



# RMMRU

## Working Paper Series No. 46



### **ADAPTATION STRATEGIES OF POOR URBAN MIGRANTS IN THE CONTEXT OF CLIMATE CHANGE: A CASE STUDY OF INFORMAL SETTLEMENTS IN NATORE, SIRAJGANG AND RAJSHAHI.**

**The RMMRU Working Paper Series presents papers in a preliminary form. More information on the work and research projects of RMMRU can be found online at [www.rmmru.org](http://www.rmmru.org).**

#### **Acknowledgements**

**This paper was commissioned by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Bangladesh.**

#### **Terms of Use**

**This material may be published in its entirety, or only in part, in newspapers, wire services, internet-based information networks and newsletters, you are also free to use the information in your radio-TV discussions or as a basis for discussion in different contexts, provided that credit is given. If you do choose to publish this material, you must inform us via email at [info@rmmru.org](mailto:info@rmmru.org)**

#### **Recommended Citation**

**Siddiqui, T. Bhuiyan, M. Sikder, M. Islam, M. (2014). Adaptation Strategies of Poor Urban Migrants in the Context of Climate Change: A Case Study of Informal Settlements in Natore, Sirjaganj and Rajshahi. (Working Paper Series no. 46, Dhaka: RMMRU).**

**ADAPTATION STRATEGIES OF POOR URBAN MIGRANTS IN THE CONTEXT OF  
CLIMATE CHANGE: A CASE STUDY OF INFORMAL SETTLEMENTS IN NATORE,  
SIRAJGANG AND RAJSHAHI**

Submitted by  
Tasneem Siddiqui  
Mohammad Rashed Alam Bhuiyan  
Mohammad Jalal Uddin Sikder  
Mohammad Towheedul Islam

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)  
Road 90, House 10/C Gulshan-1  
Dhaka 1212, Bangladesh

January 2015

## TABLE OF CONTENTS

	<b>Page</b>
Key Words	4
Glossary	5
Acknowledgement	6
<b>Chapter 1            Introduction</b>	<b>7</b>
Introduction	7
<b>Chapter 2      Literature Review and Research Methodology</b>	<b>8</b>
Literature Review	8
Rural to Urban Migration	8
Climate Change Migration Link	8
State of poor migrants in urban slums	9
Research Instruments and Methodology	9
Selection of Cases/Areas	10
Analysis of Secondary Sources	12
Rapid Screening Survey (RSS) of Individual and Households	12
In-depth Interviews	12
Research Data and Analysis	17
<b>Chapter 3      Migration Trajectory of the Slum Dwellers</b>	<b>17</b>
Age	17
Education Level	18
Marital Status	18
Household Composition	19
Years of Migration	19
Frequency of Migration	20
Types of Migration	21
Pattern of Migration	23
Planes to Migrate	23
Reasons given for Migrating	24
Cost of Migration	29
Location of the Districts of Origin	30
Conclusion	33
<b>Chapter 4      Livelihood Typologies</b>	<b>34</b>
Information about Work	34
Work and Occupation of the Migrants	35
Average Number of Income Earners per Household	39
Average Monthly Income	41

Other sources of Income	41
Conclusion	42
<b>Chapter 5      Conditions of the Slums and Informal Settlements</b>	<b>43</b>
Location of the Slums/Informal Settlements	44
Housing Patterns and Size	46
Sources of Drinking Water	52
Sanitation	54
Availability of Power/light	57
Support or Development Interventions received by Migrants	57
Support Measures Demanded by the Migrants	58
Conclusion	58
<b>Chapter 6      Stress situation in the areas of origin and the impact of                     Climate Change stress on life and livelihoods</b>	<b>60</b>
Experiences of Rapid Onset Climatic Stresses	60
Experience of Slow onset Climatic Stresses	61
Current State of Climatic Stresses (rapid and slow) in the Areas of Origin	62
Impact of Climatic Stresses on Life, Livelihoods and Income	63
Impact of slow onset stresses	63
Lack of/low/erratic rainfall	63
Extreme hot and cold, and fog	64
Impact on Rapid onset Stresses	64
Intention to Return to the Place of Origin	65
Intention regarding Further Migration	66
Conclusion	67
<b>Chapter 7      Social Cost and Impact of Migration</b>	<b>68</b>
Benefits to the Household due to Migration	68
Providing food and freedom from hunger/starving and ensuring the basic necessities	68
Increased work opportunities	68
Meeting children's education costs	69
Migration improves economic conditions and social status	69
Loss of the Household due to Migration	69
Maintaining Contact with the Place of Origin	70
Benefits Received from the Destination Workplace	71
Negative Experiences in the Destination Workplace	71
Impact of Migration on Gender	72
Impact of Migration on Parents and Children	73
Conclusion	74
<b>Chapter 8      Conclusion and Policy Recommendations</b>	<b>75</b>
<b>Bibliography</b>	<b>80</b>

## LIST OF TABLES

LIST OF TABLES

	Page
Table 3.1	Age Composition of the Interviewees 17
Table 3.2	Education Profile of Interviewees 18
Table 3.3	Current Marital Status of the Interviewees 19
Table 3.4	Total Household Size 19
Table 3.5	Period of Migration 20
Table 3.6	The Year of First Migration 20
Table 3.7	Frequency of Migration 21
Table 3.8	Types of Migrants 21
Table 3.9	Types of Migrants 22
Table 3.9.1	Types of Migrants 22
Table 3.10	Pattern of Migration 23
Table 3.11	The Migration Decision-Making Process 25
Table 3.12	Reasons given for Migrating (Multiple answers) 26
Table 3.13	Cost of Migration 30
Table 3.14	Location of the districts of migrants' origin 31
Table 4.1	Work/occupation of the migrants based on the Rapid Screening Survey 36
Table 4.2	Work/occupation of the migrants based on in-depth interviews with 68 respondents 38
Table 4.3	Total number of household income earners' cross tabulation 40
Table 4.4	Number of male/female income earners per household cross tabulation 40
Table 4.5	Migrants' monthly income 41
Table 4.6	Migrants household income 42
Table 4.7	Income from other sources 42
Table 5.1	Locations of the Slums and Informal Settlements 45
Table 5.2	Physical Location of the Slums and Informal Settlements 45
Table 5.3	Type of homestead 46
Table 5.4	Household Size 47
Table 5.5	Sources of drinking water 54
Table 5.6	Sanitation Systems 54
Table 5.7	Availability of Electricity in the Household by Type of Migration 57
Table 6.1	Rapid onset climatic stresses (Multiple answers) 61
Table 6.2	Slow onset Climatic Stresses (Multiple answers) 62
Table 6.3	Current state of climatic stresses (rapid and slow) in the areas of origin 62
Table 7.1	The pattern/mode of contact 70
Table 7.2	Benefits from the destination workplace 71
Table 7.3	Negative experiences in the destination workplace 72
Table 7.4	Criteria for improvements in the quality of life of the family members left behind 74

## List of Images

	Page
Image 1-3      Official Maps of the Sirajganj, Natore Pourashava And Rajshahi City Corporation	11
Image 4-6      Study sites of Sirajganj	14
Image 7-9      Study sites of Natore Pourashava	15
Image 10-12   Study sites of Rajshahi City Corporation	16
Image 13-15   Urban Migrants are working in the Hazards€ Conditions	40
Image 16      Patten of Houses in Rajshahi City Corporation Areas	48
Image 16-17   Patten of Houses in Rajshahi City Corporation Areas	48
Image 18-19   Patten of Houses in Rajshahi City Corporation Areas	49
Image 20-22   Patten of Houses in Natore Pourashava	51
Image 23-24   Out of Service and Unhygienic Tube-well	52
Image 25      Condition of the Toilets	55
Image 26      Condition of the Toilets	56
Image 27      Condition of the Toilets	56

## Key Wards

BBS	Bangladesh Bureau of Statistics
BDT	Bangladeshi Taka
BUET	Bangladesh University of Engineering and Technology
CC	Climate Change
CCB	Connected Component Blocks
DC	District Office
DPS	Deposit Schemes
EPZ	Export Processing Zone
GoB	Government of Bangladesh
HSC	Higher Secondary Certificate
IPCC	Inter-governmental Panel on Climate Change
IRRI	International Rice Research Institute
KIs	Key Informant Interviews
LGED	Local Government Engineering Department
MDG	Millennium Development Goal
NGO	Non-government Organisation
RSS	Rapid Screening Survey
SIP	Slum Improvement Project
SSC	Secondary School Certificate (HSC)
UNDP	United Nation Development Programe
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nation Children for Fund
UNISDR	United Nations International Strategy for Disaster Reduction
UPPR	Urban Partnership for Poverty Reduction Project
VGD	Vulnerable Group Development
VGF	Vulnerable Group Feeding

## Glossary

<i>Bedes</i>	A gypsy tribe from the Sub-Continent
<i>IRRI</i>	A variety of seed developed by International Rice Research Institution
<i>Katha</i>	Clothes
<i>Katcha</i>	Mud/thatched/bamboo
<i>Monga</i>	An interplay between a lack of jobs and food entitlement
<i>Mohajon</i>	Money lender or local leader
<i>Nallah</i>	Major water drain
<i>Unnayan Onneshan</i>	The Innovators



## **Acknowledgement**

We express our sincere appreciation to all urban migrants, for sharing their experiences and insights with the study team. We immensely benefited from the input of the participants of the focus group discussions. In bringing this report to completion, we acknowledge the support that we received from various tiers of local stakeholders, non-migrants and ward commissioners, who extended their cooperation by providing us information and sharing their insights.

We have also benefited from the able research assistance of Md. Nabinur Rahman, Nusrat Jahan Sumi, Md. Atikur Rahman, Joy Ram Karmokar, Mahbuba, Md. Hasan Tareq, Md. Rony Islam, Samia Jaman, Md. Sehabuddin, Md. Shamul Haque Samim, Md. Abul Hasnat Sarker, Ashiqul Islam Khan, Md. Tamim Billah, Sabera Akter Nisha, Prodip Das and Tania Tabassum . All of them are active members of the Young Researchers' Forum (YRF), a research wing of RMMRU, based at the University of Dhaka, and played an important role in assisting the researchers in every aspect of their work.

We would like to express our thanks to the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), for commissioning the study.

## Chapter 1

### Introduction

#### **Introduction:**

The 2014 report on the Inter-governmental Panel on Climate Change (IPCC) acknowledged that climate change over the 21<sup>st</sup> century is projected to increase the displacement of people in both rural and urban areas, particularly in developing countries with a low income (IPCC WGII AR5, 2014: 20). Poor households with few resources are more vulnerable to the shocks, stresses and negative changes associated with climate change (Carney, 1995; Davies, 1996; DFID, 2007 and Davies et al., 2008). However, only recently have studies been conducted that attempt to understand how the extent of climate changes has affected migration in different parts of the world.

Bangladesh is one of the most vulnerable countries facing the adverse effects of climate change, including migration. Some important empirical researches have been conducted which particularly examine climate change-related migration in Bangladesh (Martin et al., 2013, Martin et al. 2014 and Siddiqui and Billah 2014). These studies have explored the link between climate change and migration. Some of them have developed climate scenarios, made projections of the number of people who may move due to climate change by 2050 and assessed the sensitivity of different types of migration to climate change. The study on hand aims to build upon the knowledge of previous ones. Most of the earlier studies were conducted in the migrants' area of origin. It looks into the internal migration experiences of the poor in the urban areas of three destinations: Rajshahi, Natore and Sirajganj districts. The major aim of this research is to develop an understanding of the migration decision-making process of urban migrants in the context of climate change. In addition to analyzing the causes of migration, this research also aims to develop an understanding of the current socioeconomic situation of those who have moved to urban areas and determine their vulnerabilities, if any, related to urban dwelling. The ultimate goal of the research is to propose some policy reforms that may lead to a reduction in the stress for people living in urban slums, especially including those who have moved due to the impact of climatic stress in their areas of origin.

This report is divided into eight chapters. Chapter 1 sets out the context and presents the major objectives of the research. Chapter 2 conducts a literature review and designs the methodology based on which the data for the research has been generated. Chapter 3 presents the migration trajectory of several slum-dwellers. It attempts to unfold and identify, among various factors, what role climate change plays in the decision to migrate. While doing so, it analyses the major climatic stresses associated with migrants' areas of origin. Chapter 4 locates the livelihoods pursued by various migrants or their household members in their current location. Chapter 5 gives an account of the slums and other informal settlements where the migrants stay. It also

locates the environmental, social and political vulnerabilities that these migrants face in their current location. Chapter 6 explores whether the climatic stresses which existed in the areas of origin prior to the migration persist, or have worsened or improved. Chapter 7 analyses the social cost of migration. Chapter 8 summarizes the major findings of the research and suggests measures for supporting migrants in their place of destination, so that migration can be turned into a tool for building resilience and inclusive urban development.

## Chapter 2

### **Literature Review and Research Methodology**

Chapter 2 presents a review of the existing literature. Three types of literature are pertinent to this study. The first type is literature about the trends in the rural to urban areas in Bangladesh; the second about their link with climate change; and the third about the state of poor migrants in urban slums. All three types of literature have been reviewed for this study. This Chapter further elaborates the methodology followed in this study.

#### **Literature review:**

##### Rural to urban migration:

Rural-urban migration is a well-studied area in Bangladesh. The 1991 census notes that 6 percent of households migrate each year within the country. Eighty-five percent of these migrants migrate to urban centres, six percent to other rural areas and two percent move from urban to rural areas (Garrett and Chowdhury, 2004: 15). Siddiqui and Mahmood (2014) conducted research on the impact of migration on poverty and development, covering 5000 households. Their study included both internal and international migrants and found that 50 percent of those who migrate in the country head for Dhaka city, another 20 percent to Chittagong city and the remaining 30 percent to other districts. Comparatively, young people are more likely to migrate. Afsar (2000:113) showed that 13% of permanent and 38% of temporary migrants migrated to Dhaka city before they were 20 years of age, while Huq- Hussain (1996) showed that a high proportion (44%) of long-term migrants moved to Dhaka before they were 13 years old. Compared to the male migrants, the female migrants were even younger. Siddiqui and Sikder (2009) found that 57 of 100 domestic workers were also very young when they first migrated (under 15 years old).

##### Climate change migration link:

Black et al.'s work (2013) is now considered seminal in explaining the link between climate change and migration. It lists five macro factors that play an important role in migration decisions. These are: environmental, social, economic, demographic and political factors. These macro factors influence the individual households' migration decision based on personal/household characteristics as well as intervening obstacles and facilitators. On the basis

of a quantitative survey of 1,500 migrant and non-migrant households in three climatic stressed areas of Bangladesh, Martin et al. (2013) found that there are important links between migration and climatic stress. However, they found it difficult to distinguish between the roles of climate change vis-à-vis other social, economic and political factors in driving migration. The difficulty arises as migration decision-making involves a reasoned response embedded in livelihood patterns, cultural expectations, gender, historical contexts, values and individual choices in the migrants' life course. Moreover, difference in age, stages in the migrants' life course and human capital, including social networks, as well as the demand side of the labour market determine who migrates and who does not. According to this research, people moved their residence 2.61 times and 75% of them experienced different types of climatic stressing their various dwellings. Only 10 percent of the migrants attributed the primary reason for their migration to climatic stress. People mainly highlight economic hardship but some of this is linked to climatic stress (Siddiqui et. al., 2014). The research (Martin et al. 2013) concluded that migration is a socially acceptable behavior (commonly used path) that occurs in the context of perceived environmental change and climate variability but, usually, the decision to migrate is taken due to the economic consequences of climate stress. Therefore, on the basis of census data on population growth in various upazilas for 2001 and 2011<sup>1</sup>, the same research projected that, from 2011 to 2050, as many as 16 to 26 million people will have migrated from their place of origin due to floods, storm surges, river bank erosion and rising sea levels (Kniveton et.al., 2013).

#### State of Migrants in Urban Slums:

Displaced people living in urban slums seek a better, more secure life. A review of the literature on people living in the urban slums shows that these areas tend to be located in low-lying, environmentally-hazardous areas, coupled with inadequate facilities in terms of food, shelter, sanitation, and health care, which make their life even worse. A poor physical environment with a non-existent solid waste disposal system is a very common phenomenon in the slum areas, and the high prevalence of (water-borne) disease among the children living in the slums reflects the unhealthy environment (Akter, 2012). Baker (2012) highlighted that the government of Bangladesh does not have a comprehensive policy on urbanisation and urban poverty. There are between 16 and 40 different bodies involved in one way or another in urban matters in Dhaka, with little coordination and planning. Sinthia (2013) argues that it is time to establish an urban planning and environmental management policy and sustainable urban development for both the city and urban slum-dwellers, to protect from eviction, crime, rent-seekers and other miscreants.

#### Research Instruments and Methodology:

Based on the requirements of the research, the study employed four research instruments. These are: the literature review, key informant interviews (KIs), a rapid screening survey (RSS) and in-depth interviews.

---

<sup>1</sup>It also includes predictions by the global climate models and the World Bank studies of 2010 and 2011.

#### Selection of cases/areas:

The cities selected for the research were located in the northwestern region of Bangladesh: Sirajganj, Natore Pourashava and Rajshahi City Corporation (Image: 1-3).

Sirajganj, Natore and Rajshahi, along with the rest of the North-western region of Bangladesh, are also the most migrant-prone areas. The Millennium Development Goal (MDG): Bangladesh Progress Report 2008 notes that the North-western region of Bangladesh carries a higher burden of poverty due to natural disasters (especially riverbank erosion and flooding) and is subject to a local phenomenon called *Monga*, an interplay between a lack of jobs and food entitlement, two key factors that generate migration (GoB, 2009).

Sirajganj is situated on the right bank of Jamuna River and is one of the flood-prone areas of Bangladesh. Sirajganj district, covering an area of 2497.92 sq km, is bounded by Bogra to the north, Pabna to the south, Tangail and Jamalpur to the east, and Pabna, Natore and Bogra to the west. In an average flood event, about 62% of the district becomes flooded, which increases to 70% in a moderate flood event (the 2004 floods) (Khan et al., 2009). Natore is a district of the Rajshahi division, located in northern Bangladesh. It borders the metropolitan city of Rajshahi, and used to form part of Rajshahi district. In Natore, the climate is extreme in terms of temperature and rainfall; very high and low temperatures, along with low rainfall, have threatened the crop production and livelihood of the farmers (Biswas et al., 2009). Rajshahi district, with an area of 2407.01 sq km, is bounded by Naogaon district to the north, the West Bengal state of India, Kushtia district and River Ganges to the south, Natore district to the east, and Nawabganj to the west. The adverse effect of climate change is increasingly affecting Rajshahi.

