

RIVERBANK EROSION AND POPULATION DISPLACEMENT:  
A STUDY OF THE SERAJGANJ URBAN SQUATTERS, BANGLADESH

by

Md. Ziarat Hossain

A thesis  
presented to the University of Manitoba  
in partial fulfilment of the  
requirements for the degree of  
Master of Arts  
in  
Geography

Winnipeg, Manitoba

(c) Md. Ziarat Hossain, 1988

Permission has been granted to the National Library of Canada to microfilm this thesis and to lend or sell copies of the film.

The author (copyright owner) has reserved other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without his/her written permission.

L'autorisation a été accordée à la Bibliothèque nationale du Canada de microfilmer cette thèse et de prêter ou de vendre des exemplaires du film.

L'auteur (titulaire du droit d'auteur) se réserve les autres droits de publication; ni la thèse ni de longs extraits de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation écrite.

RIVERBANK EROSION AND POPULATION DISPLACEMENT:  
A STUDY OF THE SERAJGANJ URBAN SQUATTERS, BANGLADESH

BY

MD. ZIARAT HOSSAIN

A thesis submitted to the Faculty of Graduate Studies of  
the University of Manitoba in partial fulfillment of the requirements  
of the degree of

MASTER OF ARTS

© 1989

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA to lend or sell copies of this thesis, to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film, and UNIVERSITY MICROFILMS to publish an abstract of this thesis.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

## ABSTRACT

Population displacement caused by recurrent riverbank erosion is a serious problem in Bangladesh. In order to find shelter and employment, many displacees migrate to urban centers. The town of Serajganj has received a large number of such rural displacees throughout the current century. Consequently, it has experienced a rapid growth in squatter settlements. Considering these circumstances, the present study investigates the migration behavior of displacees, the livelihoods they adopt in urban areas, the extent of rural-urban contacts that are maintained, and the resettlement options open to them.

A structured questionnaire survey of Serajganj squatters was administered in 1985. Using a *probability proportional to size* (PPS) sample, 207 households were drawn from three major squatter concentrations in Serajganj. The results of this survey provide the primary data base for the analysis.

The analysis of squatters' migration behavior suggests that displacees who migrated to Serajganj town are motivated by both economic opportunities and social networks. The decision to move to Serajganj was taken by household heads who usually play the dominant role in family affairs. Serajganj squatters show a general tendency to move only over short distances. This phenomenon is primarily due to the economic and socio-cultural dynamics of adjustment to riverbank erosion. A chi-square significance test supports this statement.

The impacts of displacement are examined in terms of changes in squatters' economic and social well-being. The data suggest that through losing land, their principle means of livelihood, displacees become severely impoverished in their socioeconomic status. Because they lack alternate opportunities, they accept low paying informal sector jobs which result in a downward mobility of employment status, income levels, and access to social amenities. A *coefficient of variation* analysis of income groups indicates that the level of poverty is almost uniform among them. Administrative neglect and the economic



impotence of squatters, nullify any prospects for absorption into the urban mainstream. Therefore, they continue to follow their past rural tradition, developing a village community within the boundary of the town. Moreover, they retain infrequent contacts with their rural areas, and few are successful in repossessing newly accreted land in *char* areas. This situation creates a rural-urban dilemma for them and limits their prospects for resettlement. Therefore, a large majority of squatters prefer to remain in Serajganj town, inspite of the limited options open to them in the squatter settlements.

## ACKNOWLEDGEMENT

In completing this thesis, the author is indebted to many individuals and institutions. I am deeply grateful to my advisor, Dr. John R. Rogge who initiated my interest in this topic and allowed this study to be possible. His constant advice, guidance, and criticism have been invaluable for the completion of this dissertation. I am also thankful to other members of my thesis committee, Drs. R. H. Foster of the Department of Geography and Shiva S. Halli of the Department of Sociology. Their comments have been sources of inspiration during the final stage of the thesis.

Funded by the International Development Research Center (IDRC) of Canada, this study was part of a collaborative research program between the University of Manitoba, Canada, and Jahangirnagar University, Bangladesh. My sincere gratitude goes to IDRC for supporting my data collection, and my travel to Canada. I must extend my thanks to the late Professor A. F. M. Kamaluddin, ex-Vice-Chancellor of Jahangirnagar University, and to Dr. K. M. Elahi, Department of Geography, Jahangirnagar University, for providing me the initial opportunity to become involved in this research program. I am also thankful to the Department of Geography, University of Manitoba, whose support was helpful in making this dissertation possible.

I am grateful to Drs. J. I. Romanowski, L. P. Stene, and R. Wiest for their constant encouragement to complete the thesis. I sincerely thank Charles Greenberg for his valuable assistance during the field survey, data processing, and writing-phase of the thesis. My special thanks go to Dr. M. Q. Zaman, Dr. C. E. Haque and Matiur Rahman who continuously supported me throughout the various stages of the thesis. I especially acknowledge the assistance of Dr. Zaman who encouraged me during the final stage of the thesis. I am also thankful to Khalid Hossain, Shoborna Roy, and Bacchu for administering the questionnaire to respondents. Thanks are due to Mosharraf Hossain, Deputy Commissioner of Serajganj district, Mostaque Ahmed, Magistrate of Serajganj

*upazila*, Mohammad Ali, Executive Engineer of Bangladesh Agricultural Development Corporation of Serajganj, and the Officials of Serajganj Municipality and Serajganj Quami Jute Mill for their assistance during some difficult times in Serajganj.

I take this opportunity to extend my sincere thanks to the Serajganj squatters and other interviewees who provided information during the questionnaire survey. This study could not have been completed without their cooperation and patience.

To end, I wish to express my gratitude to my parents, relatives and friends who have been inspired me all through my school life.

## PREFACE

Bangladesh mostly consists of the floodplains of the Padma-Ganges, Brahmaputra-Jamuna, and Meghna river systems. Because of the recent alluvial deposition, these rivers easily erode vast amount of land. It has been suggested that at least one million people are affected each year by this erosion. Many of these displacees migrate to urban centers in search of shelter, employment, and food. Although loss of land and population displacement due to river erosion have been serious problems in Bangladesh for centuries, the provision of institutional supports for the affected people are yet to be initiated. With these considerations, the Geography Departments at the University of Manitoba, Canada, and at Jahangirnagar University, Bangladesh, undertook the Riverbank Erosion Impact Study (REIS) in Bangladesh. The International Development Research Center (IDRC) of Canada funded this cooperative research project to investigate the nature of river channel migration and resultant rural population displacement and land reallocation. This was a four-year project concluded in Dhaka in April 1988 with an international symposium on the impacts of river erosion and flood hazards in Bangladesh. The findings that have been presented in the symposium will act as a foundation for local or national policy development to deal with the problems associated with bank erosion.

As a sub-project of this joint research, Charles Greenberg and this author did a pilot study of Serajganj town to investigate the livelihood of rural displacees to urban areas. Using the data from the same jointly administered questionnaire survey, Charles Greenberg examined the adjustment processes of the squatters, while the present thesis examines migration processes of the same squatter population, their urban livelihood, and the future resettlement options open to them.

# CONTENTS

ABSTRACT -----	i
ACKNOWLEDGEMENTS -----	ii
PREFACE -----	v
LIST OF TABLES -----	ix
LIST OF FIGURES -----	xi

<u>Chapter</u>	<u>page</u>
I INTRODUCTION -----	1
NATURE OF THE PROBLEM -----	2
A SURVEY OF LITERATURE -----	5
Involuntary Migration: A Theoretical Consideration -----	6
Rural to Urban Migration and Urbanization in Bangladesh -----	15
Reasons for Rural Rural-Urban Migration with Special Reference to Natural Hazards Induced Migration -----	17
The Urbanization Process in Bangladesh -----	20
Urbanization and Urban Squatter Settlements -----	23
RESEARCH OBJECTIVES AND HYPOTHESES -----	25
ORGANIZATION OF THESIS -----	29
II METHODS OF ANALYSIS -----	30
SOURCES OF DATA -----	30
Secondary Data Sources -----	30
Primary Data Sources -----	31
METHODS OF DATA COLLECTION AND ANALYSIS -----	32
Selection of the Study Area -----	32
Selection of the Sample Population -----	34
Pre-test -----	39
Method of Data Analysis -----	40
Limitations of the Primary Data -----	40

III.	RIVERBANK EROSION AND MIGRATION TO SERAJGANJ: A FOCUS ON MIGRANTS' OPTIONS AND BEHAVIOR -----	43
	EXPERIENCE OF DISPLACEMENT DUE TO RIVERBANK EROSION -----	43
	OPTIONS OF SHELTER AFTER DISPLACEMENT -----	48
	DISTANCE AND DIRECTION OF INVOLUNTARY MIGRATION -----	50
	FACTORS AFFECTING THE DECISION TO SELECT SERAJGANJ AS A DESTINATION -----	58
IV.	DISPLACEES OF RIVERBANK EROSION IN URBAN SQUATTER SETTLEMENTS: THE ISSUES OF IMPOVERISHMENT AND MARGINALIZATION -----	64
	DEVELOPMENT OF SQUATTER SETTLEMENTS IN SERAJGANJ -----	65
	CONFLICTS REGARDING EMERGENT <i>CHAR</i> LAND IN RURAL AREAS ----	68
	CHANGES AND PATTERNS IN LAND OCCUPANCY: THE ROOT OF IMPOVERISHMENT AND MARGINALIZATION -----	75
	CHANGES IN SOCIOECONOMIC CONDITIONS OF SQUATTERS -----	80
V.	THE DEGREE OF RURAL-URBAN DUALISM AND RESETTLEMENT OPTIONS FOR SQUATTERS -----	94
	SQUATTERS AND TOWNFOLK: PERSPECTIVES ON INTER-GROUP RELATIONSHIPS -----	94
	NATURE OF DISPLACEES' RELATIONSHIPS WITH RURAL RELATIVES ---	97
	THE EXTENT OF RURALIZATION OF SERAJGANJ: OPTIONS FOR FUTURE PLANNING -----	99
	RESETTLEMENT OF SQUATTERS -----	105
	Possibilities of Resettlement on Reemerged and Other Land in Rural Area -----	105
	Other Options for Resettlement -----	107
VI.	SUMMARY AND CONCLUSIONS -----	116
	SUMMARY OF RESEARCH FINDINGS -----	116
	REMEDIAL POLICIES -----	121
	Areas of Origin of Displacees -----	122
	Reforming the Present <i>Char</i> Land Management Regulations ----	123
	Mobilization of Landless Groups -----	124
	Alternatives for Resettlement -----	125

Areas of Current Living -----	126
FUTURE RESEARCH -----	127
 BIBLIOGRAPHY -----	 129
APPENDIXES -----	145
APPENDIX A -----	146

## LIST OF TABLES

<u>Tables</u>	<u>Page</u>
1.1 Growth of Urban Population in Bangladesh -----	21
3.1 Displacement Frequency Among Serajganj Squatters -----	44
3.2 Distribution of Mean Displacement by Area -----	45
3.3 Options Considered by Displacees at the Time of their Last Displacement ---	49
3.4 Distance Moved by Serajganj Squatters During their Last Displacement -----	51
3.5 Reasons for Not Moving to Distant Locations -----	53
3.6 Economic and Social Factors Influencing Distance -----	55
3.7 Reasons for not Remaining in Rural Areas -----	56
3.8 Reasons for Choosing Serajganj as a Destination -----	59
3.9 Agents Making the Decision to Move to Serajganj -----	62
4.1 Homestead Land Occupancy Pattern of Serajganj Squatters -----	76
4.2 Agricultural Land Lost to Riverbank Erosion and Current Agricultural Land Holding Pattern of Serajganj Squatters (in Acres) -----	78
4.3 Distribution of Squatter Households that Originate from Pre-displacement Land Categories in Rural Areas -----	79
4.4 Amount of Expenditures to Rebuild/Repair Houses -----	82
4.5 Occupations of Household Heads Prior to and After Last Displacement -----	84
4.6 Employment Distribution of the Dhaka Squatters and the Serajganj Squatters -----	86
4.7 Monthly Income of Household Heads -----	90
4.8 Changes in Social Conditions of Serajganj Squatters (Multiple Responses) -	92
5.1 Nature of Visits between Displacees and their Rural Relatives -----	98
5.2 Age Structure of Household Heads -----	101
5.3 Recreational Visits to Movie Theatre -----	103
5.4 Agricultural Land Owned by Squatters' Relatives in Rural Areas and Prospects of Squatters' Accessing such Lands -----	107



5.5	Distribution of Places for Resettlement of Squatters (Multiple Responses) --	109
5.6	Responses Regarding a Willingness to Return to Rural Areas -----	110
5.7	Reasons for Staying in Serajganj (Multiple Responses) -----	111

## LIST OF FIGURES

<u>Figures</u>	<u>Page</u>
2.1 Location of the Study Area -----	33
2.2 Location of Serajganj Urban Squatter Settlements -----	36
2.3 Sampling Distribution of Serajganj Urban Squatters -----	38
3.1 Temporal Distribution of the Volume of In-migration to Serajganj -----	47
4.1 A General Model of Land Conflict and Resolution in Serajganj <i>Char</i> Area -----	70
4.2 A Generalized Model of the Change of Land Possession in Serajganj <i>Char</i> Area -----	72
5.1 Proportional Distribution of Places for Resettlement -----	113

## Chapter I

### INTRODUCTION

Bangladesh is one of the poorest and most densely populated countries in the world. About 102 million people live within an area of 55,595 square miles. The dominant physiographic features of Bangladesh consist of the floodplains of the Ganges-Padma, the Brahmaputra-Jamuna and the Meghna river systems (Rashid, 1978; Ahmad, 1968; Spate, 1954). The people in these floodplains are regularly vulnerable to natural disasters, such as riverbank erosion, flooding, tidal surges and cyclones. Because of the deltaic nature of the land formation, recurrent riverbank erosion has been a serious problem in Bangladesh for centuries. With their huge discharge and very fast currents, the untamed rivers erode vast amounts of land on their way to the Bay of Bengal. Like elsewhere in the country, the Jamuna floodplain is easily erodable; and the river has shifted some 70 miles toward the west during the past 200 years (Galay, 1980; Kamaluddin, 1973; Coleman, 1968). This erosion has immediate and severe impact on human habitats, both locally and regionally. Population displacement is one of the most significant effects. It has been suggested that at least one million people in Bangladesh are affected each year by the riverbank erosion (Rogge, 1983). Displacees are forced to leave affected areas; consequently, involuntary migration occurs due to these catastrophic changes in environment. A sizeable proportion of these displacees migrate to urban centres in search of shelter, employment, and food. However, no institutional support is provided to assist them in finding shelter or jobs (Hossain and Greenberg, 1985). Therefore, displacees ultimately end up in squalid squatter settlements, resulting in untold miseries. Neither the government nor any other institutions in Bangladesh plan for such crises. Bangladesh has few internal resources available to help cope with catastrophic natural hazards like riverbank erosion and its related consequences. Still, none can ignore this problem since it has been creating countless

numbers of landless, homeless, and jobless, worsening the overall conditions of an already impoverished economic environment in the country.

In this context, the Geography Departments at the University of Manitoba, Canada, and at Jahangirnagar University, Bangladesh, undertook the Riverbank Erosion Impact Study (REIS) in Bangladesh. Financed by the International Development Research Center (IDRC) of Canada, this cooperative research program was the first of its kind in Bangladesh. The main objectives of this program were to investigate the nature of river channel migration and resultant rural population displacement and land reallocation.

As a part of this joint research project, Greenberg (1986) and this author did a pilot study of Serajganj town to investigate adjustments of erosion displacees to urban conditions, their occupation and future relocation. Greenberg (1986) studied the demographic and socioeconomic compositions of displacees, emphasising their adjustment processes in Serajganj town<sup>1</sup>. The purpose of this study is to examine how displacees move to an urban center; the conditions under which they live; and the possible options for permanent relocation.

### 1.1. NATURE OF THE PROBLEM

The effects of natural hazards seriously deteriorate the 'real world' environment of a population; thus, people are compelled to flee affected areas. This phenomenon may be termed 'population displacement' and the affected people called 'displacees'. In this study, the displacees have lost homestead land at least once during their lifetime as a consequence of riverbank erosion. Since bank erosion affects a huge number of people, the nature of the problem is related not only to physical issues (i.e., riverbank erosion) but also to social, economic, demographic, and psychological aspects of the displacees. Petersen (1958) and

---

<sup>1</sup> From here on the term Serajganj will refer to Serajganj town as distinct from Serajganj district, unless otherwise stated.

Oliver-Smith (1982) noticed similar types of involuntary migration of natural hazard affected populations in other parts of the world (e.g. Peru), and Eckstein (1977) has discussed the socioeconomic aspects of involuntary migrants in Mexico, concluding that social exploitation caused their poverty.

Involuntary migration toward urban centers contributes to rapid urban growth and its associated problems in Bangladesh. The annual rate of urban growth in Bangladesh is about five percent; half of which is due to urbanization, and a significant contributor to this rural to urban migration is riverbank erosion (see Akhter, 1984). This type of rural to urban involuntary migration adds greatly to the socioeconomic burden at the local as well as national level. Problems related to the decision to migrate and the behavior of the migrants are thus of great concern. This is because, lacking time and logistic support, displacees have little chance of optimizing their migration decisions. Since natural hazards are unexpected events, displacees do not generally have sufficient time to make rational decision with regard to migration. Mangalam (1968) emphasised that migrants are powerless to resist forces acting at their place of origin that compel them to move out. Referring to the decision-making processes in the case of rural to urban migration in India, Connell et al. (1976) found individual, household, and community level decision-making processes. In this context, the present study will shed light on the decision-making processes in connection with migration relevant to riverbank erosion displacees.

Most displacees become part of the already high percentage of landless<sup>2</sup> people in the country, which is currently about 54 percent (BBS, 1982:787). The process of riverbank erosion throws the affected people into a vicious cycle of socioeconomic impoverisation; the landless, and the poor and middle class farmers become the first victims. Landless farmers work as hired agricultural laborers on others' lands or they work as sharecroppers

---

<sup>2</sup> A landless household is a rural household that owns 0.5 acres or less of either homestead or other land (BBS, 1982:787). In the present study, landless are those who do not possess any land; land is either under water or forcibly occupied by others (mainly local large landowners or landed gentry).

by hiring land from medium or large landowners. But the possibility of selling their physical labor, or of hiring land to cultivate, diminishes as rivers erode land. Therefore, while landless farmers do not possess land to cultivate, they also lose other agricultural related options to work for a livelihood. While riverbank erosion creates landlessness, the existing socioeconomic and political systems subject them to a process of pauperization or marginalization. This can be explained by three major factors: (i) poor peasants lose their last parcel of land to river erosion and become dependent upon their equally poor relatives for survival; (ii) they fail to repossess emerged land because local large landowners forcefully occupy those lands; and (iii) due to lack of options, they are compelled to sell their labor at a cheap rate in Serajganj. Therefore, they are pauperized by the combined effects of the processes of land erosion and socioeconomic exploitation. Under this situation, displacees in urban squatter settlements live in poverty.

Socially, the squatters are looked down upon by the townfolk (i.e., non-displacee town dwellers). Also, they are usually ignored in institutionalized assistance and research. The squatters are seen by the townfolk as a burden, as they compete for housing, jobs, and other urban facilities. Along with this, psychological conflicts between displacees and town residents arise in places of refuge over the displacees' presence. It ultimately creates inevitable land occupancy conflicts; this certainly appears to be an ongoing phenomenon in Serajganj. These social attitudes and responses accentuate the marginalization process of the squatter population.

Some studies (see Center for Urban Studies, 1974:53) demonstrated that the income of the squatter family-heads have increased since their migration to cities. But the above finding may not be valid in the case of the present study area as the socioeconomic background and the reasons of rural out-migration of Serajganj squatters are different from most other urban squatters living in major cities in Bangladesh. The living conditions in Serajganj squatter settlements are constantly worsening rather than improving. Under such a situation, it may be examined whether the squatters expect material and moral support

from relatives living in rural areas, and whether the squatters maintain rural links. In the case of Thailand, Goldstein et al. (1977) found that rural migrants to urban areas maintained a close relationship with their kin living in rural areas. But realizing that little possibility of repossessing accreted land exists in the rural areas, the Serajganj squatters have little or no reason for considering a decision to move back to their places of origin. On the other hand, they are treated as a separate community or as 'unwanted guests' by both the local townfolk and local administrators (Greenberg, 1986). Having failed to become part of the urban mainstream, they are compelled to retain their previous rural character, which further limits their opportunity of assimilation into the urban culture. This type of community separation brings a 'ruralization' process into the urban environment. In fact, squatters face a dual psychological stress; they have neither a fair chance to regain their eroded-land and to resettle in rural areas, nor are they well-adjusted to the urban squatter environment. Therefore, seeing little possibility of either relocating back to their rural areas or of relocating within the city, they fail to make any positive decision to migrate again. This suggests that their temporary resettlement is likely to become permanent.

Research on this particular problem of population displacement due to riverbank erosion and the consequent development of urban squatters will contribute to a clearer understanding of the dynamics of natural hazard induced migration, and its subsequent consequences on the people concerned, especially in terms of their responses to a changed environment.

## 1.2. A SURVEY OF LITERATURE

A review of the literature focuses on two areas of inquiry which are discussed in separate sub-sections. The discussion in the first sub-section concentrates on studies of migration. An attempt is made to place special attention to the issues of rural to urban involuntary migration. The second sub-section deals with issues concerning urbanization

in Bangladesh. The content of the second sub-section is divided into reasons for rural to urban migration with special reference to natural hazard induced migration, urbanization process in Bangladesh, and urbanization and squatter settlements.

### 1.2.1. Involuntary Migration: A Theoretical Consideration

In this section, an attempt is made to investigate both the theoretical dimensions and other research related primarily to the nature of involuntary rural to urban migration. Emphasis has been given on natural hazard events which cause involuntary migration to an urban destination and the consequent development of squatter settlements. Some general theories and/or research findings on rural to urban migration have been brought into the review of literature. Such discussion may help to clearly distinguish involuntary migration from migration processes as a whole.

Studies on population displacement and urban squatters in relation to physical changes in river courses are of fairly recent origin in Bangladesh. But the occurrence of these phenomena are not new. This situation initiates a phenomenon of 'people on the move'; in particular, involuntary migration of displacees toward some new destination. Geographers and other researchers have undertaken a number of studies on the perception of natural hazards and their impacts on human habitats.<sup>3</sup> These studies have placed special emphasis upon the social and economic aspects of the hazard phenomena (Kathleen, 1975). Studies relating to natural (and man made) hazard phenomena, and their impacts upon human habitation, are significant in examining the relationship existing between man and hazardous events. For example, some studies (i.e., Nabila, 1978; Sopher, 1963) have

---

<sup>3</sup> For instance, White (1945), Burton and others (1964), Nabila (1978), Elahi (1983; 1981), Islam (1981; 1970), Chowdhury (1981; 1959), Chowdhury (1979), Saad (1979), Bangladesh Water Development Board (1978), Swift (1977), Oliver-Smith (1982), Merryman (1982), Du Toit (1982), Newman (1975), Doughty (1971), Haque (1983), Sopher (1963), Chakma (1983), and Hossain (1984) have undertaken research on this particular issue.



investigated the nature of displacement and resettlement of populations affected by human interference of lake environments. A number of researchers (e.g., Oliver-Smith, 1982; Merryman, 1982; Islam, 1970) have dealt with the impact of natural disasters (i.e., cyclone, earthquakes, drought etc.) on human habitats, and the responses of affected people to these phenomena. None of these studies, however, provided comprehensive perspective on the patterns and processes of involuntary migration involving hazard affected people.

The dimensions and perspectives of the development of urban squatter settlements are primarily a product of both involuntary and voluntary rural to urban migration processes that are broad and varied in the developing world. This is because such migration may originate from different adverse social, economic, or natural causes. The scale of these migrations depends upon the magnitude and severity of these causes. For the purposes of the present study, this section focusses on the basis of rural to urban migration and identifies relevant variables explaining the rural to urban migration phenomenon.

Economic conditions are viewed as one of the principal factors causing rural to urban migration. In this context, Nelson (cited in Akhter, 1984) classified the negative (or *push*) factors at the place of origin, and positive (or *pull*) factors at the destination, and formulated the simple dualistic *push-pull* model. In his model, Nelson identified such major *push* factors as declining demand for labor; oppressive or discriminatory treatment because of political, religious, or ethnic origin; alienation from a community or a family; and retreat from a community either because of socioeconomic opportunities or natural calamities. He also pointed to a number of factors that usually attract people, including preferred occupation; opportunities for better education; employment and higher income; and better living environment. Although his is a very simple theory, it is one of the pioneering models in migration studies, since most early studies of migration were based upon this theoretical framework. However, the model does not explain relationships among various complex socio-psychological factors. Also, it does not indicate how, and to

what extent, different migration elements (especially in case of imposed situations) operate within the model. Khan (1980:374) is critical about this *push-pull* model, arguing that it does not explain why some people migrate and some do not. In some cases it is also difficult to differentiate between degrees of *push* and *pull*. In addition, it is more likely biased to economic factors vis-a-vis non-economic factors.

Todaro (1969) developed a theory on rural to urban migration which emphasised the migrants' decision-making factors. It postulates that the decision to relocate is a function of two economic variables: first, the wage gap between rural and urban sectors, and second, the probability of migrants' successfully gaining employment. He considered wage rate differentials between rural and urban sectors. The higher wage rates existing in the urban sector as well the apparent availability of jobs attract people from the rural areas. But the existence of urban employment does not necessarily reduce the proportion of unemployment of rural migrants living in the urban areas. This is because the number of migrants greatly exceeds the number of jobs for which they are qualified. In a study of 40 Indian villages, Connell et al. (1976:2) found that by improving agricultural earning-power in rural areas, and thus reducing intra-rural inequality, rates of rural to urban migration are slowed, thereby also reducing the pressure of urban unemployment. In fact, empirical tests of Todaro's hypotheses in different parts of the world have led to various conclusions. Some studies have concluded with findings supporting the postulates of the model, for example Mundlak (1978), House and Rempel (1980), and Speare (1971). These studies confirmed that economic opportunities in terms of wage levels, employment, and similar factors, attracted migrants from rural areas. On the other hand, a number of analysts disagree with these conclusions. For instance, testing different national level data, Montgomery (1975), Pandey (1977), and Chaudhury (1978) expressed serious doubts about the validity of Todaro's model. In the light of rural to urban migration in Bangladesh, Chaudhury (1978) rejected the validity of variables affecting migration postulated by Todaro. He illustrates some limitations of the model. First, it omits non-

economic factors such as marriage, which induces particularly the migration of females on the Indian sub-continent. Second, he suggests that better earning prospects at the destination do not always explain rural to urban migration since wage rates in urban areas are not necessarily higher than those in the rural areas (also supported by Alamgir, 1974). Also, a number of rural to urban migrants share traditional or informal sector jobs where wage rates are usually much lower than in the formal sector. Third, the hypothesis that presupposes that the decision to migrate is taken by the migrants themselves, and they therefore have accurate information about income and job prospects in urban centers, may not be entirely tenable and requires further field level testing. Criticizing the Todaro model, Haque (1984) viewed that conventional approaches such as economic and marginalist (or city-dominant) theories of rural to urban migration have failed to explain the realities in developing countries. Although these are the models of voluntary migration only, the present study attempts to identify and compare the *push* and *pull* factors which are operative in the case of involuntary migration and relevant to the Bangladesh context, especially in the case of population displacement due to riverbank erosion.

A number of studies have indicated that different theories relate to involuntary migrations existing in today's developing countries. Looking at the changes in current production systems in developing countries, McGee (1971) concluded that export-oriented plantations are replacing local efficiency in improvement of crop production; that lack of local-level capital accumulation and investment are diminishing agricultural productivity; and that the intrusion of an organized capitalistic system into the local-level practices changes people's social attitudes and values. He also argued that all these factors initiate and influence the migratory behavior of the rural populations to urban centers. In a similar way, social and economic intervention by some local rich people may influence migratory behavior and urban life styles of the Serajganj squatters. He found, in a study of Malaysia, that rural emigrants retain their rural characteristics even after resettling into an urban environment. In this situation, migrants often retain both rural and urban characteristics

simultaneously when they move within a network of close personal ties. Goldstein et al. (1977:39) also concluded that rural ties among urban migrants was one of the major contributing factors for rural to urban migration in Thailand; their contacts with their rural kin also stimulate other rural people to urbanize, through the diffusion of new ideas, knowledge, material objects, and financial well being. Read (1942) found that in the South African context both rural and urban areas are interdependent in terms of economic and cultural interchanges in both directions through this migratory process. This finding may not be relevant to the present study area, because it is possible that Serajganj squatters will have limited scope to interact with the rural relatives since they have lost their rural resource base.

The current trend in migration research includes a number of demographic, social, cultural, and other non-economic variables. For example, Phillips (1959) indicated that the deterioration of land fertility caused considerable levels of migration; McNicoll (1968) found that political policies often initiated forced or involuntary migration; and Dessaint (1971) showed that social conflict acted as the primary cause of migration in Northern Thailand. It has also been suggested that transformations in rural society, such as population growth, low productivity of agriculture, declining standard of living, lack of opportunities for improving agricultural methods, and lack of alternative opportunities for employment, all combine to cause rural to urban migration in Peru (see Collier, 1976). Collier argued that out-migration improves prevailing man-land ratios; increases agricultural production per capita; and improves standards of living for peasants remaining in rural areas. On the other hand, migration also fulfills economic and educational aspirations, and stimulates social mobility for the migrants. Abad (1980) indicated that economic factors constitute only a partial motivation for migration and, therefore, any research into the causes of migration needs a broad framework and wide perspective.

Wolpert (1970) introduced the concept of *place utility* regarding migrants' decisions to move. The concept of *place utility* postulates that potential migrants receive either positive

or negative impulses from a number of potential destinations, and their decision to move is taken in a rational manner. According to this idea, migrations take place to destinations of higher place utility. Wolpert also argues that the decision to move is related to the stress at the place of origin and a strain-threshold of the potential migrant. In the case of displacees' migration, the concept of *place utility* is not relevant since they need to survive after the occurrence of riverbank erosion. In the African context, Du Toit (1975) identified migrations as ongoing interacting systems where migrants consider a complicated nexus of factors with their cognitive and social relevance. Considering the socioeconomic status of the migrants, Koo (1978) hypothesised that most rural to urban migrants come from upper strata of the rural population. In the South Asian context, however, Chaudhury (1978) found that it was both the richest and the poorest groups in rural areas that showed a high propensity to migrate from rural to urban areas. In Bangladesh, it can be argued that a significant proportion of the bottom stratum of rural to urban migrants are riverbank erosion affected displacees, while in Latin America, Balan also (1969) hypothesised that the majority of rural to urban migrants come from the bottom of the socioeconomic stratification of society. Again, such findings relate to Bangladesh where riverbank erosion causes involuntary migration of affected people and where the displacees are powerless to resist the effects of nature. Perlman (1976:11), however, disagreed with Balan's findings. In a study of Brazilian *favales*, she found that rural migrants to large cities are universally above the national averages in education, skills, and acquaintance with urban ways. Eckstein (1977:8) proposed that the urban poor, and their responses to social and economic deprivation, are largely by-products of societal class and power structures. Thus, it can be argued that the phenomena of unemployment, impoverishment, and rural to urban migration are related not only to economic, but also to social, political, and psychological factors and processes.

Apart from the dualistic economic model (such as the Todaro model), the concept of *situational approach* regarding the dynamics of rural to urban migration is another

important idea. It postulates that qualitative differences between rural and urban areas exist which may create problems of adaptation of migrants from one milieu to the other. Therefore, this approach places emphasis upon the individual's decision-making process. But ideas related to this approach were developed from the western experience of urbanization and industrialization; it is defined as a process of transferring populations from folk-society to urban society based upon cultural homogeneity in each entity (see Redfield, 1956). The city is seen as a center of change in society and the shift of rural people to urban centers is said to be the basic to the process of modernization of society within a continuum (see Sjoberg, 1966; Reissman, 1970; Lampard, 1964). Apparently the impulse of urbanization upon society is such that it gives way to urban institutions, urban values, and urban demands that attract people from rural areas.

From the above literature, we can see that economic, social, and political factors act as principal reasons for rural to urban migration. But in some instances, people are forced to leave due to natural disaster and political persecution; such population movement is termed 'involuntary migration'. Mangalam (1968:8) defines migration as:

... a permanently moving away of a collectivity, called migrants, from one geographical location to another, preceded by decision-making on the part of the migrants on the basis of a hierarchically ordered set of values or valued ends and resulting in changes in the interactional system of the migrants.

He differentiates between forced or involuntary migration and voluntary migration by focussing on the diminished power of decision-making in the former where the migrants are sometimes totally without choice of whether or not to move. It is worthwhile to mention that the same condition of powerlessness applies to the case of the Serajganj displacees. Mangalam indicates that migrations result from some degree of relative deprivation, where individuals believe that they cannot satisfy their needs at their present residence.

Using psychological variables (i.e., personal motivation and power) Petersen (1958) formulated a migration typology to better distinguish between voluntary and involuntary migration. He introduced two concepts: first, *innovating*, where people migrate to achieve a better life; and second, *conservative*, where migrations are in response to a reluctance to adapt to changing conditions. The rural to urban migration of riverbank erosion affected displacees in Bangladesh is *conservative* rather than *innovative* because displacees to urban squatter settlements retain their rural life styles. In his migration typology, Petersen categorized five broad classes of migrants: forced, impelled, primitive, free, and mass. He suggested that both forced and impelled migrations occurred due to the prevailing socio-political oppression where migrants are largely passive and unable to resist the forces that initiate their movement. He also identified the move of agrarian population due to such sudden occurrences as drought or outbreaks of locusts as *primitive* migrations. However, Petersen placed less emphasis on natural disasters as a cause of large scale involuntary migration. The present study on the other hand, considers natural hazard induced migration as a forced migration. In the case of natural hazard induced migration in Peru, Oliver-Smith (1982:96) found a short-distance migration behavior of the earthquake victims. These findings can also be compared to the migration behavior of victims of riverbank erosion in Bangladesh.

