which?

House ☐ Land ☐ Cattle ☐ Crops ☐ Others ☐

And how much money were they worth? BD Taka

Section D

After Displacement:

- a. Did you lose any land due to this disaster? Yes ☐ No ☐

If yes, how many acres of land?Acres

How much money were they worth? BD Taka

- b. Did water inundate your cultivable land? Yes ☐ No ☐

If yes, how much money have you lost? BD Taka

- c. Did this disaster wash away your houses (*pucca* or *kuccha*)?

Yes ☐ No ☐

If yes, how much money were they worth? BD Taka

- d. Can you regain whatever you have lost in this disaster? Yes ☐ No ☐

If no, why? Please specify:

- e. Did you lose anything else? Please explain.....

.....

- f. Did this displacement change the pattern of your livelihood? Yes ☐ No ☐

- g. If yes, how? Please explain.....

- h. Did this displacement affect you socially? Yes ☐ No ☐

If yes, how? Please explain.....

- i. Did this displacement hamper your cultural life? Yes ☐ No ☐

If yes, how? Please explain.....

Section E

Emergency Assistance:

- a. Did you receive any emergency assistance during your displacement? Yes ☐ No ☐
If yes, what kind of assistance it was? Please specify:
Money ☐ Food ☐ Crops ☐ Other.....
- b. Did Government's people show up to help you during the displacement? Yes ☐ No ☐
- c. Did any NGO help you while you were moving? Yes ☐ No ☐
- d. Did you starve while you were moving? Yes ☐ No ☐
- e. Did you need any medication during your displacement? Yes ☐ No ☐
- f. Did you need dry food during your displacement? Yes ☐ No ☐
- g. Did you feel yourself protected? Yes ☐ No ☐
- h. How did you feel during your displacement? Please specify:
.....

Section F

Social Issues:

- a. Have you been affected by the displacement? Yes ☐ No ☐
If yes, please specify:
.....
- b. Has any one of your family members affected by the displacement? Yes ☐ No ☐
If yes, please specify:
.....
- c. Do your problems include the following?
Facing poverty ☐ Lack of work ☐ Other ☐
- d. After the displacement, is there any facility of education such as school or vocational training for you and your family members? Yes ☐ No ☐
If yes, please explain what type of education you or your family members are receiving?
.....
- e. Any comment please, if you have:

Section G

Return Process:

- a. How many months have you been out of your home and land due to this disaster?
.....
- b. When did you return to the locality (year and month)?
- c. Did you return with your family? Yes ☐ No ☐ If no, why? Please explain:
.....
- d. Were you assisted by any organization during the return process? Yes ☐ No ☐
If yes, what is the name of the organization?
.....
- e. What kind of assistance you got from them: Loan ☐ Cash ☐ Food ☐
Medication ☐ Transportation ☐ Other ☐

Section H

Resources and services after return:

- a. Do you have any clean water facilities in your area? Yes ☐ No ☐
If yes, who is assisting you? NGO ☐ Government ☐ Other ☐
- b. Do you have any sanitation facilities in your area? Yes ☐ No ☐
If yes, who is helping you out? Please specify: NGO ☐ Government ☐
Other ☐
- c. Are roads in your area getting repaired? Yes ☐ No ☐
If yes, who is doing this? NGO ☐ Government ☐ Other ☐
- d. Are health clinics functioning in your area? Yes ☐ No ☐
If yes, who is running them? (e.g. Private ☐ NGO ☐ Government ☐
- e. Are you able to access health services at your area? Yes ☐ No ☐
If no, why? Please Explain:
.....

Section I

Suggestions:

- a. Is there any way out to prevent such tragedies in your locality in the future?
.....
.....
- b. Do you have any suggestions to reduce severity of the damages you are facing all the year?
.....
- c. Do you feel a short term rehabilitation program is needed for your survival?
.....
.....
- d. Do you feel that the government might take rapid actions to assist you in the rehabilitation program?
.....
- e. Do you feel that NGOs can play a better role to rehabilitate you?
.....
- f. Do you feel that political parties can do a better policy along with aid agencies to do protect you from this disaster?
.....
- g. Any other suggestions? Please specify:
-

This Section is for Government and other agencies

Section 1

Personal:

Male ☐ Female ☐ Age

Village

Police Station District

- a. What is your profession? Govt. official ☐ NGO official ☐
Political activist ☐ Local elite ☐ Other ☐

Section 2 (for Government Official)

Policy Implementation and the Role of the Government:

- a. Has the government adopted a national rehabilitation policy or modified an existing one?

1. Adopted Yes ☐ Year of Adoption No ☐

2. Modified Yes ☐ Year of Modification No ☐

- b. Does the policy include the following areas?

1. Poverty, population and Environment Yes ☐ No ☐

2. Gender equality, equity and empowerment of women Yes ☐ No ☐

3. The family, its role, composition and structure Yes ☐ No ☐

4. Crisis management situation Yes ☐ No ☐

5. Rehabilitation efforts: such as—Housing ☐ Money for Survival ☐

Food for living ☐ Other ☐

- c. Has the government adopted any recent policies, strategies and measures integrating population in rehabilitation programs? Yes ☐ No ☐

If yes, please specify:

.....

- d. Has the government formulated a Poverty Reduction Strategy (PRS) in your locality?

Yes ☐ Year No ☐

If yes, please indicate which of the following areas are included in the PRS:

1. Sustainable development Yes ☐ No ☐
2. Employment Yes ☐ No ☐
3. Education Yes ☐ No ☐
4. Housing Yes ☐ No ☐
5. Environment Yes ☐ No ☐
6. Food Security Yes ☐ No ☐
7. Human Rights Yes ☐ No ☐
8. Other (please specify).....
.....

Section 3 (Government Officials)

The role of the Local Government:

- a. Has the local government adopted a policy framework that addresses the welfare of Local family in the affected areas?
Yes ☐ No ☐ Year of adoption
- b. Has the local government adopted special family-sensitive policies/measures in the following fields?
 1. Housing ☐
 2. Work ☐
 3. Health ☐
 4. Social Security ☐
 5. Education ☐
 6. Other ☐ (please specify).....
- c. Has the local government done anything for you? Yes ☐ No ☐
If yes, Please specify:

Section 4 (NGO officials)

Role of NGOs in rehabilitation of the displaced people

- a. Did your organization assist the people in respect of displacement in your working areas?
Yes ☐ No ☐ If yes, please specify:
.....
- b. What are the characteristics of the people most vulnerable to displacement? Please explain:
- c. Have any additional measures been taken by your NGO to mobilize resources to ensure the effective implementation of your plans and strategies for the displaced people?
Yes ☐ No ☐ If yes, please specify:
.....
- d. What are the appropriate policy responses to displacement?
.....

Section 5 (Other Agencies)

Role of Civil Society/Political parties:

- a. Have you provided any assistance to the affected people in your locality in respect of displacement?
Yes ☐ No ☐ If yes, please specify:
.....
- b. Have any additional measures been taken by your organizations to mobilize resources to ensure the effective implementation of your plans and strategies for the displaced people?
Yes ☐ No ☐ If yes, please specify:
.....