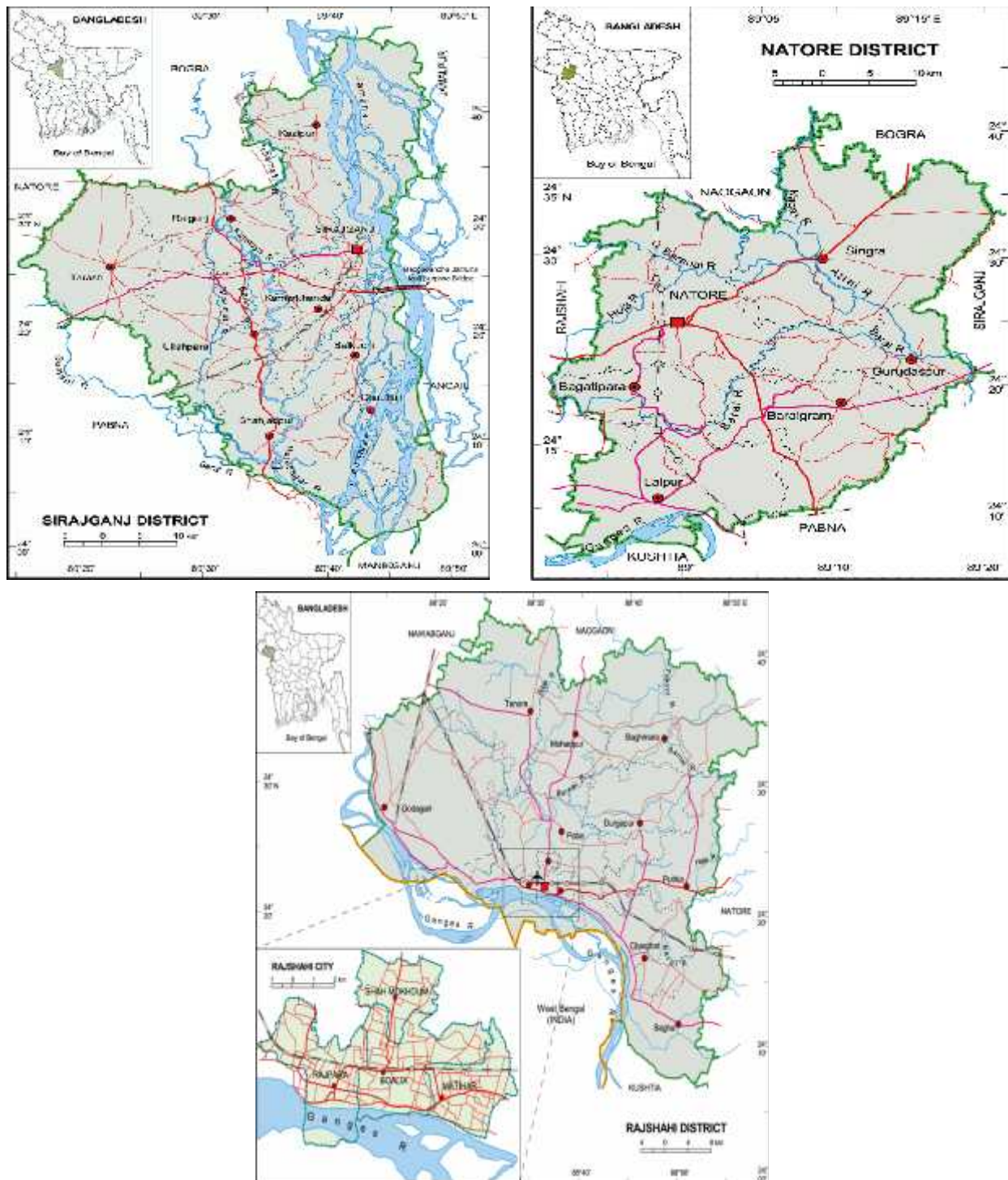
A challenge for the present study was to identify the more specific sites of Sirajganj, Natore and Rajshahi City Corporation in which to conduct the field work and establish contact with local city-dwellers and urban migrants to invite them to participate in this study. First of all, the telephone number and email address of the district division officers and district officers (DC) for Natore, Sirajganj and Rajshahi were collected from the national web portal of Bangladesh.<sup>2</sup> A letter describing the nature and scope of the research project was emailed to the local officials, who in turn provided the contact details of the mayors and councilors of the City Corporation and Pourashava, the national and local Non-government organizations (NGOs), members of the local press clubs, and other local stakeholders.

---

<sup>2</sup>[http://www.bpatc.org.bd/index.php?page\\_id=310](http://www.bpatc.org.bd/index.php?page_id=310) , Official website of Bangladesh Public Administration Training Centre (BPATC), Government of Bangladesh.

Image 1-3

### Official Maps of the Sirajganj, Natore Pourashava and Rajshahi City Corporation



Source: Maps of Bangladesh

<http://mapofbangladesh.blogspot.com/2011/09/natore-district.html>

<http://mapofbangladesh.blogspot.com/2011/09/rajshahi-district.html>

<http://mapofbangladesh.blogspot.com/2011/09/Sirajganj-district.html>

The study team arranged their first field visit across three study sites and met relevant government officials in charge of the environment, agriculture, land, social welfare, education and health, the Mayors and Councilors of the city corporations, and other stakeholders, including local school and college teachers, journalists and NGO officials through focus group meetings in the press club. These are the key informants of the study. They provided the team with physical maps of the cities and wards, and statistical information such as the total population and household size, literacy level, sex ratio, and economic activities. The key informants are central to the present study as their insights are pivotal in providing a more detailed understanding of urban migrants and their pattern of livelihood strategies (Davies, 1998: 88 and Atkinson, Coffey and Delamont, 2003: 13). Twelve (four at each study site) of the key informants/focus group discussions (FGDs) were conducted in three cities at the study sites with other migrants: local city-dwellers, local stakeholder groups and institutions, such as religious leaders, teachers, local authorities, and civil society organisations.

#### Analysis of secondary sources:

The analysis of secondary sources, including research papers, daily newspapers, books, articles and government reports from the Ministry of Environment and Forests, Ministry of Disaster Risk Management, Ministry of Agriculture and Fisheries, Ministry of Local Government Rural Division, Ministry of Social Welfare, Planning Commission, National Environmental Committee, National Steering Committee on Climate Change, Climate Change Unit, on climate change and migration indicates that Bangladesh's north-western part is prone to climatic impacts such as drought, spring floods and river bank erosion, which are some of the major features of these areas, where temperatures are rising, land is becoming seasonally infertile and the ground water level is falling, to name the major displacement factors.

Rapid Screening Survey (RSS) of Individual and Households: On the basis of knowledge generated by the key informant interviews, and the analysis of field-based secondary information, a questionnaire for a RSS approach was prepared. In effect, the RSS data enabled the team to identify the relevant persons for in-depth interviews. The RSS was carried out between 20 September and 10 October 2014. In total, 600 RSS participants were enlisted from Sirajganj, Natore and Rajshahi City Corporation. This means that the RSS was administered to 200 individual migrants or heads of migrant households at each site. To obtain 200 respondents, each study site was divided into four sections -east, west, north and south- and rapid screening was conducted, covering all of the sections, including slums, roadsides, riverbanks, government shelters and public places. The RSS enabled the study team to identify key informants/knowledgeable individuals/heads-of-households who were interested in participating in in-depth interviews to share their own and their household's experience of migration, climate change and livelihood strategies.

In-depth interviews: From the RSS data, a total of 68 individuals/migrant households (25 from Sirajgang, 23 from Natore and 20 from Rajshahi) were identified for the in-depth interviews. The RSS were stratified on the basis of the type of migration, duration of migration, origin of migrants, their gender and the type of livelihood they pursue. Two different formats were used in the interviews with the individuals and heads-of-households: a detailed biography focused on collecting a relevant life history and gaining an overall understanding of the individuals and households, while a lengthier, follow-up interview focused specifically on the participants' views on migration, climate change, adaptation and livelihood and coping strategies.

The in-depth interviews took place from 20 October to 10 November 2014. Each of the selected households was interviewed twice. The initial interview provided specific information on rural to urban migration. Each subsequent interview provided the householders with an opportunity to reflect further on urban life and livelihood strategies as well as their social protection and future plans.

#### Research Data and Analysis:

The quantitative part of the data has been processed using the SPSS software program. Following the data entry, they were cross-checked and pre-tested to identify any inconsistencies. The statistical tools used are frequencies and cross-tabs. Qualitative data were also analysed systematically. The study relied on transcriptions from audio-taped accounts provided by the migrant households during the in-depth interviews. Since the interviews took place in our native language, it was less of a challenge to transcribe the recordings. The qualitative data analysis was geared towards identifying common themes in relation to the climate change, migration and livelihood strategies in the urban areas (Leininger, 1985: 60; Patton, 1987: 154; Boyatzis, 1998:4).



Images (4-12)  
**Photographs while visiting different places in Natore, Sirajganj and Rajshahi**

IMG 4-6: Study sites of Sirajganj



IMG 7-9: Study sites of Natore Pourashava





IMG 10-12: Study sites of Rajshahi City Corporation



## Chapter 3

### Migration Trajectory of the Slum-dwellers

To understand the important role that climatic stress plays in slum-dwellers' decision to migrate, it is imperative to investigate the profiles of the migrants as well as the patterns and nature of their migration experience.<sup>3</sup> The chapter examines basic information of the migrants' such as age, marital status, household composition, and education level as well as the nature and pattern of their migration. Furthermore the number of years of migration experience, frequency, costs incurred and how the migrants reached their decision to migrate as well as their reasons for migration are presented. This will enable us to gain a more nuanced understanding of the climate change-migration nexus. This Chapter is written on the basis of RSS data of 600 respondents and in-depth interviews of 68 respondents.

#### Age:

Table 3.1 shows the current age, and age at first migration of the 68 respondents. The average current age of the interviewees is 40 years old with a minimum of 22 years in Natore and a maximum of 82 years in Sirajganj.<sup>4,5,6</sup> On average, the migrants were 23.67 years of age when they migrated initially. The minimum age of the migrants at their first migration was found to be 7 years old, in Sirajganj, while the maximum found was 43 years old, in Natore. The present data indicate that the respondents migrated at a very young age. They spent their productive age at their place of destination.

Table 3.1  
**Age Composition of the Interviewees (of 68 in-depth Interviewees)**

	Current age				Age at first migration			
	Sirajganj	Natore	Rajshahi	Total	Sirajganj	Natore	Rajshahi	Total
Average	43	39	38	40	18	24	26	23.67
Minimum	25	22	25	22	7	9	15	7
Maximum	82	60	55	82	38	43	40	40

<sup>3</sup> Any descriptive research must examine a situation by providing a profile of the target population and isolating important factors that might provide significant insights (Kelley et al., 2003: 261; Tredoux and Smith, 2006: 167).

<sup>4</sup> Tacoli (1998: 5) argues that the age of both the migrants and their family members back home has a significant bearing on the individual decisions to migrate for work.

<sup>5</sup> Research on internal migration in Bangladesh suggests that most migrants are young. Several studies, such as those by Huq-Hussain (1995, 1996), Afsar (2000a and 2000b), and Siddiqui and Sikder (2009), note that migrants are predominantly workers aged under 30 years old, although female migrants tend to be younger than male ones.

<sup>6</sup> Generation and age can also have a profound effect upon the way in which migration is experienced by individuals and the impact that migration will have on urban and rural economies (Siddiqui et al., 2006).

### Education Level:

The interviews with the migrants revealed that a large number of them are not literate.<sup>7</sup> Table 3.2 highlights the education level of the migrants. The participants attribute their deficit in literacy not to a lack of access to schooling, but to the imperative to work. Of the 68 migrants, 61.52% had no education, 25% had attended up to class five, and only two had studied up to Secondary School Certificate (SSC) or Higher Secondary Certificate (HSC). The highest illiteracy rate was found in Natore and the second highest in Sirajganj.<sup>8</sup>

Table 3.2  
**Education Profile of the Interviewees (of 68 in-depth interviewees)**

<b>Education Level</b>	<b>Sirajganj</b>	<b>%</b>	<b>Natore</b>	<b>%</b>	<b>Rajshahi</b>	<b>%</b>	<b>Total</b>	<b>%</b>
No education	15	60	16	69.56	11	55	42	61.52
Up to class 5	5	20	5	21.74	7	35	17	25.58
Up to class 10	4	16	2	8.70	1	5	7	9.9
SSC	-	-	-	-	1	5	1	1.67
HSC	1	4	-	-	-	-	1	1.33
Total	25	100	23	100	20	100	68	100

### Marital Status:

Over 92 percent of the migrants were married. Four deaths of spouses were noted during the in-depth interviews. The highest number of married respondents was recorded in Natore(23) and the lowest number in Rajshahi (18).

---

<sup>7</sup> While Bangladesh has made tremendous progress in widening access to education, increasing participation rates, and closing the gender gap in both primary and secondary schooling (Ahmed et al., 2007: 1), it still faces enormous challenges related to raising the nation's overall performance in education (Sherezad, 2004: 5). The literacy rate is low and there is a significant disparity between female and male literacy rates. The BBS and UNESCO (2008) report on the literacy assessment survey of 2008 found an overall literacy rate of 49.7 per cent for the population aged 11 years and over; the literacy rate for the 15+ age group is currently 48.8 percent. The difference between the male and female literacy rates is small, with 48.6 per cent for males and 49.1 per cent for females. However, education performance in the rural communities is significantly lower; the rural literacy rate (47.1 percent) is far lower than that for the urban areas (58.1 per cent).

<sup>8</sup> What is significant, however, is the fact that education often determines the jobs that migrants obtain, as better-educated and better socially-connected migrants accessing higher-paid work, whereas less educated and less well-connected migrants, namely those who are often in poverty, often end up working in the informal sector, where the wages are low and they lack social protection. While it would be tempting to argue that it is the less educated who migrate in search of a livelihood, a more plausible conclusion in the light of these research findings is that, in terms of education, migrants had poorer life chances., (Weber, 1978: 397).

Table 3.3  
**Current Marital Status of the Interviewees (of 68 in-depth interviewees)**

Status	Sirajganj	%	Natore	%	Rajshahi	%	Total	%
Married	22	88	23	100	18	90	63	92.6
Single	1	4					1	1.4
Widow/Widower	2	8			2	10	4	6
Total	25	100	23	100	20	100	68	100

#### Household Composition:

The present study defines households as comprising of the members of a social unit residing in the same compound, sharing meals, and living under the same roof.<sup>9</sup> In addition, migrants often visit home, as they have family members there and share the same meals. This study also includes the family members back home as well.

While the national average size is 5.4 members (BBS, 2011), in this study, the 600 migrant households, on average, consist of 4.26 members.<sup>10</sup> The lowest average household size was found in Rajshahi (3.84 members). The largest family size was found in Sirajganj, with a total of 15 members (Table 3.4). In this study, the migrant households have a combined total of 2,558 family members: 1276 males and 1282 females. What is striking about these families is the number of dependents within them.

Table 3.4  
**Total Household Size (of 600 RSS Interviewees)**

	Sirajganj	Natore	Rajshahi	Total
Average	4.65	4.30	3.84	4.26
Minimum	1	1	1	1
Maximum	15	11	10	15

#### Years of Migration:

Table 3.5 depicts the number of years for which the migrants have spent away from their place of origin. On average, the 600 migrants had 16.1 years of migration experience. Since the current average age of the migrants was 40 years old, this reflects the fact that, for many migrants, their

<sup>9</sup> De Haan (2006:7), Ellis (2003:7) and Frankenberg and Kuhn (2004: 9) argue that the composition of a family is a key demographic that explains the nature and pattern of migration as well as the motivation to migrate. In Bangladesh, the household's division of labour is usually shared among the family members, including agricultural cultivation, trading, and additional income-generating activities. Women generally perform roles that locate them within or close to the home, such as food preparation, and time-consuming household tasks, such as the provision of fuel and water (Cain, 1991:190 and Gardner, 1995: 28).

<sup>10</sup> Bangladesh has about 25 million households, 98.2 per cent of which are dwelling households. Most of these (89 per cent) households are headed by males (BBS, 2011).

migration patterns are closely tied to their life course and many start young. Some of them have to return home once they reach marriageable age, whereby they live with their family for a few years before migrating again. The highest number of years of migration experience(60) was found in Natore and the second highest in Sirajganj (47).

Table 3.5  
**Period of Migration (of 600 RSS Interviewees)**

	Sirajganj	Natore	Rajshahi	Total
<b>Average</b>	14.47	15.05	18.78	16.1
<b>Minimum</b>	1	1	1	1
<b>Maximum</b>	47	60	50	60

Table 3.6 shows the year when the 600 respondents migrated for the first time. The number was rather low for the period from 1950 to 1970, but began to increase in subsequent decades. The figures further indicate that, while 26.80% of the respondents migrated between 1991 and 2000, 34.80% of the respondents did so between 2001 and 2010. However, in the four-year period from January 2011-August 2014, as many as 14% of the total respondents reported their first migration, indicating that this was when the highest amount of population movement occurred. This may have link with climatic shocks and stresses.

Table 3.6  
**The Year of First Migration (of 600 RSS Interviewees)**

Year	Percentage
Before 1950	0.20%
1950-1960	0.20%
1961-1970	2.20%
1971-1980	9.20%
1981-1990	12.60%
1991-2000	26.80%
2001-2010	34.80%
2011-2014	14.00%
Total	100.00%

#### Frequency of Migration:

The respondents were asked how many times they had migrated from their area of origin. Table 3.7 shows that 72.06% of the respondents had migrated one to five times, while 5.88% had migrated over 36 times. The highest number of those with one to five migration experiences was recorded by 20 respondents in Natore.

Table 3.7  
**Frequency of Migration (of 68 In- depth Interviewees)**

Times	Sirajganj	%	Natore	%	Rajshahi	%	Total	%
1 to 5	16	64	20	86.95	13	65	49	72.06
6 to 10	4	14	1	4.35			5	7.35
11 to 15			1	4.35	1	5	2	2.94
16 to 20			1	4.35			1	1.47
21 to 25	3	12			4	20	7	10.29
26 to 30								
31 to 35								
36 to 40	1	4					1	1.47
41 to 45					1	5	1	1.47
46 to 50	1	4			1	5	2	2.94
Total	25	100	23	100	20	100	68	100

#### Types of Migrants

Tables 3.8 and 3.9 show the types of migration, and distribution of the interviewees who migrated with whole family or single, as well as who migrated permanently or short-term basis. Table 3.8 reveals that 66.7% of the 600 respondents migrated with their whole family. The highest number who migrated with their whole family (82%) was found in Rajshahi and the second highest was found in Natore (76%). The highest number of single migrants (58%) was found in Sirajganj. In the study it was found that, who migrated with full family have experienced more climatic shocks and stresses compare to the single migrants.