Kosinski (1975) introduced a relatively more detailed migration classification. The major dimensions of this classification are: time (i.e., temporary, permanent), distance (i.e., long, short), boundaries crossed (i.e., internal, external, areal units), decision-making (i.e., voluntary, impelled, forced), persons involved (i.e., individual, mass), social organization of migration (i.e., family, clan, individual), political organization of migration (i.e., sponsored, free), causes (i.e., economic, non-economic), and aims (i.e., *conservative*, *innovative*). He did not, however, refer specifically to the natural hazard induced migrations.

In defining migration as a 'function of volition' and relating it to the process of migration-decisions (concerning the leaving the place of residence, or selecting a new destination), Eichenbaum (1975) developed a matrix of migrants with four empirical categories: migrants, refugees, allocatees, and slaves. He claimed that the decisions to migrate are either influenced or determined by society. According to this view, refugees, allocatees, and slaves are forced to move because of oppressive social conditions, religious or political persecution, or ravages of war. Most theorists, including Eichenbaum, do not include or classify victims of natural disasters under any category. As mentioned earlier, forced or involuntary migrations are characterized by diminished power of decision, and sometimes the migrants or displacees are totally powerless. In the case of riverbank erosion affected displacees this same concept of powerlessness applies.

Because most rural to urban migration theories were developed on the basis of western experiences, it seems from the above discussion that many of the generalizations and assumptions about migrations are not appropriate to many cases in the developing world. As we have seen, many models and concepts do not include natural disasters as a contributing factor to migration. This may be because most scholars have tried to examine the relationship of migration to processes of urbanization, and to a certain extent, of industrialization. Paradoxically, it is revealed from the existing literature that migrants, especially in developing countries, are being used for industrial and urban-infrastructure development, but these migrants seldom succeed in becoming an integral part of that urban society. Showing an unwillingness to move back to the rural areas, and instead developing slums and squatter settlements, these migrants live only on the periphery of the mainstream of urban life. The population displacement due to riverbank erosion in the Serajganj district, and the movement of the displacees toward the urban center, can be considered a form of involuntary migration where a voluntary decision to withdraw from area of origin is absent.



It is clear from the above literature review that no one has tried to develop a model concerned specifically with natural hazard displacement that causes rural to urban involuntary migration. The present study, therefore, focuses on such involuntary population displacement due to riverbank erosion, and the subsequent development by the migrants of urban squatter settlements. Since the migrants had little choice but to leave their rural areas, the motivations forcing them to move to the urban areas are few. However, issues relating to loss of land and shelter, and the hope for eking out a minimal livelihood in a changed resource base are far more complex than suggested in the simple dualistic *push-pull* model of migration. In addition, the extent of the relationships and ties between the Serajganj urban squatter population and their kin in rural areas make the migration situation more complex. Thus, the issue of displacement, the development process of urban squatter settlements, and the impacts on the concerned human environment will be examined in this thesis.

#### 1.2.2. Rural to Urban Migration and Urbanization in Bangladesh

Rural to urban migration is one of the major contributory factors to rapid growth of urban population in most Third World countries. This rapid urban population growth is associated with a number of problems such as lack of housing and services, unemployment, development of squatter settlements, crime and the emergence of a dangerous dualistic society. In developing countries, the development of squatter settlements is one of the major consequences of rural to urban migration. Many studies of squatter settlements in Bangladesh cities have reported that riverbank erosion displacees form the majority of households in squatter settlements, thus accelerating the urbanization (see Rahman, 1985; Zaman, 1983; Islam, 1979, 1976; Qadir, 1976). Similarly, Serajganj is facing innumerable problems due to in-migration of riverbank erosion

displacees. Therefore, the following discussion examines how urbanization in Bangladesh is affected by rural to urban migration.

Other than natural increase, rural to urban migration is the other major factor increasing the urban population. According to De Souza and Porter (1974):

... what is exceptional about urbanization in underdeveloped countries is not so much an increased proportion of urban to total population, but an unprecedented absolute growth of urban population. In the period 1960-1965, the average annual growth rate of urban population was 5.8 percent in Latin America, 4.6 percent in Africa, and 3.8 percent in Asia.

This describes the situation in Bangladesh where urbanization is occurring on average at the rate of 5.9 percent per year (BBS, 1984). Islam (1976:8-9) has identified four reasons responsible for the accelerating urban growth in Bangladesh, especially since the late 1940s. These are: (i) large-scale migration of Muslims from India after the 1947 partition, most of whom resettled in urban centers; (ii) development of new centers of trade, commerce, industries, and administration after Bangladesh achieved its new political status in 1947; (iii) rural to urban migration due to the impoverishment of the rural areas which pushes people to urban centers; and (iv) natural increase of the urban population. In Bangladesh, rapid growth in the population places increasing pressure on the already high rural population density which pushes people to urban destinations. In a related study of internal migration, Bose (1978:187) identified four types of migrations, namely (i) rural to urban, (ii) rural to rural, (iii) urban to urban, and (iv) urban to rural. In a developing country like Bangladesh, it is the rural to urban migration that is most important. In this connection, the question of why rural to urban migrations occur, and what the impacts are of such unprecedented shifts in the population to Bangladesh's urban areas in terms of the development of urban squatter settlements, are the major foci of this present section.

#### 1.2.2.1. Reasons for Rural-Urban Migration with Special Reference to Natural Hazards Induced Migration

Agriculture and its related activities still completely dominate the Bangladesh economy. Small and fragmented land resource base; massive population with predominantly rural characteristics (84.82 percent; BBS, 1984:112); very slow rates of industrialization; low literacy rates (23.7 percent; BBS, 1984:79); and low per capita income (US \$120 or Cdn \$145), all show Bangladesh to be an extremely impoverished country. While per capita cultivable land is only about 0.24 acres (BBS, 1984:217), the country has been experiencing a growing proportion of landlessness (currently at 54 percent, BBS, 1982:787) due to various socioeconomic and physical causes, such as described by Doherty (1977:35):

... Many urban centers in the Third World countries are established under colonialism; these are centers from which the countryside would be administered and controlled, and channel rural surplus to the primate city by a process of unequal exchange of rural produce for imported manufactured commodities.

Unfortunately, the process of siphoning rural wealth to urban areas has continued since independence. This transfer of wealth initiates and accentuates rural poverty, and accelerates the migration of poverty-stricken people to urban centers. However, urban centers have limited infrastructural facilities and employment opportunities and thus offer little to these migrants. Consequently, they are forced to live in extensive, uncontrolled, and unplanned squatter settlements and slums.

The Great Bengal Famine of 1943 made millions of people destitutes, many of whom moved to urban locations (see Sen, 1978). As Alamgir (1978) noted, there were some social factors, such as exploitive production relations, that led to the class configurations that sustained and aggravated the process of underdevelopment in society, and operated to push a growing number of people below the poverty line. It is such impoverished people who become the first victims of the squeeze that comes in the wake of any socioeconomic,

political, or natural disaster. Some of these victims eventually find their way to urban centers. In fact, the conditions of the rural economy of Bangladesh have continued to deteriorate since the early days of colonial rule. The devastating impact of the 1971 war of independence maintained the harsh agrarian conditions, and the consequent pauperization of rural areas caused the mass exodus of 'rootless' rural population to the cities (see Zaman, 1984).

Reasons for rural out-migration are also related to regional differences, especially in terms of the magnitude of occurrence of different natural disasters. Examining Qadir's (1975) findings, Zaman (1984:59) argues that people move from riverine districts (e. g., Faridpur, Barisal etc.) because of the threat of riverbank erosion and flooding, and from heavily populated rural districts (e. g., Dhaka, Comilla, Noakhali etc.) because they find difficulties in obtaining employment. Rahman (1985:53) indicated that the destructive impacts of the war of independence, the economic dislocations after independence, the famine of 1974, and the adverse effects of frequent natural calamities such as cyclones, droughts, floods, salinity, and riverbank erosion, have together pushed thousands of people out of rural areas to urban locations. This huge urban in-migration has led to the rapid growth of slums and squatter settlements in the urban centers. In addition, the overall economy of Bangladesh has deteriorated since independence, owing to repeated crop failures, droughts, insufficient irrigation facilities, excessive rainfall with associated hailstorms, floods, and riverbank erosion. Continuous losses in the industrial sectors of the economy due to mismanagement and corruption in the administration, as well as political unrest caused by the power struggle between the military bourgeois and various political factions, have further aggravated the situation. These factors have together severely disrupted the normal production of goods and services in the country.

Maniruzzaman (1975) and Bertocci (1982) have shown that large-scale corruption in both private and public sectors of the economy and in the administration have contributed to the economic crisis, social disorder, and political turmoil in Bangladesh. This situation

accelerate the processes of pauperization and polarization, especially in rural areas. Along with this, an alarming rate of population increase (currently 2.43 percent; BBS, 1984:83) puts severe pressure on the economy resulting in a massive exodus of rural people to urban areas, especially during and after 1974 famine. Stoeckel et al. (1972) identified some pull factors responsible for rural out-migration. According to their findings, a plurality of rural out-migrants selected urban destinations for their occupational opportunities (36.6 percent) and more than 30 percent migrated as dependents. Another reason cited was aspirations for better living conditions (8.6 percent). Conducting research at Matlab (Comilla), Chaudhury and Curlin (1975) also found similar reasons for rural to urban migration.

Studying a slum in Dhaka city, Akhter (1984:80) indicated that about 25 percent of slum dwellers migrated from rural areas to Dhaka because of natural disasters. This writer (1984:155) has studied riverbank erosion affected displacees in Kazipur (Bangladesh) and found that about 10 percent moved to urban locations to find jobs and housing. Landlessness due to riverbank erosion, rapid decline in the demand for paid agricultural labor, lack or limitation of non-agricultural employment in the erosion affected areas, failure in recovering land in newly accreted *char* areas, and socioeconomic pressure from large landowners in the locality, were some of the major reasons for rural out-migration. Haque et al. (1984) indicated similar reasons for rural out-migration, especially in riverbank erosion affected areas. According to Islam (1976:20-21), negative factors such as population pressure, decreasing land ownership, inadequate rural and agricultural development programs, and natural disasters such as floods, cyclones, riverbank erosion, cause rural to urban migration. These factors, either alone or in combination, are responsible for creating a gradual impoverishment of rural people and thus forcing them out from rural areas. The stream of these rural out-migrants put new pressure on already over-populated urban locations. Islam (1976) has also identified some attractions or *pull* factors, like employment opportunities, urban amenities, education facilities, safety and security, and changing values of livelihood, which induce rural people to move to urban areas.

From the existing situation in Bangladesh, the present study will attempt to isolate factors responsible for attracting riverbank erosion displacees to Serajganj.

#### 1.2.2.2. The Urbanization Process in Bangladesh

McGee (1971:14) points out that the Third World is experiencing a much greater rate of growth in urban population than Europe ever did at the height of its urbanization. Currently it ranges between 4 and 8 percent. Bangladesh is typical of this type of urbanization. According to the Bangladesh population census, only 15.2 percent of total population live in urban areas (see BBS, 1984:36). Urban development in the country can be traced back to third century B.C. (see Islam, 1976). By the early and middle ages, there were several densely populated royal cities in Bangladesh, such as Mahasthan, Sonargaon, Vikrampur, and Chatgram (see Elahi, 1972). Between 1600 and 1700 A.D., when Dhaka was the capital of an undivided Bengal (the present West Bengal state in India, and the current Bangladesh), as well as Bihar and Orissa, it had a population of about 900,000 (see Elahi, 1972; Rudduck, 1964). These cities basically served as centers of administration, commercial activities, and religious festivals up to the 1750s when the British occupied Bengal. Bangladesh had 23 million people at the time of the first modern census of an undivided India in 1872, but until the 1920s, the rate of population increase was slow. The development of technology and communications began to reduce the death rate during the 1930s resulting in a sudden rise in population. The Great Bengal Famine of 1943, however, led to a huge number of deaths which was responsible for an abrupt decline in population growth between 1941 and 1951. From 1750 to the 1947 partition of India, Bangladesh became a hinterland of the huge industrial-commercial establishments of Calcutta. Urbanization in Bangladesh received stimulus after 1947 when this region became independent of British colonial rule, and earned a separate politico-administrative

entity from the surrounding Indian territories (see Islam, 1976). The urbanization process received further momentum after the independence of Bangladesh in 1971.

TABLE 1.1  
Growth of Urban Population in Bangladesh

Census year	Total Population	Urban Population	Urban % of Total Population	Inter-censal % increase in urban population
1901	28,927,786	702,035	2.43	--
1911	31,555,056	807,024	2.55	14.95
1921	33,254,096	878,480	2.64	8.85
1931	35,604,170	1,073,489	3.02	22.20
1941	41,997,297	1,537,244	3.66	43.20
1951	42,062,610	1,819,773	4.33	18.38
1961	50,840,235	2,640,726	5.19	45.11
1974*	71,479,071	6,273,602	8.78	137.57
1981	87,120,119	13,228,163	15.18	110.85

\* No Census was taken in 1971 due to the war of independence

Sources: Bangladesh Bureau of Statistics (BBS, 1984);  
Bangladesh Population Census, 1981, pp.33-36

Elahi (1972:4) indicated that urbanization in Bangladesh, like that in other Asian countries, differs from western countries in three main aspects: first, urbanization in Bangladesh had a colonial background with a very deep rooted indigenous rural culture; second, its development has been very slow and recent in origin; and third, it took place in an already densely populated area, resulting in extreme densities in the towns. However, Islam (1976:8) has argued that urban growth in Bangladesh prior to the 20th century cannot be termed as urbanization because of its slow rate, and insignificant difference from rural life. In 1901, only 2.43 percent of the total population was living in urban places, and until 1921, the percentage of urban population remained almost constant (Table 1.1).

The spread of plague between 1910 and 1920 as well as during the Second World war (1939-1945), caused a temporary set back to urban growth because thousands left the cities (see BBS, 1984). But the Great Bengal Famine of 1943 pushed thousands from rural areas to urban locations. However, the modern phase of urbanization really began after 1947, when the present Bangladesh was created a province of an independent Pakistan. During 1951-1961, 1961-1974, and 1974-1981, urban population increased by 45.11 percent, 137.57 percent, and 110.9 percent respectively (Table 1.1). This abrupt increase in urban growth put tremendous pressures on the cities; lack of housing and jobs resulted in the growth of urban squatter settlements and slums, and these have now become common urban characteristics in Bangladesh. However, the total level of urbanized population remains modest, namely, 5.19 percent of Bangladesh's population was urbanized in 1961, 8.78 percent in 1974, and 15.2 percent in 1981 (Table 1.1). Chaudhury and others (1976:109) estimated that 13.65 percent of the total urban population consisted of in-migrants from rural areas in 1961, but this proportion increased to 39.36 percent by 1974.

It appears from this discussion that Bangladesh is still a country with a relatively low level of urbanization compared to the South Asian average (see Kosiniski and Elahi, 1985:10)<sup>4</sup>. United Nations statistics (1980:29) indicated that rural to urban migration accounted for one third to over one half of the total urban growth. On the other hand, by 1980, the urban population in all developing regions was 30.8 percent, while it was 41.1 percent for the world. According to another UN estimate (1982:298-310; also cited in Kosiniski and Elahi, 1985), by the year 2000, the percentage of urban population will be 33.0 in South Asia, whereas it will be 22.0 in Bangladesh. Considering the historical

---

<sup>4</sup> According to Kosiniski and Elahi (1985), the percentage of urban population in South Asia on average was 15.8 percent in 1950 and 21.5 percent in 1980 whereas in Bangladesh it was only 4.4 percent and 11.2 percent respectively. But if we relate these figures to Table 1.1, the percentage of urban population of 1980 in Bangladesh provided by Kosiniski and Elahi seems to be underestimated.



growth rate, and its current rate of urbanization, it must be concluded that Bangladesh has been, and will possibly remain, one of the least urbanized countries in the world.

Despite this low level of urbanization in Bangladesh, the current growth rate is due more to rural to urban migration than natural increase in urban population (see Khan, 1982). This rural to urban migration has led to mushrooming growth in squatter settlements in the city. According to one study (CUS, 1974), Dhaka city had 31 squatter concentrations in 1974. These squatters were unskilled laborers who worked as hawkers, rickshawpullers, petty shopkeepers and in other low level service-related jobs. Their earnings were insufficient to support their families. As a result, the large majority of them lived in a poverty situation. Serajganj has a substantial number of squatters as the town continuously receives a volume of in-migrants affected by riverbank erosion in the locality.

#### 1.2.2.3. Urbanization and Urban Squatter Settlements

As indicated earlier, one of the major impacts of the shift in rural population to urban areas is the rapid and uncontrolled growth of squatter settlements and slums. In the Bangladesh context, Rahman (1985:55) suggests that while immigrants move to urban areas with the hope of obtaining employment and making a living, there are no institutional provisions to support them. Hence, lacking access to proper housing, they squat on vacant government land and ultimately develop sizable squatter settlements. Lloyd (1979:20) shows that the rate of city growth is frequently twice than that of natural increase, and in some regions of the world, the rate of growth of shantytowns is double the growth rate of the city. Thus, a large proportion of a city's population is compelled to live in squatter colonies (also see Jackson, 1979). In 1974, the squatter population constituted 21.6 percent and 16.9 percent of the total in-migrants to Dhaka and Khulna cities respectively (Islam, 1976). According to a Serajganj municipality estimate (1985), about 18 percent of

the town's population are squatters. Of these, about 6 percent are riverbank erosion-affected displacees (Hossain and Greenberg, 1985). Given these data, it is undeniable that urban squatters create numerous social, economic, and political problems in Bangladesh. Yet although squatters have been a feature of urban areas for a long time, town and city administrators appear not to accept them as an integral part of the mainstream of urban life.

The most significant problems faced by squatters in urban locations are the lack of housing and the lack of employment. Lloyd (1979:13-39) has shown that in-migrants far outnumber available city-based formal sector jobs. Consequently, in-migrants try their luck in the informal sector economy, and some engage in undesired activities like begging, prostitution, or crime. A few may find jobs in the formal sectors, but generally at very low pay. This unequal and unjust 'social contract' accentuates the process of impoverization among urban squatters. The process indicates and develops very sub-standard levels of living, thus perpetuating the vicious cycle of marginalization of squatters.

Usually squatters are viewed negatively by people of higher social standings. In general, city administrations and the permanent and affluent city dwellers, identify squatters as a problem population and a blemish to the city environment. Ulack (1978) suggests that squatter settlements can be viewed in two ways. First, they are a negative feature of urban life. Such settlements are an expansion of rural areas and are more of a hindrance than a benefit. Impoverishment spreads from these settlements to other areas of the city. A second view is that squatter settlements play an important role in urban development since squatters eventually become integrated into urban life. These settlements provide cheap accommodation for new in-migrants and thus allow for greater personal savings. The current research will examine which view is applicable to the Serajganj urban squatters.

Some cross-cultural studies, (e. g., Lewis, 1966) identify squatter populations as a social disease, where squatters are associated with delinquency, prostitution, and other criminal activities. But Mangin (1967:21) has shown that squatters are well organized,

politically sophisticated, ambitious, patriotic, and not necessarily an economic drag on the urban society. From the Bangladesh experience, we can generalize that squatter populations are not as socially corrupt as Lewis suggests, but neither do they manifest the positive characteristics that Mangin proposes. What is important to understand is their existence in extreme economic poverty and social deprivation; it is safe to say that they are oppressed and socio-politically disadvantaged because of their economic poverty. The universal reality is that they are living without access to public services, sanitation, and security; primarily, they are unemployed or underemployed and face constant hardship for survival. Urban squatter settlements are a conspicuous consequence of the urbanization process; a product of unplanned urbanization under Bangladesh's poor economic conditions. Therefore, this undesirable situation has a severe impact on the life of the city as a whole.

### 1.3. RESEARCH OBJECTIVES AND HYPOTHESES

The formulation of the objectives and hypotheses of the present study are based on the review of literature in the preceding section. Given the resources, manpower, and time available, the present study deals primarily with the migration pattern of erosion-displacees and their resulting impact upon the urban area. Specifically, it focuses on how a physical process like riverbank erosion creates social, economic, and psychological problems for the urban society as a whole. This ongoing process, along with other related societal processes, is responsible for accelerating the scale of economic poverty; it creates conflicts between town and squatter populations, and brings differences in attitudes about social position and segregation. The interacting consequences of these processes speed-up the pauperization of displacees and make it difficult to implement any relocation options for them.

Considering these facts, specific objectives of this study are :

- 1) to determine how far displacees migrate from affected areas, and what proportion of them selected an urban destination (Serajganj), and for what reason;
- 2) to examine how riverbank erosion creates a process of pauperization among displacees with reference to their changed resource-base, and how this accelerates the process of marginalization;
- 3) to investigate the interactions between squatters and the locals; and
- 4) to explore the possibilities of displacees' access to rural land in view of their permanent resettlement.

In discussing the above objectives, three specific hypotheses have been formulated; these are:

#### Hypothesis 1:

That the displacees' consideration of socioeconomic recovery acts as a principal force causing short distance migration to Serajganj .

Some studies (e.g., Oliver-Smith, 1982; Palacio, 1982; Todaro, 1969) indicate that all migrations imply some degree of prior relative deprivation; migrants will decide whether to move in terms of the situations at both origin and destination, which is, in most cases, influenced by the society. But Oliver-Smith strongly argues that forced migration, especially due to natural disasters, is characterised by diminished powers of decision to move, and victims tend to resettle near the vicinity of the disaster affected area. Similarly, it can be said that in the case of river erosion induced migration, displacees are in no position to consider other alternatives but to move out from the erosion affected area, preferably to a place closer by. In this connection, a major focus will be to explain how and why they move to a near by urban location (i.e. Serajganj ). Displacees lose their

socioeconomic resource base due to the effects of riverbank erosion which compels them to leave their place of origin. In such a situation, they possibly cannot fulfill the decision making process of migration. But it is assumed that displacees would have some preferential choice of certain pull factors which influence them to move to Serajganj. Here, the migratory behavior of the victims of river erosion will be compared to Oliver-Smith's (1982) research findings on the victims of an earthquake hazard in Peru.

#### Hypothesis 2 :

The displacees become the disadvantaged urban inhabitants and move toward a vicious cycle of impoverization and marginalization.

Balan (1969), in his study of Latin American cities, indicated that the majority of urban squatter population came from an agricultural background, and their migration is just the transfer from the rural lower sector to the urban lower sector. These urban in-migrants are designated as 'marginal' to the society, or peripheral to the mainstream of urban life. Studying Iranian squatters, Quzmi (1980:6) found that poor urban in-migrants are marginals as they have subsistence income and low social status. Regarding Southeast Asian urban squatters, Jackson (1974: 25) concluded that urban poverty is a reflection of the imbalances in national economies. He continued that the national economy is planned, designed, influenced, and implemented by the more 'affluent' society which neglects the developmental needs of squatters. Perlman (1976:62) also related urban poverty to the national economy. She claimed that squatters are not marginal to the national economy, but their marginality is the result of exclusion and exploitation by society. Considering these research findings, the main focus of this present study is to examine how riverbank erosion displacees are becoming landless, jobless, and destitutes as a result of prevailing social attitudes and practices.

### Hypothesis 3 :

The displacees form a distinct and separate community in urban areas and contribute to the process of ruralization of the urban environment.

Rural out-migrants in cities try to change their pre-established moral ways of living. In this context, studying rural to urban migration in India, Saxena (1972:212) emphasised that the new urban environment improves the migrants' socioeconomic standards, which ultimately directs them toward integration into urban life. But he also indicated that the urban environment cannot encourage in-migrants' smooth assimilation, and they are naturally torn between the two cultural worlds of rural and urban. Using a number of adaptation characteristics of Malay in-migrants in Kuala Lumpur, McGee (1973:143-178) identified three different groups: marginal urban, satisfactory coexistence, and urban men. He indicated that the majority of Malays are 'rural persons' and 'urban persons' at the same time. He added that "an individual is the product of his society, not of his city" which indicates a doubt of becoming a fully urbanite individual. In this relation, it will not be surprising if almost all urban in-migrants, especially the natural hazard affected displacees who are currently living in squatter settlements, retain their previous rural character. In a developing country like Bangladesh, urban socioeconomic sectors are not well modernized, and urban centers have a little to offer to squatters. Besides, the in-migrants lack urban type job skills. They are treated as a separate community by the natives and by the local administrators.

The displacees arriving at the urban center fail to eke out a satisfactory livelihood. This is due to their limited access to urban facilities, and their induced and artificial isolation from the mainstream of urban life. Under these circumstances, squatters maintain their past traditional rural links, primarily owing to family bondage, and consider the possibility of return migration in the future. But repossession of newly accreted lands in the rural areas is likely and complicated. It is quite common that poor and middle class farmers who were the owners of those lands before they were eroded, have virtually no access to reemerged

lands. This situation clearly limits the possibility of returning to their places of origin. Therefore, squatters tend to remain in this present location even in economic poverty and social isolation. The social separation deprives them of being fully assimilated into the urban society. This situation, in turn, is responsible for developing a ruralization process within the urban environment.

#### 1.4. ORGANIZATION OF THESIS

The presentation of this study is organized into six chapters.

Following this introductory chapter, the second chapter focuses on the methods of analysis. Included are discussions on data sources and methodology. It explains the rationale for selecting the study area and the procedures involved in selecting the sample size of the respondents.

The third chapter analyses the migration behavior of the displacees. Major issues discussed in this section are displacement experience, distributional patterns of displacees and the factors influencing their decisions in selecting Serajganj as a destination.

The fourth chapter focuses on the nature of livelihood of displacees currently living in the Serajganj squatter settlements. This section explains the development of squatter settlements, changes in the land occupancy patterns of affected people, and the aggravation of their socioeconomic conditions with reference to the occurrence of riverbank erosion in Serajganj area. In short, this part examines how squatters become impoverished and marginalized in the society.

The fifth chapter discusses the process of the development of 'rural enclaves' in the urban environment of Serajganj. In this section, emphasis is given to the examination of the social interaction of squatters in determining viable resettlement options for squatters.

The sixth chapter consists of a summary and conclusions of the study. It also suggests various policy recommendations and possible directions for future research.

## Chapter II

### METHODS OF ANALYSIS

This chapter describes the research methodology which includes the sampling procedure employed in the collection of primary data, and the sources of secondary data. The chapter consists of two sections: first, sources of data, and second, methods of data collection and analysis. The content of the first section is sub-divided into secondary data sources and primary data sources. The second section deals with the selection of study area, the selection of the sample population, and discusses some of the limitations of the primary data.

#### 2.1. SOURCES OF DATA

Data on population displacement associated with riverbank erosion, and the subsequent development of urban squatter settlements are limited. No institution in Bangladesh appears to be specifically responsible for maintaining data on these issues. Despite this limitation however there are some indirect, yet fairly reliable sources of information. Since sufficient secondary data are not readily available, the collection of field level data was considered appropriate for this research.

##### 2.1.1. Secondary Data Sources

Relevant data on population were collected from various published sources (e.g., population census and agricultural census). Data on the number and the distribution of the squatter population were supplied by the Serajganj Municipal Office (1985). Historical data on Serajganj were collected from available government publications (e.g., statistical reports of the Bangladesh Bureau of Statistics) and books. In addition, supporting data



and related materials were collected from different published or unpublished reports and research work; these data sources have been acknowledged in the text where appropriate.

### 2.1.2. Primary Data Sources

Primary data for the Serajganj squatter settlements were collected through an intensive field survey using a questionnaire. The questionnaire (Serajganj Urban Squatter Survey, 1985) consisted of 65 questions and was divided into four main sections relating to the following aspects: i) demographic characteristics, ii) migration (displacement) history, iii) social characteristics, and iv) economic characteristics (see Appendix A). The questionnaires were administered in March and April 1985, when five interviewers<sup>5</sup> interviewed 207 household<sup>6</sup> heads, the required sample size. In the context of Bangladesh society, a household head is usually the decision-making person and the person most knowledgeable of the family's affairs (Haque and Hossain, 1988; Haque, 1988). Therefore, in order to obtain all the required information, the household head was interviewed. Additional personal observations were noted by the researcher to complement the findings of the survey questionnaire. Regular meetings between local leaders and some of the respondents and the researchers created additional opportunities to gather valuable qualitative information related to the research objectives.

The researchers also conducted interviews with the local administrators, the Serajganj *Pourashava* (Municipality) Chairman and his Commissioners, the Superintendent of Police

---

<sup>5</sup> The five person interviewing team included a local recruit who was a graduate from Rajshahi University; two students from Jahangirnagar University; Charles Greenberg, a graduate student from University of Manitoba, who was also researching riverbank erosion displacees in the Serajganj squatter settlements; and this researcher.

<sup>6</sup> The household unit consists of all members sharing a common dwelling and/or kitchen and making their expenditures for major items (i.e., food), out of common funds contributed by the earning members of the group.

(Serajganj District Chief of Police), the Public Health Engineer, and the *Upazila* Relief Officer. These interviews provided an important understanding of the administrators' views and perceptions of the squatter population. Also, five individual case studies were conducted to obtain more personal perspectives of the squatter population regarding their own reaction to the riverbank erosion phenomenon. It was a purposeful selection of those individuals who were willing to provide more information.

## 2.2. METHODS OF DATA COLLECTION AND ANALYSIS

### 2.2.1. Selection of Study Area

The origin of present-day Serajganj dates back to the early nineteenth century. Offering a nominal rate of tax, the then Belcuchi *Zamindar* (landlord)<sup>7</sup> Sirajali Chowdhury encouraged people from different areas to settle at a location near Belcuchi<sup>8</sup> on a small river, the Jenai (Saha, 1924). This new settlement, 'Serajganj', was named after the Belcuchi *Zamindar*. Responding to such a tax reduction policy, the *maroary*<sup>9</sup> traders began to settle in Serajganj in 1809 and developed it as a trading center (Figure 2.1). Between 1809 and 1830, the Jenai became a larger river as the Jamuna captured it. Thereafter, Serajganj evolved into a major riverport and trading center. By the 1830s, Serajganj was established as a permanently populated center and Serajganj municipality was officially founded in 1869.

---

<sup>7</sup> A *zamindar* is the person who owns a huge amount of land and acts as an administrator of his own territory. He himself does not do the cultivation, but lease-out the land to farmers. As revenue collecting agents of the colonial rulers, the zaminders were socially and politically powerful in Bengal politics and rural administration (see Zaman, 1988:182).

<sup>8</sup> Currently, Belcuchi is an *upazila* (The term *upazila* means a sub-district. This is the third level spatial unit in the administrative hierarchy in Bangladesh.) within the Serajganj District. The original *upazila* headquarter was situated more than 10 miles south-southeast of Serajganj, and was completely eroded by the Jamuna.

<sup>9</sup> Non-local businessmen who had migrated from India.

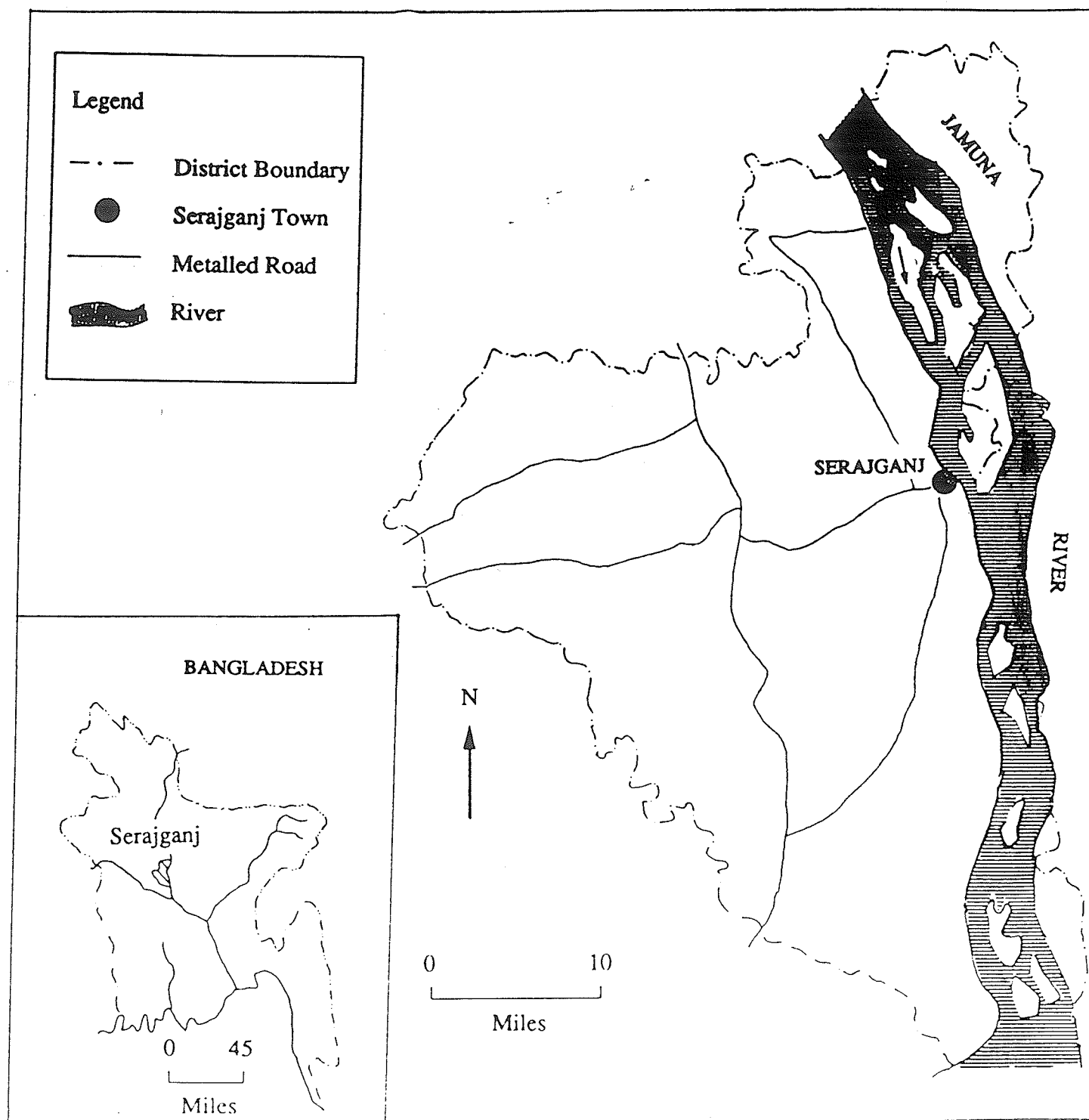


Figure 2.1 Location of the Study Area

Since its inception as a small village market, Serajganj has been under the constant threat of riverbank erosion. Saha (1924) reported that Serajganj had to move thrice in the last one hundred years. In 1848 the whole settlement had to be moved to a new site to the west as a result of a significant westward shift of the Jamuna. In 1876 the severe erosive nature of the Jamuna at Serajganj was again recognized. Between the 1860s and 1920s, the Serajganj municipal area was reduced from 11 square miles to 8.5 square miles due to riverbank erosion. In 1957, new areas to the west were added to the town to give it an area of 11 square miles once again. However, between 1960 and 1981, the area was yet again reduced to 4.2 square miles by erosion (BBS, 1983; 1978), and new land was once more added to the western side to give the current area of 11 square miles.