Table 3.9 states that 69.3 of the total respondents migrated permanently whereas 30.7% migrated for a short time. Of these, the highest number who migrated permanently (89.5%) was found in Rajshahi and the second highest was found in Natore (79.5%). The highest number of short-term migrants (61%) was found in Sirajganj. In most cases permanent migrants have faced more climatic shocks compare to circular or short term migrants.

Table 3.8  
**Types of Migrants (basis of 600 RSS Interviewees)**

Site		Migrated as a whole family	Migrated alone	Total
Sirajganj	Count	84	116	200
	% within Site id	42.0%	58.0%	100.0%
Natore	Count	152	48	200
	% within Site id	76.0%	24.0%	100.0%
Rajshahi	Count	164	36	200
	% within Site id	82.0%	18.0%	100.0%
Total	Count	400	200	600
	% within Site id	66.7%	33.3%	100.0%



**Table 3.9**  
**Types of Migrants (basis of 600 RSS Interviewees)**

Site		Migrated permanently	Migrated short-term	Total
Sirajganj	Count	78	122	200
	% within Site id	39.0%	61.0%	100.0%
Natore	Count	159	41	200
	% within Site id	79.5%	20.5%	100.0%
Rajshahi	Count	179	21	200
	% within Site id	89.5%	10.5%	100.0%
Total	Count	416	184	600
	% within Site id	69.3%	30.7%	100.0%

**Table 3.9.1**  
**Types of (Short-term) Migrants (on the basis of 600 RSS data)**

		Migrated multiple times per year and returned home during the farming season	Cyclical (come and go every month)	Seasonal migration to other districts (particularly to work in the brick kilns)	Cyclical (in a year)	Total
Sirajganj	Count	12	19	10	1	42
	% within Site id	28.6%	45.2%	23.8%	2.4%	100.0%
Natore	Count	12	63	47	0	122
	% within Site id	9.8%	51.6%	38.5%	0.0%	100.0%
Rajshahi	Count	8	12	1	0	21
	% within Site id	38.1%	57.1%	4.8%	0.0%	100.0%
Total	Count	32	94	58	1	185
	% within Site id	17.3%	50.8%	31.4%	.5%	100.0%

Table 3.9.1 shows the nature of migration for the respondents who migrated for a short period of time. It suggests that 50.8% of the respondents' migration pattern was cyclical whereby, every month, they migrated for a certain number of days then returned to their place of origin. Of these, the highest number (57.1%) was identified in Rajshahi (57.1%) and the second highest in Natore (51.6%). These mainly resided near the upazilas of Rajshahi and Natore. The communication facilities were so developed that they could easily access cheap transport. The table also reports that 31.4% defined themselves as seasonal migrants who worked in the brick kilns in different

parts of Bangladesh. The respondents from Sirajgong mainly migrated to the Rangamati district of Chittagong while the respondents from Natore migrated to the Greater Dhaka area. During the rainy season, they could not get a contract, so searched for a livelihood in their place of origin.

#### Patterns of Migration:

Table 3.10 represents the patterns of migration: rural to semi-urban, rural to urban and urban to urban. It was found that 70.3% of the 600 respondents reported that they had migrated from rural to urban areas and 27.6% from urban to urban areas. Of these, the highest number of rural to urban migrants (92%) was found in Rajshahi and the second highest (74.3%) in Natore. In case of Sirajganj most of them are from different unions such as kaoakhali, Boira and villages of Sirajganj sadar upazila. Most of the slums contained these within district (rural to urban) migrants who lost their homestead and arable land in river erosion. The urban to urban migration rate was found to be 53.9% in Sirajganj and 21.6% in Natore. Urban to urban migrants in Sirajganj mainly come from Nilfamari, Pabna, Bogra, Rangpur districts and its sub-districts Ullapara, Belkuchi, Kajipur. Urban to urban migrants in Natore mainly come from Pabna, Bogra, Naogoan, Nilphamari (Chilahati), kustia, Rajshahi (Jolmolia), Comilla, Chandpur districts and its sub-districts Singra, Baraigram etc. Urban to urban migrants in Rajshahi mainly come from Gaibandha, Rangpur, Naogoan, Nilphamari, Pabna, Comilla districts and its sub-districts such as Bagha, Bagmara, Charchat, Durgapur, Godgari, Mohanpur, Puthia, Tanore etc. However, 4.2% of the respondents in Natore also reported migrating from rural to semi-urban areas.

Table 3.10  
**Patterns of Migration(on the basis of 600 RSS data )**

Sites		Patterns of migration			
		Rural to semi-urban	Rural to urban	Urban to urban	Total
Sirajganj	Count	4	84	103	191
	% within Site id	2.1%	44.0%	53.9%	100.0%
Natore	Count	7	124	36	167
	% within Site id	4.2%	74.3%	21.6%	100.0%
Rajshahi	Count	1	184	15	200
	% within Site id	.5%	92.0%	7.5%	100.0%
Total	Count	11	392	154	558
	% within Site id	2.1%	70.3%	27.6%	100.0%

### Plans to Migrate:

The study attempted to understand the migration decision making process of these internal migrants. During in-depth interview this was pursued to them. 32 migrants report that they had been considering migrating for a long time, and 20 had decided to migrate suddenly. However, 16 internal migrant interviewees state that they decided to migrate because other villagers, relatives, or neighbours in their place of origin were migrating.

Table 3.11  
**Plans to Migrate (Responses of 68 in- depth Interviewees)**

The decision-making process	Sirajganj	%	Natore	%	Rajshahi	%	Total	%
Considering migrating for a long time	10	40	12	52.17	10	50	32	47.06
Suddenly decided to migrate	6	24	9	39.13	5	25	20	29.41
Migrated following people/relatives/neighbours in their place of origin	9	36	2	8.70	5	25	16	23.53
Total	25	100	23	100	20	100	68	100

### Reasons given for Migrating:

In the present study, combined push and pull forces as well as individual and household risk management motivations were found to contribute to the migration decision of the respondents.<sup>11, 12</sup> 68 respondents altogether made 228 observations. The observations are

---

<sup>11</sup>The decision to migrate is far from a random process that occurs in a social vacuum, but is conditioned by a range of individual and household factors. The actual decision-making, however, differs from one individual to another, from one household to another, and from one culture to another. De Haan (1999: 14), de Haan and Rogaly (2002: 7) and Kuhn (2004: 32) point out that the decision to migrate usually forms part of a continuing process that is determined by local customs and ideologies and is often shaped and defined by a range of material factors, including balancing the family's agricultural demands, resources and the availability of the labour reserve that can be called upon.

<sup>12</sup>The recent theoretical literature has substantially broadened the horizon of analysis regarding the causes of migration, combining explanations relating to the macro-level and historical-structural conditions with the micro-level situational factors of the migrants (de Haan, 1999; Deshingkar, 2004a and 2004b and Thime, 2006). Indeed, many factors contribute to out-migration. A range of *push factors* compel rural villagers to consider migrating, including changes in technology and the organisation of production that reduce rural labour requirements, changes in the structure and organisation of the marketing systems that diminish small-farm incomes, changes in the systems of land tenancy that limit the small farmer's access to land, and changes in government subsidies that reduce the safety net for village farmers. Therefore, marginal farmers and poor groups who cannot compete are pushed to consider migrating (Deshingkar and Grimm, 2005 and Assan, 2008). Research on both internal migration in Bangladesh (Huq-Husain, 1996; Mahbub, 1997; Afsar, 1994, 1998, 1999, 2000a, 2000b, 2001, 2002 and 2003; Kuhn, 2001a & 2000b; Siddiqui and Skinner, 2008; Siddiqui and Sikder, 2009) cites additional reasons for leaving villages, such as family economic hardship, a shortage of agricultural land, migrants' negative attitudes towards peasant farming and climatic shocks and stresses. However, *pull factors*, such as the lure of increased income and bringing about a change in the family fortunes, are also cited as reasons for migrating. All of the migrants felt the

presented in Table 3.12. The motivation to migrate is categorised according to four issues: social, economic, demographic and environmental. Table 3.12 shows that, while 116 responses refers to environmental factors, 58 responses were linked to economic reasons. At the same time, 34 responses described how social factors played a critical role in their migration decision and 20 responses described how demographic factors also contributed to their decision to migrate.

Just over half of the responses (50.87%) mentioned that climate change-related impacts influenced their migration decision, mentioning that they had lost their land, house and/or crops due to flooding and riverbank erosion. They would have preferred to remain in their place of origin but it was hard for them to survive when they faced repeated disasters in their life cycle, and some of them lacked water for irrigation when they needed it for cultivation, yet water was available when they did not need it. In addition, the price of agricultural components, such as irrigation water, seeds, fertilizer, etc., had increased beyond what they could afford, yet it was impossible to make a profit from selling their crops. A few of them could not find work during the off-season, which was known as *Monga*, so their only choice was to migrate.

14% of the responses indicate towards social factors role in the decision to migrate. Seven observation highlighted the role of social network they had heard from their friends, relatives and neighbours that they could earn more if they migrated. Four responses also indicate cultural orientation towards certain occupation. They were unwilling to engage in peasant farming. Regarding economic reasons, 12 responses highlight lack of employment or income opportunities in their locality, while an equal number of responses (8 in each case) mentioned low wages and a desire to diversify their family's economic resources. Seven respondents described how they wanted to increase their income and bring about a change in their family fortunes, while five stated that households with surplus labour at their disposal wanted to diversify their finances and so encouraged their family members to migrate. Regarding demographic reasons, 13 respondents reported a shortage or lack of agricultural land, and seven that they belonged to large households.

Like Martin et al, (2013), this study also concludes that along with social, economic, individual and household dynamics, climatic shocks and stresses influences migration decision of the slum dwellers. More importantly, climatic stresses are embedded with economic reasons.

---

need to improve their total family income further. The above studies also note that, while the decision to migrate is affected by other things, including a desire to get married, family hardship is at the top of the list of the reasons to migrate.

Table 3.12

**Stated Reasons for Migrating (Multiple answers of 68 In-depth Interviewees)**

<b>Reasons</b>		<b>Sirajganj</b>	<b>Natore</b>	<b>Rajshahi</b>	<b>Total</b>
<b>Social</b>	Keen to do something to have own income, succeed in life and reduce dependency on family	1		1	2)
	Frustrated at staying in a village where there is no electricity, poor transport and road communication, and no life		1	2	3
	Negative attitudes towards peasant farming	1	1	2	4
	Needed to take family responsibility	1		1	2
	Illness of the family's main earners	1		1	2
	Heard from friends, relatives and neighbours that they could earn more if they migrated	2	1	4	7
	Villagers in the migrant's area of origin influenced them to migrate	7	3	4	14
	Family members cheated and deprived them of their right to property/family conflict		2		2
	<b>Total</b>	<b>13</b>	<b>8</b>	<b>15</b>	<b>34</b>
<b>Economic</b>	Family economic hardship	1	2	1	4
	No employment or income opportunities in the locality	3	7	2	12
	Low wages	1	3	4	8
	To increase income and bring about a change in the family's fortunes		2	5	7
	A desire to diversify the family's economic resources	1	3	4	8
	Families with surplus labour at their disposal wanted to diversify their finances and encouraged their family members to migrate		1	4	5
	Further improvement to their total family income	1	1	2	4
	Sudden economic shocks (loss of crops and income from petty trading) are often the tipping points, compelling family members to take action	5	2		7
	Poor crops		1		1
	Debts prompted some to sell or mortgage their land		2		2
	<b>Total</b>	<b>12</b>	<b>24</b>	<b>22</b>	<b>58</b>
<b>Demographic</b>	Shortage of agricultural land/No land	4	4	5	13
	Big household	1	3	3	7
	<b>Total</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>20</b>

	Reasons	Sirajganj	Natore	Rajshahi	Total
Environmental	River erosion	4	4	6	14
	Sudden loss of their house and/or crops due to flooding	10	7	12	29
	Drought and a lack of water for irrigation	4	6	6	20
	Water-lodging	5	5		10
	High temperatures and erratic rainfall	2	3	6	11
	No agricultural work available during the off-season (Monga period)	1	3	8	12
	<b>Total</b>	<b>31</b>	<b>35</b>	<b>46</b>	<b>116</b>
	<b>Grand Total</b>	<b>61</b>	<b>74</b>	<b>91</b>	<b>228</b>

### Cost of Migration:

Table 3.13 shows that the average cost of migration for the 68 respondents was BDT. 334.03 (BDT 426.70 for permanent migrants and BDT 241.36 for short-term migrants).<sup>13</sup> This figure includes all expenses, like local, district and city transport. The minimum amount paid to migrate, by short-term migrants in Natore, was BDT 153.33. The highest migration cost was recorded at BDT. 801.09 in Rajshahi, by permanent migrants.

The respondents came from different parts of Bangladesh; however they mostly came from the northwest. A few places are very backward so, in those cases, the migrants had to change transport several times, which also affected the cost of migrating. Almost all of the migrants had to walk first to access the transport, be it by rickshaw, boat or boat engine. However, some respondents, who travelled by bus, risked sitting on the roof, as this is cheaper than sitting inside. It is reported in the daily newspapers that many people die due to accidents caused by riding on the roofs of buses, lorries or trains.

Table 3.13  
**The Cost of Migration (of 68 In-depth Interviewees)**

				Cost of migration	
				Mean	Count
Site name	Sirajganj	Pattern of migration	Migrated permanently	231.67	6
			Migrated short-term	347.89	14
			Total	289.78	20
	Natore	Pattern of migration	Migrated permanently	247.33	13
			Migrated short-term	153.33	7
			Total	200.33	20
	Rajshahi	Pattern of migration	Migrated permanently	801.09	13
			Migrated short-term	222.86	7
			Total	576.22	20
Total	Total	Pattern of migration	Migrated permanently	426.70	32
			Migrated short-term	241.36	28
			Total	334.03	60

<sup>13</sup>The financial cost of migration is an important element for understanding the migration process, but this largely depends on the individual migrant's ability to tap into social networks. Those with better connections are more likely to incur lower costs. Hugo (1997: 281) and Gugler (2002: 24) argue that the social networks of migrants' relatives and friends at their destination can assist them to meet the migration costs, find work and accommodation, and access bridging loans to fund their initial living costs. The development of these social networks is cost-free and low risk.

### Location of the Districts of Origin:

The location of the migrants' districts of origin provides the source of migration flow. Table 3.14 shows that 64.18% of the respondents migrated from the Greater Rajshahi division, 19.83% from Ranjpur division and 9.83% from Dhaka division. This data indicate that the Northwestern region of Bangladesh is one of the highest areas for out-migration. However, it is striking that these migrants preferred to migrate within their own divisions and districts and later might migrate forward. There may be two reasons for this; one, their social network might have been too weak to allow them to migrate as far as the northeastern, southern or central regions of Bangladesh and, second, they might have preferred to remain relatively close to their place of origin in order to safeguard their house and family back home.

Table 3.14  
**Location of the migrants' districts of origin (Based on 600 RSS data)**

Districts of origin		Place of the Interviews			
Divisions	Districts	Sirajganj (N)	Natore(N)	Rajshahi(N)	Total (%)
Rajshahi division	Greater Natore district (Upazilas from Gurudaspur, Baraigram, Bagatipara, Lalpur, Singra and Naldanga)	4	97	4	105
	Bogra		3	1	4
	Chapainawanganj	1	2	5	8
	Joypurhat		1	2	3
	Naogaon		8	16	24
	Pabna	28	17	11	56
	Rajshahi (Upazilas from Bagha, Bagmara, Charghat, Durgapur, Godgari, Mohanpur, Pabna, Puthia and Tanore)		11	30	41
	Sirajganj (Upazilas from Sirajganjsadar, Ullahpara, Shahjadpur, Raiganj, Kamarkhanda, Tarash, Belkuchi, Chauhali and Kazipur)	136	7	1	144
<b>Sub-Total</b>		<b>169</b>	<b>146</b>	<b>70</b>	<b>385 (64.18)</b>
	Dinajpur	1	3	7	11



Ranjpur division	Ranjpur	2	2	13	17
	Gaibandha	1	1	44	46
	Kurigram	8	1	2	11
	Panchagarh		1		1
	Lalmonirhat		1	1	2
	Nilphamari	2		29	31
<b>Sub-Total</b>		<b>14</b>	<b>9</b>	<b>96</b>	<b>119(19.83)</b>
Barisal division	Barisal sadar		1		1
	Pirajpur	1			1
<b>Sub-Total</b>		<b>1</b>	<b>1</b>		<b>2(0.33)</b>
Khulna division	Chuadanga		1		1
	Jessore		1	1	2
	Kustia	1	8	1	10
	Satkhira		1		1
	Khulna	1			1
	Bagerhat			2	2
<b>Sub-Total</b>		<b>2</b>	<b>11</b>	<b>4</b>	<b>17 (2.83)</b>
Chittagong division	Chandpur	1	1	1	3
	Comilla		2	4	6
	Laxipur		3		3
	Noakhali		1	1	2
<b>Sub-Total</b>		<b>1</b>	<b>7</b>	<b>6</b>	<b>14(2.33)</b>
Dhaka division	Dhaka	2	6		8
	Gazipur	1			1
	Faridpur	1	7	18	26
	Gopalganj		1		1
	Jamalpur	2	3		5
	Narshindhi		2		2
	Rajbari		1		1
	Tangail	5	3		8
	Kishoreganj		1	1	2
	Munshiganj			2	2
	Mymensing			2	2
	Sharaitpur			1	1
<b>Sub-Total</b>		<b>11</b>	<b>24</b>	<b>24</b>	<b>59 (9.83)</b>
Sylhet division	Sylhet	2	2		4
<b>Sub-Total</b>		<b>2</b>	<b>2</b>		<b>4(0.67)</b>

**Conclusion:**

This Chapter gives a brief outline of the respondents' sociodemographic background as well as the nature and pattern of their migration. They tended to come from a very poor socio-economic background, have no formal education, be married and have an average family size of 4.26 members. Many had migrated initially at a very young age (22 years-old). On average, the respondents had around 16 years of migration experience.

This study identified different types of migrant. Firstly, the study found that 66.7% of the 600 RSS respondents were family migrants and the rest were single migrants. Since the highest numbers of migrants were family migrants, this suggests that they had little opportunity to earn a livelihood or had no shelter/home in their place of origin. The migrants were also identified as permanent migrants (69.3 of the total respondents) or short-term migrants (30.7%).

Based on movement pattern four types of short-term migrant were identified. First, some migrants migrated several times a year and returned home during the farming season; second cyclical migrant; who used to migrate and return every month; third, seasonal migrants migrated at a particular time to work in the brick kilns; and, fourth, cyclical migrants migrated all year the round. The study found that the highest number of short-time migrants were cyclical migrants, who came and went every month.

Based on location of destination three types of migration were found: rural to semi-urban, rural to urban and urban to urban; 70.3% of the total respondents were rural to urban migrants. These data suggest that the urban centres were the main location where many of the rural migrants secure a livelihood. However, most migrants chose a destination close to their place of origin, possibly because their social network was not strong enough to enable them to migrate long-distance, such as to another division. Therefore, the study found that the majority of respondents (64.18%) migrated within the Greater Rajshahi division.

Regarding migration planning and decision making, almost half of the migrants had been considering migrating for a long time, while 20 had decided to migrate suddenly. Their family members (father or siblings), neighbours and villagers played an important role in the decision-making. However, the causes of migration were complex, depending on macro-level and historical-structural conditions combined with the micro-level situational factors of the migrants.

The study found that climatic stresses are intertwined with economic and social motivations of migration. Many of the respondents had lost their house, agricultural land and subsequent sources of income due to riverbank erosion and sudden flooding. Many of them had also been affected by these stresses for a long time, so they, along with their family members, had little opportunity to survive in their place of origin. In drought affected areas, those who had agricultural land faced difficulty in continuing with cultivation due to lack of water or high cost

of water. Some of them lost their crops due to poor irrigation. However, many of them were also landless, and so had no livelihood security or rights in their place of origin. Increasing income was another factor that influenced many respondents to migrate. In addition, when the migrants saw many villagers and neighbours migrating and that previous migrant had improved their fortune due to migration, this also influenced them to migrate in order to improve their livelihood.

## Chapter 4

### **Livelihood Typologies**

Coping with both anticipated and unanticipated changes requires households to diversify their income and develop strategies to absorb shocks and stresses (Barrett, Reardon and Webb, 2001: 316; Ludi and Bird, 2007: 3; Barbora et al., 2008: 61). Within a livelihood framework, Scoones (1998: 6), Ellis (2003: 3) and Chambers (2006: 33-34) note that vulnerability and risk are key issues confronting migrant households, and that their capacity for well-being and survival depends on their human capital (skills, education, health), physical capital (producing investment goods), financial capital (money, savings, loan access), natural capital (land, water, trees) and social capital (networks, associations). Some households lack the necessary resources to respond to sudden shocks, stresses or negative changes and adapt by diversifying their livelihood strategies (Carney, 1995; Davies, 1996; DFID, 1999). Chambers and Conway (1991: 6) explain that the household livelihood is •sustained when it can cope with and recover from stresses and shocks, maintain or enhances its capabilities and assets, and provide sustainable livelihood opportunities for the next generation€. This chapter investigates the livelihood strategies of the migrants after they arrive in their new location. It covers issues such as information about work, the types of work, in which sectors they work, the number of income-earners per household, and the households€ monthly income (the income generated by the migrants, their family members, and even household members who may live elsewhere).

#### **Information about Work:**

It is always challenging for a migrant arriving in a new location to find out what work is available.<sup>14</sup> In the Key Informant Interviews (KIs), the study found that the market place was a

---

<sup>14</sup> Siddiqui and Skinner's study (2008) showed that secure employment is an area where temporary migrants can become vulnerable. The risk is that they might find themselves at their destination without access to work, as they often travel to areas where they know that work is usually available, but this was not always assured. Some migrants normally have to wait a few days before securing employment, with the average maximum time spent without employment being a week while, in one source area, the respondents reported having to wait as long as 20 days or even return home without work. Migrants may suffer physical and financial insecurity while looking for work. In some cases, they also had to cover their food and accommodation expenses. Migrants also spent a lot of money on travelling to the destination and, if they fail to find work, their families can suffer huge losses that have to be covered by taking out further loans or selling assets.

prime source of information about work for many respondents, as potential employers comes looking for labourers there. The migrants were able to discover where the market place was from local people. This study found that most of the respondents lined up jobs before they migrated by utilising their social networks. During the in-depth interviews, it was noted that individuals who had already secured work then assist the other members of their household and/or friends and relatives to find work also. In one such instance, in Rajshahi, the study team came across a cluster of 12 migrants' dwellings, all related to one mother. Upon further investigation it was found that a senior member of the group had migrated to the area eight to ten years earlier. Initially, he earned his living by pulling a rickshaw in Rajshahi and subsequently worked as a day labourer as well. Over the years, he assisted the members of his immediate family to migrate also, followed by members of his extended family. The family patriarch took responsibility for arranging their shelter and finding them employment.

Finding work through a member of their extended family or relative provides the migrants with a series of advantages. It reduces the cost of finding work, avoids the necessity of paying intermediaries, and probably minimises the time needed to find work. Having someone on their side during negotiations with potential employers also increases the migrants' bargaining power. One may therefore state that counting on the support of family members eases the potential shocks, stress and anxiety that are often associated with migration among vulnerable groups. The level of such support is directly correlated to the level of vulnerability that migrants may feel, reducing which may help migrants to cope with their new environment more effectively.

### **Work and Occupation of the Migrants:**

Table 4.1 represents the occupation of 600 internal migrants. The occupations are categorised into 4 broad sub-groups. These are self employed, wage worker, service sector worker and others. 33% of the migrants found to work in service sector. Under service sector rickshaw, auto rickshaw and van pulling are primary occupations of 20.16% of the 600 respondents; 3.8% are domestic workers, 2.83% are construction workers, and 2.66% works in the loom industry, mainly based in the Chala upazila of Sirajganj. Tannery worker, painter, garment worker, printing master of garments, carpenter, transport workers, hotel/restaurants workers, garages/workshops labour, house tutor, cook, cleaner, security guard are also included here.

Around 25.8 % of the workers are wage labourers. Among them, 9% are day labourers; 6% were brick kilns worker and 5.8% worked as wage labourers in different sectors. 4.83% are agricultural labourer, farmer or tenants farmers. Others worked in rice processing mills, flour mills, and Jute mills.etc.

Around 20% are self employed. Among them 8.16% were engaged in scrap metal collection and business; 6% were engaged in small, petty businesses (raw materials, bricks, clothing, furniture shop sales assistant, shopkeeper, tea stall owner, second-hand clothes, fruit, vegetables, toys, clay products/pottery, chicken skin, street food, hotels, ice cream, etc.); 5.8% were hawkers.

Some also earn their livelihood through *Katha* (quilt) stitching and stone work. Other self employed occupations include boatman, coachbuilder, butcher, fisherman, cobbler, milkman, paper packet maker, wood-cutter, tailor, electrician, and technician.

The rest include housewife, politician, retired/disabled, unemployed, etc (which are categorized in others head). Many of them also have more than one occupation; for example, scrap collector and agricultural labourer during the harvest season, and rickshaw puller and paddy cultivator during the harvest season.

Table 4.1  
Work/occupation of the migrants based on the RSS data of 600 respondents

	Type of occupation	Frequency	Percentage %
Self employed	Scrap metal collector	49	8.16
	Petty Business	41	6.83
	Hawker	35	5.8
	<b>Sub-total</b>	<b>125</b>	<b>20.79%</b>
Wage worker	Day labourer	54	9
	Brick kilns worker	36	6
	Wage labourer of different sector	35	5.8
	Farmer/Agricultural labourer	29	4.83
	<b>Sub-total</b>	<b>154</b>	<b>25.66</b>
Service sector	Rickshaw, Auto Rickshaw and Van Puller	121	20.16
	Domestic worker	23	3.8
	Construction worker and Mason	17	2.83
	Power loom operator	16	2.66
	Transport Driver & helper (Bus, Truck CNG, Tempo)	9	1.5
	Tannery worker	8	1.33
	Dredging Worker	7	1.17
	Service holder (City corporation worker, Railway worker)	6	1
	Painter	4	.67
	Garment (worker, printing master)	3	.5
	<b>Sub-total</b>	<b>198</b>	<b>33%</b>
Others	Beggar	34	5.66
	Housewife/Homemaker	9	1.5
	Unemployed	3	.5

	Others	35	5.83
	Not available	26	4.33
	<b>Sub-total</b>	<b>107</b>	<b>17.83%</b>
	Total	600	100.0

Table 4.2 shows the two main occupations of the in-depth interviewee's households. The 68 interviewees gave 156 responses, and the work are presented under 4 broad heads; self employed, wage worker, service sector worker and others. Most of them have more than one occupation.

#### Service sector works:

Under this category rickshaw, auto rickshaw and van pulling were the primary or secondary occupation of 34 respondents (21.51%), some work on road and building construction; five worked as labourers in the tanneries of Sirajganj, mainly from various villages in Nilphamari. Five of the respondents (from three families) earn a living through painting, while 4 others(notably belonging to two families) are carpenter. In these two professions it was found that the eldest son of the family first learnt the trade and his younger brother followed him. Three respondents were involved in domestic work, two of whom cook in the mess. Two of the respondents work in the garment industry, another two in the construction sector, and two more are tube well repairers/mechanics, shutter mechanic, fitter/mechanic for handlooms. Remaining of them are road construction worker, tailor, power loom operator in the weaving industry, bus helper, security guard etc.

#### Wage works:

36 respondents (22.77%) worked as wage labourers in various sectors. The majority of the wage labourers interviewed in Natore worked in rice processing mills (14); some others worked in puffed rice mills and earth digging. 15 respondents (9.49%) were involved in farming/agriculture, agricultural wage labouring and tenant farming as their primary or secondary occupation. and six worked as seasonal labourers in the brick kilns such as water controllers at the kilns, Bojaimistri/plumbers at the brick kilns, etc. Some carry sand from the river; some work as loaders/unloaders in the rod and iron showroom; while others are engaged in river embankment protection.

Table 4.2  
Work/occupation of the migrants based on in-depth interviews with 68 respondents

	Types of Occupation	Study Areas		%
--	---------------------	-------------	--	---

		Natore	Sirajganj	Rajshahi	Total	
Self-employed	Petty business	7	4	2	13	8.22
	Scrap metal collector	0	3	5	8	5.06
	Hawker	1	3	0	4	2.53
	Labour contractor	0	2	0	2	1.26
	Wood cutter	1	0	1	2	1.26
	Animal husbandry and poultry farming	0	2	0	2	1.26
Wageworker						
	Wage labourer	24	7	5	36	22.77
	Farmer	5	4	6	15	9.49
	Brick kilns worker	1	5	0	6	3.80
Service sector						
	Rickshaw, auto rickshaw & van puller	14	6	14	34	21.51
	Tannery worker	0	5	0	5	3.16
	Painter	2	0	3	5	3.16
	Carpenter	3	0	1	4	2.53
	Mechanic (Tube well Repairer, Shutter mechanic, Handloom mechanic)	2	1	0	3	1.89
	Domestic Worker	2	0	1	3	1.89
	Power loom operator	0	2	0	2	1.26
Others	Garment (worker, printing master)	0	2	0	2	1.26
	Housewife	4	1	0	5	3.16
	Others	1	3	3	7	4.43
	Total	67	50	41	158	100%

#### Self employed:

Among the self-employed respondents, thirteen (8.22%) are running petty businesses. Some of them sell cooked rice and curry to the low income group on the pavement, or pottery, fruit (seasonal water caltrop), rice etc. as hawkers or on pavement stalls. As a secondary income source, some peddle roasted rice, peanuts and lentils, particularly in winter; some sell pottery, seasonal fruit, fish, vegetables, ice cream, etc; eight (5%) collected scrap metal (five from Rajshahi and three from Sirajganj);

Another section of the respondents (2.53%) earn their livelihood by selling pots, pans, crockery and plastic products door to door as hawkers. They mostly work in Sirajganj and came from the Ullapara upazila of the Sirajganj, Pabna, and Naogaon districts. Other prominent livelihoods include: animal husbandry and poultry farmer, electrician, labour contractor(who supply all types of worker skilled and unskilled in brick kilns).

In others category, five respondents were housewives. Some of them are beggar, retired/disable, and unemployed.

The study found that most of these migrants were former farmers. Some of them cultivated their own land, many others worked as agricultural labourers, and a few were tenant farmers. Alongside the above occupations, a section of the migrants also engage in seasonal and short-term migration to other destinations such as various Upazilas of Chittagong including Raujan, Sandwip, Rangamati, Dhaka, Gazipur, Manikganj, Sylhet, Sunamgonj, Dinajpur etc. to earn their livelihood. At their destination, they mainly worked as paddy cultivators and cutters, labourers in the brick kilns, road and building construction workers, wage labourers, rickshaw pullers, enhancing riverbank protection by connecting component blocks (CCBs), electricians, etc. A little percentage of them also works in garments in Dhaka, Mohakhali, Savar, Konabari, Narayanganj, Gazipur.

#### **Work hazards:**

Some of the tasks performed by the migrants were unhygienic and dangerous to health. Those who worked in the tanneries of Sirajganj were found to be extremely vulnerable to breathing problems, asthma, and skin disease. Those who worked as scrap metal collectors also engaged in unhygienic work. They collected all kinds of waste material, broken sandals, dust hair, polythene, glass and plastic bottles, etc. It is a matter of concern that families involve their children in scrap collection, thereby exposing them to broken glass, syringes and other toxic materials. Some also worked as drainage and sewerage cleaner, worked with traditional toolkits which are not well protected and health threatening.

#### **Average Number of Income Earners per Household:**

Table 4.3 shows that almost 50% (303) of the households have a single income earner; 36.5% have two income earners; 9% have three income earners; 2.5% have four income earners; and 1% has 5-6 income earners.<sup>15</sup> This picture is similar across all three districts, with a few exceptions in the case of Sirajganj. Here, 60.1% of the households have a single income earner, and 29.3% have two income earners. Only 8.5% of the households do not have a male earner, while 41.5% do not have a female earner in the household.

---

<sup>15</sup> Cain (1978) argues that households with more earners stand a better chance of avoiding a distress sale or losing their assets or resources to high interest loans than do households with fewer earners.



Table 4.3

**Distribution of number of household income earners (Based on 600 RSS data)**

Sites	Total number of income earners per household							Total
	No income earner	1	2	3	4	5	6	
Natore	0	86	88	16	7	1	2	200
	0.0%	43.0%	44.0%	8.0%	3.5%	.5%	1.0%	100.0%
Sirajganj	0	119	58	17	4	0	0	198
	0.0%	60.1%	29.3%	8.6%	2.0%	0.0%	0.0%	100.0%
Rajshahi	1	98	73	21	4	1	2	200
	.5%	49.0%	36.5%	10.5%	2.0%	.5%	1.0%	100.0%
Total	1	303	219	54	15	2	4	598
	.2%	50.7%	36.6%	9.0%	2.5%	.3%	.7%	100.0%

Table 4.4

**Number of male/female income earners per household (Based on 600 RSS data)**

Sites		Number of male and female income earners per household					Total
		0	1	2	3	4	
Natore	Male	12	148	29	9	2	200
		6.0%	74.0%	14.5%	4.5%	1.0%	100.0%
	Female	99	90	9	2	0	100.0%
		49.5%	45.0%	4.5%	1.0%	0%	200
Sirajganj	Male	12	134	40	12	2	200
		6.0%	67.0%	20.0%	6.0%	1.0%	100.0%
	Female	160	37	2	1	0	200
		80.0%	18.5%	1.0%	.5%	0%	100.0%
Rajshahi	Male	27	135	32	5	1	200
		13.5%	67.5%	16.0%	2.5%	.5%	100.0%
	Female	98	85	14	3	0	200
		49.0%	42.5%	7.0%	1.5%	0%	100.0%
Total	Male	51	417	101	26	5	600
		8.5%	69.5%	16.8%	4.3%	.8%	100.0%
	Female	357	212	25	6	0	600
		59.5%	35.3%	4.2%	1.0%	0%	100.0%

**Migrants' (self) Monthly Income:**

The migrants' average monthly income was BDT 7382, the maximum monthly income of a migrant was BDT 9500, and the minimum income was around BDT 600. A comparison of the three districts' income scenario shows that, in all three districts, short-term migrants earn more than permanent migrants. Compared to Natore and Rajshahi, the earnings of migrants from Sirajganj were significantly higher. The average earnings of the respondents from Sirajganj were BDT 8980. In the case of Natore, it was BDT 5978 and for Rajshahi it was BDT 7000.

Table 4.5  
**Migrants' monthly income**

Site name	Migrants' monthly income		Monthly Income	
			Mean	
Natore	Pattern of migration	Migrated permanently	5843.75	Average Monthly Income of Internal Migrants = BDT. 7382,
		Migrated short-term	6285.71	
		Average	5978.26	
Sirajganj	Pattern of migration	Migrated permanently	8416.67	Maximum monthly Income = BDT. 9500 & Minimum income = BDT. 600
		Migrated short-term	9157.89	
		Average	8980.00	
Rajshahi	Pattern of migration	Migrated permanently	5961.54	
		Migrated short-term	8928.57	
		Average	7000.00	
Total	Pattern of migration	Migrated permanently	6328.57	
		Migrated short-term	8500.00	
		Total (Average)	7382.35	

**Migrants' Household Monthly Income:**

The migrants' average monthly household income was BDT 11,090, the maximum monthly household income was BDT 31,000, and the minimum household income was BDT 2000. A comparison of the three districts' income scenario shows that, except Natore, in other two districts, short-term migrants earn more than permanent migrants. Compared to Natore and Rajshahi, the earnings of migrants' households of Sirajganj were significantly higher. The reason is migrants' household of Sirajganj has more income earning persons. The average earnings of the respondents from Sirajganj were BDT 13,324. In the case of Natore, it was BDT 10,130 and for Rajshahi it was BDT 9,400.

Table 4.6  
**Migrants' Household monthly Income**

Site name	Pattern of migration	Monthly household income				Number of income earner
		Mean	Maximum	Minimum	Count	
Natore	Migrated permanently	9781.25	30000.00	2000.00	16	
	Migrated for short term	10928.57	24000.00	5000.00	7	
	Overall	10130.43	30000.00	2000.00	23	99
Sirajganj	Migrated permanently	16350.00	25000.00	4000.00	6	
	Migrated for short term	12368.42	31000.00	4000.00	19	
	Overall	13324.00	31000.00	4000.00	25	120
Rajshahi	Migrated permanently	7961.54	20000.00	3000.00	13	
	Migrated for short term	12071.43	23000.00	7000.00	7	
	Overall	9400.00	23000.00	3000.00	20	76
Overall	Migrated permanently	10231.43	30000.00	2000.00	35	
	Migrated for short term	12000.00	31000.00	4000.00	33	
	Overall	11089.71	31000.00	2000.00	68	295

#### **Other Sources of Income:**

Along with monthly cash income, 16 migrants had other sources of earnings as well. Table 4.6 shows that 3 households (1 from Natore, 2 from Rajshahi) receive rent from houses, shops and land, 6 households bring in rice from villages, and 3 households receive government benefits. As many as 45 respondents do not have a secondary source of income.