It is clear, therefore, that the Jamuna has been adversely affecting Serajganj for a long time (also see Kamaluddin, 1973; Hunter, 1876;). During the last few decades, more than 100 villages in Serajganj district have been affected (Hossain, 1984). Serajganj and its surrounding areas are among the worst erosion-affected areas of Bangladesh and a considerable number of local and regional erosion-affected displacees have moved to the town and live in its squatter settlements. Riverbank erosion continues to occur in the Serajganj area. Islam and Rahman (1987) show that three villages, more than half a mile of the BWDB embankment, and one ferry station, were eroded by the Jamuna in 1986.

Such a magnitude of riverbank erosion and its consequent impact on the Serajganj area, provided adequate rationale for purposively selecting Serajganj for the present study.

#### 2.2.2. Selection of the Sample Population

After selecting the study area, a reconnaissance survey was undertaken for the purpose of selecting the sample population. The 11 square miles of Serajganj contains 53 localities (known locally as *Mohalla*) of which 25 are regularly affected by annual flooding and erosion activities (Serajganj Municipality, 1985). The town has 18,000 families or

110,000 inhabitants (BBS, 1983). It is found by the reconnaissance survey that 975 households or 5,500 people are riverbank erosion-affected displacees. They constitute 5 percent of the total town population. The displacees are living in three different squatter concentrations within the Municipality (Figure 2.2). These are:

- Flood Protection Embankment (FPE) (520 households)
- Dried-up Old Riverbed (DOR) (250 households)
- Abandoned Railway Line (ARL) (205 households)

In order to determine the required sample size for this research, the following formula given by Cochran (1963:72) was used.

$$n = \frac{4 \times p \times q}{d^2}$$

Where, n = Sample size

p = Percentage of the most important characteristic in the study population

q = 100 % - p

d = Precision error, and 4 is a constant.

For the purpose of this study, the desired degree of precision of the sample is 5 percent of error (i.e., the error a researcher is willing to tolerate in the sample estimate). For this research, p represents the percentage of displacees. The reconnaissance survey provided information on the number of displacee households in each of the three different squatter settlements. This information is used to calculate p; the total number of displacee households are divided by the total number of squatter households. The result is expressed

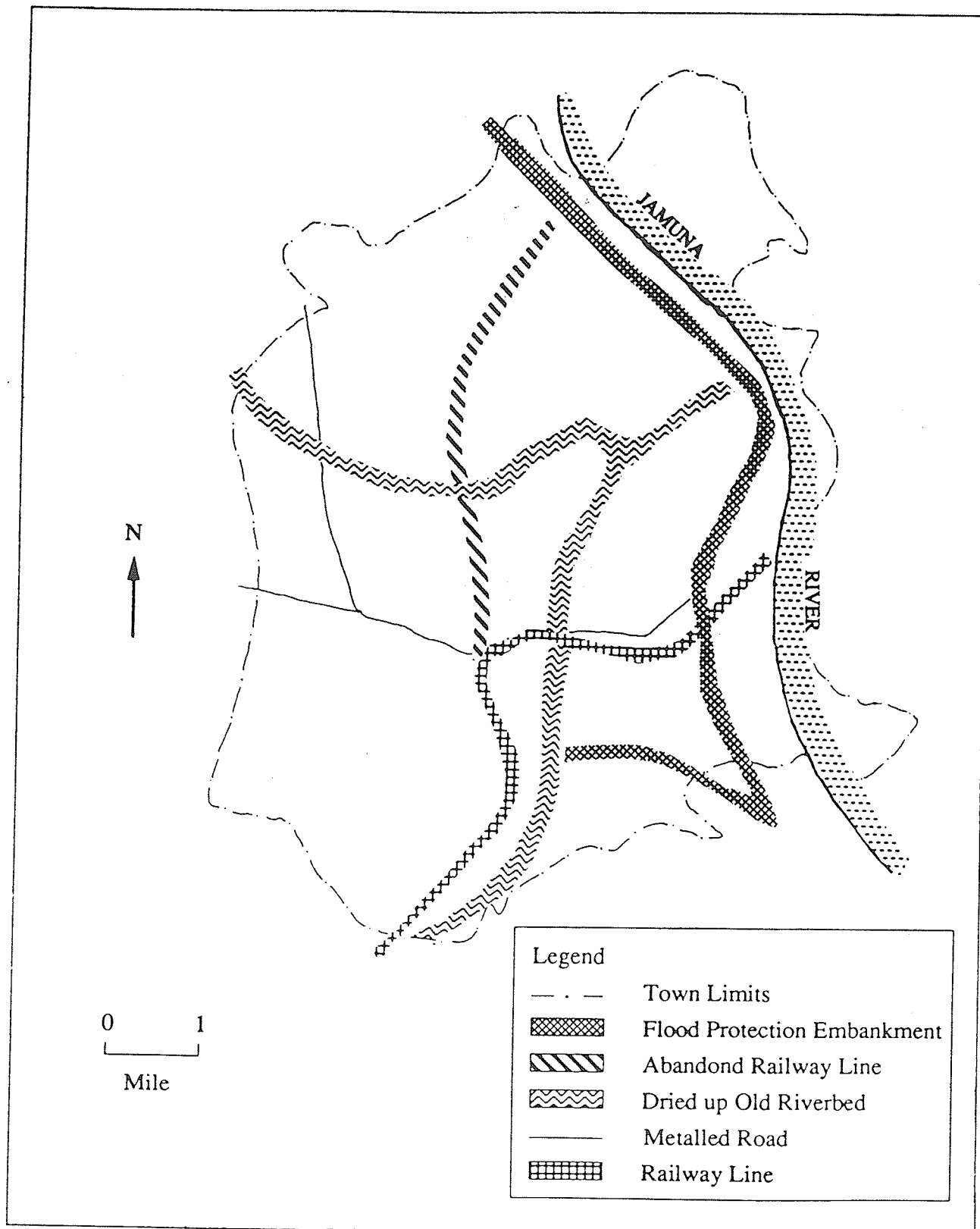


Figure 2.2 Locations of Serajganj Urban Squatter Settlements

as a percentage. The calculations give the value of  $p = 85$  percent and therefore,  $q$  equals 15 percent. Incorporating the relevant data into the formula above, the sample size was calculated as follows:

$$n = \frac{4 \times 85 \times 15}{5^2}$$

$$= 204$$

This means that a sample of 204 household units were needed to ensure the specified precision.

In order to adjust to the local situation, some additional interviews were also taken from the two squatter locations. This need to adjust to the local situation arose from a number of factors. For example, in some cases it was difficult to isolate individual households. While all household members share a common kitchen, major wage-earning members usually maintain a separate household account. This type of living arrangement usually results in more than one household unit within the sampled household. In such situations, the investigators interviewed both the wage-earners as it was difficult to decide which one should be excluded from or included to the survey. Such inclusions resulted in three extra interviews which are distributed as follows: two households from the FPE and one from the DOR.

Compared to the number of the required sample size (i.e., 204), the three additional interviews probably would not affect the survey results. Therefore, those three additional interviews were incorporated into the decided sample size. This gives a total of 207 displacee households as the sample size (Figure 2.3).

Following determination of the sample size, the selection of sample households was made by employing a simple random sampling procedure. In order to obtain a better representation of sample size from each squatter concentration, the *probability proportional*

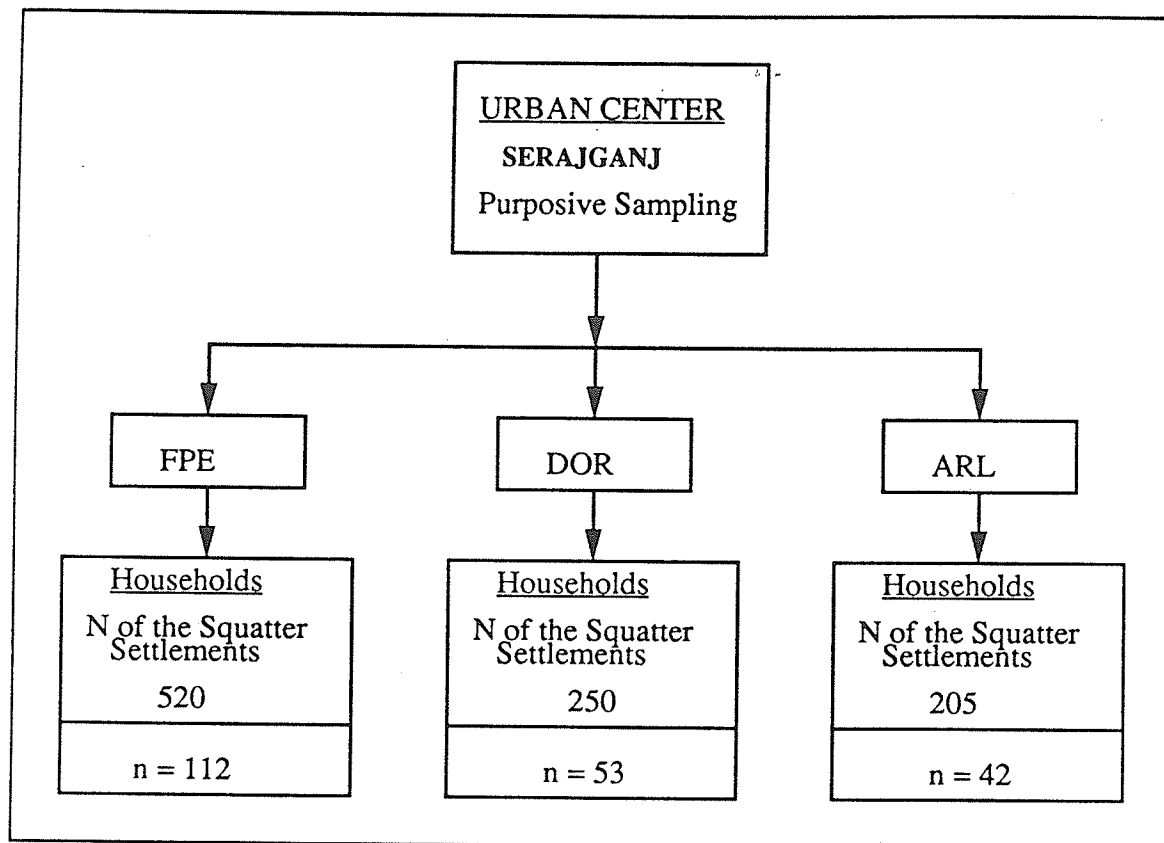


Figure 2.3 Sampling Distribution of Serajganj Urban Squatters.



to size (PPS) approach was used (see Moser and Kalton, 1972). The use of these procedures to calculate sample sizes in each location resulted in the following order of sample proportion: 54.1 percent of the total displacee households in the FPE, 25.6 percent in the case of the DOR, and 20.3 percent for the ARL (Figure 2.3).

It is worthwhile to mention that the rationale for considering households as the sampling unit is that households are the primary units of production, as well as the basic units of adjustment to riverbank erosional hazards in Bangladesh (Haque, 1988; Haque and Hossain, 1988). All households surveyed consisted of displacees. 'Displacement status' was determined by asking the simple question of "whether they had ever been displaced by riverbank erosion ?"

### 2.2.3. Pre-test

A pre-test of the questionnaire was conducted prior to the survey. The researchers visited a comparable area for five days, during which time 20 displacee households were tested with the survey questionnaire. The pre-test provided opportunities to identify and to clarify several ambiguous questions; to economize on the duration of the interview; and to recognize and include other questions that would be valuable for the research. It also showed that some questions were too complicated to be answered accurately. For example, a question concerning 'displacement history' was found to yield better results if respondents were asked only to list their first and last displacement. Because many respondents had a long and complex history of multiple displacements, it was doubtful whether they could answer the question fully and perfectly. It was also found that the questionnaire was too lengthy, since it required about an hour to get comprehensive answers to all the land, and job related questions. It was decided that a maximum duration of about half an hour was acceptable. Therefore, the length of the questionnaire was reduced by eliminating several lengthy and complicated questions.

#### 2.2.4. Method of Data Analysis

After completing the field survey, the data were edited and analyzed using the University of Manitoba's Mainframe computer system (AMDAHL). To analyze the data, frequency as well as percentage distribution were calculated using the Statistical Analysis System (SAS). The SAS program was used because it provided a simple procedures of information storage and retrieval, data modification, data manipulation, and statistical analysis and report writing.

The experiences in Serajganj plus the collected data enabled the author to formulate the hypotheses for the present study. To test the first hypothesis, namely, migration to Serajganj, chi-square significance tests are applied. The second and third hypotheses, urban poverty and ruralization are tested by using descriptive statistics (e.g., *means*, *coefficient of variation* etc.).

#### 2.2.5. Limitations of the Primary Data

The sampling procedure used was to reduce sampling errors in the survey results. Despite this attempt, a few deficiencies became apparent as the project developed. For example, the initial field-visit allowed the researcher to carry out a preliminary census of displacees and to collect other information. During this reconnaissance survey, clusters of shacks were counted in all three identified squatter concentrations. The enumeration of households and total population was derived through an estimation that each cluster of shacks contained at least three households on average, and that each household consisted of an average of 6 persons. Thus, there is some probabilities of error in the estimation of the total population.

Also, even after the pre-test, the final questionnaire contained some vocabulary which appeared to be unfamiliar to respondents. Although efforts were made to adjust to local vocabulary, there remained some differences between the understandings of the university

educated investigators and mostly illiterate respondents. Therefore, biases may have entered the study due to these difficulties in understanding and replying to some questions.

Some other limitations in the survey data that may exist are:

1) although attempts were made to shorten the questionnaire, it still remained relatively lengthy and took much longer to administer than was expected. Hence, respondents' answers became inconsistent at times. Such distraction may have resulted in some inaccuracy in their responses, especially to questions in the latter part of the questionnaire.

2) Because respondents experience severe socioeconomic poverty, live on others' land, and are in need of some kind of external assistance, some erroneously believed that the researchers were preparing lists for relief assistance and consequently reported a deflated income coupled with inflated expenditures.

3) Respondents were often absent from their homes, requiring the interviewers to wait for them to return home from work. After a long day of physical labor, some respondents felt uncomfortable or physically and mentally unprepared to answer questions. Thus, in order to reduce the duration of the interview, such respondents showed a reluctance to provide detailed information, which resulted in some degree of distorted responses.

4) Since the selected areas represent concentrated pockets of displacee-squatters, the survey missed less concentrated settlements scattered throughout the town, and

5) some data that could have proved useful in the analysis were not collected. For example, data regarding squatters' political organization or involvement could have facilitated further elaborations to some of the explanations and/or findings related to their social status and job security in the town. Also, it was not possible to collect information on displacees who have already resettled and assimilated into the urban mainstream.

Despite these limitations, the survey on squatter settlements in Serajganj provided, for the first time, sufficient data on their displacement history, employment and income status, attitudes toward urban living and resettlement options. The results of the survey in general

and the specific analysis of the data for the objectives set forth in Chapter I are presented in the following chapters.

## Chapter III

### RIVERBANK EROSION AND MIGRATION TO SERAJGANJ: A FOCUS ON MIGRANTS' OPTIONS AND BEHAVIOR

This chapter examines population displacement and the resultant migration patterns of displacees who settled in Serajganj urban squatter settlements. Specifically, this section focuses on how riverbank erosion influences the migratory behavior of affected people. The frequency of displacement of individual households, their migration options, the distances moved after displacement, and the reasons for migrating to Serajganj are examined. The hypothesis that is tested is that the displacees who moved a short distance to Serajganj as squatters were primarily motivated by economic and social opportunities.

#### 3.1. EXPERIENCE OF DISPLACEMENT DUE TO RIVERBANK EROSION

Out of 473 *upazilas* in Bangladesh, Currey (1979) identified more than 60 *upazilas* as susceptible to riverbank erosion. It is believed that the majority of these have already experienced erosion activity. According to a more recent report, the number of riverbank erosion affected *upazilas* is 150; of these, bank erosion is severe in about 35 *upazilas* (see Islam and Rahman, 1987). Riverbank erosion is currently active at 283 locations, including 85 towns, and affects about one million people (Elahi, 1988; Mahbub and Islam, 1988; Alam, 1986, 1987). A number of areas, such as Chandpur, Manikganj, Sariakandi, Jamalpur, Gaibandha, and some coastal islands of southern Bangladesh, are especially subject to riverbank erosion. Islam and Rahman (1987) also suggest that erosional activity by the Jamuna has been serious in the Serajganj-Kazipur area over recent decades. Since riverbank erosion is an enduring process in Serajganj district, more and more people are affected by this hazard annually.

TABLE 3.1  
Displacement Frequency Among Serajganj Squatters

Displacement - Frequency Groups	Frequency	Percentage
1 - 3 Times	127	61.4
4 - 6 Times	50	24.1
7 - 9 Times	15	7.2
10 - 12 Times	12	5.8
13 Times and over	3	1.4
Total	207	100.00

The distribution of displacement frequencies is shown in Table 3.1. It is evident from this Table that displacement frequencies decrease with the increase in the number of displacements. The *mode* of displacement frequencies is in the group of 1 - 3 times, which accounts for 61 percent of respondents. Grouping the data into single and multiple displacements categories, it is found that the majority of respondents (74 percent) experienced multiple displacements.

Table 3.2 shows comparative displacement frequencies between the displacee-squatters in Serajganj and rural displacees in Kazipur (Bangladesh). The data show that the *mean* displacement frequency of Serajganj squatters is 4, which is relatively lower when compared to Kazipur displacees (7 times). It appears that there is relative variation in the patterns of displacements between rural and urban areas, which is expressed in the *coefficient of variation* (c. v.) for each area. Analysing the Kazipur survey data, Haque (1988) showed that people living in the *chars* are especially likely to move from one place to another due to the frequent occurrence of erosion. Thus, multiple displacements are common. In Serajganj, about two-thirds of squatters had a displacement experience from

one to three times; moreover, experience of erosion decreases with increase in the number of displacements. This resulted in a relatively lower *mean* displacement, which indicates that majority of squatters migrated to Serajganj during their initial displacements. It is possible that compared to the Kazipur displacees, proximity to the town initiated the rural to urban migration of Serajganj squatters.

TABLE 3.2  
Distribution of Mean Displacement by Area

Displacement - Frequency Groups	Urban Area	Rural Areas*	
	Serajganj Squatters n = 207	Kazipur n = 321	Kazipur Squatters n = 77
1 - 3 Times	61.4	34.6	63.9
4 - 6 Times	24.1	26.5	19.4
7 - 9 Times	7.2	16.8	8.3
10 - 12 Times	5.8	9.6	2.8
13 Times and more	1.4	12.5	5.6
Total	100.0	100.0	100.0
<i>mean</i>	4 Times	7 Times	4 Times
c.v. (%)	45.1	109.2	86.6

\* Source: Haque (1988), Table 6.2, p. 214.

Despite these rural-urban differences, the *mean* of the displacement frequencies of Serajganj squatters must be considered high. It can be argued that this high frequency of displacement is related to the fact that they tended to move over very short distance after their previous displacement. Since squatters did not usually move over a long distance during initial displacement, they soon became victims again due to continued erosion

activity in the locality (Hossain, 1984; Haque, 1986; Greenberg, 1986). The distance and direction of migration is discussed in detail in section 3.3 of this chapter.

Figure 3.1 shows the distribution of in-migration to Serajganj. The temporal range of displacements by respondents is from 1925 to 1985. The highest percentage of respondents (34 percent) migrated to Serajganj between 1965 and 1975, and about 15 percent migrated to the town in 1970 alone. In general, there are three broad trends in the migration flows: first, a slow increase from 1925 to 1955; second, a rapid increase between 1965-1975; and third, a sharp decline between 1975-1985. These trends in in-migration suggest that most migrants moved to the town before the current decade.

The volume of in-migration in the period of 1925 to 1955 can be explained by a number of factors. Firstly, according to historical accounts, Serajganj has always been affected by riverbank erosion (see Chapter 2). Given this situation, why should rural displacees consider to move to the town? Secondly, people had great affinity for their original place of residence and agricultural lands. Due to their attachment to ancestral land and traditional livelihood, they do not usually opt for a change in resource use and keep residing in riverbank erosion affected areas. There is an economic reason behind their attachment to land. Usually, a year-round return from agricultural lands and land-related activities was the basis of their household economy. Such income possibly enabled most displacees to meet at least their basic household needs, thus discouraging them from moving to Serajganj. However, recurrent riverbank erosion and presumably, failure in the local support system, compelled a number of displacees to move to the town.

In-migration during the period 1965-75 can be explained as follows. First, a scheme for protecting Serajganj from riverbank erosion was begun by the government in 1962 (International Engineering Company Inc, 1967; EPWAPDA, 1968; Engineering Consultants Inc., 1970). This engineering activity created a sense of security among displacees, as well it opened up avenues for (temporary) employment, encouraging many rural displacees to move to Serajganj. Second, Serajganj district was especially hard-hit by



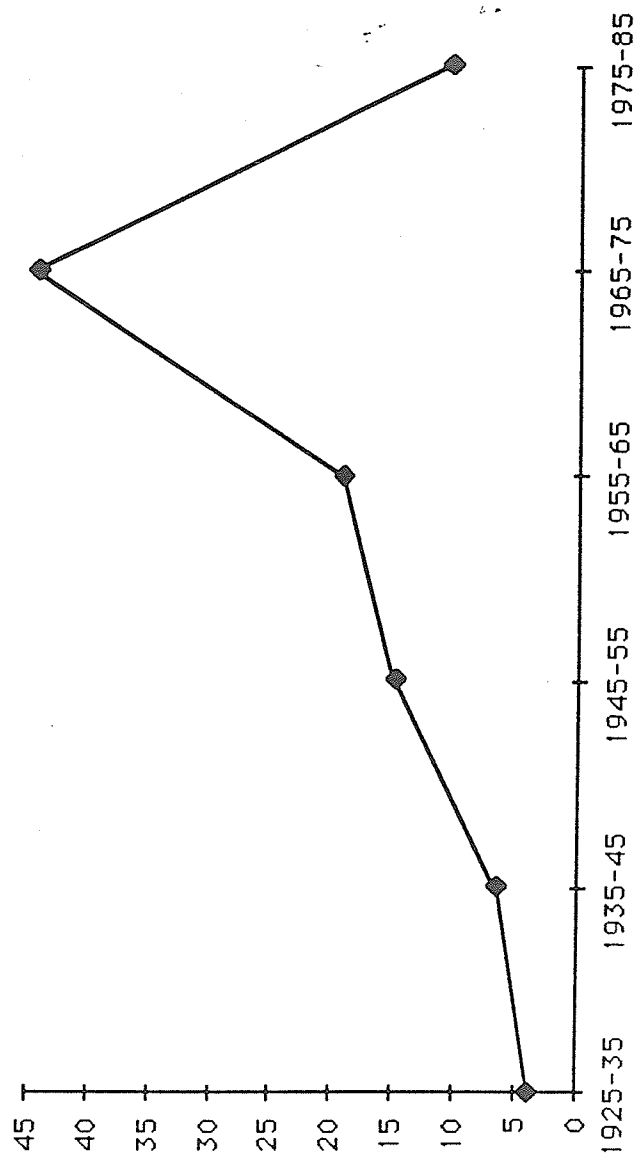


Figure 3.1: Temporal Distribution of the Volume of In-migration to Serajanj

erosion in 1970, and again in 1974, which pushed many displacees to Serajganj. Third, the 1974 famine resulted in a massive exodus of rural people to urban areas (Bertocci, 1982; Maniruzzaman, 1975). These factors together contributed to an increase in the volume of rural to urban migration of riverbank erosion victims.

A reduced rate in urban in-migration has been observed since 1975. Only about 11 percent of respondents have arrived in Serajganj over the past ten years (i.e., 1975-85). However, this does not mean that the intensity of erosion activity has decreased in the region. Displacees are being discouraged from moving to Serajganj in a number of different ways, and this has resulted in the number of arrivals decreasing during the last decade. The factors responsible for this situation are: (i) the town is overburdened with unemployed or underemployed squatters; (ii) administrative negligence in providing displacees with relief or assistance; and, (iii) displacees are not socially accepted by the urban community. However, this declining trend may be reversed in the event of further severe bank erosion in the locality. The *Upazila Nirbahi* Officer (chief executive) of Serajganj (1985) stated that despite discouragement, rural displacees moved to the town during the 1984 flood. They lacked options to relocate elsewhere and were compelled to take shelter in Serajganj. Overall, this high frequency of displacement, and the long time-span of erosion activity, illustrate the severity of the problem of population displacement in this area.

### 3.2. OPTIONS OF SHELTER AFTER DISPLACEMENT

Natural disasters are normally characterized by the suddenness of their occurrence. Riverbank erosion is no exception to this rule. The dynamic behavior of a braided river such as the Jamuna, especially in a deltaic environment, is difficult to predict. Under such conditions, people seldom have the ability to anticipate the severity of devastation, nor are they well prepared to react to the situation when it does occur. It is possible that even at the

time of stress, displacees would have considered some options to take shelter in adjusting to the effects of erosion. In this study, we are considering only the available options and those considered at the time of their last displacement.

TABLE 3.3  
Options Considered by Displacees at the Time of their Last Displacement

Options to Move to	Frequency	Percentage
Move to urban area	60	29.0
Evacuate homestead	50	24.2
Consider no options	36	17.4
Move to the embankment or other area of free occupancy	34	16.4
Build new homestead on own land elsewhere	12	5.8
Move to mainland rural areas	12	5.8
Move to <i>char</i> areas	3	1.5
TOTAL	207	100.0

The data in Table 3.3 indicate that 29 percent of respondents considered migrating to an urban destination as an option. Other options considered were to evacuate the homestead (24 percent), to move to a flood control embankment (16 percent), to build a new homestead elsewhere on their land (about 6 percent), to take shelter in mainland rural areas (about 6 percent), and to move to *char* areas (over one percent). Some 17 percent were found not to have considered any options. In all, these options fall into four broad categories: urban areas, other mainland rural areas, *char* areas, and no options considered.

The patterns in these responses suggest an unpredictability about the options considered by displacees. The reported options about shelter reflect inconsistencies in their considerations and actions. Although all respondents were living in Serajganj at the time of the survey, more than 53 percent did not state the preference of locating to an urban center as an option, and 17 percent considered no options at all. This inconsistency in responses can be explained by the suddenness of the erosion activity which caused them to move. This out-movement from their place of origin creates mental stress since displacees lack the financial resources to seek options to relocate. They suffer from shock when their long-practised agricultural means of production and livelihood are lost. Such factors negatively influence the displacees' ability to search for new options for shelter as well as for new livelihoods.

### 3.3. DISTANCE AND DIRECTION OF INVOLUNTARY MIGRATION

This section focuses on the distance moved by displacees in migrating to Serajganj from their place of origin. The hypothesis is that the consideration of socioeconomic recovery acts as the principal force causing short distance migration to Serajganj. In migration theory, the examination of the effect of distance and the choice of destination (i.e., direction of migration) on the geographical pattern of migration is a major field of enquiry. The general premise is that distance universally influences volume of migration; this pattern was first noticed by Ravenstein in 1885, and has been shown in many other studies, such as Sahota's (1968) study in Brazil, and Rempel's (1970) study in Kenya. The diminishing rate of migration with distance is primarily due to the influence of factors such as 'cost' and 'cultural gaps' (Connell et al., 1976:72-76). UNESCO (1982) undertook a study which examined the distance moved by rural migrants in India; the study found that the majority (over 66 percent) migrated within the district boundary.

In the case of natural disaster induced migration, migrants usually prefer to move over only a short distance. This finding is supported by Oliver-Smith (1982) in the case of Peruvian earthquake victims, and by Hossain (1984) and Haque (1986, 1988) in the case of riverbank erosion displacees in Bangladesh. Both Oliver-Smith (1982) and Mangalam (1968) explained short distance migration behavior in terms of the migrants' familiarity of social organization and cultural identity. The Kazipur survey data demonstrate that more than 87 percent of the river erosion victims remained within 2 miles of their places of origin; this being due to their economic inability to afford the distance costs, and the hope that their eroded land will reemerge (Haque, 1988).

TABLE 3.4  
Distance Moved by Serajganj Squatters During their Last Displacement

Distance in Mile	Frequency	Percentage
Less than 1/2 mile	12	5.8
1/2 mile -- 2 miles	112	54.1
2 miles -- 4 miles	41	19.8
4 miles -- 8 miles	30	14.5
8 miles -- 12 miles	5	2.9
More than 12 miles	7	3.4
TOTAL	207	100.0

Table 3.4 summarizes the distance moved by the displacees during their last displacement. The maximum frequency (*mode*) is for the distance-category of 1/2 mile to 2 miles; 112 out of the 207 sample households (54 percent) having moved that distance. About 60 percent moved 2 miles or less; about 20 percent between 2 to 4 miles; about 15

percent between 4 to 8 miles; and only about six percent moved more than 8 miles. Thus, in both Serajganj and Kazipur, the majority of respondents remained within 2 miles of their place of origin. The difference being that in the case of Kazipur it is a rural to rural migration, while in the case of Serajganj it is a rural to urban migration. In the latter case, the migrants' proximity to the town may have contributed to the short distance migration.

Such data clearly indicate the general tendency by squatters to move over only a short distance. The findings are also evident from the distribution of displacees by their place of origin. The place of origin of the squatter population does not vary remarkably. More than 84 percent came from within Serajganj *upazila*, while only about 15 percent originated from beyond the district boundary. The displacees who had crossed the district boundary all originated from adjoining districts, namely Pabna, Tangail, Mymensingh and Bhoapur. The headquarters of these districts are much further away than is Serajganj. Thus, erosion affected displacees took shelter as urban squatters in Serajganj, the town nearest to them.

However, because of their changed environment (i.e., from a rural environment to an urban environment), it is possible that distance is perceived not only in terms of geographical dimensions but also in terms of changes in the social and economic environment. In such a situation, erosion-affected rural displacees encountered a high level of mental stress prior to their move to Serajganj. This psychological construct may have contributed to their decision to migrate only a short distance to Serajganj.

The question that remains is why do displacees prefer to stay in riverbank erosion prone areas and not move to a more distant (and safer) destination? A large portion of the existing geographic literature on natural hazards is rooted in the behavioral and decision-making models, which focus on an individual's perception and responses to explain the process of decision-making and the range of adjustment choices (see White and Haas, 1975; White, 1974; Saarinen, 1966; Burton and Kates, 1964; Kates, 1962). For example, investigating the people's perception and adjustment to coastal cyclones in Bangladesh, both Islam (1974) and Ebert (1986) advocated that people perceive cyclones

as an 'act of God'; their fatalistic attitudes and unwillingness to permanently evacuate hazard prone areas results in their further experience of recurring disasters. Supporting this view, Roger (1986) added that 'Bengali farmers are obstinate in refusing to leave their home when advised to do so.' These people are obviously not unaware of the potential recurrence of hazard, yet they still tend to remain in hazard prone areas. To explain this situation, the behavioral and decision making models must take into account the historical and socio-structural dimensions of the society, such as their access to land and their control of resources, which also determine the necessary conditions for adjustment and relocation of hazard victims (Zaman, 1986). In the case of Serajganj squatters, it can be argued that they tend to bear their hazard loss because they lack sufficient socioeconomic resources to avail themselves of other alternative measures to reduce loss. Expecting assistance, and hoping to regain lost land, they usually stay in the vicinity of their affected areas.

TABLE 3.5  
Reasons for Not Moving to Distant Locations

Reasons	Frequency	Percentage
Better job opportunities at Serajganj	77	37.2
Did not want to leave ancestral land	33	15.9
Managed to get access to land in Serajganj	28	13.5
Could not afford to move further	25	12.1
Ties with local <i>Samaj</i>	20	9.7
Hope of repossessing accretional land	18	8.7
No time to consider an alternate place	6	2.9
TOTAL	207	100.0

Several reasons were given by respondents for not choosing a more distant destination. Thirty seven percent of respondents thought that job opportunities would be better in Serajganj than in other distant places, while 16 percent did not want to leave their ancestral land. Other reasons reported were access to free government land (over 13 percent), economic inability to move further (12 percent), ties with local *Samaj*<sup>10</sup> (about 10 percent), and the hope to repossessing new accretional land (about 9 percent). About three percent did not consider any alternate places to move to (Table 3.5). These responses indicate that economic considerations and social linkages influence the distance and directions of involuntary migration of riverbank erosion victims.

Table 3.6 shows social and economic factors which influenced the distances moved after last displacement. The data demonstrate that the highest concentration of responses is within the distance category of 1/2 to 2 miles; in general, responses are almost evenly distributed in all columns consisting of both economic and social variables. These data indicate that economic as well as social factors almost equally determine the distance moved by displacees. To further test Hypothesis I, which states that consideration of socioeconomic recovery acts as a principal force causing short distance migration to Serajganj, a chi-square significance test is applied to the data (Table 3.6). The calculated  $X^2$  value is 205.45. The corresponding table value with 20 df (degree of freedom) at .001 level of confidence ( $\infty$ ) is 45.32. Since the calculated  $X^2$  exceeds the table value, the research hypothesis cannot be rejected, and it can be concluded that socioeconomic factors caused short distance migration.

The aforementioned factors can generally be categorized as economic and social variables influencing migratory behavior of the Serajganj urban squatters as far as distance is concerned. The economic variables include three factors: first, the prospects for

---

<sup>10</sup> *Samaj* is a local-level kin-based corporate group having both symbolic and organizational reference for local political, social and religious community (see Zaman, 1982:39)



TABLE 3.6  
Economic and Social Factors Influencing Distance

Distance (in Mile)	F					
	A	C	T	O	R	S
	Better Job Opportunities in Serajganj	Did not want to leave an- estral land	Access to land in Serajganj	Could not afford to move further	Ties with Local <i>Samaj</i>	Hope to repo- sess accre- tional land
Less than 1/2	19.8 (22)	22.5 (9)	16.7 (2)	22.2 (4)	14.2 (2)	16.7 (2)
1/2 - 2	36.0 (40)	42.2 (17)	58.3 (7)	27.8 (5)	42.6 (6)	41.6 (5)
2 - 4	19.8 (22)	20.0 (8)	8.3 (1)	22.2 (4)	14.2 (2)	16.7 (2)
4 - 8	16.2 (18)	12.5 (5)	8.3 (1)	16.7 (3)	7.1 (1)	16.7 (2)
8 and above	8.1 (9)	2.5 (1)	8.3 (1)	11.1 (2)	21.3 (3)	8.3 (1)
Total	111	40	12	18	14	12
						207

$X^2 = 205.45$

df = 20

$\infty = .001$

Note: Figures in parentheses indicate frequencies.

employment in Serajganj; second, access to land at Serajganj; and third, the inability to afford a long distance move. The social variables which deter long distance migration are that displacees are not ready to leave their ancestral land and wish to maintain ties with their local *Samaj*.

TABLE 3.7  
Reasons for not Remaining in Rural Areas

Reasons	Frequency	Percentage
Lost all land	100	48.3
No job opportunities	42	20.3
Failed to support family	29	14.0
Followed the neighbors	15	7.3
No <i>Khas</i> land	13	6.3
Land may never reemerge	5	2.4
Difficulties to regain reemergent land	3	1.4
TOTAL	207	100.0

Respondents gave specific reasons for not moving to other rural areas. A plurality (48 percent) indicates that they had lost all sources of income as a result of losing their agricultural lands. This situation essentially requires them to become (agricultural) day laborers in rural areas. A further 34 percent suggested the lack of job opportunities in rural areas made it impossible to support their families. Some of the respondents followed neighbors, while a few indicated that the non-availability of *Khas* land was a reason for leaving the rural areas (Table 3.7). Thus, lack of sources of income in the rural areas, and the failure to find adequate places to live forced displacees to move to urban centers. Such conditions are similar to what Connell et al. (1976) found in India, where the

maldistribution of village resources intensifies rural poverty, which in turn pushed impoverished people out of rural areas to urban centers. Riverbank erosion brings about an almost total deterioration in the economic conditions of displacees, severely affecting their social standing, and causing many of them to move to Serajganj.

In choosing to move to a nearby location, displacees attempt to reduce the amount of cognitive restructuring necessary in adjusting to a new environment (Haque, 1988; Wallace, 1957). Peruvian earthquake victims who survived and moved over a short distance, considered that taking shelter in a new place was as disruptive to their traditional social order as had been the hazard (Oliver-Smith, 1982). Similarly, in order to retain their socioeconomic support and their cultural and personal identity, the riverbank erosion victims also opted for short distance migration. Focusing further on these 'cultural-psychological' considerations, Oliver-Smith (1982) also suggested that hazard victims tend to be 'conservative' toward spatial movement in order to minimize future stress. With reference to the Serajganj squatters, it is not only conservatism, but also the hope to repossessing accreted land, that influences their migration decision (Zaman, 1987).

Besides this 'cultural-psychological' explanation, the Serajganj squatters' migration behavior, in terms of distance and direction, is related to one other factor. A number of displacee households who do not have any other land on which to resettle or who cannot expect any material support from their poor relatives, remain in *char* areas as 'dependent' on a *talukdar*<sup>11</sup>, who provides them with land and other necessary support for resettlement. In exchange, relocatees work for the *talukdars* as low-paid laborers. These particular aspects are discussed in detail in Chapter V. The hope for reemergence of their eroded land and its subsequent repossession by them is more a myth than a reality, especially in the riparian environment of Serajganj, where the powerful *talukdars* take possession of most accretional land (see Wahed et al., 1983). Zaman (1988) has found a similar process

---

<sup>11</sup> Zaman (1988:182) states that "*talukdars* (independent proprietors) and *jotedars* (superior tenure holders) were generic names used to refer to a class of large landholders under the *zamindari* of Bengal."

operating in Kazipur. Still, displacees wait for reemergence of eroded land. This interplay of hope and despair regarding emergent land discourages displacees from undertaking long distance migrations. The study of short distance migrations therefore requires investigation into other underlying factors which include a broader social, political, and historical context of human responses to riverbank erosion.

Overall, despite variation in factors influencing migration behavior of Serajganj squatters and Peruvian earthquake victims, the findings of the current study show a pattern of short distance migration similar to that found by Oliver-Smith (1982) in Peru and by Haque (1988) and Zaman (1988) in Bangladesh. Therefore, the current analysis supports the contention that the motivation for moving to the nearest urban area, Serajganj, is not only one of economic recovery, but also that a number of social and cultural factors influence the migration behavior of the squatters.

#### 3.4. FACTORS AFFECTING THE DECISION TO SELECT SERAJGANJ AS A DESTINATION

Migration generally involves some kind of decisions on the part of an individual or family which moves from one place to another. This section discusses the choices of a destination made by rural displacees. In Bangladesh, a number of studies (e.g., Hossain, 1984; Haque et al., 1984; Haque, 1986; Greenberg, 1986) reported that most of erosion-affected people usually remain in the rural areas and often also within the vicinity of the eroding areas. Some of them, however, choose to migrate to an urban destination (Rahman, 1985; Hossain, 1984; Islam, 1976), and in this study, the destination of these migrants is Serajganj. This section, therefore, examines what influenced displacees to select Serajganj as their destination.

It is established that rural to urban migration, especially in the developing countries, is predominantly a product of perceived economic opportunities at the destination (Connell et al., 1976). Migration flows are readily explained by the *push-pull* model, where negative

factors act at the origin, and positive factors at the destination (see Lee, 1966). When migrants respond to the *pull* factors at the destination, a positively selected or voluntary migration is initiated. In the case of natural hazard induced migration, however, migrants are forced to move from their place of origin by *push* factors. Although some attraction factors (e.g., employment opportunities) eventually *pull* displacees to Serajganj, the principal migratory force was the hazard-induced *push* from the rural area. Unlike voluntary migrations, displacees do not have any choice but to leave their place of origin. Therefore, once displaced, what is it that induces some to select the urban destination of Serajganj?

TABLE 3.8  
Reasons for Choosing Serajganj as a Destination

Reasons	Frequency	Percentage
Better job opportunity	99	47.8
Existence of <i>Khas</i> land	29	14.0
Followed neighbors	24	11.6
Availability of food rationing	19	9.2
Material support from friends/relatives	18	8.7
Education facilities for children	11	5.3
Availability of land to be leased	4	1.9
Availability of medical facilities	3	1.5
TOTAL	207	100.0

Table 3.8 lists the varied reasons given for choosing their current destination of Serajganj. About 48 percent indicated that job opportunities was an important factor in choosing Serajganj. Existence of *Khas* land was found to be another *pull* factor attracting

displacees (14 percent). Other factors listed were influence or advice from neighbors (12 percent), food rationing facilities (9 percent), material support from relatives and friends (9 percent), education facilities for children (5 percent), and the availability of medical facilities (about 2 percent).

We have seen in an earlier section that economic and social variables influenced migration-decisions and resulted in the short distance movement of displacees. Similarly, factors like job opportunities, shelter, presence of relatives, and food assistance, all also significantly influenced the squatters' choice of the current destination. On the whole, economic considerations appear to be dominant, while some social factors (e.g., social/family ties, neighbors' influence, and education and medical facilities) are also found to be important in the destination selection process. Such responses are not surprising since the displacees' main concern is to survive, especially after a disastrous set-back in their livelihood. Haque (1986) found a similar response pattern among riverbank erosion affected displacees in Kazipur. He observed that most victims were marginal and poor peasants. On losing their means of survival, such as land, house, crops and jobs, they become destitute and are motivated to move in search of economic opportunities. Such motivations are also discernible in the case of the squatters who moved to Serajganj. Therefore, economic bias can be considered instrumental in selecting the destination, especially in order to eke out a livelihood. What is significant here is that unlike Todaro's (1969) propositions of economic considerations only, several social factors also appeared to be influential in determining the destination for the Serajganj migrants.

Connell et. al. (1976) identified three major decision-making agents in the migration process. They are: a) the decision-making by the individual, which is solely related to his economic needs; b) the household decision-making process which is made within the context of family needs and where the head of the household or the family males make the decision; and c) where the village itself acts as a unit in taking decision to migrate. Surveying Mossi migrants in Ghana and the Ivory Coast, Skinner (1965) found that they

migrated solely on their individual decision in order to fulfil their economic goals. In some circumstances migration is planned and decided upon wholly in the context of family needs. In this case the decision is often taken by the household head who traditionally has dominant role in the family. This household level decision was noticed by Hill (1972) in Nigeria and by Dahya (1973) in Pakistan. Sometimes the decision-making agent is larger than the family. Suzuki (1964) found that some Turkish villages themselves organized and funded leaders to go to a city. These migrants eventually establish a bridgehead for subsequent migration. It is assumed that household level decision will characterize the migration-decision of Serajganj squatters.

Under a catastrophic riverbank erosion situation, there is limited scope for making any rational decision to migrate. However, an exploration of the nature of decisions to move, and the criteria used for selecting the destinations provides some insight about the decision making process of riverbank erosion migrants. The process is conditioned by two major factors. Firstly, the miserable living conditions at the place of origin push displacees out of their home area, while the suddenness of riverbank erosion does not allow them much time to consider possible destinations. Secondly, the prevailing social norms traditionally give the power to make decisions to the family head on all aspects of family activities.

Table 3.9 shows that the decision to move to Serajganj was made mainly by household heads (61 percent). A further 24 percent of respondents reported that their parents<sup>12</sup> made the decision, while about 8 percent cited that the decision was made by both husband and wife. Other decision makers were the *Samaj*, neighbors, a wife and a local leader. Overall, the data in Table 3.9 strongly suggest that household level migration decisions predominate; the role of the family head appears to be the principal factor in selecting Serajganj as the destination. This type of decision pattern, however, is not unexpected,

---

<sup>12</sup> The respondents who were the household heads during the field survey, moved to Serajganj with their parents who took the decision to move during their last displacement. Therefore, some respondents reported about parents as decision makers.

given the traditionally male dominated society of Bangladesh. This migration decision pattern is similar to patterns found by Hill (1972) in Nigeria, where household level decisions were also dominant and more important than individual or village level decisions.

TABLE 3.9  
Agents Making the Decision to Move to Serajganj

Decision Makers	Frequency	Percentage
Head of household	127	61.4
Parents	49	23.7
Both (husband and wife)	16	7.7
<i>Samaj</i>	6	2.9
Neighbors	6	2.9
Wife	1	0.5
Local leaders	1	0.5
TOTAL	207	100.0

In summary, riverbank erosion displacees in Serajganj have experienced multiple displacements because they continue residing in the vicinity of erosion affected areas. Considerations of economic recovery (e.g., distance cost, job opportunity etc.), and cultural contacts (e.g., social ties, familiarity etc.) result in the short distance migration of displacees. Even when economic factors are an overriding consideration, a number of non-economic variables also influence the decision-making processes of the Serajganj squatters. Unveiling the social context of migration of Serajganj displacees, the present findings go beyond Todaro's (1969) model of economic analysis of rural to urban migration. In making the decision to migrate, the role of household heads appears to be prominent. Such



a trend in decision-making is not unexpected since a household head generally has and executes the most power regarding decisions relating to family affairs. Once the migration is completed, the in-migrants try to adjust to urban life in Serajganj. How they maintain their livelihood will be examined in the following chapter.

## Chapter IV

### DISPLACEDS OF RIVERBANK EROSION IN URBAN SQUATTER SETTLEMENTS : THE ISSUES OF IMPOVERISHMENT AND MARGINALIZATION

Issues such as urban poverty, rural to urban migration, and marginality have been extensively dealt with in the literature on the growth of shantytowns in Latin America (e.g., Lomnitz, 1977). The concept of marginality was introduced by Park (1928), and was subsequently used by Stonequist (1937) to explain the individual psychology relating to cultural contact and conflict (also see Koenig, 1962; Saxena, 1977). Later, Dickie-Clark (1966) elaborated and correlated the concept with social groups in terms of income, power, and status differentials. Using the concept, Nelson (1969) suggested that the unskilled, semi-employed, and extreme urban poor in Latin America are often called the 'marginals'. Because of their lower socioeconomic status, they contribute little to, and benefit little from, production and economic growth. Adams (1974) defines marginalization as a form of 'social entropy', where the organization of society into complex social structures is attained at considerable cost to certain strata of society. Lomnitz (1977) further explains that these strata of society become marginalized in the sense that they exist increasingly at the periphery of the dominant economic and social system. Being compelled to live on the periphery of the socioeconomic system of urban life, the impoverished displaceds in Serajganj also become marginals. A growing number of economic and social barriers prevent them from becoming assimilated into the mainstream of urban life.

The concept of marginality as used in this research refers to the squatters' peripheral socioeconomic status and position which have resulted from the deterioration of their socioeconomic situation since becoming displaceds. With a subsistence level of income, poor prospect for employment, dilapidated dwelling units, and non-accessibility to other urban services, displaceds become the most disadvantaged urban inhabitants, entrapped in a

vicious cycle of impoverishment. More specifically, this section focuses on how the physical process of riverbank erosion, along with other related societal processes, initiates and accelerates the poverty of displacees. To elucidate these points, the process of development of squatter settlements, the changes in land occupancy pattern, and the changes in occupation, income, and other socioeconomic conditions of displacees are examined.

#### 4.1. DEVELOPMENT OF SQUATTER SETTLEMENTS IN SERAJGANJ

In-migrants, especially erosion displacees, are generally unable to purchase land, build a house, or pay rent for accommodation in urban areas and are thus compelled to occupy empty land (government or private) as squatters. The development of urban squatter settlements and slums in Third World cities is associated with the common feature of rural to urban migration, changes in urban land use patterns, local zones of resistance, proximity to work place, and housing shortages (see Mookherjee, 1982). Stokes (1970:412) indicated that the development processes of these settlements are different from that of normal growth of a city. Also, the availability of vacant land plays a significant role in the development of squatter settlements. This development process, however, varies from region to region in the Third World.

In a Malaysian study, Johnstone (1983:315) argues that distinct social and economic inequalities dislocate and drive some rural people to urban areas, where new inequalities emerge, resulting in the creation of squatter settlements. A similar idea regarding growth of squatter settlements in Latin American cities was expressed by Redclift (1973:92). Peil (1976:165) stated that the growth of urban squatter settlements in West Africa is in response to official oppression. Bureaucratic decisions often ignore the needs and wants of low income people who therefore have few options other than to locate in squatter settlements. Studying an urban squatter settlement in Jamaica, Eyre (1972) proposed that

there are four consequent stages of shantytown development, namely: i) the initial occupying stage; ii) the transitional stage; iii) the stage of attaining secure tenure; and iv) the stage of absorption. However, unlike in the Caribbean or Latin American cases, these last three phases of Eyre's stages do not appear to be relevant to the Serajganj situation. Only the first stage, that is the initial occupying phase, appears to exist because squatters cannot obtain ownership of land, and because the government does not have any scheme to provide them with permanent shelter. They are thus forced to form squatter settlements, known as *Bastees* in Bangladesh, which are mainly developed on empty government land. At this earliest stage the feeling of insecurity is the greatest, since they can be evicted at any time by government action. Also, landowners evict unauthorized occupants deliberately to avoid any possibility of permanent occupancy, fearing that such occupancy will jeopardize their ownership rights.

In Latin America, the development of squatter settlements is typically associated with an 'invasion' of vacant lands (see Lloyd, 1974). A secret, but organized plan is prepared by a large number of people to invade an area of vacant land, and within a few hours, lots on which individuals build temporary shelters are marked out (see Mangin, 1967). Such an organized manner of establishing squatter settlements is not found in Serajganj or in any other place in Bangladesh.

There is no documented account of the beginning of squatter settlements in Serajganj. However, Saha (1924) indicated that ever since the establishment of Serajganj port in 1809, people from different parts of the country have come to Serajganj for business and many ultimately settled there. He also pointed out that day laborers, who migrated from the western region of the country to the newly developed port at Serajganj, lived in accommodation similar to present day squatter settlements. Although these settlements were not specifically identified as squatter settlements, their conditions were no better than those in the current squatter settlements. However, it should be remembered that such day laborers migrated to Serajganj voluntarily, while displacees have migrated involuntarily.

The number of displacees is greater than the number of available jobs in Serajganj. Thus, being resourceless and involuntary migrants, their presence is generally not desired by local townfolk. In such circumstances, displacees are compelled to live in squatter settlements. It is established in the field survey that the oldest squatters arrived in Serajganj in 1925, but the majority have moved there only during the past 20 years. Unlike the Latin American situation, where urban centers receive a continuous flow of in-migrants, the volume of migrants to Serajganj has tended to be in a series of discreet surges (also see Figure 3.1). Such surges are associated with the intensity of riverbank erosion in the locality.

It is clear from the survey that the majority of respondents had not visited Serajganj prior to their arrival as displacees. However, they did have some degree of prior information about the availability of shelter in the town. This was because their place of origin was seldom far from Serajganj, and thus relatives and friends had provided them information about the destination. Such contacts encouraged the displacees to relocate to Serajganj, and helped them erect their shacks at the current squatter locations. A number of respondents reported that local administrations and townfolk did not prevent them from moving to Serajganj on humanitarian grounds, and permitted them to take shelter wherever they could. In the process, displacees usually preferred to find shelter on vacant government land. This has resulted in the development of the three major squatter locations in Serajganj which were discussed in the first chapter of the thesis. However, these squatters may not enjoy any legal right to remain at the sites they have occupied, and in this way they differ from the situation often encountered by Latin American and West African squatters. Essentially, squatters remain 'homeless' in Serajganj as far as any permanent tenure of land is concerned.

#### 4.2. CONFLICTS REGARDING EMERGENT CHAR LAND IN RURAL AREAS

Cases of unlawful land 'grabbing' and violence for the control of newly deposited land are common in the char areas of Bangladesh. Ali (1981:187) points out that the unnecessary delay in surveying and settling accreted land creates the problem of establishing clear lines of demarcation and plot numbers. He further explains that under the present system of centralized land settlement enumerations undertaken by the Directorate of Land Records and Survey, periodic settlement enumerations are carried out only every 10 to 20 years. Such a long interval in the revision of records of rights, especially in areas of continuous riverbank erosion and accretion, make them quickly obsolete. Zaman (1988:143) observes that

... Delayed settlement enumerations again work to the benefit of the local *jotedars* and *talukdars* as land grabbers, because possession remains a crucial factor in the eventual determination of ownership.

Local *jotedars*<sup>13</sup>, in cooperation with corrupt officials of the Land Records Department, prepare fictitious land records which give them illegal ownership of others' land.

Land occupancy conflicts create an increasing number of rural out-migrants. The phenomenon of rural out-migration will continue until a resolution to this problem is achieved, and this in turn depends upon the types of conflicts and the categories of people involved. Four basic types of land conflicts can be identified:

- i) land boundary demarcation,
- ii) determination of area,
- iii) land possession claims,
- iv) land grabbing

With such conflict situations, law enforcement by land settlement officials always tends to favor the rich *talukdars*. This particular role of local government officials keeps land

---

<sup>13</sup> *Jotedars* are large landholders but they have smaller landholding compared to *talukdars*. Also see footnote 2 in Chapter III.

occupancy conflicts alive and makes any conflict resolution procedures more complex. The protagonists involved in these land conflicts are as follows:

- i) poor peasant vs. poor peasant
- ii) poor and middle peasants vs. *jotedars*
- iii) *talukdar* vs. *talukdar*

This continuous process of land conflicts can be explained by the flow chart in Figure 4.1. The conflicts between individual peasants are primarily over land boundary demarcation, or sometimes about the determination of land area. These conflicts are usually locally settled by village leaders by *Salish*<sup>14</sup> systems or simply resolved by peasants themselves. During the land survey, the *jotedars* often prepare false records of rights of eroded or emerged land which was owned by poor or middle class peasants before being eroded. Usually blessed by a local *talukdar*, the *jotedars* dispossess the poor or middle class peasants, and grabs the land permanently. When land conflicts are between two *talukdars*, or village leaders, these usually go to the courts for a final resolution since the faction leaders demand a zero-sum decision in which one of the parties involved in the conflict gains all the disputed land (see Zaman, 1981; Adnan, 1975; Qadir, 1968). In the case of Serajganj, especially in the *char* areas, land conflicts and violence are primarily related to possession claims between poor or middle peasants and *jotedars*, and later on, between *talukdars* for gaining possession of entire *chars*.

Conflicts among poor peasants regarding land boundaries are minor, and in most cases, rapid resolutions are possible. However, conflicts between poor and middle peasants and *jotedars*, and between *talukdars*, are normally long and complicated processes; in such cases, resolutions are a remote possibility. *Jotedars* grab land from poor and middle peasants by force or through falsification of records. In some cases, the conflicts are brought to the courts for a resolution. Since poor or middle class peasants do not have

---

<sup>14</sup> A *Salish* is a compromise attempt between disputants who are involve mainly in land and other property claims. Usually, village leaders form a bench to do *Salish* to formulate a solution which is acceptable to disputants (see Zaman, 1981).

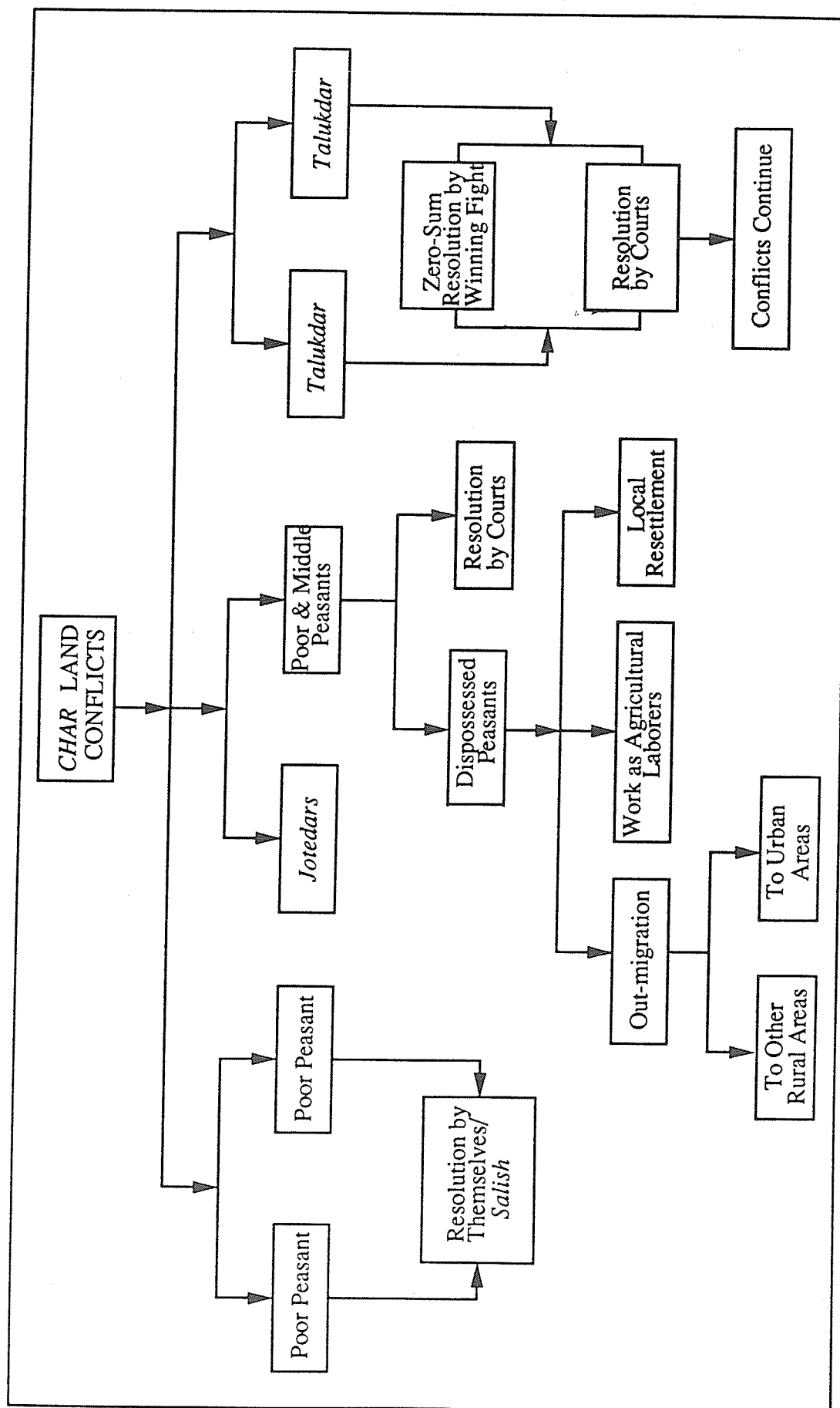


Figure 4.1 A General Model of Land Conflict and Resolution in Serajanj Char Area.



money or power, they fail to establish their rights on their land. Therefore, the *jotedars* win the decree of land ownership. Zaman (1988) reports a high incidence of such activities in the Kazipur-Serajganj *char* areas. The control of *char* lands is related to power struggles between *talukdars*. Local *talukdars* employ *lathiyals* (clubmen)<sup>15</sup> to forcefully occupy newly accreted *chars*. In such situations, resolutions to conflicting claims are achieved either by violence or by the courts. In many cases the conflicts continue even after a court settlement. Using their social and economic power, the local *talukdars* decide on the ultimate possession of new *char* lands. Moreover, on successfully obtaining illegal possession of reemerged land, the *talukdars* allow only their supporters or dependents to cultivate these lands on a sharecropping basis (see Zaman and Wiest, 1985). This whole process of the changing pattern of land ownership is summarized in Figure 4.2. In addition, it was found during the field survey that the local administrations side with the rich *jotedars* and *talukdars* in their conflict with the poor peasants over gaining possession of land.

In such conflict situations, the dispossessed displacees have but four choices: (i) to migrate to nearby rural localities, (ii) to migrate to the urban center, (iii) to work as hired agricultural laborers in *char* land, or (iv) to resettle on new *char* land. Displacees who do not have any other land, or who can draw little or no support from their relatives and neighbors, are the ones who tend to migrate to the towns. Those who have kin in neighboring areas, can secure an alternative form of rural employment, and can find land on which to establish a shelter, are the ones who tend to migrate within the rural sector. The majority of rural to rural migrants end up working as hired agricultural laborers in either new *char* lands or in other rural areas, and thus become 'dependents' to *talukdars* in new *char* areas. The powerful *talukdar* provides land and other necessary

---

<sup>15</sup> Historically, *lathiyals* (plural of *lathiyal*) have been the 'private army' of the *zamindars* and *talukdars* in Bengal. In contemporary usage, the *lathiyal* is an 'armed retainer' or 'hired thug' of the *talukdars* who organize fights as required for occupying newly emerged *char* land (see Zaman, 1988).

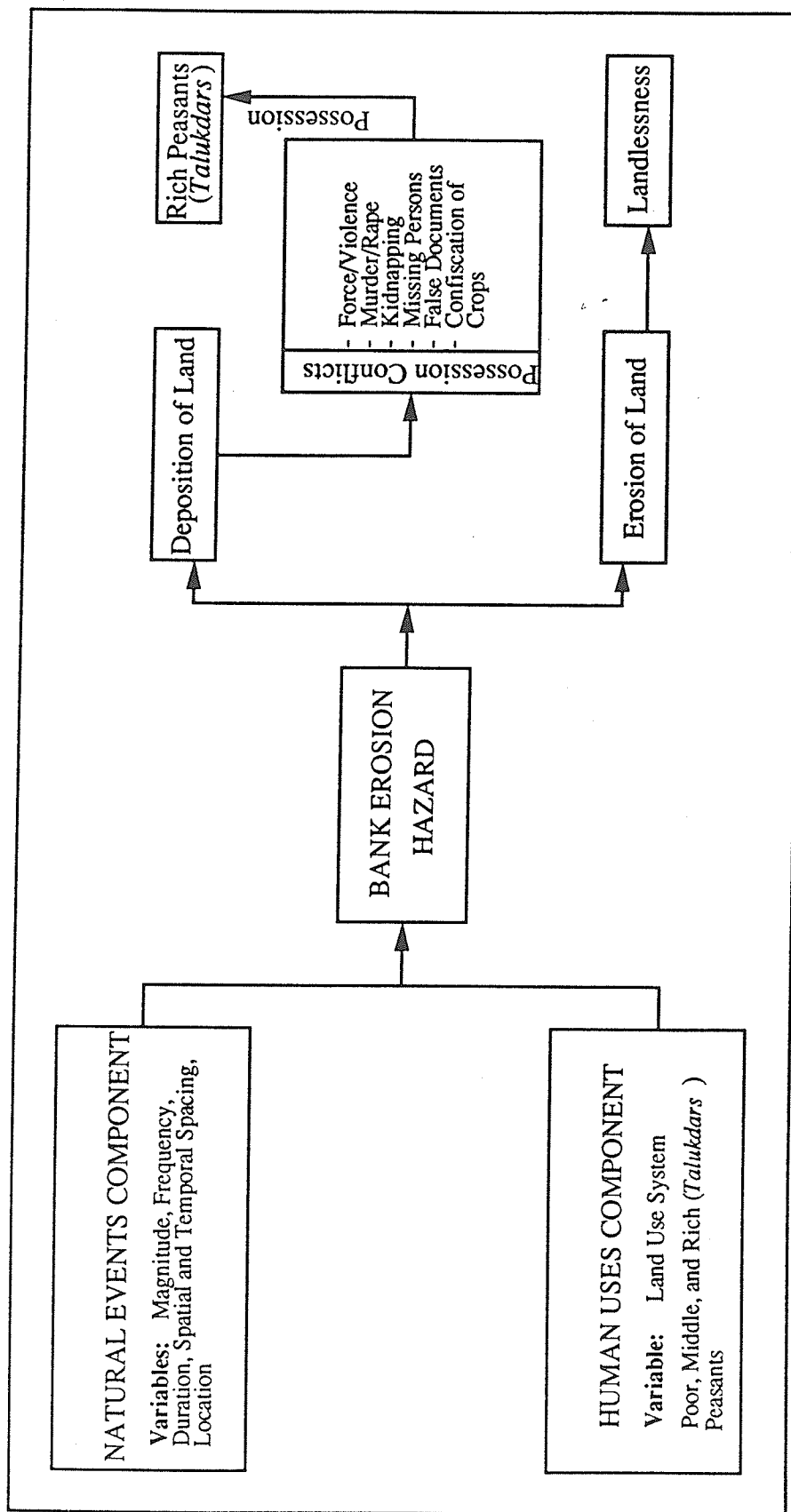


Figure 4.2 A Generalized Model of the Change of Land Possession in Serajganj Char Area.

assistance to these landless people in return for their labor on his land as share-croppers or bonded laborers. The adult male members of such dependent households are also cheap sources of *lathiyals* used by the *talukdars* to gain further control over depositional lands (Zaman, 1988).

It is also necessary to understand that when a poor peasant who has been dispossessed by a *talukdar* migrates to a new rural location to seek shelter, a further conflict develops between him and the local community primarily over land occupancy. This conflict may not be as violent in nature as the conflicts with the *talukdars* but nevertheless relationships between the two groups deteriorate. Displacees who migrate to the town also face such problems and conflicts often remain unresolved and continue for years.

To understand the development of landlessness in riverbank erosion affected areas we need to look at the broader socioeconomic dynamics of land ownership and possession. The hope of repossessing land, and the reality of not being able to repossess reemerged lands, are the underlying hard truths about the complex dynamics of land possession and ownership in Bangladesh's riverine rural areas. As can be seen from the Figure 4.2, people from all three peasant-classes (i.e., poor, middle, and rich peasants) lose land due to riverbank erosion. Very few people in Serajganj district knew of cases where poor peasants obtained their rightful ownership or possession of newly emergent lands. This land-losing process is also related to *char* land management. Therefore, a brief overview of *char* land regulations is presented here.

According to the Bengal Alluvion and Diluvion Regulations of 1825, accreted land is recognized as the property of individuals of original ownership, but lands gained by gradual accession from the recession of a river (or sea) are to be considered as an increment to the tenure of persons to whose estate it may be annexed (see Malik, 1983). A significant change in those *char* land regulations has been made by the Presidential Order (P.O.) Nos. 72, 135 and 137 of 1972. The Orders wiped out the rights of tenants to newly deposited land, which had been traditionally enjoyed since the first enactment of the regulations in

1825. The P.O. states that newly deposited land would be treated as *khas* land, and ownership should be vested solely in the Government of Bangladesh. The P.O. of 1972 had two primary purposes, namely, (i) to recover lands from the clutches of land grabbers; and (ii) to make available more land for redistribution to landless peasants (see Siddiqui, 1981; Ali, 1981). Examining the situation of the *char* land administration in Kazipur, Zaman (1988:145-46) finds that

... The official records show that between 1976 and 1983, 32 landless families received *khas* land under the P.O. of 1972. ...Ten of the 32 families listed do not even 'exist' in the village and other eight families had neither applied for nor received any *khas* land.