Table 4.7  
**Income from other sources**

Income from other sources, paddy/rice from villages, rent (from houses,shops,land)							
Sites	Rent from (house,shop, land)	Paddy/ rice from village	Govern -ment benefits	Payments/benefits from religious/ charities/NGO organisations	Others	Did not receive	Total
Natore	0	1	2	0	0	16	19
Sirajganj	1	4	0	0	2	16	23
Rajshahi	2	1	1	0	2	13	19
Total	3	6	3	0	4	45	61

#### **Conclusion:**

This chapter informs us that, information regarding job prospects and access to job markets is largely received through social networks. Family or village-based social networks link prospective migrants with their destinations. Most of the sectors in which the migrant workers

were found to work lay outside the jurisdiction of labour law. It is clear that, in all three study areas, there is absence of formal sector industries. The service sectors in which they worked were informal sectors. Over two-thirds were self-employed and a small percentage was employed by others, also being informally employed. Those who migrated earlier are in a relatively better position and have a better income compared to those who have migrated more recently, as the former are taking advantage of their social networks to diversify their income and start small or petty businesses.

Some of the rural to urban migrants of Sirajganj seasonally migrate to work in the brick kilns in Chittagong, Rangamati, and Khagrachari as well as undertake earthwork and paddy harvesting in Tangail, Maniganj, Manikganj, Sylhet, Sunamgonj, etc. A small percentage of them also work in garment factories in Dhaka, Savar, Konabari, Narayanganj and Gazipur. The income of these out-migrants and seasonal out-migration households is also comparatively higher and more secure than that of other households. From Sirajganj, out-migration is comparatively higher than from the other two districts, due to the better communication system, inter-district railway networks, etc.

Most urban migrants worked in unhygienic conditions that are dangerous to health. They tended to be unaware about their health risk of doing unhygienic work, a few of course knew about this. But ensuring a livelihood was a higher priority for them than looking after their health.

## Chapter 5

### **Condition of the Slums and Informal Settlements**

The intergovernmental Panel on Climate Change (IPCC, 2007) expressed their uncertainty about how and to what degree climate change will play out at the level of the city. Taylor and Peter (2014), Baker (2012), Peter (2011) and ActionAid (2006) state that global climate change has a huge impact on slum-dwellers. They are at a particularly high risk due to the rising temperature, flooding and greater incidence of severe storms, which increases their vulnerability. However, the exposed location, huge population, lack of vegetation, unavailable or weak water supply and lack of adequate drainage systems in the slums may increase their inhabitants vulnerability. These factors are important because housing and living conditions underscore the quality of life of a household, which in turn is expected to contribute to human development. Living conditions include the quality of the home, the sources of drinking water, and facilities for the disposal of household waste. This Chapter investigates the conditions of the slums and other informal settlements where the migrants are concentrated. It also locates the environmental, social and political vulnerabilities that these migrants face in their current location.

**Location of the Slums/Informal Settlements:**

This study explores how the slums and informal settlements in Sirajgong, Natore and Rajshahi have grown up. In the key informants' interviews, the slum-dwellers in Natore stated that this district was the hub of many immigrants as it is connected to the northwest, southern and central districts which make it possible to find a livelihood and run a business. Those with money could easily buy land and construct a house but poor migrants had no choice but to move into a slum or informal settlement. Thirty to forty years ago, migrants tended to settle on the banks of long canals that were connected with the Padma River, cutting down the jungle to create a living space there. Now, the canals have become narrow.

The local government sheltered them and arranged for them to have electricity, drinking water and sanitation to make the areas cleaner and more environmentally-friendly. However, part of the hidden agenda was that these slum-dwellers received a national voter ID card through the help of the local, powerful elite to enable them to vote in the national and local elections.

In the KI interviews with journalists, the local elected government, government officials and other stakeholders in Sirajganong reported that the district of Sirajgong suffers from riverbank erosion. Every year, many people lose their land due to the force of water coming upstreams of India through Jamuna River. The slum-dwellers in Sirajgong city were mainly from this district, who have lost their land and were looking for a place to live. In this way, they were not migrants, but mainly displaced people. Migrants from other districts also came to there to work as labourers in the small-scale textile industry. The local residents built small slums for them to rent. In some cases, the small and large industry owners built temporary shelter for short stays.

In the KI interviews with local residents, migrants and government officials in Rajshahi also reported that Rajshahi is the focal point of the whole northwestern region of Bangladesh. For a long time, people have migrated there from various districts. The main habitable area for them was beside the Padma river. Three years ago, when the government renovated the city, they were displaced. Since then they could find shelter only at the roadside and in public and personal properties.

It appears, then, that the location of the sites, where the migrants stay relies on the availability of land (shelter), strong social networks, connections and political interests. Table 5.1 shows that 38.2% of the total respondents reported that the location of their slum/informal settlement was close to the residential areas - 14.7% in the industrial and 13.2% in the institutional areas. The highest number of respondents who stayed near the residential areas (85%) was found in Rajshahi; 24% in Sirajgong were located near the commercial areas; and 27% in Natore were located near the institutional areas.

Table 5.1  
**Location of the Slums and Informal Settlements (Based on 68 in-depth interviews)**

Type of area surrounding slums	Site name							
	Natore		Sirajgong		Rajshahi		Total	
	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
Residential	8	34.8%	1	4.0%	17	85.0%	26	38.2%
Industrial	4	17.4%	6	24.0%	0	0.0%	10	14.7%
Commercial	1	4.3%	6	24.0%	0	0.0%	7	10.3%
Institutional	5	21.7%	2	8.0%	2	10.0%	9	13.2%
Others	5	21.7%	10	40.0%	1	5.0%	16	23.5%
Total	23	100.0%	25	100.0%	20	100.0%	68	100.0%

Table 5.2 also shows that 22.1% of the total respondents' housing was close to the railway line. Of these, 25% were found in Rajshahi and 26% in Natore. Moreover, 31.4% of the respondents who were permanent migrants had a house along the railway line, while 16.2% of the respondents' houses were surrounded by along nallah (major water drain). Of these, 30% were found in Rajshahi and the second highest number (12%) in Sirajgong. The short-term migrants' housing was mainly located along the nallah, while 8.8% of the total respondents' housing was also close to a riverbank. Of these, 17.4% were located in Natore and 8% in Sirajgong.

Table 5.2  
**Physical Location of the Slums and Informal Settlements (Based on 68 in-depth interviews)**

Physical location of the slums	Site name							
	Natore		Sirajgong		Rajshahi		Total	
	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
Along a nallah (Major water drain)	2	8.7%	3	12.0%	6	30.0%	11	16.2%
Along a railway line	6	26.1%	4	16.0%	5	25.0%	15	22.1%
Along a major transport route	1	4.3%	6	24.0%	1	5.0%	8	11.8%
Along a riverbank	4	17.4%	2	8.0%	0	0.0%	6	8.8%
Other	10	43.5%	10	40.0%	8	40.0%	28	41.2%
Total	23	100.0%	25	100.0%	20	100.0%	68	100.0%

It is clear that the migrants and their families lived in slums/informal settlements that were often located in areas most vulnerable to the effects of climatic shocks and stresses. However,

respondents who lived beside the roadside reported that they felt insecure because of the location of their house. One migrant's wife in Sirajgong stated that:

•I am scared during the night when my husband is busy pulling a rickshaw...I and my two daughters and son are not safe if a bad man enters my house...I'm scared that two gangs will fight each other and attack and damage my house...I'm scared that my young son will be involved in a road accident...when I hear the traffic, I'm scared that it will crash into our house and kill us€ (translated from Bangla).

These comments reflect the vulnerable position of these houses, but the migrants had little chance to move house because of their poor socio-economic condition.

### Housing Patterns and Size:

This study explored the respondents' housing arrangements, which are linked to their personal security and privacy. Table 5.3 shows that most (51.5%) of the respondents' houses were made of tin (with a concrete floor), 26.5% were of katcha (mud/thatched/bamboo) and 20.6% were semi-pucca, with brick walls, a tin roof and a concrete floor. The highest number of tin houses (68%) was found in Sirajgong and the second highest (56.5%) in Natore. The highest number of katcha houses (40%) was found in Rajshahi and the second highest (26%) in Natore. The study also found that the migrants' houses were too narrow to be aired or private. Table 5.4 shows that the average house covered 266.34 square feet. The largest (1800 sq. feet) was in Natore and the smallest (80 sq. feet) was in Natore, Sirajgong and Rajshahi.

Table 5.3  
Type of homestead (Based on 68 in-depth interview)

Site name		Katcha (mud/thatched/ bamboo)	Tin	Semi- pucca	Others	Total
Natore	Count	6	13	4	0	23
	% within Site name	26.1%	56.5%	17.4%	0.0%	100.0%
Sirajganj	Count	4	17	3	1	25
	% within Site name	16.0%	68.0%	12.0%	4.0%	100.0%
Rajshahi	Count	8	5	7	0	20
	% within Site name	40.0%	25.0%	35.0%	0.0%	100.0%
Total	Count	18	35	14	1	68
	% within Site name	26.5%	51.5%	20.6%	1.5%	100.0%

Table 5.4  
**Size of the House in Square Feet (Based on 68 in depth interview)**

Site name	Mean	Maximum	Minimum	Count
Sirajgong	381.91	1800.00	80.00	23
Natore	233.76	800.00	80.00	25
Rajshahi	174.15	413.00	80.00	20
Total	266.34	1800.00	80.00	768

Most of the migrants and their household members reported that, since they knew that they might be evacuated at any time, it was unwise to spend money building a house. As they know that they are floating migrants, they try to build using low quality materials. In Rajshahi, most of the slums-dwellers' houses were made of very low quality materials, including bamboo and plastic (Image-16). However, even though they were built from low quality materials, every year they need to spend money to repair their house because the materials decay so quickly. More importantly,, they reported that, day by day, the local temperature has decreased and, even though they intend to stay for a short time, they need to spend money at least to save on heating. Also the weather has changed and causes additional costs. One migrant's wife stated that:

•In the last 20 years, I have lived with my parents and now with my husband (a migrant from Gaibandha). They never saw strong thunder storms like we had last year that caused great damage to their houses. They had to find extra money to build their houses. Now, we must always be prepared to rebuild our house due to excessive heat, rain and storms' (translated from Bangla).

Another group of migrants lived in the residential areas of Rajshahi. They reported that their mohajon (the leader or petty trader who recruited them to run his business) built their temporary housing because, at anytime, the landowner can cancel the contract, so it would be unwise to spend money building houses using high quality materials (Image-17-18).



Image 16-17  
Pattern of Houses in Rajshahi City Corporation Areas



Image 18-19

**Pattern of Houses in Rajshahi City Corporation Areas**



An exceptional case has been identified in Natore, where most of the houses are well-built. The migrants reported that it would not be easy to evict them. Therefore, they spent a lot of money on building houses using high quality materials. In many cases, they borrowed money from a local moneylender and NGOs under a micro-credit programme, and used high quality building materials for their houses to increase their social status and improve their quality of life. Roksana Begum, a female head of a migrant household, stated:

•Please don't call us slum-dwellers...we have prestige...My elder son is now studying at BUET (Bangladesh University of Engineering and Technology, one of the top universities in Bangladesh), We arranged a good marriage for my daughter...They are now living a happy life...We never introduce ourselves as slum-dwellers. What would my son say if he heard about it? They have friends from good families...please don't introduce us as that...  
(translated from Bangla).

Building houses not only provides shelter, but also produces other outcomes. The key interviews with slum-dwellers in Natore reported that most of them build a house out of tin because they know that they will receive a good return if they wish to sell it (Image 19-21). This means that slum-dwellers can sell their house for at least BDT 50000. This is illegal and the local ward commissioners and other government officials reported they do not allow this, but it had been happening in the slums, so they considered it an informal legal process and did not receive any complaints about it. Rob Ali, the male head of a migrant household, when asked why he wanted to sell his house, replied:

•Who wants to live in a slum...do you want to live there?...here, life is miserable...I want a good place for myself and my family. It is alright to live there when you are a newcomer but not for those who stay for a long time...now I can save money, so I'll soon sell my position and look for a new house in the city centre. Already, I'm searching for a new place for my family  
(translated from Bangla).

These comments show that the migrants want to change their situation when they get the opportunity.



Image 20-22  
Patten of Houses in Natore Pourashava



### **Sources of Drinking Water:**

Tube wells remain the only source of drinking water for 85.3% of all migrant households. The other water sources, although very low, are pond, lake and river water, and pipes or waterlines (Table 5.5). The FGDs in Sirajganj reported that, since the migrants live beside the river, river water was also a major source of drinking water. They also reported that they were fully aware about the safety aspect and the necessity for pure drinking water but that, during the flooding season, it is difficult to obtain water. All of the tube wells were under the river water. People sometimes travel a long distance to obtain pure drinking water but, in that case, they need to spend extra money hiring a rickshaw and a boat to transport the water. Those living on the riverbank stated that pure drinking water is always very rare. They have tube wells besides their house but cannot obtain water from them, because the owner of these tube-wells usually locks them with an iron chain, because of the possibility that the tube well will be broken if masses of people use it or it will run out of water soon through the pump. In that case, those who did not own a tube well had to travel a long distance to collect water or sometimes they stole water during the night.

In Rajshahi, it is also difficult to get water. However, those living in the city centre get city corporation water through pipes. Sometimes, they also go to the residential areas to obtain water and people kindly provide it. However, during the summer, it is very difficult to obtain water because the water level also falls. The respondents reported that, in the last five to six years, they had sometimes been unable to obtain water through the tube well, whereas before that it had been easy to get water. In that case, they go to houses or places with a deep tube well so that it is easier to obtain water.

In Natore, they also face the same problem regarding obtaining pure drinking water during the summer. The Natore Pourasava supplies pure drinking water in the summer but their situation was not as bad as that in Rajshahi. The local NGO officer and teacher informed us that Natore does not suffer from a shortage of water as the area has one of the biggest water bodies, the Arial bill. However, the study observed that, at the three study sites, the conditions of the tube-wells are very poor and out of service and, in most cases, their position was unhygienic (Image 22-23). The slum-dwellers were so poor that it was difficult for them to buy a new tube-well or repair it. In most cases, they were looking forward to the influential political leaders and government officials setting up a new tube well.



Image 23-24

**Out of service and unhygienic tube-wells**



**Rajshahi City Corporation**



**Natore Pourashava**

**Table 5.5**  
**Sources of drinking water**

Site name		Pipe or waterline	Tube well/de ep tube well	Pond/River/Lake	Others	Total
Natore	Count	1	21	1	0	23
	% within Site name	4.3%	91.3%	4.3%	0.0%	100.0%
Sirajganj	Count	0	24	0	1	25
	% within Site name	0.0%	96.0%	0.0%	4.0%	100.0%
Rajshahi	Count	7	13	0	0	20
	% within Site name	35.0%	65.0%	0.0%	0.0%	100.0%
Total	Count	8	58	1	1	68
	% within Site name	11.8%	85.3%	1.5%	1.5%	100.0%

### **Sanitation**

The sanitation system was identified as one of the biggest problems in the slum areas. The available toilet facilities in the migrant households demonstrate that 57.4% of the respondents used common (community) latrines and 41.2% used private latrines (Table 5.6). However, 47% of the total sanitary latrines had no water seal and 26.5% latrines were katcha.

**Table 5.6**  
**Sanitation Systems**

Site name		Common latrine(communit y)	Private latrine	N/A	Total
Natore	Count	14	9	0	23
	% within Site name	60.9%	39.1%	0.0%	100.0%
Sirajganj	Count	16	9	0	25
	% within Site name	64.0%	36.0%	0.0%	100.0%
Rajshahi	Count	9	10	1	20
	% within Site name	45.0%	50.0%	5.0%	100.0%
Total	Count	39	28	1	68
	% within Site name	57.4%	41.2%	1.5%	100.0%

Using private latrines took different forms. In Sirajganj, those living beside the riverbank reported that they had a community toilet but that it is too small for the large number of people who use it. Those who had a private latrine never allowed others to use it and kept it locked at all times. For the huge number of people living on the embankment, it was very hard to find space to set up a new latrine. In some cases, they used the riverside as their toilet. Many households also built a temporary, short-term toilet beside their cookhouse which was completely unhygienic (Image 24-25)

In Rajshahi, all of those who lived by the roadside used open spaces but many of them used private and community latrines. They reported that, since they have a voter id, they had gone to the influential political leaders to ask them to set up a latrine for them. They gave them hope, but nothing had been done. However, in the case of Natore, the local Poursava corporation built a community latrine for three houses. The pourasava, assisted by GIZ, built these latrines (Image-26). It is striking that all of the respondents reported that they know about the need for pure drinking water and sanitation but, due to their poverty, could not always afford to put this into practice.

Image 25  
**Condition of the Toilets**



Poor condition of the toilet in Sirajgong



Image 26  
**Condition of the Toilets**



Toilets and cooking area side by side in Natore

Image 27  
**Condition of the Toilets**



Natore Pourasava built this latrine to be shared by three houses

### Sources of light

Table 5.7 shows that 75% of the respondents had electricity in their house while 22% used kerosene for lighting. However, it should be mentioned here that, as the study covered different areas of the three cities, this figure does not represent actual scenarios. In Sirajganj, most of the respondents had lost their land and had no electricity, particularly those who lived near the riverbank. Those who lived on the embankment had access to electricity but only via an illegal connection. In that case, they had to bribe the local power supplier. In Rajshahi, those who lived in the residential areas had electricity but others did not. In Natore, most houses had access to electricity.