He further proves that the 'redistributed' land is being used by local large landowners under 'private arrangements' with local revenue officials. However, locally powerful landowners legally lose control over any future deposited land due to the P.O. of 1972. In 1975 the military government amended the the Presidential Orders of 1972. The 1975 amendment (Ordinance 61 of 1975) established that the owner of land lost by *sikosty* (diluvion) is eligible first to resettle in newly deposited *khas* land (see Ali, 1981; Zaman, 1986). It therefore established the right to repossess one's old land (see Malik, 1983).

Such change in the *char* land regulations has strengthened the hands of some local *talukdars* in manipulating land laws. The use by some *talukdars* of violence (e.g., murder, rape, kidnapping), confiscation of crops, and the falsification of documents have become established practices in occupying *char* land (see Chowdhury and Zaman, 1984; Wahed, Kamal and Hasnat, 1983; Zaman, 1986). By depriving the poor and middle class peasants of their rights to access land, rich peasants or *talukdars* take unlawful possession of all reemerged land. This situation reflects the social and economic intervention of the more affluent stratum in the society in taking possession of lands. The whole situation accelerates land-losing processes among poor and middle class peasants in affected areas and prevents them from gaining access to depositional land. A century ago, Hunter

(1876:299) suggested that the bad relationships that existed between landlords and tenants, and the prevalence of illegal practices by the landlords were responsible for the low material condition of the people in Serajganj area. Thus, it is clear that the process of land-grabbing by rich peasants is a long-established practice. Land possession in a rural *char* environment is therefore a matter of socioeconomic power and influence that rich peasants have.

Thus, besides the occurrence of riverbank erosion, the socioeconomic pressure from the affluent peasants are also responsible for creating landlessness among displacees. This landlessness translates into economic impoverishment and subsequent marginalization, and sharpens already existing inequality in land ownership. The economic marginality of the lower stratum displacees eventually redetermines their social position in the society; a position that is usually inferior in social status to that enjoyed prior to displacement by riverbank erosion.

#### 4.3. CHANGES AND PATTERNS IN LAND OCCUPANCY: THE ROOT OF IMPOVERISHMENT AND MARGINALIZATION

Loss of land is a serious concern for affected people in the Serajganj area because land is their main source of income and the principal indicator of their socioeconomic well being. In the absence of published data, the precise extent of land lost, and the value of that land in the Serajganj area, is difficult to estimate. Therefore, in the current analysis information provided by the respondents living in Serajganj urban squatter settlements is used.

When displacees moved to Serajganj, their first priority was to find shelter, and generally they preferred to squat on unused or free government land. In the course of time most respondents do find adequate shelter. The pattern of homestead land occupancy or ownership by displacees does not vary widely. Table 4.1 shows that the majority of respondents (70 percent) reside on free government land without permission from local

administrators, while only 8 percent live on government land with permission or help from the local administration. Some of the respondents (4 percent) rent homestead land, while a few (2 percent) remain completely homeless (floaters). Over 16 percent of respondents live on their own land; this indicates that a portion of the squatters are settling permanently in Serajganj. The displacees who now own homestead land had sufficient money to buy their homestead land immediately after their arrival. However, in total, about 84 percent of all respondents could not afford to own homestead land. It was learned from discussions with local administrators that there is no organized institutional support for providing shelter for displacees. It was also realized from the field experience that the fear of sharing employment and other urban amenities with squatters makes the townfolk reluctant to see any permanent arrangement for legal residence of displacees in Serajganj. Therefore, the adverse effects of riverbank erosion and the negative responses from the society are together responsible for the current homeless conditions of many of the squatters. Such conditions become permanent for most respondents since, due to economic hardship, they are unable to improve the conditions of their shacks or buy any homestead land.

TABLE 4.1  
Homestead Land Occupancy Pattern of Serajganj Squatters

Land Occupancy Pattern	Frequency	Percentage
Unpermitted free occupancy	144	69.6
Permitted free occupancy	16	7.7
Rented	8	3.9
Owned	34	16.4
Others	5	2.4
Total	207	100.0

Table 4.2 shows current agricultural land holdings of displacees in rural areas. As expected, displacees do not have substantial amounts of agricultural land in rural areas. Available data suggest that the rich peasant group (with land holdings of 7.5 acres and over) is absent among displacee-squatters as far as current agricultural land ownership is concerned, although some 10 percent were classified as rich peasants prior to their displacement. After displacement, peasants can be classified into three general groups, namely, the landless (no land either homestead or agricultural), the poor peasants (0.01 - 2.50 acres), and the middle peasants (2.51 - 7.50 acres). A high percentage of landlessness is observed among displacee-squatters; more than 82 percent of the sample do not have agricultural or homestead land (i.e., are landless). Only 8 percent have land between 0.01 - 2.5 acres, and are grouped as poor peasants, and about 10 percent own 2.51 - 7.50 acres of land, and are then classified as middle peasants. The percentage of landlessness among displacees is remarkably higher than the national average (54 percent). With the loss of their principal resource base (i.e., their land), displacees are deprived of their permanent source of income, and consequently, the level of poverty among displacees is increased and they become economically marginal.

The most severe erosion of land along a riverbank occurs during flood periods. Geologically, the intensity of erosion activity is highest along concave stretches of the river. Erosion is a repetitive phenomenon throughout the study area, and most displacees have experienced displacement more than once (see Chapter III). Under these circumstances, it is difficult to estimate accurately the precise amount of land eroded. However, respondents were asked to indicate the amounts of land they had lost, and such data are indicative of land holding status prior to their last displacement.

The survey established that 44 percent of respondents lost between 0.01 - 2.50 acres of land (poor peasants); slightly more than 38 percent lost 2.51 - 7.50 acres (middle peasants); and about 11 percent lost more than 7.50 acres of land (rich peasants). Table 4.2 clearly demonstrates that only about 6 percent were landless prior to their last

TABLE 4.2

Agricultural Land Lost to Riverbank Erosion and Current Agricultural  
Land Holding Pattern of Serajganj Squatters (in Acres)

Current Status	Pre-displacement Status (Amount of land lost)										Total		
	landless	.01 - 1.0		1.01 - 2.50		2.51 - 5.0		5.01 - 7.50		7.51 - 12.5		12.51-over	
		poor peasant		middle peasant		rich peasant							
landless	(5.8) 12	(20.3) 42	(20.8) 43	(22.2) 46	(8.2) 17	(3.4) 7	(1.5) 3	(82.2) 170					
.01 - 2.5 poor	(0.9) 2	(1.5) 3	(1.5) 3	(2.4) 5	(0.9) 2	(0.9) 2	-- --	(8.1) 17					
2.51 - 7.5 middle	-- --	(0.5) 1	-- --	(3.5) 7	(0.9) 2	(1.9) 4	(2.9) 6	(9.7) 20					
Total	(6.7) 14	(22.2) 46	(22.2) 46	(28.1) 58	(10.0) 21	(6.3) 13	(4.3) 9	(100.0) 207					
		92 (44.4)		79 (38.1)		22 (10.6)							



displacement; this contrasts with the current percentage of landlessness at 82 percent. Thus, it can be concluded that the majority of respondents lost all of their land. Examining the distribution of land lost, it is also clear that most respondents were poor peasants, followed by middle and rich peasants in terms of land holding status prior to last displacement.

TABLE 4.3  
Distribution of Squatter Households that Originate from Pre-displacement  
Land Categories in Rural Areas

Pre-displacement Land Holding Status (Acres)	Currently Landless	
	Frequency	Percentage
Landless	12	7.1
Poor Peasants (0.01 - 2.50)	85	50.0
Middle Peasants (2.51 - 7.50)	63	37.1
Rich Peasants (7.51 - Over)	10	5.9
Total	170*	100.0

\* Out of 207 respondents, 170 are currently landless.

Table 4.3 shows the frequency of currently landless households in terms of their previous land ownership status. The data reveal that the majority (50 percent) of currently landless households originated from the poor peasant class, followed by middle (37 percent), and rich (6 percent) peasant classes. This finding indicates that the marginal farmers (and middle class peasants as well) are most affected by river erosion because they do not have the strong economic base and social power to enable them to recover from the effect of losing their land. In losing their economic and social power base, they become

victims of socioeconomic exploitation by the large landholders. Thus, while riverbank erosion is the cause of poverty for displacees, the entrenched socioeconomic exploitation by the wealthier peasants aggravates their degree of impoverishment.

Although it is difficult to determine the precise value of lost land in the study area, it was found that over 75 percent of respondents lost land worth less than Tk. 25,000 (approximately Cdn \$1000), while only 5 percent lost land worth more than Tk. 75,000 (approximately Cdn \$3000)<sup>16</sup>. Even with a serious deterioration in economic well being, respondents do not usually sell their eroded lands. Only about 6 percent had sold eroded lands to local *talukdars*. Although their eroded acreage is currently in the river, almost all displacees have continued to pay taxes regularly, in the hope of the reemergence of their land and their repossession of it. Some 6 percent of the respondents reported that a portion of their eroded lands had actually reemerged, but that these lands were not suitable for cultivation. Indeed, for most it is an endless wait for the reemergence of their eroded lands, with little hope for the repossession of such lands.

#### 4.4. CHANGES IN SOCIOECONOMIC CONDITIONS OF SQUATTERS

The loss of agricultural land brings enormous post-erosion suffering to affected people. They lack the necessary shelter and materials to start their lives afresh in an urban squatter environment. Population displacement is clearly one of the most socially relevant and economically important consequences of erosion. Outcasts from traditional society are created; displacees lose almost every dimension of their livelihood, viz. employment, income, housing, and other social activities. When they relocate to the urban squatter environment, many changes and adaptive strategies must be adopted and a variety of problems are encountered. The conditions of squatter in Serajganj are serious not only in

---

<sup>16</sup> This value is calculated from the current market price of land in Serajganj area. The conversion was calculated @ Taka (Tk.) 25 equal to Cdn \$1.

terms of the living conditions faced, but also because of the attitudes of townfolk towards squatters. The field survey provided ample evidence that displacees were unwanted people, yet were useful as a source of cheap labor to the established urban society.

The changes in housing conditions compared to pre-displacement conditions is one of the most significant parameters reflecting levels of poverty among displacees. Squatters reside in clusters of shacks constructed mainly of bamboo, straw, and grass. To build a shack, the squatters have no alternative but to use indigenous technology and locally available and cheap materials, resulting in very poor housing conditions. Although 60 percent of houses did possess a tin roof, their overall condition was very poor, with leaking roofs, withered walls, and muddy floor being the norm. Mathur (1984:5) found similar poor housing conditions among slum dwellers in India. Houses are small -- 5 or 6 people share a single room, and 47 percent of the sample households had only a one-room house. Cooking, eating, and sleeping are all done in such a single room.

When asked about conditions of their houses, respondents reported that their houses were too old (36 percent); needed repairs (49 percent); and required more space (15 percent). Such substandard conditions are in part due to the fact that when displacees first erected their houses, they were unable to invest sufficient resources to build a more substantiated and spacious house. Since their economic condition has often deteriorated since moving to Serajganj, squatters simply do not have the economic resources to upgrade their houses or to construct new ones. In other words, the current housing conditions reflect a very low level of income among displacees. However, about 72 percent of the respondents indicated that they hoped to rebuild their houses at some time in the future, but more than 25 percent of respondents had no such plans. Kazemi (1980:48-50) found similar poor housing conditions for squatters in an Iranian study, and concluded that housing conditions are a clear indicator of poverty and marginal life.

In order to upgrade their houses, over 61 percent of respondents were only able to spend a maximum of Tk. 200 (approximately Cdn \$8) per year, clearly a very insufficient

amount. About 30 percent were able to allocate Tk. 201-400; five percent invested Tk. 401-600; and only about two percent of respondents spent more than Tk. 600 (Table 4.4).

TABLE 4.4  
Amount of Expenditures to Rebuild / Repair Houses

Amount of Taka	Frequency	Percentage
0 - 200	127	61.4
201 - 400	63	30.4
401 - 600	12	5.8
600 - Over	5	2.4
Total	207	100.0

Such levels of expenditure on housing are remarkably small when compared to the cost of rebuilding a house. According to respondents, it required a minimum of Tk. 5,000-7,000 (approximately Cdn \$200-280) to construct a new house. This situation thus illustrates the poor economic condition of displacees. When asked about changes in thier housing conditions compared to their pre-displacement life, over 81 percent of respondents indicated that their housing conditions had deteriorated.

Squatter settlements do not have amenities such as electricity and tap water. Over 35 percent of households have no access to a tube-well and are thus forced to draw water from the river or from ponds. The Public Health Engineer of Serajganj district pointed out that there is only one tube-well servicing 1,000 people on the embankment. The sanitation situation in this area is the worst in the town. About 18 percent of households have no access to a latrine, which exacerbates serious health hazards in the locality. Over 40 percent of respondents reported a severe deterioration of their health condition since coming to the squatter settlements. A 1979 study by the Center for Urban Studies (University of

Dhaka) of slum settlements in Dhaka, Khulna, Rajshahi, and Chittagong, found that only 4 percent of the squatter households had no access to latrines, but that 20 percent of households had electricity. The Serajganj squatter settlements therefore are more severely impoverished in comparison with other urban squatter settlements in Bangladesh. Furthermore, since 71 percent of respondents have lived in the same shack since arriving in Serajganj, little upward economic mobility is apparent. Clearly, the economic inability to erect a better dwelling or the uncertainty of obtaining shelter elsewhere in town, prevents squatters from changing their current place of refuge.

Changes in occupation structures and income levels underscore the appalling conditions among Serajganj squatters compared to their previous rural conditions. About 55 percent of respondents reported that their employment condition had deteriorated; 71 percent said their income were less due to changes in their type of work. The unemployment rate among Serajganj squatters is very high at 56 percent, primarily due to the scale of influx of displacees, who greatly outnumber the available jobs in the town.

In order to examine trends in economic mobility, an analysis of types of employment and income levels of household heads was undertaken (Table 4.5). The highest number (37 percent) of household heads were found to be engaged as day laborers. This compares with only 21 percent working as day laborers before displacement by river erosion. The most dramatic change occurred in agricultural sector employment. While a majority (50 percent) had been employed in agriculture prior to their last displacement, currently only three percent receive some level of agricultural income. On the other hand, the percentage of the respondents employed in such activities as petty business, services, rickshaw pulling, and construction work has increased since arrival in the urban area.

People involved in day laboring activities are mainly *kuli*<sup>17</sup>, earth cutters/diggers, and mason helpers. The petty business occupations include shopkeeping, hawking, tailoring,

---

<sup>17</sup> A porter is known locally as a *kuli*.

house and boat renting. Service activities include employment at irregular restaurants and tea stalls, temporary mill/factory work, and other low paid government jobs. Masonry workers, carpenters, and richshaw-repairers are broadly classified as construction occupations. Most of these activities are informal sector activities (i.e., that part of economy not directly regulated by the law of the market: Lomnitz, 1977:13) which do not provide any security and cannot guarantee adequate income levels needed to support families. Todaro (1985) suggests that the motivation of workers in informal sector activities is simply a need to obtain a minimum income for survival. In general, informal sector activities are characterized by small-scale production and service activities, and utilize very labor intensive methods of production which require only low levels of skill and capital investment (see Safa, 1986).

TABLE 4.5  
Occupations of Household Heads Prior to and After Last Displacement

Types of Occupations	Pre-displacement Occupations		Current Occupations	
	Frequency	Percentage	Frequency	Percentage
Agriculture	104	50.2	6	2.9
Day labor	43	20.7	77	37.2
Petty business	19	9.2	36	17.4
Services	23	11.1	52	25.1
Construction work	6	2.9	8	3.9
Rickshaw pulling	5	2.4	20	9.7
Other	7	3.4	8	3.9
Total	207	100.0	207	100.0

The employment distribution and occupational composition of Serajganj squatters differs considerably from that among Dhaka squatters. Studying Dhaka squatters, Amin (1982) found that the majority (54 percent) of informal sector labor are 'production workers' who are employed in production, construction, and transport sectors. In contrast, it was found that the highest percentage (41 percent) of Serajganj squatters are engaged in day laboring activities including construction occupations. The occupational composition also varies between these two squatter populations (Table 4.6). For instance, the transport sector includes four different options for Dhaka squatters, while it is restricted to the richshaw pulling in Serajganj. The regional variations in the occupational status of squatters are supposedly due to the differences in the scale of the economy and city size. Being a much larger city than Serajganj, Dhaka can offer diverse options in the job market, especially where the production sector appears to be very important. Serajganj, in contrast, has limited options for employment of its squatters. The sizeable employment (25 percent) in the "service" sector in Serajganj is due to the fact that squatters find employment in the local jute mill. However, the overall limited scope for employment results in predominantly low incomes among Serajganj squatters.

The growing informal sector has developed in Serajganj because the urban-based formal sector economy has been unable to absorb displacees. Greenberg (1986) found that 59 percent of the employed squatters in Serajganj were in the informal sector. It appears that informal sector serves as a useful entry point into the labor force for new migrants to the city (see Prakash, 1983). The large size of the informal sector in Serajganj results in wages being depressed and the hours worked to be limited. Greenberg (1986) maintains that informal sector workers are paid substantially less than those in the formal sector.

TABLE 4.6

Employment Distribution of the Dhaka Squatters and the Serajganj Squatters (%)

DHAKA SQUATTERS *		SERAJGANJ SQUATTERS	
Employment Sectors	Percentage	Employment Sectors	Percentage **
i) SALES	31.3	i) SALES	17.4
a. Street Sellers		a. Shopkeeping	
b. Restaurant and tea stall operators		b. Hawking	
c. Buyers and sellers of scrapes		c. Tailoring	
		d. House and boat renting	
ii) SERVICE	14.7	ii) SERVICE	25.1
a. Repair workers		a. Restaurant and tea stall staffs	
b. Barbers / hairdressers		b. Temporary mill / factory workers	
c. Decorators		c. Low paid government jobs	
d. Shoe-shine boys		d. Printing press workers	
e. 'Artists' (sign board writers)			
f. Book binders			
g. Pavement typists			
h. <i>Hakims / Kabiraj</i> (medicine men)			
iii) PRODUCTION	40.0	iii) PRODUCTION	0.0
a. Metal workers (tool makers, welders, blacksmiths)			
b. Tailors and upholsters			
c. Spinners, weavers, knitters			
d. Furniture makers			
e. Shoe makers and other leather workers			
f. Printers			
g. Food and beverage processors			
h. Paper packers and paperboard makers			
i. Potters			
j. Indigenous medicine makers			



iv)	CONSTRUCTION	6.7	iv)	CONSTRUCTION (Day labor and cons. work)	41.1
	a. Earth cutters / diggers			a. <i>Kuli</i> (porter)	
	b. Mason helpers			b. Earth cutters / diggers	
	c. Brick breakers			c. Mason helpers	
	d. Carpenters			d. Masons	
	e. Painters			e. Carpenters	
	f. Masons			f. Rickshaw mechanics	
	g. Plumbers				
v)	TRANSPORT	7.3	v)	TRANSPORT	9.7
	a. Rickshaw drivers			a. Rickshaw drivers	
	b. Hand cart drivers				
	c. 'Tempo' (rebuilt autorickshaw) drivers				
	d. Bullock cart drivers				
vi)	AGRICULTURE	0.0	vi)	AGRICULTURE	2.9
				a. Agricultural wage laborers	

\* Source: Amin, 1982 (Tables 3.3 and 3.4, p. 91 and 94)

\*\* Total may not be 100 percent as 'others (activities)' are excluded.

Such activities include day laboring and rickshaw pulling, jobs that are physically rigorous and only low-paying. The workers are consequently unable to improve their economic conditions. Such employment opportunities clearly indicate the aggravated poverty which increases the marginality of Serajganj squatters. This situation can also be illustrated by one of the case-study-interviewees, Abdul Ali Mirza, aged 25, who stated:

In 1973 when I was a boy of 13, my family lost our last one acre of agricultural land and six decimals of homestead land to riverbank erosion. We moved to Serajganj and lived on the abandoned railway line. My father died (in 1975) so I pulled rickshaw and my younger brother became an urban day laborer. Now, 10 years later, my household, which consists of my wife, two sons and my mother, live in the same hut on the abandoned railway line. I'm still pulling rickshaw and facing more economic hardship.

The current findings can be correlated with the findings of Lomnitz (1977). In the Mexican context she concluded that marginals are engaged in unaffiliated manual labor, unpaid family labor, and small-scale family enterprises commonly known as 'informal sector' activities. Studying squatters in Tehran, Kazemi (1980:55) also found similar trends in employment status. Some cross-cultural studies suggest that squatters are often addicted to alcoholism, violence and wife beating; the urban poor possess deviant behavior and attitudes in terms of socioeconomic interaction in society, creating a subculture of their own which accentuates their poverty (see Lewis, 1966). However, the discussion in the earlier section of this chapter clearly demonstrated that the causes, existence, and continuation of poverty among displacee-squatters, are determined by the affluent stratum of society. It is primarily the socio-structural and historical contexts which sharpen inequality and aggravate poverty among displacees. The Superintendent of Police in Serajganj district reported that social crimes among displacee-squatters were no higher than in the urban population as a whole.

The present findings also dispute Perlman's (1976) findings that rural migrants to large cities are universally above national averages in education, skills, and acquaintance with urban ways. Serajganj squatters are largely illiterate, and they possess very limited urban-

type job skills. It is worthwhile to note that Perlman (1976) studied voluntary migrants to cities, whereas the Serajganj squatters are involuntary migrants, and the difference in the findings may therefore be due to the different nature of the migrations. However, Perlman's hypothesis does tend to contradict the more general proposition which regards urban poor as disadvantaged in economic, social, and political terms. The extent and nature to which the Serajganj squatters are politically disadvantaged is, however, beyond the scope of this study.

The change in occupation patterns indicates a deterioration in the employment situation among squatters compared with their previous occupation status in rural areas. Being unskilled, and lacking capital resources, the majority of respondents are engaged in informal sector activities. Such labor intensive informal sector activities do not serve to alleviate or diminish their poverty, but rather tend to exacerbate it. In Serajganj, these activities are essentially related to the low levels of income among squatters. The *mean* monthly income of a household head was Tk. 1,408 (approximately Cdn \$56) prior to their last displacement, while the current *mean* income is Tk. 945 (approximately Cdn \$38) in Serajganj. Currently, the monthly income of individual household heads varies from a low of Tk. 360 (Cdn \$14) to a high of Tk. 3,000 (Cdn \$120). This income differential can be explained primarily by their types of employment (i.e., skilled or unskilled). Squatters who run petty businesses or who perform technical work, usually enjoy higher income levels than do unskilled squatters who work as day laborers.

To analyse the aggregated patterns of income distribution among household heads, four broad groups are considered, namely marginal (Tk. 1,000 or less), lower (Tk. 1,001 - 2,000), middle (Tk. 2,001 - 3,000), and upper (Tk. 3,001 - and over). Currently, more than 70 percent of household heads, in contrast to only 43 percent prior to their last displacement, earn Tk. 1,000 or less per month. No squatters currently have a monthly income exceeding Tk. 3,000, while over 6 percent of respondents had incomes of more than Tk. 3,000 in rural areas prior to displacement (Table 4.7).

TABLE 4.7  
Monthly Income of Household Heads

Income in Taka (Tk.)	From pre-displ. occupation		From current occupation	
	Frequency	Percentage	Frequency	Percentage
1,000 or less (marginal)	89	43.0	145	70.1
1,001 - 2,000 (Lower)	77	37.2	58	28.0
2,001 - 3,000 (Middle)	28	13.5	4	1.9
3,001 and over (Upper)	13	6.3	--	--
-----				
For previous income: $X = \text{Tk. } 1,408$ , and c. v. = 19.8%				
For current income: $X = \text{Tk. } 945$ , and c. v. = 17.5%				

The data in Table 4.7 also show a considerable decrease in current average income compared to pre-displacement average income levels. Previous income distribution among 77 percent of household heads (both marginal and lower income groups) was concentrated around and below the *mean* income. On the other hand, the distribution of current income demonstrates that 98 percent of household heads belong to both marginal and lower income groups; among them, the income of 70 percent falls below the *mean* income. It indicates a low but almost uniform distribution of squatters' incomes. The low scores of *coefficient of variation* (c. v. = 19.8% for previous income, and c. v. = 17.5% for current income) for different income groups indicate that the income differentiation between household heads does not vary widely. The relatively lower score of the c. v. for current income indicates a more uniform distribution of income for squatters whose earnings have decreased. This means that a uniform level of poverty is common for most of the sample households compared to income levels in their previous rural location. This finding contradicts

Nelson's (1979) hypothesis that there is a high degree of economic stratification within the ranks of the urban poor. Being a district town, Serajganj cannot offer squatters sufficient employment options. Such situation limits their earnings and results in the small range in their income levels.

Prior to their last displacement, squatters owned agricultural land in the rural areas and were thus engaged in agricultural activities which ensured them a regular flow of income. Because of inadequate employment opportunities in Serajganj, they are compelled to live with underemployment, informal sector activities, and resultant very low incomes which aggravate their overall poverty. This inescapable poverty leads squatters to increasing levels of marginality. Being inexperienced and unskilled, the displacees are not equipped to compete effectively in the urban labor market, and thus end up with the marginal, irregular, and lowest paying jobs. Breese (1966:5) terms such conditions as 'subsistence urbanization'; it is widely prevalent among Southeast Asian urban squatters (see Jackson, 1974). The current findings also contradict Mangin (1967), who stated that squatter settlements make contributions to national and/or local economies through their investment in housing and land improvements, job markets, capital creation, and intangible social capital investments.

In his Latin American study, Balan (1969) stated that the migration of squatters is essentially a transfer from the rural lower sector to the urban lower sector. However, this proposition is not completely valid in the case of Serajganj, since squatters experienced better socioeconomic conditions in the rural areas prior to displacement than they do now in the squatter settlements of Serajganj. The unwillingness and/or incapacity of the prevailing socioeconomic system to absorb displacees into the labor force has clearly accelerated their impoverishment.

Social conditions (i.e., education, medical, and family cohesion) are another important issue which also reflects the impoverished conditions of displacees in Serajganj. In an urban environment, it is normally expected that children can access more education

facilities. However, about 64 percent of respondents reported that the education facilities for their children have deteriorated (Table 4.8). This problem can be best explained in terms of their economic hardship (also see Majumder and Majumder, 1978). Squatters simply cannot afford to send their children to school. This situation can also be largely related to the fact that the majority of displacees are engaged in informal sector activities, where they find it more beneficial to employ their children than send them to school. Children are a ready and important source of income in a marginal society. Thus, children leave school whenever the household economy needs them (see Lomnitz, 1977).

TABLE 4.8  
Changes in Social Conditions of Serajganj Urban Squatters  
(Multiple Responses)

Social Sectors	Improved	No Change	Deteriorated	No Response
Education	48 (23.3)	10 (4.8)	131 (63.3)	18 (8.7)
Health	104 (50.2)	19 (9.2)	84 (40.6)	- -
Family Cohesion	35 (16.9)	90 (43.5)	81 (39.1)	1 (0.5)

Under severe economic stress, normal family relationships are also affected. Over 39 percent of sample households reported deterioration in family cohesion. Such deteriorated family relationship can be related to the changed residential environment, since the urban environment and the urban society are usually very much more individualistic. Also, poor economic conditions limit levels of social interaction and mobility, which ultimately results in the isolation of squatters from their relatives. Currently, the limited contacts with the townfolk, and the negligence of local administrators towards them, result in their experiencing social isolation. However, 17 percent experienced an improvement in family

cohesion. The improved family cohesion for some migrants can be explained in terms of the nature of their migration; displacees migrated as a group and tried to maintain socioeconomic interactions among themselves in the face of uncertainty. Because squatters are discouraged from assimilating into the urban community, they build their own socioeconomic system, resulting in the development of a rural congregation within an urban environment. This particular aspect will be discussed in detail in the following chapter.

With regard to medical facilities, about 41 percent of respondents reported a deterioration in access to health services. Responding to our questions, they explain that it was due to their lower social status, and their low levels of income, which prevented them from accessing medical services in the town's hospital.

Therefore, with the loss of their land, squatters have lost their socioeconomic power and henceforth have become elements of social and economic deprivation. For their livelihood, squatters depend mainly on their own social resources (i.e. kinship and neighborly relations) on the one hand, while the affluent stratum of society considers them as a source of cheap labor. Consequently, squatters have little scope to improve their socioeconomic conditions and, therefore, remain members of the marginal stratum of society.

## Chapter V

### THE DEGREE OF RURAL-URBAN DUALISM AND RESETTLEMENT OPTIONS FOR SQUATTERS

The discussion in the previous chapter demonstrates that displacee-squatters are economically impoverished. Their aggravated impoverishment continues due to negative social and administrative responses, which also act as barriers for them to assimilate into the urban society. This situation separates the locals (i.e., the townfolk) from the squatters, who proceed to develop their own rural congregation within the town. However, squatters *are* dependent for their livelihood on jobs available in the town, even though the locals do not accept them as permanent resident of Serajganj. Therefore, the squatters undergo a process of rural-urban dualism, as their options for permanent resettlement remains limited.

This section focuses on the extent of this rural-urban dualism among squatters and the resettlement options open to them. This rural-urban dilemma is examined in the context of the ruralization process in Serajganj. Both the ruralization and resettlement processes are influenced by the contacts that exist between squatters and townfolk, and between squatters and their rural relatives. Therefore, a brief discussion of the nature of the squatters' relationships with townfolk and rural relatives is necessary before discussing the major issues of ruralization and resettlement.

#### 5.1. SQUATTERS AND TOWNFOLK: PERSPECTIVES ON INTER-GROUP RELATIONSHIPS

The existing inter-group relationships between the displacee-squatters and townfolk illustrate the nature of living conditions experienced by squatters in Serajganj. Such inter-group relationships are viewed in terms of the competition for land, jobs, social interaction, and other urban amenities between the two populations.



In the case of Serajganj, the occupancy of land by displacees causes increasing concern among townfolk and local administrators. Townfolk perceive the displacees as occupying empty land illegally. On the other hand, displacees have no choice but to seek shelter on whatever public and private land they can access. Thus, when government or the landowners want to use their lands for themselves, they are confronted with squatters who refuse to leave. Since squatters establish a relative permanency over land they occupy, a continuous conflict between landowners and squatters develops, as does one between administrators and squatters.

The majority of respondents reported that they are frequently ordered by government officials and local landowners to evacuate the land they occupy. In 1982, Rahman (1982:26) showed that local administrators had identified about 7,000 unauthorized families living on the FPE between Kaunia (Gaibandha) to Shahjadpur (Serajganj district) on the right bank of the Jamuna (135 miles). About 1,400 of these were on the embankment within Serajganj *upazila*. Bangladesh Water Development Board (BWDB) officials argue that eviction of displacees is essential in order to ensure proper maintenance of the embankment. They maintain that construction of houses on the embankment is responsible for creating problems of seepage and the formation of numerous rat holes which eventually lead to breaches in the embankment. Hence, the BWDB took the initiative, under Martial Law Regulation No. 15 (eviction of unauthorized occupants), and attempted to evict squatters from the FPE. However, the squatters mobilized themselves against the eviction order and the BWDB subsequently abandoned their eviction order on humanitarian grounds (also see Zaman and Wiest, 1985). Although Serajganj squatters do not have any formal organizations/associations, in each squatter concentration there are a few individuals who are capable of mobilizing squatters when the need arises, such as at the time of the 1982 eviction program. Thus, the conflicts over demand and possession of land by squatters are clearly widespread, and in many cases, the potential for violence exists.

The alarming rate of population growth in the squatter settlements further increases the demand for the already scarce land resource. When faced with the need for land occupancy, local administrators view displacees as 'unwanted' and usually respond negatively or adopt coercive measures toward them. Such conflict situations can become highly volatile. An example of this situation is given by one of the case-study-interviewees, Abdul Latif, a 35-year-old migrant, who stated:

I've been living in this squatter settlement for 12 years. But the local administrators refuse to admit the permanent nature of my residence as I live on *khas* land. Recently, a wealthy town-resident, who claims that he owns this land by lease (from the government), told me to evacuate it. I lack options to relocate, yet, local administrators do not provide me with any assistance. How can they be so cruel to me ?

With an increase in the severity of riverbank erosion, an ever growing number of people are affected each year, and the townfolk are therefore encountering an increasing number of displacees seeking shelter in Serajganj. The chairman of the Serajganj *Pourashava* suggested that such conditions endanger the 'peaceful' and 'progressive' living environment of the urban dwellers. The chairman also indicated that there was no rehabilitation program for squatters. Both the local administrators and the *Pourashava* officials consider the squatter settlements as purely temporary settlements, and that the squatters may be uprooted at any time by the landowners.

Because the displacees are treated as a separate community by townfolk, local administrators are also reluctant to accept them as part of the urban community. Due to this social segregation from mainstream of urban life, the squatters' also tend to develop hostile attitudes toward both the townfolk and local authorities. Field data suggest that about 17 percent of respondents reported that townfolk are hostile toward them. Explaining the reasons for this hostility, 50 percent of respondents cited the cause as their poverty and landlessness, which lead townfolk and administrators to look down upon them. Moreover, 24 percent of respondents reported that they failed to be accepted into the urban

environment because their lack of financial solvency made it difficult to develop any social interactions with townfolk. Living in a shantytown is an effective barrier to the assimilation process (see Germani, 1966:389).

## 5.2. NATURE OF DISPLACEES' RELATIONSHIPS WITH RURAL RELATIVES

Social ties are generally based on common social, religious, and ceremonial interests in Bangladesh society (see Zaman, 1982; Bertocci, 1980). People living in a *Samaj* usually help each other at times of social functions, natural calamities, and economic hardship. Also, the people who can afford to, provide displacees with physical labor, shelter, money, food, and moral support. However, squatters in Serajganj may not have assistance since they are not accepted by the urban society. Thus, they may attempt to maintain relationships with their kin remaining in rural areas.