Table 5.7  
**Sources of Light (based on 68 in-depth interview)**

Site name		Electricity	Kerosene	Others	Total
Natore	Count	16	7	0	23
	% within Site name	69.6%	30.4%	0.0%	100.0 %
Sirajganj	Count	22	3	0	25
	% within Site name	88.0%	12.0%	0.0%	100.0 %
Rajshahi	Count	13	5	2	20
	% within Site name	65.0%	25.0%	10.0%	100.0 %
Total	Count	51	15	2	68
	% within Site name	75.0%	22.1%	2.9%	100.0 %

### Support or Development Interventions received by Migrants

The study found that very few in depth interviewees received any assistance from government or non-government organizations. The respondents reported that, since they were migrants (floating people), the local authorities were not interested in working for them. In fact, they focused mostly on local residents. Some respondents reported that they did not get any loans from the local Banks as they considered them outsiders. Even though they possessed local voter ID cards, they were still considered outsiders. However, a few agencies were identified that worked with slum-dwellers. Both Sirajganj and Natore Pourashava, with the support of the United Nation

Development Program (UNDP), Ministry of Local Government Engineering Department (LGED) has been implementing UPPR (the Urban Partnership for poverty reduction project) for some time. Another project, entitled the Slums Improvement Project (SIP), has been implemented by United Nation Children's Fund (UNICEF), KfW Bank and the German Development Cooperation in these slums. These projects involved development interventions for supplying drinking water, sanitation and healthcare in these slum areas. The majority of slum-dwellers are benefitted from these interventions. Nevertheless, some of the interviewees stated that they do not have access to all of these facilities. Access to decent housing in all three areas is the major hardship that the internal migrants identified. Access to sanitation and safe drinking water is scarce among slum-dwellers in Rajshahi City Corporation. In Sirajganj, it was also found that the sanitation facilities are inadequate for the large number of people.

### **Support Measures Demanded by the Migrants**

The study team asked the respondents what kind of support they needed to sustain their livelihood in their current destination. Twenty three respondents demanded house/shelter and settlements. Three reported good houses with electricity and fans for a low rent and another three lands (leased or rented) or cattle in their places of origin so that they might earn a livelihood. Employment opportunities were requested by ten respondents and loans at low interest rates to start a business, dairy farms, and poultry by 13 respondents. Three respondents demanded tools and vehicles grants to improve their income. Training was requested by two respondents, and sanitation, a supply of drinking water, electricity and tube-wells were requested by 20 respondents.

Five respondents also reported that they wanted legal support from the city councilors when they encountered problems/conflicts with locals. They reported that they were identified as outsiders when they conflicted with the local residents. Even the local police stations did not support them. They wanted justice, particularly on this issue. Since they lived beside the roadside, they did not want to be forcefully evicted. They also demanded bank loan facilities in their current destination so that they could easily change their fortune. Most of the respondents also reported that the government should include old people under the social safety net programmes, such as old age and widow schemes, VGD (Vulnerable Group Development) and VGF (Vulnerable Group Feeding) cards.

### **Conclusion:**

This Chapter has investigated the conditions of the slums and informal settlements together with the access to services. Most of the slums were located near the roadside, railway stations and bus stations. Since these are public property, they automatically chose to stay in these areas. It was observed that most of the dwellers originated from one district, possibly because social networking plays an important role in finding shelter and so many migrants from the same area

of origin may end up concentrated in one area in their place of destination. Without this network, migrants might encounter difficulties in finding shelter.

However, the houses were located in the vulnerable areas where there were threats due to climatic stresses. In Sirajgong, most of the houses were beside the riverbank, where they might be lost to erosion. Many houses were also located beside the nallah, an area associated with unhygienic living conditions and health problems. In addition, most of the houses were made of tin and the rest of katcha, and were so small that it was difficult to air them or keep them private and secure. It may be argued that most of the respondents had migrated due to climatic stresses or shocks that they had suffered in their place of origin. However, they run the risk of falling into the same situation in the destination area, as their current living conditions were also threatened by climatic stresses, so their unfortunate position persists.

Most of the migrants and their families were well-aware of the need for pure drinking water and good sanitation, but were unable to access these due to their poor socio-economic situation. Even if they could access clean drinking water via tube wells, these were in short supply, and so they often had to travel a long distance to fetch pure drinking water. However, the respondents also faced difficulties in obtaining water during the summer because of the lowering of the ground water level. In that case, they asked households with deep tube-wells to supply them with water. Although the Natore Pourashava provided water through pipelines, it was difficult for the respondents in Sirajgong and Rajshahi to obtain this type of service from the government.

A section of respondents used private and community latrines, but many of these had no water seal or were katcha. In fact, the respondents in Sirajgong and Rajshahi used open spaces as their toilet. It was hard for them to build a latrine as they lived in private property from which they could be evicted at anytime. Moreover, they could not afford to build a latrine. Sometimes, they built a small latrine but it was unhygienic. Most of the migrants also had no access to electricity except in Natore, so kerosene was the main source of light in their household. They were aware that solar panel was available but it was difficult for them to buy them.

The study also found that very few organizations focus on the development of urban poor migrants. They did not have any social protection from either the government or non-government organisations. Though Sirajgong and Natore were identified as offering some development initiatives, these were insufficient to meet the needs of the large number of urban poor migrants. Most urban poor migrants demanded housing, while a few respondents asked for sanitation, water and electricity. However, a few respondents wanted to ensure their social right to access justice, not be identified as outsiders and be included within the government's development programmes.

## Chapter 6

### **Stress Situation in the Areas of Origin and the Impact of Climate Change Stress on Life and Livelihoods**

Globally, a large quantity of research-backed studies reveals a multifaceted landscape of patterns and contexts for migration linked to environmental hazards,<sup>16</sup> which include both shocks, such as floods and cyclones (rapid onset),<sup>17</sup> and stresses, such as droughts or changing rainfall patterns (slow onset).<sup>18</sup> Bangladesh is one of the most vulnerable countries to rapid-onset and slow-onset hazard events related to climate change. The country suffered two super cyclones (Sidr 2007 and Aila 2009) and a major flood (flood 2004) in the last decade. Thus, all over the world, Bangladesh is well-known as a flood- and cyclone-affected country but, in recent years, the slow onset disaster of drought has been more frequent there due to climatic as well as non-climatic variability (Habiba, Ragib and Shaw, 2013). Every year, the north-west region of Bangladesh faces severe seasonal droughts, which may be attributed to many factors, including long-term changes in rainfall patterns, the over-pumping of ground water and the diversion of water at the upstream. The intensity and duration of these droughts have been increasing over the years, putting major stress on the livelihoods of those in this region, who are overwhelmingly agricultural farmers. In 2006, the crop production was reduced by 25-30 percent in northwestern Bangladesh on account of droughts (Rahman et al. 2007). This slow-onset climatic stress often leads to both seasonal and long-term migration to nearby and distant urban locations from the north-western part of Bangladesh. This study investigated both rapid and slow onset climatic stress.

#### **Experiences of Rapid Onset Climatic Stresses**

Of the 68 households, 60 faced different types of rapid onset stress, eight did not experience any stress (Table 6.1) and 48.3% reported that they regularly affected by flooding in their village of origin. An equal number of respondents (8.3%) experienced cyclones, riverbank erosion, and reduced crops yields. Thirteen respondents faced multiple stresses. Flood and riverbank erosion were mostly faced by the interviewees from Rajshahi and Sirajganj. Aslam Sarker, aged 35, who originated from Ullapara in Natore and now works in the Natore Pourashava area, stated that,

*fWe were the victims of river bank erosion twice in my lifetime. In the rainy season, water-logging is also a common phenomenon in my locality,,.*

---

<sup>16</sup> UNISDR (2009) defines a hazard as *fa* dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage,,.

<sup>17</sup> Rapid-onset climatic phenomena are extreme weather events, such as tropical cyclones, storms, and floods, that tend to capture the media headlines and a sudden impact (Kraler et al., 2011).

<sup>18</sup> Slow-onset climatic phenomena comprise repeated droughts, desertification, coastal and soil erosion, and rising sea levels (Kraler et al., 2011).

Table 6.1  
**Rapid onset climatic stresses (Multiple answers of 68 in depth interviewees)**

Climatic Stresses	Sirajganj		Natore		Rajshahi		Total	
	Count	%	Count	%	Count	%	Count	%
Flooding	10	47.6%	7	36.8%	12	60.0%	29	48.3%
Cyclone	2	9.5%	2	10.5%	1	5.0%	5	8.3%
River-bank/coastal erosion	2	9.5%	0	0.0%	3	15.0%	5	8.3%
Drinking water shortage/pollution	0	0.0%	0	0.0%	2	10.0%	2	3.3%
Salinisation	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Water-logging	0	0.0%	1	5.3%	0	0.0%	1	1.7%
Reduced crop yields	4	19.0%	1	5.3%	0	0.0%	5	8.3%
Reduced fish catch	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Flooding, cyclone, water-logging	0	0.0%	1	5.3%	0	0.0%	1	1.7%
Cyclone, water-logging	0	0.0%	1	5.3%	0	0.0%	1	1.7%
Flooding, reduced fish catch	0	0.0%	1	5.3%	0	0.0%	1	1.7%
Flooding, cyclone, water-logging	0	0.0%	5	26.3%	0	0.0%	5	8.3%
Flooding, cyclone, river-bank/coastal erosion, drinking water shortage /pollution	1	4.8%	0	0.0%	0	0.0%	1	1.7%
Flooding, cyclone, river-bank/coastal erosion	2	9.5%	0	0.0%	0	0.0%	2	3.3%
All	0	0.0%	0	0.0%	2	10.0%	2	3.3%
Total	21	100.0%	19	100.0%	20	100.0%	60	100.0%

### **Experience of Slow onset Climatic Stresses**

Of the 68 respondents, 59 faced slow onset stresses while nine respondents did not. Table 6.2 also shows that 33.9% of the respondents faced droughts and a lack of rainfall in their village. 10.2% of the respondents reported that the ground water level had fallen in their place of origin, while 6.8% observed the incidence of erratic rainfall. An equal number of people (6.8%) also noted the seasonal infertility of the land. Almost 17% of the respondents faced multiple slow onset stresses. One can easily argue that some of the economic hardship faced by migrant in origin area has been driven by climatic stresses.

Table 6.2

**Slow onset climatic stresses (Multiple responses) faced by in-depth interviewees**

Climatic Stresses	Sirajganj		Natore		Rajshahi		Total	
	Count	%	Count	%	Count	%	Count	%
Drought/lack of rainfall	6	35.3%	6	28.6%	4	26.7%	20	33.9%
Erratic rainfall	2	11.8%	1	4.8%	1	6.7%	4	6.8%
Ground water level fall	3	17.6%	3	14.3%	0	0.0%	6	10.2%
Seasonal infertility of land	4	23.5%	0	0.0%	0	0.0%	4	6.8%
Drought/lack of rainfall, erratic rainfall, ground water level fall	1	5.9%	1	4.8%	6	40.0%	10	16.9%
Drought/lack of rainfall, ground water level fall	0	0.0%	1	4.8%	0	0.0%	1	1.7%
All	1	5.9%	0	0.0%	4	26.7%	5	8.5%
Not faced	0	0.0%	9	42.9%	0	0.0%	9	15.3%
Total	17	100.0%	21	100.0%	15	100.0%	59	100.0%

**Current State of Climatic Stresses (rapid and slow) in the Areas of Origin:**

More than eighty percent (80.88%) of the respondents stated that climatic stresses are still active in their place of origin and that the number of incidences is increasing day by day, although 16.17% observed that the climatic stresses are less evident in their place of origin now. Some of these respondents from Natore stated that irrigation facilities have been developed in their village, so that effects of the droughts are less evident, although 2.95 percent of them do not know whether the stresses are still evident or active in their place of origin.

Table 6.3

**Current state of climatic stresses (rapid and slow) in the areas of origin**

Site name	Yes	%	No	%	Don't know	%	total
Natore	19	82.61%	3	13.05%	1	4.35%	23
Sirajganj	19	76%	6	24%	0	0.00%	25
Rajshahi	17	85%	2	10%	1	5%	20
Total	55	80.88%	11	16.17%	2	2.95%	68

Most importantly, those who stated that climatic stresses are still active in their place of origin thought that the number of such calamities had increased in recent times. Md. Shamsul Haq, who

originated from Boubazar Thana in Nilphamari and now works as a rickshaw puller in Natore, stated that,

*f*Every year, our village experiences flooding but, this year (2014), it occurred twice. In the rainy season, there are floods, whereas in winter there is dense fog, the intensity of which has increased over the years,,.

### **Impact of Climatic Stresses on Life, Livelihoods and Income**

#### Impact of slow onset stresses:

Among the slow onset climatic stresses, many of the migrants stated that droughts and underground water fall have a considerable impact on their life, livelihoods and income. Nurul Islam, aged 35, originally from Ullapara in Sirajganj, who now works in Sirajganj Pourashava, stated that, *f*During May-June (Chaitra-Baishakh), there was a severe drought. At that time, the water level fell. We couldn't irrigate even though we used water pumps for IRRI<sup>19</sup> cultivation. After digging down 15-20 feet, we used to set up shallow machines and raise water. As a result, our production cost has increased. On top of that, 280-320 Kilograms less of paddy are produced in every bigha (one bigha = 33 decimals). Moreover, my crops perished almost 7-8 times in floods,,.

Md. Fazar Ali, aged 38, originally from Berain Pabna and now a migrant in Sirajganj, stated that, *f*My crops perished in droughts. Even in the last Jaishtha, the jute production perished. The cost of irrigation has increased. It was 400 taka for 33 decimals before, but now it is 800 taka,,.

Abul Kashem, aged 48, a migrant from Rangpur who now works in Sirajganj, stated that, *f*I've a small piece of land but, due to droughts, I can't produce crops there all year round. I can only produce one or two crops,,. Hazrat Ali, aged 41, originally from Isshardy in Pabna and now in Sirajganj, stated that, *f*Due to drought, paddy can be cultivated only once a year and we can't farm anything else,,.

Md. Rezaul Karim, aged 42, a migrant in Sirajganj from Bera in Pabna, stated that, *f*My paddy plants perished due to shortage of water. The irrigation cost has increased due to the decreasing level of ground surface water. We incurred losses and shortages of food,,.

#### Lack of/low/erratic rainfall:

The rainfall situation has also deteriorated, affecting many respondents' agricultural production. Md. Abdul Latif, aged 35, a migrant in Sirajganj from Uttarshosi, Panchapuur in Nilphamari, who suffered from drought and a lack of rainfall, stated that *f*We can't benefit from agriculture if it doesn't rain. In our village, there are no rivers or canals around the agricultural fields. Raising underground water is so expensive that we can't gain any benefits from cultivation,,. Md. Nazmul, aged 20, a migrant in Sirajganj from Chandaikona, Sherpur in Bogra, stated that, *f*My

---

<sup>19</sup> A variety of seeds developed by International Rice Research Institution



paddy crops perished once, two years ago, due to hailstorms. We got only 50 Maund (1 Maund=40 Kilograms) of paddy instead of 150 Maund. We incurred huge losses,, Helal, aged 40, also an internal migrant in Sirajganj, from Bera in Pabna, stated that, fDue to thunderstorms and hailstorms, this year, my crops of 7 bigha (= 231 decimals) of land were completely destroyed. Besides, floods and erratic rainfall also damage the crops,,.

Khorshed, aged 50, a migrant in Rajshahifrom Syedpur in Nilphamari, stated that, fAgricultural cultivation is completely dependent on rainfall in Syedpur (his place of origin). We have little access to water for crops except during the rainy season. Deep well water is very costly,,Aslam, aged 35, a migrant in Rajshahi from Natore, stated that, fThe surface water level has decreased in my area. It costs too much to cultivate at various times,,.

Saiful Islam, aged 30, another migrant in Rajshahi, from Naogaon, stated that, fThe price of irrigation water is 3000 taka per bigha (= 33 decimals). Besides, we need to buy fertilisers and insecticides and plough the land. How much can one benefit? Moreover, sometimes, erratic rainfall also damages the crops. Due to the excessive rainfall this monsoon, the production of Aman on 10 decimal of lands rotted away,,.

#### Extreme hot and cold, and fog:

Many other migrants suffered from extremely hot temperatures during summer and extremely cold ones in winter, that also affected their livelihood. Md. Robiul Islam, aged 53, a seasonal out-migrant in Sirajganj, living in a Khoksabari slum, stated that, fIn the last few years, it felt extremely hot during the summer and extremely cold during the winter. I can€ work for long in the summer,,.

Md. ShamsulHaq, aged 52, a migrant from Boubazar Thana in Nilphamari who now works as a rickshaw puller in Natore, stated that, fIn winter, there is dense fog which affects the production of potatoes. I incurred huge losses,,. MunsiiWadud, aged 55, who also originated from Darulhuda in Nilphamari and now works in a tannery in Sirajganj, stated that, fDue to the dense fog, my cultivated potatoes were destroyed, and I incurred a loss of Tk. 56000,,.

#### Impact on Rapid onset Stresses:

The respondents who experienced riverbank erosion suffered the worst of all. Shah Alam, aged 32, a rural to urban migrant fromSirajganj living in Mirpur, in a Hyderpara slum, stated, fI€ll have to migrate as my house and ancestral lands are under riverwater. We€lost everything due to riverbank erosion,,.