Respondents were asked whether they are visited by their kin living outside Serajganj, or whether they visit their kin in the rural areas. Since displacees were part of a village community before being displaced and their current separation from the *Samaj* is involuntary, it might be expected that they have a need to exchange visits with their rural relatives. However, regular contact is not maintained (Table 5.1).

The majority ( 84 percent) of respondents in Serajganj had relatives in other rural areas. Of the 207 households sampled, 181 households (87 percent) did visit relatives, and 179 households (86 percent) were visited by their rural relatives. However, most of these visits were irregular ( 75 percent). Only eight percent paid regular visits, and four percent only undertook such visits on special occasions such as funerals, marriages, or major religious festivals. One reason why some squatters regularly<sup>18</sup> visit their rural relatives is that they believe that such contacts may make it easier for them to get agricultural jobs. A further 12

---

<sup>18</sup> Visits that are made at least once a week or a few times a year are considered as regular and irregular visits respectively.

percent of respondents did not visit their relatives at all. Likewise, the visits of squatters by rural relatives show a similar pattern. Only about 10 percent of respondents received regular visits while the majority (65 percent) received only irregular visits. Twelve percent of respondents reported that they were visited only on special occasions, while over 13 percent never received any visits. The fact that squatters pay regular and irregular visits to their kin in rural areas at a greater frequency than they are visited by their relatives in Serajganj, may suggest that the majority of squatters expect at least some degree of assistance from rural areas to lessen their current levels of distress. On the other hand, the occasional visits of relatives may simply reflect the periodic need of rural people to visit an urban center.

TABLE 5.1  
Nature of Visits between Displacees and their Rural Relatives

Nature of Visits	By Displacees		By Relatives	
	Frequency	Percentage	Frequency	Percentage
Regularly	17	8.2	20	9.7
Irregularly	156	75.4	134	64.7
Special Occasions	8	3.9	25	12.1
No Visits	26	12.5	28	13.5
TOTAL	207	100.0	207	100.0

Overall, it appears that displacees do not maintain strong relationships with their rural relatives. The data demonstrate a relatively low level of contact between displacees in Serajganj and their rural kin. This situation would appear to reduce the prospects of squatters resettling back in rural areas. The squatters appear to have become both 'urban persons' and 'rural persons' at the same time (see McGee, 1973). Their rural-urban

dichotomy puts them in a position where they develop a ruralized community within the urban environment in Serajganj, but at the same time become alienated from returning to the rural areas.

### 5.3. THE EXTENT OF RURALIZATION OF SERAJGANJ: OPTIONS FOR FUTURE PLANNING

The previous two sections of this chapter have dealt with some of the inter-group relationships and barriers that obstruct the adaptation process of Serajganj squatters. Although government administrators are supposed to be responsible for alleviating poverty and integrating squatters, it is clear from the research that squatters are instead neglected by local administrators, who appear not to make any efforts to integrate squatters into the town environment. This situation accentuates the development of a rural enclave of displacees within the town. The consequences of this ruralization process are examined in this section.

In an urban environment, human relationships are diffused, cursory, and contractual because an individual has a larger degree of anonymity, isolation, and individualism as a consequence of exposure to diverse sub-cultures (Majumder and Majumder, 1978; Saxena, 1977; Wirth, 1938). It is a common phenomenon for an urban in-migrant to gradually change his rural character through the processes of interaction and experience. Generally, a change in the culture of migrants is expected as a result of a series of adjustments made in response to social institutions and structures, and behavioral patterns and beliefs. However, circumstantial evidence shows that rural displacees in the Serajganj urban settings have little success in attempting to reorient their lives. Thus, being unable to make the complete transition from rural to urban society, displacees tend to cluster together and form their own community within Serajganj. They develop a rural congregation within the town and retain many of the cultural traits that they had brought with them from their rural origins.

The migration literature has demonstrated that rural migrants to urban centers are responsible for diffusing new ideas and technological innovations back to the rural areas. They also introduce modern concepts or goods to village households, and provide monetary resources to the village economy (see Saxena, 1977; Hugo, 1976). This process takes place through visits and other forms of communications and occurs in both directions. Goldstein et al. (1977), for example, showed that urban to rural remittance expand land holdings and improve housing conditions, and thus contribute to overall rural development. But this study identifies a very different situation. The squatters in Serajganj live with unemployment or low paying jobs, and remain in social isolation from the urban mainstream. They interact infrequently with their rural relatives, and because of their impoverishment, have few, if any, resources to offer their rural kin.

Because of the temporary nature of their shelter and the ever present threat of eventual eviction, squatters retain a deep attachment to their village contacts. They are psychologically driven away from the urban society and gain at least some satisfaction from interacting with a social group that is like the rural one with which they are familiar. It is significant that while most squatters plan to stay in Serajganj, few appear to be able to cope with urban living. On the other hand, they do not have the necessary resource base to permit them to move back to rural areas. This situation is also common to India where immigrants want to adopt an urban way of life and adjust to urban society, but end up as strangers in the cities, and are forced into a marginal existence on the fringe of society (Saxena, 1977). This dualism in their lives creates uncertainties about their future, and makes the prospects for resettlement dim.

Serajganj squatters retain a tight bond among members of their family. One reason for this may be the young age structure of household heads. Some 31 percent of household heads are in the 30-39 age group, followed by 18 percent in the 50-59 age group, and 17 percent in the 40-49 age group. Over all, 64 percent (or 132 household heads) are below 50 years, including 5 percent whose age is below 20 years (Table 5.2). This relatively

young age structure of family heads indicates that other family members are dependent on the income of household heads resulting in tight intra-family relationships. Moreover, the realization and need for close linkages among family members during a distressful event appears to be another reason for the maintenance of rural type relationships (i.e., joint families).

TABLE 5.2  
Age Structure of Household Heads

Age Groups	Frequency	Percentage
Less than 20	11	5.3
20 - 29	21	10.1
30 - 39	65	31.4
40 - 49	35	16.9
50 - 59	37	17.9
60 - 69	30	14.5
70 +	8	3.9
TOTAL	207	100.0

It is worth noting that over 56 percent of respondents reported at least one household member leaving home during the first months of their arrival in Serajganj. But in over 91 percent of these cases, the distance moved was limited to within Serajganj district. Such short distance movement allows the continuation of contact and communication between family and the departee. Moreover, such departures were primarily due to marriages, or because work had been acquired at the other place. This process of family separation is quite common throughout rural society.

In rural Bangladesh, parents expect support in old age from their children. Although such dependence is less pronounced in the urban areas, the survey revealed no incidence of grown children deserting their parents in Serajganj. Neither was there report of divorce. Although the dynamics of familial relationship were not investigated in detail, it can be said that a low divorce rate indicates a continuation of rural value systems within squatter families, where wives usually tolerate any misconduct by their husbands rather than divorcing them. During the field survey, it was found that in the absence of a household head (usually the male), the interviewers received little or no cooperation from a wife. Only a few women (normally accompanied by a child and mostly in *purdah* (concealing veils) came out of the hut to answer our questions. Womenfolk still follow the strict conventional practice of modesty and of keeping their distance in front of new or unknown visitors. This practice is less common among urban women. Even after living in Serajganj for a number of years, squatters retain their rural family character. Also, squatters retain their 'unpolished' rural dialects when speaking. The conversion from rural customs and behavior to urban ones is therefore slow or even unnoticeable among squatters.

The level of religiousness, and the beliefs in superstition, to a large extent influence and shape squatters' life styles and behavior in the urban environment. They endeavor to observe all religious and customary social ceremonies whenever possible, depending on their economic ability. They believe in ghosts and are afraid of evil spirits; they attempt to protect themselves through various traditional methods such as wearing metal bangles (known locally as *Tabis*). In cases of helplessness, they pray and surrender to *Allah* (God) for relief. From informal talks with respondents, it was clear that some believed that riverbank erosion was a curse and punishment on them for the sinful wrong-doings of society. According to Abdur Rashid, aged 29, a squatter residing on the FPE:

Maybe we're sinners to the eyes of *Allah*! That's why the Jamuna is roaring to threaten us; see the vicious scouring of its flow. It's powerful enough to punish a sinner.



Motioning to the location of the prostitute village, meters away from his hut, he continued:

Look, it's there! We're polluting ourselves! Why shouldn't *Allah* punish us ? Floods and riverbank erosion are the punishments from the divine power which whitens our sins that we commit every day.

Limited education might have acted as a principal barrier to dispelling such ritual and religious superstitions from among the squatters who preserve village traditions, beliefs, and practices.

TABLE 5.3  
Recreational Visits to Movie Theatre

Frequency of Visits	No. of respondents	Percentage
Once a week	4	1.9
Once a month	24	11.6
Once every few months	31	15.0
Once a year	38	18.4
Never	110	53.1
TOTAL	207	100.0

Listening to radios and visiting places of amusement are normal forms of recreation (Perlman, 1976; Mangin, 1967). Perlman (1976:138-139), for example, found that 57 percent of squatters in Rio de Janeiro listened to radios for recreation. However, because of their economic status, Serajganj squatters are unable to adjust to urban ways of dress, food habits, and patterns of recreation. Only 11 percent of respondents reported that they had radios. In most of the cases, they brought them with them when they arrived Serajganj. Few could afford to buy one now. The majority (53 percent) of respondents do not attend movie theatres for recreation. Only about two percent reported watching movies

once a week and the rest of the respondents watched movies irregularly (Table 5.3). Their economic poverty precludes them from availing themselves of urban type recreation amenities.

It is difficult to detect any new forms of social structure among the Serajganj squatters. But, compared to the traditional rural scene, the integrity of status-relationships has deteriorated as a consequence of the erosion of economic well being among family heads. A subtle attitude of self-domination develops among other earning family members, who aspire to reduce the traditional dominance of the family elders. Primarily due to their economic impoverishment, the elders fail to integrate into and develop relationships with the new urban social structure. Therefore, there is an urge to maintain contact with relatives and neighbors in the squatter settlements which encourages them to follow and conserve the rural characteristics.

It is often suggested that in conditions of rootlessness and uncertainty common to squatter settlements, their desperation may hasten their acceptance of certain social vices (see Lewis, 1966). Serajganj *Pourashava* officials insisted that a prostitute village on the outskirts of the town was populated by riverbank erosion displaced women. Accompanied by a ward commissioner<sup>19</sup>, a visit was made to the village, which housed about 250 prostitutes. Three *mastans* (pimps) and six prostitutes were separately interviewed and it was found that not a single prostitute was a victim of riverbank erosion. It is clear that the Serajganj *Pourashava* officials have a poor perception of the life style of squatters. Moreover, the Superintendent of Police of Serajganj district, and the Officer in Charge of the Serajganj Police Station, both indicated no criminal activities by or against squatters.

This study is an exploratory effort to address and investigate the nature of problems faced by rural displacees in the urban environment to which they have relocated. The discussion reveals that squatters have limited scope for assimilation into urban life.

---

<sup>19</sup> A ward is an administrative division of a *Pourashava*; each ward is represented (to the *Pourashava*) by an elected commissioner (councillor).

Moreover, the analysis in Chapter IV demonstrated that squatters do not experience any economic improvement in Serajganj, since they are compelled to take the lowest paying jobs for survival. Thus, the squatters are isolated from both full urban and a full rural identity; this finding supports Hypothesis III which stated that displacees form a distinct and separate community in Serajganj and contribute to the process of ruralization of the urban environment.

The scope for finding solutions to the problems experienced by riverbank erosion displacees in urban squatter settlements is limited. One often proposed solution is that of resettlement. Therefore, the issue of resettlement as an option for displacee-squatters in Serajganj is analysed in the following section.

#### 5.4. RESETTLEMENT OF SQUATTERS

The squatters need to be resettled. Because of the unequal distribution of wealth in Bangladesh, displacees migrate from the reality of decreasing opportunities in rural areas to the perceived opportunities of Serajganj. Some may argue that the displacees' migration to Serajganj will reduce the rural-urban inequality of resource distribution. However, as was shown earlier, in-migrants to Serajganj face even worse conditions in the city. Considering the consequences displacees face, various planning options are needed to reduce the squatters' misery. The option of resettlement is one possibility. A viable resettlement plan is required and is dealt with in this section, which is broadly divided into two parts: (i) resettlement to newly deposited or other land in rural areas, and (ii) other possibilities for resettlement.

##### 5.4.1. Possibilities of Resettlement on Reemerged and Other Land in Rural Areas

In any agricultural economy, land is the primary resource base. Ownership of land provides security, wealth, and power status in society. Small land holdings, limited

capital, an undeveloped technology, and traditional agricultural practices, all make people more dependent on the available land resources. In the light of this, it is argued that the peasantry in Serajganj district is not well-off, partly because of the uneven distribution of the land resource, and partly due to the low yields per acre (see Rahman and Kamaluddin, 1985). In addition, loss of land from riverbank erosion intensifies land scarcity, and negatively impacts upon socioeconomic conditions of affected inhabitants of Serajganj area. Increased pressure on land is accompanied by an additional, but unavoidable, pressure to resettle displacees. Therefore, possession and ownership of land in the rural area is important in influencing the options for resettlement of squatters in Serajganj.

While land is lost to erosion, other land reemerges from the river bed. In Kazipur *upazila*, one of the worst riverbank erosion affected areas in Serajganj district, both erosion and accretion of land occur. From Landsat imagery, it has been estimated that out of 36,877 acres in seven riverbank erosion affected *unions*, 9,717 acres (over 26 percent) were eroded, while 5,018 acres (about 14 percent) reemerged from the river bed during the 1974-81 period (see Haque, 1987:3). Relocation of displacees to such new *char* lands is considered one of the best options for permanently settling squatters. However, in reality, the repossession of such accreted land by poor displacees is uncertain. Because their limited socioeconomic status prevents them from acquiring such lands.

The existing complexities of land repossession are further complicated by the land tenure system regarding *char* land management in Bangladesh. As discussed in Chapter IV, the current nature of *char* land legislation, and the frequent changes to it, create illicit opportunities for unscrupulous officials and rich landowners to manipulate the laws in their favor. Such practices greatly impede the resettlement of displacees on reemerged land, and thereby discourage squatters from moving back to rural areas. It is necessary therefore that plannings be undertaken to facilitate the legal procedures of land repossession by the poor and original owners.

TABLE 5.4

Agricultural Land Owned by Squatters' Relatives in Rural Areas  
and Prospects of Squatters' Accessing such Lands

Have Land	Relatives have land		Accessibility to land	
	Frequency	Percentage	Frequency	Percentage
Yes	72	34.8	36	17.4
No	132	64.3	146	70.5
Do Not Know	2	0.9	25	12.1
TOTAL	207	100.0	207	100.0

An attempt was made to analyse whether squatters' close relatives owned land in rural areas, and whether squatters have access to resettle on such land. The majority ( 64 percent) of respondents reported that they had no relatives in rural areas owning cultivable land, while about 35 percent answered in the affirmative (Table 5.4). Regarding the possibilities of accessing such lands, only 17 percent of respondents indicated that they might be able to gain access, while over 70 percent indicated that they had no access to relatives' land.

The data suggest that relatives are also economically impoverished. Of the 35 percent of respondents who reported that they have relatives with land, the amount of such land is generally very small (less than an acre). Thus, their rural relatives have no surplus to provide land for rehabilitating squatters.

#### 5.4.2. Other Options for Resettlement

Before examining other options for resettlement, Bangladesh government policies for resettlement of displaced poor needs to be briefly discussed. Such a discussion will

provide a background regarding existing resettlement programs for displaced populations. Government resettlement policies are limited to two programs, namely, (i) the inter-district relocation of population, and (ii) the resettlement on new *chars* in the southern districts (see Zaman, 1988). Under the inter-district redistribution program, people from densely populated areas are relocated to relatively less populated districts. Zaman (1988) suggests that inter-district relocations have two forms. First, the government is relocating landless displacees, particularly from Noakhali, Dhaka and Comilla districts, to selected zones in the Chittagong Hill Tracts (CHT) in order to diffuse current tribal political conflicts that exists in the area. Second, it is undertaking the relocation of squatters from Dhaka city to newly emergent *chars* in Faridpur, Noakhali, and Barisal districts. As part of this program, many squatters from the Demra *bastee* in Dhaka were taken to a number of new *chars* in the southern districts between 1975 and 1981 (see Zaman, 1988:156).

Ali (1981:177-178) suggests that strong 'local feelings' make it difficult to implement large scale transfers of landless population from one district to another. He points to the occurrence of violence between 'locals' and 'non-locals' in Dinajpur and Dhaka districts, and observes that "rehabilitation of landless population of one district in another district is sure to unleash bitter feelings based on narrow regionalism which no bureaucratic machinery will be able to control." Such struggles between former and new settlers in the relocation areas makes it impossible to successfully complete any of the inter-district relocation programs. Due to repeated attacks by 'locals', settlers from the Dhaka *bastee* were unable to resettle on *chars* in the southern districts, and ultimately returned to Dhaka (see Zaman, 1988).

TABLE 5.5  
Distribution of Places for Resettlement of Squatters  
(Multiple Responses)

Potential Resettlement Areas	Willingness to Resettle			
	YES		NO	
	Frequency	Percentage	Frequency	Percentage
Agricultural land in Same <i>Upazilas</i>	101	48.5	106	51.2
Current Location (Serajganj)	86	41.6	121	58.5
Other Towns	62	30.0	145	70.0
Nearby <i>Chars</i> in the Jamuna	60	29.0	147	71.0
Other <i>Chars</i>	35	16.9	172	83.1
Agricultural Land in Other <i>Upazilas</i>	30	14.5	177	85.5
Rehabilitation Areas in the CHT	8	3.9	199	96.1
Rehabilitation Areas in Coastal <i>Chars</i>	7	3.4	200	96.6

The Serajganj squatters were asked to indicate their preference for resettlement options. The data in [Table 5.5](#) summarize what squatters considered desirable areas for resettlement. The highest percentage of respondents (49 percent) preferred to resettle on agricultural lands within the *upazila*, providing land and other related assistance were made available. It appears that squatters prefer to resettle in rural areas close to where they originated. But considering the limited possibility of accessing newly emergent land in rural areas, the second highest percentage of respondents (about 42 percent) preferred to stay in Serajganj since the town is not far from their place of origin. Such responses reflect a minimal distance migratory behavior and a preferences to resettle within a familiar environment. However, due to their impoverished living conditions in Serajganj, a further 30 percent indicated a willingness to move to other urban areas. Surprisingly, in spite of the risk of repeating their displacement experience, 29 percent of respondents were willing to relocate

to a nearby *char* (in the Jamuna). The lowest percentage of respondents (3 percent) indicated a willingness to resettle to coastal *chars* or the CHT (4 percent). In studying Kazipur displacees, Zaman (1988:158) also found that people showed minimal interest in moving to coastal *chars* or to the CHT. Government schemes for resettlement of displaced poor to coastal *chars* and the CHT have met with little success. The failure in attracting displaced poor to government sponsored areas is primarily due to negative response and hostility to resettlement from locals residents.

TABLE 5.6  
Responses Regarding a Willingness to Return to Rural Areas

	Frequency	Percentage
Yes	75	36.2
No	128	61.9
Do Not Know	4	1.9
TOTAL	207	100.0

Squatters were also asked whether they would consider returning to a rural area if they had the ability to acquire land for resettlement. The majority (62 percent) of respondents indicated that they did not wish to return to the rural area (Table 5.6). Their argument was that if they had the means to acquire land, they would prefer to acquire such land in Serajganj. Only 36 percent of respondents indicated a willingness to return to rural areas. These data suggest that an urban-bias exists regarding their resettlement even though they are unwelcome in the town by locals. Clearly, a feeling is developing among displacees that they have become permanent residents of Serajganj (also see Greenberg, 1986). Their desperate situation may contribute to the development of such preferences for the urban area.



TABLE 5.7  
Reasons for Staying in Serajganj  
(Multiple Responses)

Reasons	Frequency	Percentage
No Place or Land to Move to	156	75.4
Non-availability of Jobs Elsewhere	59	28.5
Friends and Families are Here	40	19.3
Proximity to Urban Amenities	13	6.3

Displacees were also asked whether they preferred to stay in their current place of residence. This question was asked because their attitudes about current places of residence may affect resettlement plans for squatters. The majority (89 percent) answered in favor of staying in their current place of residence, and only 10 percent wanted to leave Serajganj. In explaining their reasons for wanting to stay, the highest percentage (75 percent) indicated that it was because of the lack of any land to move to. This was followed by the lack of available job (over 28 percent), the presence of friends and families (19 percent), and the proximity to urban amenities (6 percent) (Table 5.7). These responses suggest a strong preference among squatters to stay in their current settlements in Serajganj.

Overall, the major factors which compel displacees to persist in a squatter environment for an indefinite period of time, are the inability to easily repossess their land on accretion, the uncertainty to make a living on relatives' land in rural areas, and the lack of institutional initiatives by government or other agencies to resettle them permanently. Since Bangladesh has very limited land resources for its large population, and because it lacks capital and developed technology, the chances of relocating squatters to other parts of the country are

slim. Although Serajganj is already overburdened with an unmanageable population (9502 persons per square mile, BBS, 1983:123) resulting in high unemployment, the majority of respondents preferred to stay in the town. It appears therefore that the best strategy would be to rehabilitate them at their current location. The squatters' willingness to stay in their current place is primarily an indication of the lack of alternatives as well as the lack of administrative responses to them.

Viable resettlement strategies must ensure social, psychological, and spatial compatibility to the new environment. Considering the uncertainty of regaining their previous socioeconomic, cultural, and personal identities, hazard victims tend to oppose any organized resettlement away from familiar places. Peruvian earthquake victims, for example, also perceived resettlement to a new place as disruptive to their traditional social order as had been the hazard itself (see Oliver-Smith, 1982). Therefore, resettlement is most fruitful if it takes place within an area of traditional habitation through the development of other available local resources (see Merryman, 1982). Palacio (1982) emphasised that socio-cultural factors that can contribute toward the success or failure of a resettlement scheme should be considered carefully, because the propensity for displacees' participation is higher when resettlement is nearest their original homes. In addition, government assistance is needed to provide an economic base that matches the relocatees' own aspiration for a better life. Overall, it can be said that conservatism in economic activities and cultural practices make resettlement, as a coping strategy, a more difficult task.

Proportional analysis of responses exhibits a similar trend in post-hazard resettlement of erosion displacees. Since the government does not have any large scale or effective resettlement plans for erosion displacees, the highest percentage (over 22 percent) preferred to stay in their current squatter settlements, while over 17 percent opted for agricultural land within the *upazila* to be resettled (Figure 5.1). Although the highest percentage of squatters preferred to resettle permanently at Serajganj, it was seen in the previous section of this

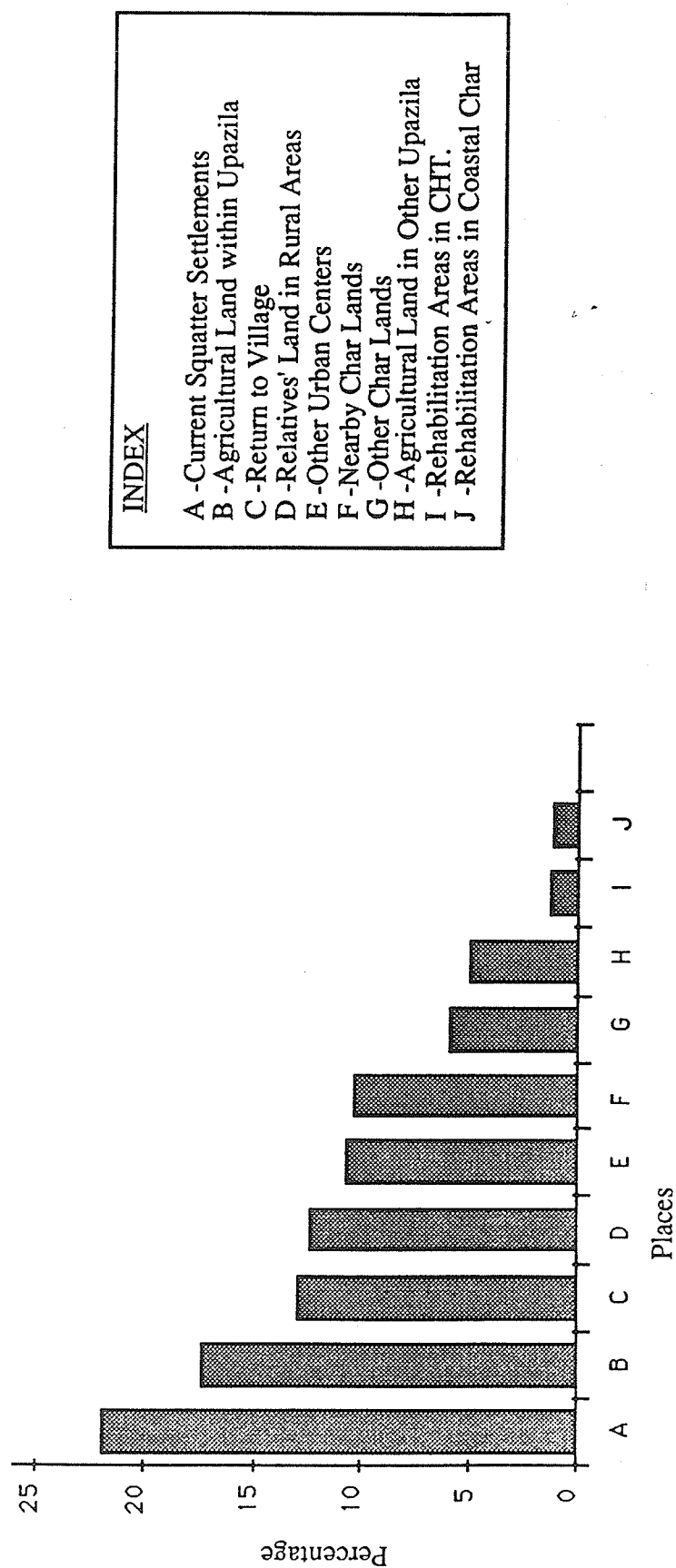


Figure 5.1 Proportional Distribution of Places for Resettlement

chapter that they fail to become truly 'urbanized'. Clearly, they may bank on their inherited rural livelihood in order to survive as a social group. In such a situation, traditional rural life styles may influence or dominate their perception of resettlement options, even within the town. They prefer to live within an environment protected by kinship-neighborhood relationship and long-practised socio-cultural values. Such responses toward resettlement planning indicate that in terms of psychological and socio-cultural contexts of livelihood, they prefer to remain in contact with a familiar habitat. The whole array of resettlement options demonstrates that displacees can share a hazard loss by living together in Serajganj, as a family or community unit, within their own cultural domain. They attempt collectively to consider the effects of the hazard by taking cultural/indigenous adjustment measures.

Overall, the existing incompatible land tenure systems, the intervention by local rich landowners in the process of repossessing of emergent lands, and the fear of recurrence of riverbank erosion in the locality, all hinder rural resettlement plans for squatters. While the whole situation creates uncertainty for widely accepted resettlement programs, their current place of shelter appears to be the only remaining option for them. On the other hand, the increasing number of displacees has been constantly disrupting the normal urbanization of Serajganj. The impacts of isolated and stranded squatters on the urban environment is serious since they create a non-urban environment and community within the urban sphere of Serajganj.

The sense of separateness among the Serajganj squatters is reinforced by their experience of social isolation and the constant fear of eviction. They have become displaced from their traditional agricultural life but have not become incorporated into the current urban life (also see Lerner, 1967:24). Economic poverty inhibits social integration and congregates them into separate enclaves. However, they are not totally confined to their congregation; they interact with the local urban community through their labor (also see Phillips, 1959). Although they are poorly paid, the urban labor market is the only avenue for their current survival.

The increasing economic crisis may weather over time this rural-urban dualism among squatters. In-migrants' attitudes and priorities will, in the long term, be shaped and determined more by economic pressures than by their concern of social status. Lack of relocation options eventually gives squatters a permanency in Serajganj. In this way, the squatters contribute to the overall rapid growth of Serajganj, since the growth of squatter settlements is but part of the greater process of urbanization in Third World countries (see Nelson, 1979:105). McGee (1971:55) argues that:

Ruralization is simply a sub-part of the process of urbanization. If the purely physical definition of urbanization as the process of the physical growth of cities is accepted, then ruralization is part of urbanization because it does involve the movement of people from rural to urban areas.

Therefore, the rate of urbanization will continue to increase in Serajganj, since it will continue to receive rural displacees from riverbank erosion.

## Chapter VI

### SUMMARY AND CONCLUSIONS

This research on population displacement due to riverbank erosion in Serajganj is a micro-level study in geography. The displacement of population and the subsequent development of squatter settlements, are a direct consequences of riverbank erosion. The effects of erosion initiate diverse demographic, economic, and social problems in society. These factors, in turn, also negatively affect the resettlement options for displacees. It is clear from the literature review that past research on riverbank erosion induced rural to urban migration has largely neglected the migrants' to focus upon conditions in squatter settlements. This study has dealt with squatters in Serajganj, focusing upon their migratory behavior, the changes that have occurred in their socioeconomic conditions, and the impacts that they have had upon the urban area.

This final chapter summarizes the research findings, suggests recommendations for further action, and identifies various directions for future research on urban squatters displaced by riverbank erosion.

#### 6.1. SUMMARY OF RESEARCH FINDINGS

In Hypothesis I, it was stated that consideration of socioeconomic recovery acts as an important pull attracting squatters to Serajganj. The analysis of the migration behavior of squatters suggests that the displacees who migrated to Serajganj were chiefly motivated by both economic opportunities and social networks. The decision to move to Serajganj was mainly taken by the household head, who usually plays the dominant role in family affairs. This riverbank erosion induced rural to urban migration of squatters demonstrates some important differences from the popular *push-pull* migration model; unlike Todaro's (1969)

propositions, social variables also have a profound influence upon displacees' decisions to move to Serajganj. The presence in the town of squatters' relatives and friends has surfaced as an important factor in selecting Serajganj as a destination. A chi-square significance test also supports the conclusion that both economic and social factors influence the selection of a destination by migrants, as well as the distance moved by them. As in Latin American situations, the exchange of information and assistance by, and through, social networks influences the migration process of displacees (Lomnitz, 1977; Du Toit and Safa, 1976; Bryce-Laporte, 1970). However, it is difficult to identify the specific reasons that attracted displacees to Serajganj, since a significant percentage of respondents did not initially choose to move to the town.

Serajganj squatters show a general tendency to move only over short distances. This phenomenon of short distance migration behavior is primarily associated with socio-cultural dynamics of adjustment to riverbank erosion. The displacees' arrival in Serajganj is related to a number of factors, namely, (i) the lack of alternative places to shelter, (ii) the economic inability to migrate to more distant places, (iii) the nearness of the destination, and (iv) the existence of social contacts with other migrants. Similar reasons for short distance migration behavior were found by Oliver-Smith (1982) among Peruvian earthquake victims. Also, the hope of regaining their eroded land encourages erosion victims to remain in the vicinity of their places of origin.

In Hypothesis II, it was stated that the displacees become the disadvantaged urban inhabitants and move toward a vicious cycle of impoverization. It is found that 82 percent of surveyed households became landless as a result of riverbank erosion; the poor and middle class peasants suffer the most. Factors such as the slow rate of land accretion, the unnecessary delay of land surveys and settlement by the Land Revenue Department, and the illegal interference by economically and politically influential local large landowners, together mitigate against the repossession of emergent land by poor displacees. In losing their land, the principal means of livelihood for rural Bangladeshis, the displacees become

marginalized in terms of their socioeconomic status. Overall, economic deprivation, social isolation, and administrative and institutional neglect worsen the continuing poverty among displacees and prevent them from achieving any level of socioeconomic success.

Over 55 percent of respondents reported that their levels of economic solvency and their social positions have deteriorated. In order to survive, squatters take whatever jobs they can; they are compelled to accept low paying informal sector employment, which results in an overall downward mobility in their employment status, income levels, and access to social amenities. While some squatters in the larger cities of Bangladesh improve their economic conditions (see Amin, 1982; Islam, 1976), in Serajganj, the squatters fail to achieve any economic improvement. This is mainly due to the options for employment open to them. Amin (1982) found that the majority of squatters in Dhaka were employed in the production sector, which includes small scale business establishments. These activities provide opportunities for relatively high earnings. In contrast, Serajganj squatters are primarily engaged in day laboring activities which do not generate high incomes. Because of the town's limited economy, Serajganj is unable to effectively accommodate squatters into its labor market, and therefore see their eventual absorption into the formal sector. This finding contrasts with the Indian situation, where Prakash (1983) suggests that the informal sector serves as a useful entry point for new immigrants to the city, leading to their subsequent absorption into the formal sector. In Serajganj, squatters appear destined to remain in the informal sector where they can rarely escape poverty.

In studying the Latin American situation, Balan (1969) hypothesized that the squatters' migration is but a transfer of population from the rural lower sector to the urban lower sector. His findings are partially relevant to the case of Serajganj squatters. However, prior to their displacement, Serajganj squatters generally experienced better socioeconomic conditions than they do now. In contrast to Perlman's (1976) views, Serajganj squatters do not possess urban type job skills higher than the national average. This is reinforced by the fact that when compared to the national average, Serajganj squatters exhibit a much



higher rate of unemployment. Also, in contrast to Lewis's (1966) conclusions, the Serajganj squatters were not the cause of their own poverty. However, the aggravated impoverishment and marginality of squatters are common in all the above studies. In keeping with Jackson's (1974) comments on urban poverty, it can be said that Serajganj squatters are also the victims of unequal competition in the urban job market. It is the social and economic system that acts a barrier which precludes squatters from the chance to offer minimally decent earnings and standards of living.

The squatters' economic marginality is related to their low income and low job security. The *coefficient of variation* (c.v.) of income distribution was calculated to examine the income differentials among squatters. A low c. v. score indicates that poverty is almost uniformly distributed. Access to regular (formal) employment is highly limited among squatters, which pushes them into informal sector employment, where it is difficult to obtain adequate levels of income and force them to frequently change their occupations. Moreover, the poor conditions of housing and the imbalances in household expenditures are also indicative of their extreme poverty. The marginality of Serajganj squatters is a combination of peripheral economic and social positions in society. Several economic and social parameters (e.g., lack of capital, skills, and education) emerged as barriers working against the incorporation of squatters into the urban mainstream.