Md. Rezaul, aged 28, an out-migrant from Natore, living in a Chatni slum, stated that, fIn the cyclone of 2007, my paddy in the field was destroyed,,. Khokon, aged 30, a migrant from Dholirbandar, Madarganj in Jamalpur, now living in Natore, stated that, fFloods have had a

devastating impact on my life. Many times, I've cultivated paddy and floods destroyed the plants. Sometimes, floods occur at the last moment to claim my harvest,, Foni Das, aged 56, a migrant from Dinajpur who now lives in Natore, stated that, fAlmost every year, floods occur. As I am a rickshaw puller, during floods, we suffer a lot along with our family members,,

Another respondent named Dulal, aged 43, who migrated from Panchagarh and now works in Natore, stated that, fDue to several floods, my crops rotted. Consistently, for 4 to 5 years, my paddy production was destroyed, so I stopped farming and came to Natore to earn a livelihood,, Abu Bakar Siddiq, aged 27, from Shahjadpur in Sirajganj, who now lives in Sirajganj Pourashava, stated that, fDue to water-logging, we faced difficulties with mobilisation. In the recent floods, I lost my crops,,

Md. Aynal, aged 35, originally from Ulipur in Kurigram and now living in a Rajshahi slum, described his experience of loss due to riverbank erosion as follows, fMe and my family were asleep one night. Suddenly, at 2am, the river bank erosion started. My parents and siblings fell into the water. I somehow managed to reach the shore. I searched for them for 15 days, but couldn't find anyone. I got food by begging for 15 days. I used to live at the railway station. I felt ashamed to continue begging in my locality and, one day, unable to bear my hunger any longer, I took a train to Rajshahi. Now, I live at the railway station and earn my livelihood from rickshaw pulling and timber wood cutting,,

### **Intention to Return to the Place of Origin**

Of the 68 interviewees, 49 (72%) expressed a positive intention to return to their village of origin, but the remaining 19 respondents did not wish to return. In Natore, 15 of the 23 respondents stated that they intended to return, 25 in Sirajganj and, in Rajshahi, 15 of the 20 respondents clearly indicated their intention to return to their place of origin or village. As conditions for return, most of them wanted an assurance of employment opportunities, a reasonable income, a homestead or farmland, some capital to build up a new enterprise, or a small scale business. Many respondents expressed their wishes as follows:

Md. Aminur Rahman, aged 42, a migrant from Boraigram in Natore, now living in a Natore Pourashava slum, stated that, fLike others, I also wish to return there but we don't have anywhere to stay. If opportunities were provided, then we'd go,, Dulal, aged 43, also a migrant from Panchagarh, stated that, fIf permanent land and houses were offered, then I'd return,, Hazrat Ali, aged 41 (ID 043), a migrant from Issardhy in Pabna, stated that, fI don't have any chance to return now but, if we were rehabilitated, then obviously we'd go,,

Md. Milton, age 25, from Baghmara in Rajshahi, now living in Natore, stated that, fIf we got better jobs and living facilities, then we'd go,, Md. Rafiq Sarder, aged 32, from Tejnadi, Atrai in Naogaon, stated that, fYes, if I got a job there, then I'd go. Without an employment opportunity,

it's impossible to go there,, Nurul Islam, aged 35 (ID 027), from Ullapara in Sirajganj, stated that, *I* want to live in my house, but I am bound to live outside to earn a livelihood. If I could rear 4-5 cattle or have land of my own, *I* live in my own place,, Mijanur Rahman, aged 30, from Gaibandha, stated that, *I* feel affection for my place of birth so *I* definitely return if I get a job to cover the family expenses,, Md. Sumon Ali, aged 34, who migrated from Tanore in Chapainawabganj, stated, *I* do have an interest, brother, but there are poor income opportunities in the village and I can't earn more. Covering the family expenses gets extremely difficult. If I got a better job through which I could earn more and maintain the family expenditure, then *I* would go,,

Some of the migrants are in debt. They have taken out loans due to various socio-economic and environmental stresses. Sukur, aged 42, who migrated from Atrai in Naogaon, stated that, *I* intend to return but only after repaying my loans. *I* am in debt. If I could manage 100,000 taka, then *I* return,, Md. Jahirul Islam, aged 38, from Beeldohor, Singra in Natore, stated that, *I* have a strong desire to return, brother, but I don't have the capacity. I am in debt. After paying back the loans, if I am able to save some money, then *I* return. I want to open a shop after going back to my village. For this reason, I need money. There is no way to return without having money,,

A few migrants reported that they will return if their economic condition or capacity improves. Md. Abdul Wadud, aged 55, from Darulhuda in Nilphamari, stated that, *I* Yes, *I* return if the economic condition improves. If I can save some money or if things improve economically, *I* return home and get involved in a profession (in businesses like tannery),, Bodiuzzaman, aged 42, from Rahamatpur in Gaibandha, stated that, *I* Yes, if I can buy a farm and household land, I will return. I don't want to work as a scratched trader all my life,, Fulmian, aged 35, from Gaibandha, stated that, *I* If I am able to buy some farmland, if I can earn more money, then probably I will return home,,

A few respondents reported that they were in the process of deciding whether to return or not. Md. Abdul Latif, aged 35, from Nilphamari, stated that, *I* I am now deciding whether *I* return to my village or not. Now, my children are getting a better education here. I don't want my sons to follow my profession. My only wish now is to do something for the future of my children. I will stay here another few years, and then will think about returning,, He further suggested that, *I* It would be better for us if an industry was started in my village. There is an EPZ (Export Processing Zone) in Nilphamari. Due to the shortage of gas, garment factories have not yet opened. Only sweaters are produced there, but it would be better if it was full-on. Sometimes, sweater companies recruit employees. They employ 500, but 5000 people apply,,

### **Intention regarding Further Migration**

The migration experiences of those in these three districts show that, in most cases, those who migrated are not step-migrants. This means that they did not migrate to their current destination for a short period of time or, in other words, these current destinations are intermediary places of migration. Moreover, it also does not suggest that they intend to move elsewhere after a few days. When the migrants were asked whether they intend to migrate to another region, city or megacity, such as Dhaka, Chittagong, etc., or migrate abroad, nearly two-thirds (64.7%, 44 of the 68 respondents) of the migrants responded that they do not intend to migrate further. As more than half of the migrants were permanent migrants in this study, this answer is quite expected. Nevertheless, 30.8% of them stated an intention to migrate to the mega cities such as Dhaka and Chittagong if they get the opportunity or find better employment and better earnings. Some of them wanted to re-migrate to their areas of origin if they were rehabilitated by the government.

Md. Milton, age 25, from Baghmara in Rajshahi, now living in Natore, stated that, *If I get a better choice of employment, then I'd be interested in migrating again.* Md. Jahirul Islam, aged 38, who originated from Singra in Natore and now works in Natore Pourashava, stated that, *I want to go, but can't because my employer won't let me go until I pay back the money.* Md. Nurul Islam, aged 27, who had migrated from Naogaon to Rajshahi, stated that, *Yes, I'll go to a mega city (Dhaka) if I get a nice job. I have no interest to pull rickshaws there.*

### **Conclusion**

This Chapter shows that people who moved faced both rapid onset shocks, such as floods and cyclones, and slow onset stresses, such as droughts or changing rainfall patterns, etc. Facing both types of shocks and stresses, they had suffered from various kinds of social and economic hardship. These stresses and shocks impact upon their lives, livelihoods and incomes. Migrants in Rajshahi mostly experienced three types of environmental stress, i.e. riverbank erosion, floods and droughts. In Sirajganj, the majority of the slum-dwellers were rural to urban migrants or, in other words, within-district migrants and almost all of them had migrated due to riverbank erosion. A good number of migrants from Nilphamari were also affected by drought. Migrants in Natore were also largely affected by flooding and drought. This research amply demonstrated that among all of the types of stresses that the migrants faced in their area of origin played a vital role in their migration.

A large section of the respondents (72%) expressed their intention to return home if they were offered employment, land, housing and credit. It seems that, if opportunities arise, they will return home but, first, they wished to ensure that their livelihood was secure there. 64.7% respondents did not want to re-migrate to other big cities such as Dhaka, Chittagong. They did not want to change their current location unless they could get a clear picture of their life and livelihood in the new destination.

## Chapter 7

### Social Cost and Impact of Migration

Migration plays an important role in providing new opportunities for migrant households and also contributes towards reshaping their social circumstances (Sabates-Wheeler and Waite 2003). This Chapter describes the social cost of migration to explore how migrants' households benefit and incur losses due to the migration of their family member(s) as well as to what extent and at what intervals migrants maintain contact with their family back in their place of origin, and whether migrants receive any benefits or suffer any negative experiences in their destination workplaces. Later, the impact of migration on family life, migration and the improvement as well as reduction in the quality of life of the women/family members left behind will be explored, together with the effects of migration on the parents and children who are left behind.

#### **Benefits of migration to the Household**

This Chapter outlines the benefits of migration in the words of the migrants themselves. They explained that, after migrating, they found work, obtained more work opportunities to generate an income, were assured of three meals a day, felt more relaxed, could pay for their children's education, etc. Each of these factors indicates that the migrants could meet their basic needs, find employment, eat regularly and enjoy a better quality of life. The respondents' comments are presented in the following.

#### Ensuring food security

Md. Rezaul, age 28, an out-migrant who lives in Chatni slum in Natore, stated that, *f*Now, we've more food than in the past,. Romecha Begum, aged 32, stated that, *f*Now, we've food to eat, clothes to wear. Besides that, we have no debts. Apart from this, nothing else has been achieved,. Md. Jahirulislam, aged 38, a migrant from Singra in Natore, stated that, *f*We've food and clothes. There is no extra benefit, and we can even pay back the loans,. Khokon, aged 30, a migrant from Dholirbandar, Madarganj in Jamalpur who now lives in Natore, stated that, *f*We can all live together. Get food and clothes. My daughter goes to school. We're fine but have debts as well. It'd be better if our loans were paid off,.

#### Increased work opportunities

Md. Abdus Satter, aged 47, from Ullapara in Sirajganj, stated that, *f*In my village, I've no chance to work. After migrating, I found work. Now, my sons are earning also,. Md. Ferdous, aged 32, from Ataikula, Harishpur in Naogaon, who now lives in a railway slum in Natore, said, *f*I get more opportunities here (although to a smaller extent) to generate an income,. Firoz, aged 22, stated that, *f*During the rainy season, there's no way to earn a livelihood in the village. So, I bear the family expenses by earning money by working in Dhaka,.

### Meeting children's education costs

Md. Aminur Rahman, aged 42, who migrated from Boraigram in Natore, stated that, fNow, we no longer have to starve. My children's education expenses can also be met now,, Selina Begum, aged 40, a cyclic migrant in Chatmahar, Pabna in Sirajganj, stated that, fOur income has increased. Now, we can afford to pay for our children's education,, Alimuddin, aged 70, a migrant from Shibganj, Bagra to Sirajganj, stated that fThe children are being educated,, Aynul Huq, aged 82, a migrant from Nilphamari to Sirajganj, stated that fMy income level has increased and the children are being educated,,

### Migration improves economic conditions and social status

Md. Fazar Ali, aged 38, originally from Berain Pabna and now a migrant in Sirajganj, stated that, fWe didn't have a house before. Now, we've built a house,, Jahurul Islam Raju, aged 28, an out-migrant from Sirajganj, now living in a Husainpur slum, stated that, fPoverty's been eradicated. The family's happy. Now, we don't have to take out loans throughout the year,, Khokon, aged 34, also a seasonal out-migrant from Sirajganj, now living in a Khoksabarrii slum, stated, fMigration brings economic development, happiness in the family and the children are now being educated,, Bacchu, aged 45, from Syedpur in Nilphamai, now living in Rajshahi, stated that, fAfter I came here, a generous man bought me a rickshaw. He even gave me some cash and I opened a small shop. Now, this is better than my previous miserable life which started with riverbank erosion,, Bodiuzzaman, aged 42, from Rahamatpur in Gaibandha, stated that, fMy income's increased. My son's being educated. My daughter has married well. I am also supporting my in-laws,, Md. Sumon Ali, aged 34, who migrated from Tanore in Chapainawabganj, stated that, fI've benefited. We can afford to pay our costs properly by working here. My sons go to school. We've no loans to pay back. I have opened a deposit scheme (DPS) account (500 taka per month). We are fine, brother,,

### **Loss of the Household due to Migration**

Most the interviewees stated that, due to their migration, no damage was done, but a few of them expressed concern due to their migration. They miss their emotional attachment to their locality and parents. Some of them stated that the lack of a male member in the household back home, due to their migration, was a concern. Some of them were also concerned about the security of the women and children left behind in their village of origin, and dispossession of house and land due to migration was mentioned. Some of them were struggling to adjust to living with the locals at their destination.

Gulzar Begum, aged 54, a rural to urban migrant in Natore, stated that, fAfter migrating, I lost my house,, Foni Das, aged 56, who migrated from Dinajpur to Natore, stated that, fIn my absence, I lost nearly 1 bigha (=33 decimals) of land,, However, Dulal, aged 43, who migrated from Panchagarh to work in Natore, stated that fWe need to adjust to a different place. Still, we're struggling to mix with the locals,,

A sense of insecurity due to the absence of a male member in the household was also mentioned by a few of the migrants. Firoz, aged 22, an-out migrant from Natore, now living in a Borovita slum in Natore Pourashava, stated that, *fNothing wrong has happened that can be considered due to migration. The only worry is that there is no male member in the house. The female members feel constant tension,,. Yousuf Sheikh, aged 39, a seasonal out-migrant who lives in a Sraiganj slum, stated that, fOften, there are riots in my area of origin. Then, my family feels insecure, because I€m absent,,.*

A few respondents also missed the presence and affection of their parents. Md. Jahirul Islam, aged 38, from Singra in Natore, now working in Natore Pourashava, stated that, *fI haven€t incurred any losses but sometimes feel sorry for my parents as I€ve left them to go and live in this far-off place,,. Aynul Huq, aged 82, a migrant from Nilphamari to Sirajganj, stated that, fDue to migration, I can€t live with my family members only stay with them when I€ve a vacation every year. This is the only bad feeling, I€d say,,. Md. Abu Sayeed, aged 32 (ID 067), a migrant from Pabna to Rajshahi, stated that, fAs a result of coming here, I can€t live in my own house. In the village, there are uncles, cousins and other relatives. It is no longer possible to live with them. These are lost. Besides this, nothing else has happened,,.*

### **Maintaining Contact with the Place of Origin**

The following table (table 7.1) shows that, of the 68 respondents, 49 maintained contact with their family or extended family members whom they had left behind in their place of origin. Of these, 16.33% contact their family back home on a daily basis, 59.2% several times a week, 10.2% once a week, and 2.04% once or twice a month. The majority maintained contact through mobile phones. Some also go to their village at the weekend and some once a month. Two respondents maintained no contact with their place of origin. Seventeen respondents mentioned that they have no close relatives in their village of origin, and so do not have a contact point. All of these belong to the permanent migrants€ category.

Table 7.1

#### **Frequency of contact with place of origin (based on 68 in depth interviewees)**

	Natore	Sirajganj	Rajshahi	Total	Percentage%
Daily	2	3	3	8	16.33%
A few times a week	8	13	8	29	59.2%
Once a week	0	3	2	5	10.2%
Once or twice a month	0	1	0	1	2.04%
A few times a year	1	1	4	6	12.24%
	Sub-total			49	100%
Not at all	1	0	1	2	2.94% of total
Not applicable	11	04	02	17	25% of total
Total	23	25	20	68	

### Benefits Received from the Destination Workplace

Table 7.2 shows that, of the 68 respondents, 14 received some benefits from their destination workplace, but 13 responded that they did not. If we look at the livelihoods of the internal migrants, we see that most of them are wage labourers or self-employed. Since most of the internal migrants belong to the self-employed category, in most cases (41%), these questions were unanswered. Only 2 received paid sick leave, 4 received meals from their employer, and 7 received lodgings.

Table 7.2

#### Benefits from the destination workplace (Based on in depth interviews)

	Natore	Sirajganj	Rajshahi	Total
Holidays	0	0	0	0
Sick leave	1	1	0	2
Social security (health/pension etc.)	0	0	0	0
Uniform	0	0	0	0
Meals	0	0	4	4
Transport	0	0	0	0
Lodging	3	3	1	7
Others	0	0	1	1
No benefits	3	5	5	13
Sub-total	7	9	11	27
Not applicable				41

Md. Abdul Wadud, aged 55, who worked in the tanneries of Sirajganj, stated that, *f*There is no day off per week but, every two months, a week's vacation is granted. I go to my house then,,. Md. Nazmul, aged 20, who worked as a power loom operator in Belkuchi in Sirajganj, having migrated from Sherpur in Bogra, stated that, *f*We have a weekly day off on Fridays, but I don't go to my village for one day, I usually go to my village once a month and stay for 2 days,,.

### Negative Experiences in the Destination Workplace

Table 7.3 shows that, of the 68 respondents, 21 had suffered some negative experiences in their destination workplace, while 13 responded that they had not. Four had experienced physical abuse, 7 physical injury, 2 unhygienic work/job conditions, 3 being forced to engage in drug handling/transport, and 2 had been affected by infectious diseases.



Table 7.3  
**Negative experiences in the destination workplace**

	Natore	Sirajganj	Rajshahi	Total
Physical abuse	1	2	1	4
Physical injury	3	2	2	7
Unhygienic work/jobs	0	2	0	2
Hazardous chemicals	0	0	0	0
Occupational discrimination	0	0	0	0
Gender discrimination	0	1	0	1
Drugs handling/transport	0	0	3	3
Drug addiction	0	0	0	0
Forced labour situation	0	0	0	0
Affected by infectious diseases	0	0	2	2
Others	0	1	1	2
No negative experiences	6	2	5	13
N/A	13	15	6	34
Total	23	25	20	68

### **Impact of Migration on Gender**

Thirty four out of the 68 respondents stated that migration has improved the quality of life of the women or other family members whom they had left behind, while four stated that it had not and three stated that it had remained the same. As more than half of the respondents were family migrants and, in most cases, their parents were no longer alive and they do not have any extended family members in their area of origin, this question was unanswered by this group.

Of the 34 respondents who stated that migration has improved the quality of life of the women or other family members whom they had left behind, 4 stated that migration has reduced the work burden, 20 that migration had enhanced the purchasing power, 1 that migration has increased the employment opportunities, and 2 that migration had improved access to better education for their family members left behind.

Table 7.4  
**Criteria for improvements in the quality  
of life of the family members left behind**

	Reduced work burden	Enhanced purchasing power	Increased employment opportunities	Increased mobility	Better education	Enhanced social status	Improved decision-making capacity	Other
Natore	0	5	0	1	0	0	0	2
Sirajganj	3	10	1	0	2	0	0	2
Rajshahi	1	05	0	0	0	0	0	2
Total	4	20	1	1	2	0	0	6

Twelve of the 68 respondents also stated that migration has reduced the quality of life of their family members left behind, while 36 respondents stated that it had not, and one stated that it had stayed the same. For 19 of the respondents, the question was inapplicable because they were family migrants or did not have any extended family members in their area of origin.

As already mentioned, 12 respondents stated that migration has reduced the quality of life of the women or other family members whom they had left behind. Of these, two said that migration had increased the work burden of the women/family members left behind, and five stated that, due to their migration, there exists a sense of insecurity due to the fact that the male member of the household is absent.

Jahurul Islam Raju, aged 28, an out-migrant from Sirajganj, now living in a Husainpur slum, stated that, *fMy father's dead* There are no other male members in the family. In my absence, the other members feel insecure,.. One of them mentioned that migration had disrupted his family life. Md. Abdul Wadud, aged 55, from Darulhuda in Nilphamari, stated that, *fI've been a migrant worker for the past 25-30 years. Whenever I talk to my wife on the mobile, I have to listen to various complaints. I had to come here three months after getting married,..* Md. Abu Sayeed, aged 32, a migrant from Pabna to Rajshahi, stated that, *fI came here with my family so I don't face these problems,..*

### **Impact of Migration on Parents and Children**

Of the 68 respondents, only five stated that migration has adversely affected their parents whom they had left behind. Md. Abdus Sattar, aged 47, a migrant from Ullapara in Sirajganj to Natore, stated that, *fMy mother also lives with my elder brother in Natore. My father died when I was a child, so my migration had no impact on my parents,..* Shakwat Ali, aged 29, a migrant from Panchagarh to Natore, stated that, *fWhen I was a child, my parents separated. After that, my mother remarried and went to someone else's family. As my father has remarried, my stepmother takes care of him. After I migrated, I didn't have enough of a connection with my father,..* Md.