In Hypothesis III, it was stated that the displacees form a distinct and separate community in urban areas and contribute to the process of ruralization of the urban environment. The survey data indicated that squatters are not welcome in the town nor do they have the option to move back to their rural areas. In this situation, they are in a rural-urban dilemma as far as their permanent resettlement is concerned. The economic incapacity of squatters nullifies any chances of being absorbed into the urban society. To create a sense of social security within themselves, they remain deeply attached to their rural values, and because they seldom have an opening to move into the urban mainstream,

they maintain their past rural culture, developing a village entity within the parameter of the town.

In realizing the sense and utility of family kinship, and neighborhood ties, squatters help each other in the daily task of economic survival and social interaction. This type of cooperation is what Lomnitz (1977) called *reciprocity networks* - a social field with an intense flow of reciprocal exchange of goods and services between neighbors. In the absence of institutional/public assistance, squatters develop functional and interdependent relationships among themselves. Although such reciprocity networks are not of an organized form within the Serajganj squatters, they do demonstrate a mutual interest. For example, instead of hiring laborers, squatters help each other in erecting or to repairing their houses. Reciprocity network, therefore, provides minimum levels of economic benefit and social integration among the squatters. This, in turn, further limits their interaction with the urban community, and confines them to within their rural congregation.

The data suggest that Serajganj squatters are not adapting to urban society. It also appears that they lack the option to resettle upon relatives' land in the rural areas. Therefore, the chance for permanent urban or rural resettlement is limited for squatters. The other option of rehabilitating them on newly reemerged land in *char* areas is also limited. Zaman (forthcoming) has evaluated this particular issue of rural resettlement of displacees in detail. It is clear from his investigation that conflicts between local *talukdars* over the control of new accretional land play an important role in the resettlement of displacees. Existing socioeconomic, administrative, and political responses restrict the displacees' access to such new depositional land. While the loss of land is largely caused by the physical processes of riverbank erosion, access to newly deposited land is largely controlled by the social structure of Bangladesh's agrarian society. Therefore, there is a need to formulate and implement more effective legal systems to manage *char* land so that poor displacees can repossess such lands more readily. However, plans for a permanent

resettlement of squatters in the short term are a fiasco because of administrative negligence and the socioeconomic intervention of the affluent stratum of society.

The large majority of squatters appear to prefer to remain in Serajganj. Over time, they have been forced to adopt both rural and urban life styles. They are not willing to break their rural customs yet they readily accept an urban environment which is currently unendurable to them. This dualism in livelihood creates a resettlement crisis for squatters, but their lack of resources prevents them from finding alternatives for resettlement.

Given the growing nature of this problem, the continuing impoverishment of squatters will not be halted unless strong and effective socioeconomic policy measures are taken by government. The following section focuses on policy measures that would help cope with riverbank erosion displacees.

## 6.2. REMEDIAL POLICIES

The above findings on the impacts of riverbank erosion upon the socioeconomic conditions of displacees clearly have implications for public policy formulation. The miserable lives of displacees in Serajganj demand remedial actions in two major areas: first, exploring means of improving squatters' socioeconomic conditions; and second, defining appropriate ways to resettle them permanently. Considering the nature of this problem, the solutions need to be tackled in both rural and urban areas. Actions in the rural area will help reduce the volume of rural out-migration. The remedial policies should be designed in view of long term planning, allowing the participation of local level experts and fulfilling the needs of victims.

Barring the displacees from moving to Serajganj would not be a solution to the problem of squatter settlements. It is quite possible that some would not have left their rural areas had they not been able to find shelter and a means of livelihood in Serajganj. Resettling squatters back in rural areas requires the provision of shelter as well as the creation of

employment opportunities for displacees. But it is difficult to implement such options, since the problem of landlessness is deep-rooted throughout the rural area. Land grabbing by local *talukdars*, and labor exploitation of poor displacees are but some of the problems that are encountered.

It is essential that policy measures be introduced that can address the problems of riverbank erosion, the displacement of population, the displacees' migration to the town, and their impoverished conditions of livelihood. To achieve some success in extending assistance to squatters, planning priorities need to address three major areas. These are: (i) the areas of origin of displacees, (ii) alternative destinations for resettlements, and (iii) the areas of current habitation of displacees.

#### 6.2.1. Areas of Origin of displacees

So far there has been limited effort to control riverbank erosion and the resultant displacement of population. In dealing with this problem, the options are constrained by the poor economy, an unstable political situation, traditional social beliefs and attitudes, and the recurrent erosion of the river. In order to arrive at a long term and permanent solution, it is better to reduce the causes of rural out-migration of displacees than to attempt to deal with the consequences. The causes of rural out-migration are basically three-fold: (i) loss of land to riverbank erosion, (ii) uncertainty of repossession of reemerged land, and (iii) apparent rural-urban inequalities in economic opportunities.

Structural engineering measures are the only way to arrest riverbank erosion, and efforts to control or to minimize erosion in some locations have been made. Relative to the country's wealth, an enormous amount of capital has already been committed to this task, but with the low levels of technology, the lack of more capital, and the absence of large scale public and private inputs (organized at local, regional, national and international levels) in solving the problem, it is unlikely that erosion will ever be completely arrested.

Since all the major rivers of Bangladesh originate in India or beyond, international cooperation (especially the inclusion of the upper riparian countries) to regulate the rivers' discharge or their flow dynamics is necessary. Such multinational cooperation would allow monitoring of the behavior of the rivers to a dependable level, which in turn would help the adoption of appropriate hazard warning mechanisms for inhabitants along the rivers.

The protracted processes of land resettlement in *char* areas makes repossession of newly emergent land difficult for most displacees. Therefore, effective measures to minimize these problems at the place of origin would improve local situations and thus reduce the volume of rural out-migration. A change in existing *char* land management regulations, and the mobilization of landless groups, would all help in the successful relocation of squatters within the rural areas. These measures are discussed in the following paragraphs.

#### 6.2.1.1. Reforming the present *char* land management regulations:

There has been no effective improvement in the *char* land administration since the first enactment, in 1825, for regulating ownership of alluvion and diluvion land in Bengal (Zaman, 1988). Earlier discussion showed that the existing legal framework of *char* land management is inadequate for benefitting poor displacees. For example, a recent amendment (Ordinance XLI of 1975) to the Presidential Order of 1972, has entitled former owners of diluvion land to resettle on such land, and raised the land holding ceiling from 8.3 acres to 33 acres per individual. Such changes have strengthened the hands of local *talukdars* who can now claim legal access by manipulating land regulations to illegally occupy deposited land. Therefore, it is necessary to revoke the 1975 amendment of the P.O. of 1972.

Zaman (1988) reported that through illegal operations such as taking advantage of time consuming processes of land settlement, well-to-do landowners deceive poor peasants by false attestation of land deeds. By bribing settlement officers to declare land as *khas* land, *talukdars* take possession of such land on long term leases. This situation deprives rightful owners of recovering land, and ultimately initiates conflicts over land ownership and possession. Therefore, land settlement records should be regularly updated employing simple and quick survey procedures. Such actions would create the opportunity of rapid recovery of land for resettlement programs, and would lessen land conflicts in the *char* areas.

A permanent resettlement option is the one most commonly supported by respondents. Many long to be resettled on agricultural land within the *upazila*. In theory, it is possible to resettle them on the newly accreted land which once belonged to them, but the complicated land settlement laws, together with the forceful influences of local *talukdars* and corrupt officials, necessitates the reformulation of the land settlement laws. Before adjusting existing laws, the government needs to listen to the affected people, and to consider suggestions which they can offer. Zaman (1988) suggests that the participation by landless groups would be an effective check against creation of fictitious records and reduce rampant corruption. For a quick and successful resettlement of landless displacees, accreted land should be demarcated and plotted immediately after accretion, and should be transferred as soon as possible to the previous owners.

#### 6.2.1.2. Mobilization of landless groups:

The general problem of poverty among displacees is not entirely a direct result of riverbank erosion, since a considerable number become marginalized due to land-loss to local *talukdars*. A greater level of mobilization of landless displacees is therefore desirable if they are to retain their land resource. As a mobilized group, they can promote more

effective protection of their rights. Along with this, a unified mobilization of social resources (family ties, neighborhood relations ect.) may also help to safeguard the common pursuits of their needs for land.

#### 6.2.2. Alternatives for Resettlement:

The opportunities for permanently relocating displacees are very limited, since the problem is related to prevailing social and economic exploitation, traditional bondage, and more often, to corrupt administrations. Whatever the extent of these obstacles, however, we need to deal with the problem in order to find at least some viable options for the permanent resettlement of displacees.

Currently, squatters are far below minimal standards of living. Rehabilitation is therefore an immediate need for them. For this to occur, functional initiatives need to be undertaken by government, private organizations, or individuals. Possible areas for relocation include newly developed *char* land within the Jamuna, any other available land in nearby rural areas, or land in the less populated areas in the country. But the current research shows that there is limited scope in any of these options. Moreover, it is clear that government initiatives to rehabilitate displacee squatters are also insignificant (Rogge and Haque, 1987).

Human resource development is needed to facilitate individually initiated post-hazard resettlement of displacees by creating marketable education and skills (see Amin, 1988). *Upazila* administrations should provide displacees with both basic general education and vocational training. Such facilities would prepare them for the skilled labor jobs much sought after by the local and national economy. Riverbank erosion cannot erode these resources. The possession of these resources will provide more options for employment and thus make resettlement easier. Educated and skillful displacees can enter a diversified field of economic activities, and therefore, can settle in areas where employment is

available. Such measures would inspire displacees to voluntarily resettle elsewhere in the country. To successfully implement such a self-resettlement strategy, public expenditures must be directed into the development of human resource in erosion prone areas.

### 6.2.3. Areas of Current Living

Total control of riverbank erosion will not be possible in Bangladesh in the foreseeable future. Due to lack of resources, very little can be done to control this loss of land. The limited ability to effectively arrest this devastation by the rivers leaves only 'bearing the loss' adjustment options open to affected people. In such a situation, the most important consideration is to solve the problems associated with the already displaced population. Therefore, immediate relocation programs and special economic program need to be undertaken.

Since short term actions to resettle squatters and to improve their socioeconomic conditions are limited by resource scarcity, the improvement of their existing living conditions is the more immediately viable option. Improvements to squatter settlements need to focus upon (i) local level administrative guarantees to squatters' of security of their temporary shelters, and (ii) the creation of special programs to train them and to provide jobs for them. Also, the *upazila* administration must provide more basic infrastructural facilities, such as low cost housing, clean drinking water, basic sanitation, access to medical care, improved roads, electrical supply, and other basic urban amenities.

The scope for employment of squatters is practically nil because of already high rates of unemployment in Serajganj. However, there are opportunities for the revitalization of rural industries such as traditional crafts. Moreover, administrators can give priority to squatters for work under the government's 'food for work' programs. Also, the local municipality office can assign to squatters at least some of the jobs created by the that office.



In order to create jobs, particularly for the poor, investment is needed. The Serajganj area is famous for its handloom weaving industry and its products have a high demand in the markets. There is therefore, considerable potential for the government to establish cooperative weaving industries in the squatter settlements. Such industries would benefit women in the squatter settlements especially. Apart from such cooperatives, government should seek ways to introduce skills through the establishment of vocational training centers which will permit squatters to find work outside Serajganj. There is, however, a risk that such measures may attract more displacees from rural areas to Serajganj. This is of course a problem that is faced in urban area worldwide.

In terms of long term measures, new agricultural practices and crops suitable for sandy soils associated with accreted lands need to be developed so as to permit a quick recovery of income levels on *poisti* (deposited) land. But given the highly skewed land distribution pattern, the results of such developments may not be as effective as they could be. Land reform measures for the acquisition of accreted land must parallel such developments. Land reform must guarantee displacees easy access to the newly emerged lands and protect the landless from the forces of social and economic discrimination that accelerates their impoverization. It is clear from the short distance migration behavior of displacees, that given the option, they would prefer to remain within rural areas.

### 6.3. FUTURE RESEARCH

This study is an inquiry into the nature and extent of the impacts of riverbank erosion upon an urban area. It does not attempt to focus on all aspects of the displacee-squatters' predicament. Further research is needed to permit a fuller understanding of all aspects of riverbank erosion and its associated displacement of population. The following research areas are identified for future investigation.

Research to establish the best possible alternatives for displacees' housing and employment is an important need since such research may come up with practical suggestions on how to minimize the vicious circle of poverty creation among squatters. A related issue is whether the town should attract more displacees or not, and whether it should attempt to accommodate squatters within the urban mainstream. Such research would also shed more light on how effective and permanent resettlement plans for squatters can be realized.

A comparative study of displacees living in both urban and rural squatter settlements would provide a better understanding of differences in their socioeconomic characteristics. This kind of investigation would help determine priorities in arranging available assistance. It might also provide greater insights into how the flows of migration can be directed and possibly predict of future volumes of migration.

Research emphasis on the effective *modus operandi* of *char* land regulation and related aspects of land resource management in affected areas is necessary. Such research would lead to the introduction of means of reducing land occupancy conflicts in *char* areas, and facilitate the repossession of accreted land by previous owners. Any reduction in land conflicts will reduce the volume of the out-migration of displacees, and thereby increase the probability for local resettlement in the rural area.

## BIBLIOGRAPHY

## BIBLIOGRAPHY

- Adams, Richard  
1974 "Harnessing Technological Development," in Poggie, John J. Jr. and Lynch, Robert N.(eds.), *Rethinking Modernization: Anthropological Perspectives*, Westport, Connecticut: Greenwood Press.
- Adnan, Shapan  
1975 *Social Structure and Resource Allocation in a Chittagong Village*, Dhaka: Village Study Group.
- Ahamd, N.  
1968 *An Economic Geography of East Pakistan*, London: Oxford University Press.
- Aiken, S. Robert  
1981 "Squatters and Squatter Settlements in Kuala Lumpur," *The Geographical Review*, 71(2) :158-175.
- Akhter, R.  
1984 "Causes and Consequences of Migration to City: A Case Study of Slum Dwellers in Dhaka, Bangladesh," unpublished manuscript, Dhaka.
- Alam, Jaglul  
1986 "Erosion at 283 Places," *Holiday*, 22(5): 3
- Alamgir, M.  
1978 *Bangladesh: A Case of Below Poverty Level Equilibrium Trap*, Dhaka: Bangladesh Institute of Development Studies (BIDS).
- Ali, S.  
1981 "Land Reform Measures and their Implementation in Bangladesh," in M.H. Alamgir (ed.) *Land Reform in Bangladesh*, Dhaka: Centre for Social Studies, 141-193
- Ali, S. Maqsood  
1980 "Administration of Char Land in Bangladesh," *Asian Affairs*, 2(2): 295-303.
- Amin, A.T.M. Nurul  
1988 "Settlement Strategy for Riverbank Erosion Displacees in Bangladesh: A Human Resource Development Approach," Paper presented at the International Symposium on the Impacts of Riverbank Erosion, Flood Hazards, and Population Displacement, Dhaka, April 11-13.
- 
- 1982 "An Analysis of Labor Force and Industrial Organization of the Informal Sector in Dacca," Ph.D. Thesis (unpublished), Department of Economics, Univ. of Manitoba, Winnipeg.

- Balan, J.  
1969 "Migrant-Native Socieconomic Differences in Latin American Cities: A Structural Analysis," *Latin American Research Review*, 4(1): 3-29.
- BBS (Bangladesh Bureau of Statistics)  
1984 *Bangladesh Population Census 1981: Analytical Findings and National Tables*, Dhaka: Statistics Division, Ministry of Planning, Government of Bangladesh
- 
- 1983 *Pabna District Statistics*, Dhaka: Government of Bangladesh.
- 
- 1982 *Agricultural Yearbook of Bangladesh 1982*, Dhaka: Ministry of Finance and Planning, Government of Bangladesh.
- 
- 1978 *Bangladesh District Gazetteers, Pabna*, Dhaka: Bangladesh Government Press.
- Bertocci, P.J.  
1982 "Bangladesh in the Early 1980s: Practorian Politics in an Intermediate Regime," *Asian Survey*, 22(10): 988-1008.
- Bose, A.  
1978 *India's Urbanization 1901-2001*, New Delhi: Tata McGraw-Hill Publishing Company Limited.
- Breese, G.  
1966 *Urbanization in Newly Developing Countries*, Englewood Cliffs, N.J.: Prentice-Hall, Inc.
- Bryce-Laporte, R.S.  
1970 "Urban Relocation and Family Adaptation in Puerto Rico: A Case Study in Urban Ethnography," in W. Mangin (ed.) *Peasants in Cities: Readings in the Anthropology of Urbanization*, Boston: Houghton Mifflin Co.
- Burton, I. and Kates, R.W.  
1964 "The Perception of Natural Hazards in Resource Management," *Natural Resource Journal*, 3: 412-441.
- BWDB (Bangladesh Water Development Board)  
1978 *Morphological Features of Major Rivers of Bangladesh (Part-1 Report)*, Directorate of River Morphology, Research and Training, Dhaka.
- Chakma, S.  
1983 "Population Dislocation in the Chittagong Hill Tracts as a Result of Kaptai Lake (in Bengali)," M.Sc. Thesis (unpublished), Department of Geography, Jahangirnagar University, Dhaka.
- Chaudhury, R.H.  
1978 "Determinants and Consequences of Rural Out Migration: Evidence from Some Villages in Bangladesh," Paper presented at the IUSSP Conference on Economic and Demographic Change: Issues for the 1980s, Helsinki.

- Chaudhury, R.H. et al.  
1976 "Management of Immigrants to Urban Regions of Bangladesh," HABITAT (national report on human settlements), Dhaka: Government of Bangladesh.
- Chaudhury, R.H. and Curlin, G.C.  
1975 "Dynamics of Migration in a Rural Area of Bangladesh," *The Bangladesh Development Studies*, 3(2): 181-227.
- Chowdhury, M.I.  
1981 "Environment in the Ganges Basin," Paper presented at the 3rd National Geographical Conference, Dhaka: Bangladesh National Geographical Association.
- 
- 1959 "Morphology of the Bengal Basin," M.Sc. Thesis (unpublished), Department of Geography, Cambridge University, London.
- Chowdhury, M.U.  
1979 "Studies of Riverbank Erosion, Using LANDSAT Imageries," Paper presented at the Regional Workshop on Disaster Preparedness and Remote Sensing and 2nd Bangladesh National Seminar on Remote Sensing, Dhaka.
- Cochran, William G.  
1963 *Sampling Techniques*, New York: John Wiley & Sons, Inc.
- Coleman, J.M.  
1968 "Brahmaputra River: Channel Processes and Sedimentation," *Sedimentary Geology*, 3: 129-239.
- Collier, David  
1976 *Squatters and Oligarchs: Authoritarian Rule and Policy Change in Peru*, Baltimore: John Hopkins University Press.
- Connell, John et al.  
1976 *Migration from Rural Areas: The Evidence from Village Studies*, Delhi: Oxford University Press.
- Cornelius, Wayne A.  
1975 *Politics and the Migrant Poor in Mexico City*, Stanford: Stanford University Press.
- Currey, B.  
1979 "Mapping Areas Liable to Famine in Bangladesh," Ph.D. Thesis (unpublished), Department of Geography, University of Hawaii.
- CUS (Center for Urban Studies)  
1979 *The Urban Poor in Bangladesh*, Center for Urban Studies, Department of Geography, University of Dhaka, Dhaka.
- Dahrendorf, R.  
1959 *Class and Class Conflict in Industrial Society*, Stanford: Stanford University Press.

- Dahya, B.  
1973 "Pakistanis in Britain: Transients or Settlers," *Race*, 14(3): 241-277.
- De Souza, A.R. and Porter, P.W.  
1974 *The Underdevelopment and Modernization of the Third World*, Resource paper No. 28, Washington, D.C.: Association of American Geographers.
- Dickie-Clark, H.F.  
1966 *The Marginal Situation: A Sociological Study of a Colored Group*, London: Routledge & Kegan Paul.
- Dixon, C. and Leach, B.  
1978 *Sampling Methods for Geographical Research*, Geo Abstract, Norwich.
- Doherty, J.  
1977 "Urban Places and Third World Development: The Case of Tanzania," *Antipode*, 9(3): 32-42.
- Doughty, P.L.  
1971 "From Disaster to Development," *Americas*, 23(5): 25-35.
- Du Toit, Brian M.  
1982 "Involuntary Migration and Government Policy: Population Displacement in South Africa," in Art Hansen and A. Oliver-Smith (eds.) *Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People*, Boulder, Colorado: Westview press, 139-158.
- Du Toit, Brian M.  
1975 "A Decision-Making Model for the Study of Migration," in Brian M. Du Toit and Helen I. Safa (eds.) *Migration and Urbanization: Models and Adaptive Strategies*, The Hague: Mouton & Co., 49-76.
- Du Toit, Brian M. and Safa, Helen I. (eds.)  
1976 *Migration and Urbanization*, The Hague: Mouton & Co.
- Eckstein, Susan  
1977 *The Poverty of Revolution: The State and the Urban Poor in Mexico*, Princeton, New Jersey: Princeton University Press.
- Ebert, Charles H.V.  
"Consequences of Disasters for Developing Nations," in Robert H. Maybury (ed.), *Violent Forces of Nature*, Mt. Airy, Maryland: Lomond Publications, Inc., 282-292.
- Eichenbaum, J.  
1975 "A Matrix of Human Movement," *International Migration*, 13(1-2): 21-41.
- Elahi, K. Maudood  
1988 "Riverbank Erosion, Flood Hazard and Population Displacement in Bangladesh: An Overview," Paper presented at the International Symposium on the Impacts of Riverbank Erosion, Flood Hazards and the Problem of Population Displacement, Dhaka, April 11-13.

---

1983 "The Impact of Kaptai Lake on the Hill Tribes in Chittagong Hill Tracts: A Study of Tribal Population Dislocation," Paper presented at the International Symposium on Population Geography, Kathmandu.

---

1981 *Population Redistribution and Mobility Transition in South Asia*, Center for Population Studies, Dhaka: Department of Geography, Jahangirnagar University.

---

1972 "Urbanization in Bangladesh: A Geodemographic Study," *The Oriental Geographer*, 16(1): 1-15.

Engineering Consultants Inc.

1970 *Design Report on Bank Protection Structure for the Protection of Serajganj from Erosion by the River Jamuna*, Dacca: EPWAPDA.

EPWAPDA (East Pakistan Water and Power Development Authority)

1968 *Report on Completion of Brahmaputra Flood Embankment Project: Kaunia to Hurasagar River* (IDA Credit 39-Pak), Dacca: EPWAPDA.

Eyre, L.A.

1972 "The Shantytown of Montego Bay, Jamaica," *The Geographical Review*, 62: 394-413.

Galay, V.J.

1980 "Channel Shifting on Large Rivers in Bangladesh," Paper presented at the International Symposium on River Sedimentation, Beijing.

Germani, G.

1966 "Social and Political Consequences of Mobility," in N.J. Smelser and S.M. Lipset (eds.) *Social Structure and Mobility in Economic Development*, Chicago: Aldine, p. 364-394.

Goldstein, Sidney et al.

1977 "Rural Ties of Urban Migrants in Thailand," *Southeast Asian Journal of Social Science*, 5(1-2): 31-41.

Greenberg, C.

1986 "The Adaptation Process of Riverbank Erosion Displacees in an Urban Environment: A Case Study of Squatters in Serajganj, Bangladesh," M.A. Thesis (unpublished), Department of Geography, University of Manitoba, Winnipeg.

Haque, C.E.

1988 "Impacts of River-Bank Erosion Hazard in the Brahmaputra-Jamuna Floodplain: A Study of Population Displacement and Response Strategies," Ph.D. Thesis (unpublished), Department of Geography, University of Manitoba, Winnipeg.

---

1987 "Impact of Riverbank Erosion in Kazipur: An Application of LANDSAT Imagery," *REIS Newsletter*, 3: 1-4



- 
- 1986 "Characteristics of Human Strategies of Coping with the Riverbank Erosion Hazard in the Jamuna Floodplain of Bangladesh," Paper presented at the 20th Bengal Studies Conference, University of Wisconsin, Lake Geneva, May 16-18.
- 
- 1984 "Understanding Rural-Urban Migration in the Third World: A Critique of the Current Theories," *The Journal of the Bangladesh National Geographical Association*, 12(1-2): 13-23.
- 
- 1983 "Human Adjustment to Riverbank Erosion Hazard: The Case of Brahmaputra-Ganges Floodplain," Paper presented at the Annual Conference of the Canadian Asian Studies Association, Learned Societies Conference, University of British Columbia, Vancouver, June 1-5.
- Haque, C.E. and Hossain, Z.M.  
 1988 "Riverbank Erosion in Bangladesh," *The Geographical Review*, 78(1): 20-31.
- Haque, C.E. et al.  
 1984 "River Bank Erosion in Bangladesh: Perspective on Population Displacement in the Jamuna Floodplain," Paper presented at the International Seminar on Man and Environment, Bangladesh Geographical Society, University of Dhaka, Dhaka.
- Hill, P.  
 1972 *Rural Hausa, A Village and A Setting*, London: Cambridge University Press.
- Hossain, Z.M.  
 1987 "Riverbank Erosion and Population Displacement: Migration Pattern of the Serajganj Urban Squatters," Paper presented at the 21st Bengal Studies Conference, University of Wisconsin, Oshkosh, May 8-10.
- 
- 1984 "Riverbank Erosion and Population Displacement: A Case of Kazipur in Pabna," M.Sc. Thesis (unpublished), Department of Geography, Jahangirnagar University, Dhaka.
- Hossain, Z.M. and Greenberg, C.  
 1985 "Population Displacement Due to Riverbank Erosion and Urban Squatters: A Case of Serajganj," Paper presented at the Workshop on the Impact of Riverbank Erosion and Flood Hazards in Bangladesh, Jahangirnagar University, Dhaka, March 5-7.
- House, W.J. and Rempel, H.  
 1980 "The Determinants of Interregional Migration in Kenya," *World Development*, 8:25-35.
- Hugo, Graeme  
 1976 "Population Mobility in West Java," Ph.D. Thesis (unpublished), Department of Demography, Australian National University, Canberra.

- Hunter, W.W.  
1876 *A Statistical Account of Bengal*, Delhi: D.K. Publishing House.
- International Engineering Company Inc.  
1967 *Socioeconomic Impact of Brahmaputra Right Flood Embankment Project*, Dacca: EPWAPDA.
- Islam, M.A.  
1981 "Human Adjustment to Cyclone Hazards in Bangladesh," in K. Maudood Elahi (ed.) *Perspectives on Bangladesh Geography*, Dhaka: Bangladesh National Geographical Association.
- 
- 1974 "Human Adjustment to Cyclone Hazards in Bangladesh: A Case Study of Char Jabbar," in G.F. White (ed.) *Natural Hazards-- Local, National, Global*, New York: Oxford University Press, 19-24.
- 
- 1970 *Human Adjustment of Cyclone Hazards in Bangladesh: A Case Study of Char Jabbar*, Natural Hazard Research Working Paper 18, University of Toronto, Toronto.
- Islam, N.  
1976 *Squatters in Bangladesh Cities*, Center for Urban Studies, Department of Geography, Dhaka: University of Dhaka.
- Islam, Waliul and Rahman, M. Ataur  
1987 "Riverbank Erosion in Bangladesh: An Overview of Field Observation," *REIS Newsletter*, 3: 13-15.
- Jackson, J.A.  
1969 "Introduction" in J.A. Jackson (ed.) *Migration*, London: Cambridge University Press.
- Jackson, J.C.  
1974 "Urban Squatters in Southeast Asia," *Geography*, 59: 24-30.
- Johnstone, Michael  
1986 "Urban Squatting and Migration in Peninsular Malaysia," *International Migration Review*, 17(2): 291-322.
- Kamaluddin, A.F.M.  
1973 "Changing River Courses in Bangladesh: A Historical Appraisal," *The Journal of the Bangladesh National Geographical Association*, 1(2): 1-9.
- Kates, R.W.  
1962 *Hazard and Choice Perception in Floodplain Management*, Department of Geography Research Paper No. 78, University of Chicago, Chicago.
- Kathleen, A.R.  
1975 "Perception and Adjustment to Flood in the Meghna Floodplain," M.A. Thesis (unpublished), Department of Geography, University of Hawaii, Manoa.

- Kayastha, S.L. and Yadav,  
1985 "Flood Induced Population Migration in India: A Case Study of Ghaghara Zone, in L.A. Kosiniski and K. Maudood Elahi (eds.) *Population Redistribution and Development in South Asia*, Dordrecht: D. Reidel Publishing Company, 79-88.
- Kazemi, Farhad  
1980 *Poverty and Revolution in Iran*, New York: New York University Press.
- Khan, A.A.M.  
1982 "Rural-Urban Migration and Urbanization in Bangladesh," *The Geographical Review*, 72(4): 379-394.
- Khan, Najma  
1980 "Internal Migration - Concept, Theories and Methods of Analysis," in Ram B. Mandal and Vishwa Nath P. Sinha (eds.), *Recent Trends and Concepts in Geography*, New Delhi: Concept Publishing Company, 367-388.
- Koenig, S.  
1962 "Living on the Edge of Two Cultural Worlds," *Indian Journal of Social Research* 3(1): 88-92.
- Koo, H.  
1978 "Rural-Urban Migration and Social Mobility in the Third World Metropolises: A Cross National Study," *Sociological Quarterly*, 19: 292-303.
- Kosiniski, L.A. and Elahi, K. Maudood  
1985 "Introduction," in L.A. Kosiniski and K. Maudood Elahi (eds.) *Population Redistribution and Development in South Asia*, Dordrecht: D. Reidel Publishing Company, 3-14.
- Kosiniski, L.A. and Prothero, M.  
1975 "Introduction: The Study of Migration," in L.A. Kosiniski and M. Prothero (eds.) *People on the Move: Studies on the Internal Migration*, London: Methuen & Co. Ltd.
- Lampard, E.E.  
1964 "The History of Cities in the Economically Advanced Areas, in J. Friedman and W. Alonso (eds.), *Regional Development and Planning*, Mass.
- Lee, E.S.  
1966 "A Theory of Migration," *Demography*, 3(1): 47-57.
- Leeds, Anthony  
1971 "The Concept of the 'Culture of Poverty': Conceptual, Logical, and Empirical Problems, with Perspectives from Brazil and Peru," in Eleanor B. Leacock (ed.) *The Culture of Poverty: A Critique*, New York: Simon and Schuster, Inc, 226-284.
- Lerner, D.  
1967 "Comparative Analysis of Processess of Modernization," in H. Miner (ed.) *The City in Modern Africa*, New York: Praeger.

- Lewis, O.  
1966 "The Culture of Poverty," *Scientific American*, 215(4): 19-28.
- Lloyd, P.C.  
1979 *Slums of Home?: Shanty Towns of the Third World*, New York: St. Martin's Press
- Lomnitz, L.A.  
1977 *Networks and Marginality: Life in a Mexican Shantytown*, New York: Academic Press.
- Mahbub, A.Q.M. and Islam, N.  
1988 "Urban Adjustment by Erosion Induced Migrants," Paper presented at the International Symposium on the Impacts of Riverbank Erosion, Flood Hazards and Problem of Population Displacement, Dhaka, April 11-13.
- Majumder, Prasanta S. and Majumdar, Ila  
1978 *Rural Migrants in an Urban Squatting: A Study of Two Shanty Colonies in the Capital City of India*, Delhi: Hindustan Publishing Corporation.
- Malik, Shahadeen  
1983 "Land Reclamation," *Bangladesh Today*, 1(1): 16-24.
- Mangalam, J.J.  
1968 *Human Migration: A Guide to Migration Literature in English 1955-1962*, London: G. Bell and Sons Ltd.
- Mangin, W.  
1967 "Squatter Settlements," *Scientific American*, 217(4): 21-29.
- Maniruzzaman, Talukder  
1975 "Bangladesh in 1974: Economic Crisis and Political Polarization," *Asian Survey*, 15(2): 117-128.
- Mathur, S.P.  
1984 "Slums of Kanpur: A Spatial and Social Profile," Paper presented at the IGU Seminar, Paris.
- Matza, D.  
1966 "The Disreputable Poor," in N.J. Smelser and S.M. Lipset (eds.) *Social Structure and Mobility in Economic Development*, Chicago: Aldine Publishing Company, 310-339.
- McGee, T.G.  
1973 "Malay Migration to Kuala Lumpur City: Individual Adaptation to the City," in Brian M. Du Toit and Helen I. Safa (eds.) *Migration and Urbanization: Models and Adaptive Strategies*, The Hague: Mouton & Co., 143-178.
- 
- 1971 *The Urbanization Process in the Third World*, London: G. Bell and Sons Ltd.
- McNicoll, G.  
1968 Internal Migration in Indonesia," *Indonesia*, 5: 29-92.

- Merryman, J.L.  
1982 "Pastoral Nomad Settlement in Response to Drought: The Case of the Kenya Somali," in Art Hansen and A. Oliver-Smith (eds.) *Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People*, Boulder, Colorado: Westview Press, 105-120.
- Montgomery, R.D.  
1975 "Migration, Employment and Unemployment in Java: Changes from 1961-1971 with Particular Reference to Green Revolution," *Asian Survey*, 15: 221-233.
- Mookherjee, D.  
1982 "An Ecological Approach Towards Slum Improvement," Paper presented at the Annual Meeting of the Association of American Geographers, San Antonio, Texas, April 25-28
- Moser, C.A. and Kalton, G.  
1972 *Survey Method and Social Investigation*, 2nd ed., New York: Basic Books, Inc.
- Mundlak, Y.  
1978 "Occupational Migration Out of Agriculture: A Cross Country Analysis," *The Review of Economics and Statistics*, 60: 392-398.
- Nabila, J.S.  
1978 "The Impact of Volta Lake on Population Redistribution in Ghana," Paper presented at the Symposium on Population Redistribution in Africa, Commission on Population Geography, Zaria: International Geographical Union.
- Nelson, J.M.  
1969 *Migrants, Urban Poverty, and Instability in Developing Nations*, Occasional Papers in International Affairs, No. 22, Cenetr for International Affairs, Harvard University.
- Newman, J.L.(ed.)  
1975 *Drought, Famine and Population Movements in Africa, Foreign and Comparative Studies, Eastern Africa 17*, Syracuse, N.Y.: Syracuse University Press.
- Oliver-Smith, A.  
1982 "Here There Is Life: The Social and Cultural Dynamics of Successful Resistance to Resettlement in Postdisaster Peru," in Art Hansen and A. Oliver-Smith (eds.) *Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People*, Boulder, Colorado: Westview Press, 85-104.
- Palacio, Joseph O.  
1982 "Posthurricane Resettlement in Belize," in Art Hansen and A. Oliver-Smith (eds.) *Involuntary Migration and Resettlement: The Problems and Responses of Dislocated People*, Boulder, Colorado: Westview Press, 121-138.
- Pandey, S.M.  
1977 "Nature and Determinants of Urbanization in a Developing Economy: The Case of India," *Economic Development and Cultural Change*, 25: 265-278.

- Park, R. E.  
1950 *Race and Culture*, Glencoe, Ill: The Free Press.
- 
- 1928 "Human Migration and Marginal Man," *American Journal of Sociology*, 33: 881-893.
- Peil, M.  
1976 "African Squatter Settlements: A Comparative Studies," *Urban Studies*, 13: 155-166.
- Perlman, Janice E.  
1976 *The Myth of Marginality: Urban Poverty and Politics in Rio de Janeiro*, Berkeley: University of California Press,
- Petersen, W.  
1958 "General Typology of Migration," *American Sociological Review*, 23(3): 256-266.
- Phillips, Doris G.  
1959 "Rural to Urban Migration in Iraq," *Economic Development and Cultural Change* 7(4): 405-421.
- Prakash, B.  
1983 *The Urban Dead-End? Pattern of Employment Among Slum-Dwellers*, Bombay: Somaiya Publications Pvt. Ltd.
- Qadir, S.A.  
1968 *Modernization of an Agrarian Society*, Mymensingh: East Pakistan Agricultural University.
- Qadir, S.R.  
1975 *Bastees of Dhaka: A Study of Squatter Settlements*, Dhaka: Local Government Institute.
- Rahman, H.  
1985 "From Our Correspondent: Urbanization and the Problem of Slums in Bangladesh," *Community Development Journal*, 20(1): 52-57.
- Rahman, M. and Kamaluddin, A.F.M.  
1985 "Observations on the Landuse Practices in Sirajganj District," Paper presented at the Workshop on the Impact of Riverbank Erosion and Flood Hazards in Bangladesh, Jahangirnagar University, Dhaka, March 5-7.
- Rahman, S.  
1984 "The Brahmaputra Right Bank Flood Embankment: Its Problems and Probable Solutions," Paper presented at the Seminar on Brahmaputra Right Bank Flood Embankment at the Bangladesh Academy for Rural Development, Bogra.
- Rashid, Haroun-er  
1978 *Geography of Bangladesh*, Boulder, Colorado: Westview Press.

- Ravenstein, E.G.  
1885 "The Laws of Migration," *Journal of the Royal Statistical Society*, 52(2): 167-227.
- Read, M.  
1942 "Migrant Labor in Africa and its Effects on Tribal Life," *International Labor Review*, 45:
- Redclift, M.R.  
1973 "Squatter Settlements in Latin American Cities: The Response from Government," *The Journal of Development Studies*, 10(1): 92-109.
- Redfield, R.  
1956 *Peasant Society and Culture; an Anthropological Approach to Civilization*, Chicago: University of Chicago Press.
- Reissman, L.  
1970 *The Urban Process: Cities in Industrial Societies*, New York: The Free Press.
- Rempel, H.  
1970 "Labour Migration into Urban Centers and Urban Unemployment in Kenya," Ph.D. Thesis (unpublished), Department of Economics, University of Wisconsin, Madison.
- Rogers, P.  
1986 "The Social and Economic Impact of Tropical Cyclones," in Robert H. Maybury (ed.) *Violent Forces of Nature*, Mt. Airy, Maryland: Lomond Publications, Inc., 194-204.
- Rogge, J.R.  
1983 "Research Proposal on the Riverbank Erosion Impact Study in Bangladesh," Department of Geography, University of Manitoba, Winnipeg.
- Rogge, J.R. and Haque, C.H.  
1987 "Riverbank Erosion Hazard, Rural Population Displacement, and Institutional Responses and Policies in Bangladesh," Paper presented at the Annual Meeting of the Association of American Geographers, Portland, Oregon, April 22-26.
- Rudduck, G.  
1964 *Towns and Villages in Pakistan*, Karachi: Government of Pakistan.
- Saad, M.A.  
1979 "The Use of LANDSAT Imagery and Computer Compatible Tapes for the Study of Temporal Changes in a Portion of the Meghna River," Dhaka: Proceedings of the Bangladesh Planning Commission.
- Saarinen, T.F.  
1966 *Perception of Drought Hazard on the Great Plains*, Department of Geography Research Paper No. 106, University of Chicago, Chicago.
- Saha, S.R.  
1924 *Pabna Jelar Itihash*, Pabna: Nababikash Press.

- Sahota, G.S.  
1968 "An Economic Analysis of Internal Migration in Brazil," *Journal of Political Economy*, 76(2): 218-245.
- Saxena, D.P.  
1977 *Rururban Migration in India: Causes and Consequences*, Bombay: Popular Prakashan.
- Sen, Amartya K.  
1981 *Poverty and Famines: An Essay on Entitlement and Deprivation*, Oxford: Clarendon Press.
- Seraiganj Municipality Office  
1985 Personal Communication
- Siddiqui, K.  
1981 "Land Reform Measures in the 70s," in M.K. Alamgir (ed.) *Land Reform in Bangladesh*, Dhaka: Centre for Social Studies, 67-92.
- Sjoberg, G.  
1966 "Rural-Urban Balance and Models of Economic Development," in N.J. Smelser and S.M. Lipset (eds.) *Social Structure and Mobility in Economic Development*, Chicago: Aldine Publishing Company, 235-261.
- Skinner, E.P.  
1965 "Labour Migration Among the Mossi of the Upper Volta," in H. Kuper (ed.) *Urbanization and Migration in West Africa*, Berkeley: University of California Press.
- Sopher, D.E.  
1963 "Population in the Chittagong Hill Tracts," *The Geographical Review*, 111(3): 337-362.
- Spate, O.H.K.  
1954 *India and Pakistan: A General and Regional Geography*, New York: E.P. Dutton & Co.
- Speare, A.  
1971 *Urbanization and Migration in Tiwan*, Working Paper No. 11, Population Studies Center, University of Michigan, Ann Arbor.
- Stokes, C.J.  
1970 "A Theory of Slums," in R.H. Putnam et al. (eds.) *A Geography of Urban Places*, Toronto: Methuen Publications, 411-422.
- Stoeckel, J. et al.  
1972 "Out-Migration from a Rural Area of Bangladesh," *Rural Sociology*, 37: (2) 236-245.



- Stonequist, E.  
1937 *The Marginal Man: A Study in Personality and Culture Conflict*, New York: Charles Scribner's Sons.
- Suzuki, P.  
1964 "Encounters with Istanbul, Urban Peasants and Village Peasants," *International Journal of Comparative Sociology*, 5(2): 208-216.
- Swift, J.  
1977 "Sahelian Pastoralists: Underdevelopment, Desertification, and Famine," in B.J.Siegel et al. (eds.) *Annual Review of Anthropology*, Vol. 4, Palo Alto, California.
- Todaro, M.P.  
1969 "A Model of Labor Migration and Urban Unemployment," *American Economic Review*, 69 (1): 138-148.
- Toney, Michael B.  
1976 "Length of Residence, Social Ties and Economic Opportunities," *Demography*, 13: 297-309.
- Ulack, R.  
1978 "The Role of Urban Squatter Settlements," *Annals of Association of American Geographers*, 68(4): 535-550.
- UNESCO,  
1982 *Migration and Development: Major Features of Migratory Movements in India*, Paris.
- United Nations  
1982 *Demographic Indicators of Countries: Estimates and Projections as Assessed in 1980*, (ST/ESA/SER.A/82), New York.
- 
- 1980 *Patterns of Urban and Rural Population Growth*, United Nations Population Studies No. 68 (ST/ESA/SER.A/68), New York.
- Wahed, Ali et al.  
1983 "Land of Hope or Despair ? Images of Erosion and Emergence," *Bangladesh Today*, 1(1): 16-24.
- Wallace, A.F.C.  
"Mazeway Disintegration: The Individual's Perception of Socio-cultural Disintegration," *Human Organization*, 16(2): 23-27.
- Webber, M. J.  
1967 *The Growth of the City in the Nineteenth Century*, Ithaca, N.Y.: Cornell University Press.
- White, Gilbert F.(ed.)  
1974 *Natural Hazards - Local, National, Global*, New York: Oxford University Press.

---

1945 *Human Adjustment to Floods*, Research Paper No. 29, Department of Geography, University of Chicago, Chicago.

White, Gilbert F. and Haas, J.E.

1975 *Assesment of Research on Natural Hazards*, Cambridge: MIT Press.

Wirth, L.

1938 "Urbanism as a Way of Life," *American Journal of Sociology*, 64: 1-14.

Wolpert, J.

1970 "Behavioral Aspects of the Decision to Migrate," in J.C. Demko et al. (eds.), *Population Geography: A Reader*, Toronto: McGraw Hill.

Zaman, M.Q.

1988 "The Socioeconomic and Political Dynamics of Adjustment to Riverbank Erosion Hazard and Population Resettlement in the Brahmaputra-Jamuna Floodplain," Ph.D. Thesis (unpublished), Department of Anthropology, University of Manitoba, Winnipeg

---

1987 "Endemic Land Conflict and Violence in Char Villages of Bangladesh," in V.S. Pendakur and O.P. Dwivedi (eds.) *South Asian Horizons*, Canadian Asian Studies Association, Montreal, 50-57.

---

1986 "The Role of Social Relations in the Response to Riverbank Erosion Hazards and Population Resettlement in Bangladesh," in *Studies in Third World Societies, Special issue on Natural Disasters and Cultural Responses*, Publication #36, College of William and Mary, Williamsburg, Virginia, 177-200.

---

1984 "Urban Squatter Studies in Bangladesh: A Review and Some Theoretical Considerations," *Spectra of Anthropological Progress*, 6: 51-67.

---

1982 "Corporate Groupings, Religious Ideology and Community Leadership in a Village of Bangladesh," *South Asian Anthropology*, 3(2): 39-45.

---

1981 "Conflict Resolution in a Bangladesh Village: Some Cases and Two Models," *Eastern Anthropology*, 34(3): 174-197.

Zaman, M.Q. and Wiest, R.E.

1985 "Local Level Socioeconomic and Political Dynamics of Accretional and Depositional Land Utilization," Paper presented at the Workshop on the Impact of Riverbank Erosion and Flood Hazards in Bangladesh, Jahangirnagar University, Dhaka, March 5-7.

## APPENDIX

## APPENDIX A

## URBAN SURVEY : SERAJGANJ

Have you ever been displaced from the rural areas by riverbank erosion ?

YES \_\_\_\_\_

NO \_\_\_\_\_

---

Location

FLOOD PROTECTION EMBANKMENT \_\_\_\_\_

DRIED-UP OLD RIVERBED \_\_\_\_\_

ABANDONED RAILWAY LINE \_\_\_\_\_

Interview Number : \_\_\_\_\_

Household Number : \_\_\_\_\_

Interviewer : \_\_\_\_\_

Checked by \_\_\_\_\_

Date: \_\_\_\_\_

---

## PART ONE : DEMOGRAPHIC CHARACTERISTICS

The first part of the interview will focus on the demographic characteristics of your household.

(PROMPT / MULTIPLE RESPONSE)

1. This section of the survey requests some information about each member of your household.

PERSON'S NAME \_\_\_\_\_ SEX: M or F

PERSON'S NUMBER : Relation to Household Head

(CIRCLE)

- |                            |                     |
|----------------------------|---------------------|
| 1. HOUSEHOLD HEAD          | 12. GRANDDAUGHTER   |
| 2. SPOUSE / WIFE           | 13. GRANDFATHER     |
| 3. SON                     | 14. GRANDMOTHER     |
| 4. DAUGHTER                | 15. SON-IN-LAW      |
| 5. BROTHER                 | 16. DAUGHTER-IN-LAW |
| 6. SISTER                  | 17. BROTHER-IN-LAW  |
| 7. HOUSEHOLD HEAD'S FATHER | 18. SISTER-IN-LAW   |
| 8. HOUSEHOLD HEAD'S MOTHER | 19. OTHER RELATIVE  |
| 9. SPOUSE'S FATHER         | 20. LODGER          |
| 10. SPOUSE'S MOTHER        | 21. SERVANT         |
| 11. GRANDSON               | 22. OTHER (specify) |

PERSON'S AGE: \_\_\_\_\_

MARITAL STATUS: \_\_\_\_\_

EDUCATION: \_\_\_\_\_

(CIRCLE)

- |                           |                                |
|---------------------------|--------------------------------|
| 1. CHILD (0 - 5 YRS. OLD) | 4. HIGHER                      |
| 2. PRIMARY                | 5. OTHER (MADRASA, VOCATIONAL) |
| 3. SECONDARY              | 6. ILLITERATE                  |

## (PROMPT / MULTIPLE RESPONSE)

2. If you were still in the rural area and had land to cultivate what would be the optimal member of children you would have ?

TOTAL NUMBER \_\_\_\_\_

HOW MANY SONS \_\_\_\_\_

HOW MANY DAUGHTERS \_\_\_\_\_

## (PROMPT / MULTIPLE RESPONSE)

3. But now you are living in the town, what do you think is an optimal number of children to have ?

TOTAL NUMBER \_\_\_\_\_

HOW MANY SONS \_\_\_\_\_

HOW MANY DAUGHTERS \_\_\_\_\_

## (DO NOT PROMPT / MULTIPLE RESPONSE)

4. If you now consider a smaller family more desirable, why ?

(CIRCLE)

1. DON'T NEED EXTRA HANDS FOR AGRICULTURAL WORK

2. LIVING QUARTERS ARE ALREADY TOO CROWDED

3. TOO EXPENSIVE TO FEED CHILDREN

4. OTHER (specify) \_\_\_\_\_

5. OTHER (specify) \_\_\_\_\_

## (DO NOT PROMPT / MULTIPLE RESPONSE)

5. If you now consider a larger family more desirable, why ?

1. Specify \_\_\_\_\_

2. Specify \_\_\_\_\_

3. Specify \_\_\_\_\_

(DO NOT PROMPT / SINGLE RESPONSE)

6. Do you have any knowledge of family planning (birth control) ?

YES

GO TO 60

NO

GO TO 63

(DO NOT PROMPT / MULTIPLE RESPONSE)

7. What are the sources of information ?

(CIRCLE)

1. FAMILY PLANNING WORKER

2. RADIO / TELEVISION

3. NEIGHBORS

4. RELATIVES

5. FRIENDS

6. BILLBOARDS

7. OTHER (specify) \_\_\_\_\_

(DO NOT PROMPT / SINGLE RESPONSE)

8. Did you practice birth control before arriving in Serajganj ?

(CIRCLE)

1. ALWAYS

2. SOME OF THE TIME

3. NEVER

4. NOT APPLICABLE (NA)

(DO NOT PROMPT / SINGLE RESPONSE)

9. Do you presently practice birth control ?

(CIRCLE)

1. ALWAYS
2. SOME OF THE TIME
3. NEVER
4. NA

(PROMPT / MULTIPLE RESPONSE)

10. Have there been any deaths in your household during the last year, and if so tell us about them.

Relation to HH	Age	Sex	Cause of Death



## PART TWO : MIGRATION HISTORY

We are now going to ask you some questions about your displacement experience.

(PROMPT / SINGLE RESPONSE)

11. How many times in your life have you been displaced by riverbank erosion ?

NUMBER \_\_\_\_\_

(PROMPT / SINGLE RESPONSE)

12. Can you recall the earliest displacement ?

YEAR \_\_\_\_\_

(PROMPT / SINGLE RESPONSE)

13. What was the most recent displacement ?

YEAR \_\_\_\_\_

(PROMPT / MULTIPLE RESPONSE)

14. Where did you move during your displacement ?

Displacement	From Mouza	Upazila	To Mouza	Upazila	Distance of Move
Most recent move					
Earliest Move					

(PROMPT / SINGLE RESPONSE)

15. How many different residences have you had since first arriving in Serajganj ?

NUMBER \_\_\_\_\_

(DO NOT PROMPT / MULTIPLE RESPONSE)

16. What were the options you considered at the time of your last displacement due to riverbank erosion ?

(CIRCLE)

1. EVACUATE HOMESTEAD
2. MOVE TO THE URBAN AREAS
3. BUILD NEW HOMESTEAD IN OWN LAND ELSEWHERE
4. MOVE TO MAINLAND RURAL AREAS
5. MOVE TO CHAR AREAS
6. MOVE TO EMBANKMENT OR OTHER AREAS OF FREE OCCUPANCY
7. DID NOT CONSIDER ANY OPTIONS
8. OTHER (specify) \_\_\_\_\_
9. OTHER (specify) \_\_\_\_\_

(DO NOT PROMPT / MULTIPLE RESPONSE)

17. Give reasons why you chose the current destination ?

(CIRCLE)

1. MATERIAL SUPPORT FROM RELATIVES / FRIENDS
2. BETTER JOB OPPORTUNITIES / WAGES
3. EXISTENCE OF KHAS LAND
4. AVAILABILITY OF LAND TO BE LEASED
5. FOLLOWED NEIGHBOURS
6. FOOD RATIONING SYSTEM
7. SCOPE FOR EDUCATION FACILITIES FOR CHILDREN
8. AVAILABILITY OF MEDICAL FACILITIES
9. (OTHER) \_\_\_\_\_
10. (OTHER) \_\_\_\_\_
11. DON'T KNOW \_\_\_\_\_

(DO NOT PROMPT / MULTIPLE RESPONSE)

18. Why did you not move to a more distant area when you were last displaced ?

(CIRCLE)

1. BECAUSE I DID NOT WANT TO LEAVE MY ANCESTRAL LAND
2. BECAUSE I THOUGHT JOB OPPORTUNITIES WOULD BE BETTER HERE THAN  
FURTHER AWAY
3. BECAUSE I HAD TIES WITH LOCAL SAMAJ
4. BECAUSE I HOPED MY LAND WOULD REEMERGED AND I WOULD HAVE ACCESS  
TO IT
5. BECAUSE I HAD ACCESS TO LAND IN THIS AREA
6. BECAUSE I HAD NO TIME TO CONSIDER AN ALTERNATIVE PLACE
7. BECAUSE I COULD NOT AFFORD TO MOVE FURTHER
8. OTHERS (specify) \_\_\_\_\_
9. DON'T KNOW \_\_\_\_\_

(DO NOT PROMPT / MULTIPLE RESPONSE)

19. Give some reasons why you did not remain in the rural areas ?

(CIRCLE)

1. LOST ALL MY LAND
2. IF MY LAND REEMERGES I MAY NOT GET IT BACK
3. NO JOB OPPORTUNITIES
4. NO KHAS LAND
5. NEIGHBORS LEFT
6. MY LAND MAY NEVER REEMERGE
7. NO WAY TO SUPPORT FAMILY
8. OTHER (specify) \_\_\_\_\_
9. DON'T KNOW

(DO NOT PROMPT / SINGLE RESPONSE)

20. Who took decision to move to Serajganj ?

(CIRCLE)

1. HEAD OF HOUSEHOLD

2. WIFE

3. BOTH

4. PARENTS

5. FRIENDS

6. SAMAJ

7. NEIGHBORS

8. LOCAL LEADERS

9. OTHER (specify) \_\_\_\_\_

10. DON'T KNOW \_\_\_\_\_

### PART THREE : SOCIAL CHARACTERISTICS

In the third part of this survey we would like to ask you questions on some overall social conditions you are experiencing in Serajganj.

(PROMPT / MULTIPLE RESPONSE)

21. As a result of displacement, has there been changes in your household's well being since coming to Serajganj ?

Resources	Improved	No Change	Deteriorated	N.A.
Type of Employment				
Income				
Housing				
Education of Children				
Health Facilities				
Family Cohesion				
Other (specify)				

(PROMPT / MULTIPLE RESPONSE)

22. In your opinion, how do the local people react to your permanent settlement in the present locality ?

(CIRCLE)

- |                    |          |
|--------------------|----------|
| 1. HOSTILE         | GO TO 12 |
| 2. FRIENDLY        | GO TO 13 |
| 3. INDIFFERENT     | GO TO 13 |
| 4. OTHER (specify) | GO TO 13 |

## (PROMPT / MULTIPLE RESPONSE)

23. If hostile, why do you think they are ?

(CIRCLE)

1. LOCALS THINK WE ARE ENCROACHING ON THEIR LIVING SPACE

2. THEY LOOK DOWN ON US BECAUSE WE ARE POOR

3. OTHER (specify) \_\_\_\_\_

4. OTHER (specify) \_\_\_\_\_

5. OTHER (specify) \_\_\_\_\_

## (PROMPT / SINGLE RESPONSE)

24. Do you think you can cope with urban living ?

(CIRCLE)

1. YES GO TO 14

2. NO GO TO 15

DON'T KNOW GO TO 16

## (DO NOT PROMPT / MULTIPLE RESPONSE)

25. If yes, why ?

(CIRCLE)

1. GREATER MOBILITY

2. LOCAL ASSOCIATION: KINSHIP

3. URBAN AMENITIES

4. JOB OPPORTUNITIES

5. OTHER (specify) \_\_\_\_\_

## (DO NOT PROMPT / MULTIPLE RESPONSE)

26. If no, why ?

(CIRCLE)

1. FINANCIAL INABILITY

2. WE HAVE LITTLE ASSOCIATION WITH LOCAL PEOPLE

3. NO URBAN SKILLS FOR EMPLOYMENT

4. OTHER (specify) \_\_\_\_\_

5. OTHER (specify) \_\_\_\_\_

## (DO NOT PROMPT / SINGLE RESPONSE)

27. Do you think you will remain here permanently ?

(CIRCLE)

1. YES

GO TO 17

2. NO

GO TO 18

3. DON'T KNOW

GO TO 19

## (DO NOT PROMPT / MULTIPLE RESPONSE)

28. If yes, why ?

(CIRCLE)

1. NO PLACE TO GO; NO LAND ELSEWHERE

2. WILL NOT FIND A JOB ELSEWHERE

3. PROXIMITY TO URBAN AMENITIES

4. MY FRIENDS AND FAMILY ARE HERE

5. OTHER (specify) \_\_\_\_\_

(DO NOT PROMPT / MULTIPLE RESPONSE)

29. If no, why ?

(CIRCLE)

1. NO URBAN SKILLS FOR EMPLOYMENT
2. FRIENDS AND FAMILY DO NOT LIVE HERE
3. MY LAND MAY REEMERGE
4. I WILL EVENTUALLY ACQUIRE MY REEMERGED LAND
5. UNCERTAINTY; AUTHORITIES MAY ASK US TO LEAVE AT ANYTIME
6. OTHER (specify) \_\_\_\_\_

(PROMPT / MULTIPLE RESPONSE)

30. If land was made available and assistance was given to you for moving, would you settle permanently in one of the following places ?

(CIRCLE)

1. NEARBY CHAR IN THE JAMUNA
2. OTHER CHAR AREA
3. RESETTLE TO OTHER URBAN AREA
4. ON AGRICULTURAL LAND IN THIS UPAZILA
5. ON AGRICULTURAL LAND IN SOME OTHER UPAZILA
6. IN REHABILITATION AREAS IN CHITTAGONG HILL TRACTS (CHT)
7. IN REHABILITATION AREAS IN COASTAL CHARS
8. DO NOT WANT TO SETTLE ANYWHERE ELSE



(DO NOT PROMPT / SINGLE RESPONSE)

31. If you had enough savings, and were able to acquire land in a rural area, would you consider returning ?

(CIRCLE)

1. YES
2. NO
3. DON'T KNOW

(DO NOT PROMPT / SINGLE RESPONSE)

32. Do you have any plan to rebuild or reconstruct your present house ?

(CIRCLE)

- |               |          |
|---------------|----------|
| 1. YES        | GO TO 22 |
| 2. NO         | GO TO 23 |
| 3. DON'T KNOW | GO TO 24 |

(DO NOT PROMPT / MULTIPLE RESPONSE)

33. If yes, why ?

(CIRCLE)

1. TOO OLD
2. NEED REPAIRS; PROTECTION FROM RAIN, WINDS, ETC.
3. NOT BIG ENOUGH; NEEDS MORE SPACE
4. WE WANT TO MOVE TO A NEW AREA
5. OTHER (specify) \_\_\_\_\_

(DO NOT PROMPT / MULTIPLE RESPONSE)

34. If no, why ?

(CIRCLE)

1. THIS HOUSE IS SUFFICIENT

2. CAN NOT AFFORD TO REBUILD OR RECONSTRUCT

3. OTHER (specify) \_\_\_\_\_

4. OTHER (specify) \_\_\_\_\_

5. OTHER (specify) \_\_\_\_\_

(PROMPT / SINGLE RESPONSE)

35. Has your household received any form of relief assistance when you were displaced,  
or since you have been displaced ?

(CIRCLE)

1. YES

GO TO 25

2. NO

GO TO 27

3. DON'T KNOW

GO TO 27

(PROMPT / MULTIPLE RESPONSE)

36. What was, or is currently given ?

(CIRCLE)

1. FOOD RATIONING

2. MONEY

3. HOUSING MATERIALS

4. OTHER (specify) \_\_\_\_\_

(DO NOT PROMPT / SINGLE RESPONSE)

37. In your opinion, has this relief assistance been enough ?

(CIRCLE)

- 1. YES
- 2. NO
- 3. DON'T KNOW

(DO NOT PROMPT / SINGLE RESPONSE)

38. Does your household contain the same members as before displacement ?

(CIRCLE)

- 1. YES GO TO 28
- 2. NO GO TO 30
- 3. DON'T KNOW GO TO 30

(PROMPT / MULTIPLE RESPONSE)

39. If people have been added:

Person added	Relationship to Household Head
1.	
2.	
3.	
4.	
5.	
6.	

## (PROMPT / MULTIPLE RESPONSE)

40. If household members have left:

NO ONE HAS LEFT \_\_\_\_\_

Relationship to Household Head	Separated Permanently	Separated Temporarily	Destination: Serajganj In Out
1.			
2.			
3.			
4.			
5.			
6.			

## (PROMPT / SINGLE RESPONSE)

41. Do you have any relatives still living in rural areas, if so, how often do you visit them

(CIRCLE)

1. REGULAR (once a month)
2. INFREQUENTLY (a few times a year)
3. EID / PUJA
4. FUNERALS / MARRIAGES
5. HARVEST
6. NOT AT ALL
7. NO RELATIVES IN RURAL AREA

## (PROMPT / SINGLE RESPONSE)

42. If they visit you, how often ?

(CIRCLE)

1. REGULARLY
2. INFREQUENTLY
3. EID /PUJA
4. FUNERALS / MARRIAGES
5. NOT AT ALL

## (PROMPT / MULTIPLE RESPONSE)

43. If you have any close relatives in the rural area, how much land do they own ?

(CIRCLE)

Decimals

- |   |       |
|---|-------|
| 1. OWN LAND                                     | _____ |
| 2. CULTIVATE (i.e., owned, leased, <i>kot</i> ) | _____ |
| 3. OTHER (specify) _____                        | _____ |
| 4. DON'T KNOW                                   |       |
| 5. RELATIVES IN THE RURAL AREA DON'T HAVE LAND  |       |
| 6. NO CLOSE RELATIVES IN THE RURAL AREAS        |       |

## (DO NOT PROMPT / SINGLE RESPONSE)

44. Do you have access (i.e., they may sell or let you cultivate) to your close relatives' land ?

(CIRCLE)

1. YES
2. NO
3. DON'T KNOW

(DO NOT PROMPT / SINGLE RESPONSE)

45. Does your household receive remittances ?

(CIRCLE)

1. YES

GO TO 34

2. NO

GO TO 35

3. DON'T KNOW

GO TO 35

(PROMPT / MULTIPLE RESPONSE)

46. If your household does receive remittances :

Where		Remitter's Relation to HH	Length of Time Received	Amount (TK.)				
In BD	Out of BD			Annu- ally	Bi-ann- ually	Quar- terly	Mon- thly	Irregu- larly

BD = Bangladesh; HH = Household Head

(DO NOT PROMPT / SINGLE RESPONSE)

47. How many building structures does your household have ?

(CIRCLE)

1. ONE

2. TWO

3. THREE

4. FOUR

(DO NOT PROMPT / SINGLE RESPONSE)

48. How many rooms do you have all together (in all your household structures) ?

NUMBER \_\_\_\_\_

(DO NOT PROMPT / SINGLE RESPONSE)

49. Do any of your structure have a corrugated iron roof ?

(CIRCLE)

1. YES

2. NO

(PROMPT / SINGLE RESPONSE)

50. What is the ownership status of your present homestead ?

(CIRCLE)

1. OWNED

2. RENTED

3. *KOT*

4. LEASE

5. PERMITTED FREE OCCUPANCE

6. LIVING WITHOUT PERMISSION

## PART FOUR : ECONOMIC CHARACTERISTICS

The last part of the interview will focus on the economic characteristics of your household.

(DO NOT PROMPT / SINGLE RESPONSE)

51. How many persons in your household work ? \_\_\_\_\_

(PROMPT / MULTIPLE RESPONSE)

52. We would like to look at the current occupations of all the working members of your household.

Person (name)	Occupation	Per Day		From which year
		Hours	Income	
1.				
2.				
3.				
4.				
5.				
6.				

Note: If paid in KIND (clothing, food, etc.) state so in income column, but attempt to ascertain annual value of payment in Taka (TK.).

(PROMPT / MULTIPLE RESPONSE)

53. Prior to being displaced by riverbank erosion, what were the principal and secondary sources of income of your household ?

Form of Employment	Income (Current value in TK.)
Principal	
Secondary	
Other (Specify)	



(DO NOT PROMPT / SINGLE RESPONSE)

54. How many persons were in your household prior to displacement from riverbank erosion ?

HOW MANY \_\_\_\_\_

DON'T KNOW \_\_\_\_\_

(PROMPT / MULTIPLE RESPONSE)

55. We will now ask you about the ways you spend the income that your household earns. Can you please list your annual expenditures ?

Sectors of Expenditures	Amount (TK.)
Food (excluding Eid)	
Clothing (excluding Eid)	
Fuel	
Housing (construction and repair)	
Health	
Education	
Rent	
Transportation	
Eid / Puja	
Entertainment	
Other (specify)	
Other (specify)	
A = per annum;      M = per month;      D = per day.	

(PROMPT / MULTIPLE RESPONSE)

56. Can you please list the replacement value of household assets you now possess and which ones were brought with you when displaced ?

Current Household Asset	Number	Value (TK.)	If brought with you at time of displacement	
			YES	NO
Bicycle				
Motorbike				
Rickshaw				
Cart				
Boat				
Radio				
Tools				
Sewing Machine				
Livestock : a. Cow(s)				
b. Goat(s)				
c. Chicken(s)				
Dwellings or parts of				
Other (specify)				

## (PROMPT / MULTIPLE RESPONSE)

57. Can you please tell us what assets in Taka and number did you lose when you were displaced by riverbank erosion ?

Item	Number	TK.
House / Structure		
Household durables		
Livestock: a. Cow(s)		
b. Goat(s)		
c. Chicken(s)		
Land (decimals)		
Trees		
Other (specify)		
None		

## (PROMPT / MULTIPLE RESPONSE)

58. Do you still own any land in the rural areas (i.e., still pay taxes on land), if so, what do you do with it ?

HAVE NO LAND \_\_\_\_\_

Use of land	Amount (decimals)	Revenue (TK.)
Lease out with payment		
Lease out without payment		
Sharecrop		
Kot		
Cultivate it		
Abandoned		
Submerged		
Not Cultivable		

(DO NOT PROMPT / SINGLE RESPONSE)

59. Did you sell any land when you left the rural areas, if so, how much ?

DIDNT SELL ANY LAND \_\_\_\_\_

DID SELL \_\_\_\_\_

Decimals \_\_\_\_\_ Value (TK.) \_\_\_\_\_

(PROMPT / MULTIPLE RESPONSE)

60. Can your household currently afford to use the following facilities :

Facilities	YES	NO
Hospital		
Mobile health unit		
Paramedic		
School		

(PROMPT / MULTIPLE RESPONSE)

61. Does your household have currently access to the following :

Facilities	YES	NO
Tube Well		
Latrine		

(PROMPT / SINGLE RESPONSE)

62. How often do you or any members of your household go to the moviehouse ?

(CIRCLE)

1. APPROXIMATELY ONCE A WEEK
2. APPROXIMATELY ONCE A MONTH
3. APPROXIMATELY ONCE EVERY FEW MONTHS
4. APPROXIMATELY ONCE A YEAR
5. NEVER
6. DON'T KNOW

(PROMPT / SINGLE RESPONSE)

63. How often do members of your household eat meat ?

(CIRCLE)

1. SEVERAL TIMES A WEEK
2. ONCE A WEEK
3. ONCE A MONTH
4. ONLY DURING EID / PUJA
5. NEVER

(DO NOT PROMPT / SINGLE RESPONSE)

64. Do you believe that the problem of poverty in Bangladesh is because there are too many people ?

(CIRCLE)

1. YES
2. NO
3. DON'T KNOW

(DO NOT PROMPT / SINGLE RESPONSE)

65. Do you believe that the problem of land shortage in Bangladesh is because there are too many people ?

(CIRCLE)

1. YES
2. NO
3. DON'T KNOW

THE END