Shamsul Haq (ID 010), from Boubazar Thana in Nilphamari, stated that, *I really miss them. If they fall ill, I have to send the cost of the treatment,,. Another respondent stated that, I'm so poverty-stricken that I can't give my mother anything,,.*

Of the 68 respondents, only 3 stated that migration has adversely affected the children they had left behind. Dulal, aged 43, who migrated from Panchagarh to Natore, stated that, *I migrated along with my family, so my children are with me. Here, I'm trying to ensure my children's education but facing struggles due to insolvency,,. Md. Abdul Wadud, aged 55, who migrated from Darulhuda in Nilphamarito Sirajganj, stated that, In my absence from the home, my children have become naughtier and do not get proper guidance and norms,,. Yousuf Sheikh, aged 39, a season-out migrant living in a slum in Sirajganj, stated that There's no one to take care of them in my absence,,. Abdul Sheikh, aged 52, an out-migrant living in a Khoksabari slum in Sirjganj, stated that I'm out of the home and, in my absence, they don't study seriously,,.*

### **Conclusion**

This chapter has highlighted that migration is a crucial source of livelihood for many respondents. Regardless of how an external observer views and interprets the migration , providing additional food for the family, clothing and other basic necessities, mobile phones enabling families to remain connected with their family, household goods, that give the separated migrant families emotional escape and temporary reprieve from the challenges of daily life, investing in the education of their children to ensure that their future is more secure and rewarding than their own , this source of income provides migrants and their families both with a sense of *social protection,, (Sabates-Wheeler and Waite,2003), and a means of radically transforming their life chances.*

## Chapter 8

### Conclusion and Policy Recommendations

#### Conclusion

This study is on adaptation strategies of urban migrants in the context of climate change. The study found that migrants residing in urban peripheries of Rajshahi, Sirajganj and Natore have been using migration as livelihood or survival strategy for quite some times. Mainstream migration literature of Bangladesh mostly highlighted economic, social and demographic challenges as drivers of rural , urban migration. This study found that many economic, social and demographic challenges that led to migration decision of the slum dwellers are deeply bounded with the environmental or climatic stresses of the areas of their origin. Migrants in Rajshahi mostly experienced 3 environmental stresses, i.e. riverbank erosion, flood and drought. In Sirajganj almost all migrated due to riverbank erosion. Migrants in Natore were also largely affected by flooding and drought. In other words, these groups of people have taken help of different types of migration (short-term, cyclical, seasonal or permanent) to adapt to the changes that took place in their lives due to social and economic reasons influenced by climatic stresses.

Migration patterns are different. 66.7% of the slum dwellers migrated as family. Those who have lost homestead and or arable land migrated as family. Members of those families who have lost livelihood avenues but had their homestead mostly migrate singly. 69.3% of them migrated permanently and 30.7% migrated for short-term. Some migrants migrate several times a year and return home during the farming season; some migrate and return every month; others migrate at a particular time of the year. Around 65% of the migrants of these three districts originated from greater Rajshahi division and 20% of them from Rangpur division.

Half of the migrants reported that they were considering migrating for a long time, the other half decided to migrate suddenly. Migration decisions are mostly made by family members (father or siblings). In some cases, individuals decided to move. Neighbours and villagers helped both individuals and family migrants with information as well as by supporting settlement in urban areas.

Around 35% of migrants work in services sector. Another 25% are wage labourer, and 20% of them are self employed. More than 60% of the service sector workers pull rickshaws. Only a handful of the migrants worked in formal sectors. Average monthly household income is around Tk. 11,000.

Most slums are located near road side, railway station and bus station. Slums are situated in vulnerable areas such as erosion prone riverbanks; besides the drain etc. and their living conditions are unhygienic. Access to decent housing in all three areas is the major hardship that internal migrants identified. Access to sanitation and safe drinking water are scarce to slum dwellers of Rajshahi City Corporation. In Sirajganj, it was also found that sanitation facilities are

not adequate for a large number of people. More importantly these areas are also threatened by climatic stresses. The settlements are exposed to threats of cyclone, hailstorm, cold wave and heat wave. Some live in extreme fear of thunderstorm. During the winter they suffered from cold wave and during summer they suffered due to extreme hot weather. Some slums also faced man made environmental stresses. In Natore, those who are living in the bank of the canals of Turag river they are exposed to industrial wastes of Carew chemical company. Due to effects of chemical reactions their tin made roofs were destroyed. The slum dwellers are experiencing skin diseases and they have lost their access to natural fish catch due to pollution of water bodies. People living in these settlements are equally vulnerable to physical and social insecurity. Some of these settlements also face the threat of eviction.

Both Sirajganj and Natore pourashavas with the support UNDP under the Ministry of LGED have been implementing UPPR (Urban Partnership for Poverty Reduction project) for more than a decade. Another project named Slums Improvement Project (SIP) has been implemented by UNICEF, KFW Bank and German Development Cooperation in these slums. Both these projects have some development interventions for supply of drinking water, sanitation and health support in these slum areas. Majority of the slum dwellers benefitted from these interventions. Nevertheless, some interviewees stated that they do not have access to all these facilities.

Nearly two third, 64.7% (44 respondents out of 68) of the migrants responded that they do not intend to migrate further. As more than half of the migrants were permanent migrants in this study so this answer is quite expected. Nevertheless, 30.8% showed their intention to migrate in the mega cities of Dhaka and Chittagong if they get the opportunity or find better employment and better earnings. 72% expressed their desire to return to their village of origin, if they are provided with housing and livelihoods.

## **Recommendations and policy suggestions**

This research amply demonstrates that a section of people move from rural to urban areas, when their livelihoods are no longer available in their rural setting. Instead of looking at such migration as a failure to adapt locally one can look at it as one of the ways of adaptations in new environmental and economic realities. This necessitates reformulation of the existing policies on migration in the context of climate change. It was found that majority of the migrants would like to stay or settle in the nearby urban areas. They were not very keen to migrate to megacities like Dhaka and Chittagong. In order to support them to stay in their nearby urban areas policy makers need to focus on development of urban growth centres in different districts of the country.

For policy makers

- Different government ministries and agencies involved in climate change may consider reorienting adaptation policies that build upon migration. Such policies include NAPA,

BCCSAP, DRR and the Coastal Afforestation programme. These policies should incorporate voluntary migration as one of the adaptation tools.

- Ten year Perspective Plan and the 7th Five Year Plan should focus decentralization of government bureaucracy so that urban growth centres can flourish at district level.
- Special incentives should be provided to those who would set up industries in these areas. Government and development partners may assess the feasibility of opening special economic zones in these areas. Feasibility study should be conducted on understanding raw materials available in the specific districts or region. Rajshahi can be targeted for strengthening silk industry. Fruit processing industry can also be developed in Rajshahi. Sirajganj has great potential for modernization of hand and power loom industries. Natore is ideal for sugarcane and fruits based industries.
- While developing urban growth centres living arrangements of service providers needs to be planned in close by peri-urban areas. These peri-urban areas should be designed with low cost housing, educational institutions, and medical facilities with access to safe drinking water and sanitation and electricity.
- Over population in the urban areas of these districts can be avoided by development of transport infrastructures so that workers can commute from their settlements to urban works centres. The cost for commuting should be kept at a minimal.
- Inter ministerial body composed of LGRD, Ministry of Environment and Forest, Disaster Management and Relief, Ministry of Relief and Rehabilitation. Ministry of Agriculture and inter agency cooperation are required to develop a comprehensive planning for development of such urban growth centres in different districts.
- Along with undertaking local level adaptation programmes, Climate Change Trust Fund should be geared towards innovative projects that incorporate cyclic migration of people from climate change affected rural areas.
- The development partners can play a positive role in reframing those section of BCCSAP, NAPA, DRR, Coastal Management Policy documents which equated internal migration with crime or looking at migrants as welfare targets. Development partners supporting the BCCSAP may initiate dialogues among the stakeholders for exploring the scope of incorporation of voluntary migration as an adaptation tool.
- Government and development partners should initiate programmes at origin areas to introduce nontraditional livelihoods in the rural areas.

#### **For CSOs and Development partners**

- CSOs play an important role in articulating demand for policy reforms. They can demand coherence among development policies, climate change policies and migration policies.
- CSOs can organise campaigns for the protection of rights of internal migrants. Such campaigns may include right to proper housing, sanitation, health and physical security of migrants.

- CSOs can incorporate delivery of migration related services in their current programmes of local level adaptation. They also need to extend their services to the urban destination of climate affected migrants.
- Civil society think-tanks should conduct further research to generate robust data on role of migration in climate change adaptation. Assessments should be conducted on urbanisation and urban development policies to suggest reforms to accommodate the needs of climate stressed migrants.
- Development partners can undertake low cost housing schemes for the slum dwellers.
- People from climate stressed areas mostly found work in the informal sectors of urban areas. Development partners may encourage programmes that would equip potential internal migrants to avail formal sector jobs through training, creation of online job portals and job matching.
- Development partners can initiate projects that would impart skill and business advisory trainings to help the enterprising slum dwellers for business development
- Loan schemes for enterprise development should be organized under the Climate Change Trust Fund. Development Partners can also undertake loan programme with very low interest rate.
- Development partners can initiate creation of migrant support action plans in urban slums to ensure that migrants are supported in sustaining their livelihoods; have decent housing, have full access to water supply, electricity, health care (including health care insurance), child care and education services and can also take explicit steps to guarantee the safety, social protection and equal rights of female migrants
- Development partners and research think tanks can strengthen the sharing/exchange of research findings and experiences on the role of mobility and migration for climate change resilience and adaptation, through websites and dialogues and workshops.

## Bibliography

- ActionAid. (2006). Climate change, Urban Flooding and the Rights of the Urban Poor in Africa: Key findings from six African cities (pp. 1-8). Johannesburg: ActionAid International
- Afsar, R. (1994). Internal Migration and Women: An insight to. Causes, Consequences and Policy Implications. *Bangladesh Development Studies*, 22(2-3), 217-243.
- Afsar, R. (1998). Rural-Urban Migration and Development: Evidence from Bangladesh. In R. E. Bilborrow (Ed.), *Migration, Urbanization, and Development: New Directions and Issues* (pp. 319-356). New York: United Nations Population Fund (UNFPA).
- Afsar, R. (1999). Rural-Urban Dichotomy and Convergence: Emerging Realities in Bangladesh. *Environment and Urbanization*, 11(1), 235-246.
- Afsar, R. (2000). *Rural Urban Migration in Bangladesh : Causes, Consequences and Challenges*. Dhaka: University Press Limited.
- Afsar, R. (2000a). *Causes, Consequences and Challenges of Rural-Urban Migration in Bangladesh*. Dhaka: University Press Limited.
- Afsar, R. (2000b). *Rural Urban Migration in Bangladesh : Causes, Consequences and Challenges*. Dhaka: University Press Limited.
- Afsar, R. (2001). Sociological Implications of Female Labour Migration in Bangladesh. In R. Sobhan & N. Khundker (Eds.), *Globalisation and Gender: Changing Patterns of Women's Employment in Bangladesh* (pp. 91-166). Dhaka: University Press Limited.
- Afsar, R. (2002). Gender Dimensions of Labour Migration in Dhaka City's Formal Manufacturing Sector. In C. Miller & J. Vivian (Eds.), *Women's Employment in the Textile Manufacturing Sectors of Bangladesh and Morocco* (pp. 103-150). Geneva: United Nations Research Institute for Social Development (UNRISD).
- Afsar, R. (2003). Migration and Rural Livelihoods. In K. A. Toufique & C. Turton (Eds.), *Hands Not Land: How Livelihoods are Changing in Rural Bangladesh* (pp. 89-96). Dhaka: Bangladesh Institute of Development Studies (BIDS) and Department for International Development (DFID), UK.
- Afsar, R. (2005). Internal Migration and the Development Nexus: The Case of Bangladesh. In T. Siddiqui (Ed.), *Migration and Development: Pro-Poor Policy Choices* (pp. 39-70). Dhaka: University Press Limited.
- Ahmed, M., Saleh, A. K., Khan, N. I., & Ahmed, R. (2007). *Access to Education in Bangladesh: Country Analytic Review of Primary and Secondary Education*. Consortium for Research on Educational Access, Transitions and Equity (CREATE) and BRAC University Institute of Educational Development (BU-IED), Falmer and Dhaka.
- Akter, T. (2012). *Migration and Living Condition in Urban Slums: Implication for Food Security*. Unnayan Onneshan (Searching Development), Dhaka
- Assan, J. K. (2008). Generational Differences in Internal Migration: Derelict Economies, Exploitative Employment and Livelihood Discontent. *International Development Planning Review*, 30(4), 377-398.
- Atkinson, P., Coffey, A., & Delamont, S. (2003). *Key Themes in Qualitative Research: Continuities and Changes*. California: AltaMira Press.
- Baker, J. L. (2012). *Climate Change, Disaster Risk, and the Urban Poor: Cities Building Resilience for a Changing World*. Washington D.C.: World Bank.
- Barbora, S., Thieme, S., Siegmann, K. A., Menon, V., and Gurung, G. 2008. Migration matters in South Asia: Commonalities and Critiques. *Economic and Political Weekly* 43 (24): 57-65.
- Barrett, C. B., Reardon, T., and Webb, P. 2001. Non-farm Income Diversification and Household Livelihood Strategies in Rural Africa: Concepts, Dynamics and Policy Implications. *Food Policy* 26 (4): 315-331.
- BBS. (2011). *Statistical Pocket Book - 2010*. Dhaka: Bangladesh Bureau of Statistics (BBS), Government of Bangladesh.
- BBS, & UNESCO. (2008). Literacy Assessment Survey 2008: Towards Reliable Literacy Data (pp. 1-4). Dhaka: Bangladesh Bureau of Statistics (BBS), Government of Bangladesh and United Nations Educational, Scientific and Cultural Organization (UNESCO).
- Biswas, J. K., Ali, M. A., Mahbub, A. A., Ansari, T. H., Hassan, A. W. R., & Islam, M. S. (2009). *Improved Adaptive Capacity to Climate Change for Sustainable Livelihoods in the Agricultural Sector (LACC II)*. Bangladesh Rice Research Institute (BRRI), Dhaka.
- Black, R., Kniveton, D., & Schmidt-Verkerk, S. (2013). Migration and Climate Change: Toward an Integrated Assessment of Sensitivity. In T. Faist & J. Schade (Eds.), *Disentangling Migration and Climate Change* (pp. 29-53). Berlin: Springer.



- Boyatzis, R. E. (1998). *Transforming Qualitative Information-Thematic Analysis and Code Development*. Thousand Oaks: Sage.
- Cain, M. T. (1991). The Activities of the Elderly in Rural Bangladesh. *Population Studies*, 45(2), 189-202.
- Carney, D. 1998. *Sustainable Rural Livelihoods: What Contribution Can We Make?* London: Department for International Development (DFID).
- Chambers, R. 2006. Vulnerability, Coping and Policy. *IDS Bulletin* 37 (4): 33-40.
- Chambers, R., and Conway, G. R. 1991. "Sustainable Rural Livelihoods: Practical Concepts for the 21st Century ". IDS Discussion Paper-296. Institute of Development Studies (IDS), University of Sussex. Brighton.
- Davies, C. A. (1998). *Reflexive Ethnography: A Guide to Researching Selves and Others*. London: Routledge.
- Davies, S. 1996. *Adaptable Livelihoods: Coping with Food Insecurity in the Malian Sahel*. London: MacMillan.
- Davies, M., Oswald, K., Mitchell, T., & Tanner, T. (2008). *Climate Change Adaptation, Disaster Risk Reduction and Social Protection: Briefing Note*. Institute of Development Studies (IDS), University of Sussex, Brighton.
- de Haan, A. (1999). Livelihoods and Poverty: The Role of Migration - A Critical Review of the Migration Literature. *Journal of Development Studies*, 36(2), 1-47.
- de Haan, A. (2006). Migration, Gender, Poverty: Family as the missing link. In S. Arya & A. Roy (Eds.), *Poverty, Gender and Migration, Women and Migration in Asia Volume 2* (pp. 107-128). London: Sage.
- de Haan, A., & Rogaly, B. (2002). Introduction: Migrant Workers and Their Role in Rural Change. *Labour Mobility and Rural Society*, 38(5), 1-14.
- Deshingkar, P. (2004a). *Improved Livelihoods in Improved Watersheds: Can Migration Be Mitigated?* Paper presented at the International workshop on Watershed Management Challenges, New Delhi.
- Deshingkar, P. (2004b). *Understanding the Implications of Migration for Pro-Poor Agriculture Growth*. Overseas Development Institute (ODI), London.
- DFID. (2007). *The Impact of Climate Change on the Vulnerability of the Poor*. Public Enquiry Point, Department for International Development (DFID), London.
- DFID. 1999. *Sustainable Livelihoods Guidance Sheets*. London: Department for International Development (DFID).
- Ellis, F. (2003). *A Livelihoods Approach to Migration and Poverty Reduction*. Commissioned by the Department for International Development (DFID), UK, London.
- Frankenberg, E., & Kuhn, R. (2004). *The Implications of Family Systems and Economic Context for Intergenerational Transfers in Indonesia and Bangladesh*. (CCPR On-Line Working Paper-027-04). California Center for Population Research (CCPR), University of California-Los Angeles, Los Angeles.
- Gardner, K. (1995). *Global Migrants, Local Lives: Travel and Transformation in Rural Bangladesh*. Oxford: Carleton Press.
- Garrett, J., & Chowdhury, S. (2004). *Urban-Rural Links and Transformation In Bangladesh: A Review of the Issues*. (Discussion Paper, Prepared for Rural Livelihoods Program (RLP), CARE-Bangladesh). Dhaka.
- GoB. (2009). *Millennium Development Goals: Bangladesh Progress Report 2008*. Dhaka: General Economics Division, Planning Commission, Government of Bangladesh.
- Gugler, J. (2002). The Son of the Hawk Does Not Remain Abroad: The Urban-Rural Connection in Africa. *African Studies Review*, 45(1), 21-41.
- Habiba, W., Hasan, Ragib A., Shaw, R. (2013). Livelihood Adaptation in the Drought Prone Areas of Bangladesh. In Shaw, R. Mallick, F. and Islam, A. (Eds.), *Climate Change Adaptation Actions in Bangladesh* (pp. 227-252). Berlin: Springer.
- Hugo, G. J. (1997 ). Asia and the Pacific on the Move: Workers and Refugees, A Challenge to Nation States. *Asia Pacific Viewpoint*, 38(3), 267-286.
- Huq-Hussain, S. (1995). Fighting Poverty: The Economic Adjustment of Female Migrants in Dhaka. *Environment and Urbanization*, 7(2), 51-66.
- Huq-Hussain, S. (1996). *Female Migrants Adaptation in Dhaka: A Case of the Process of Urban Socio-Economic Change*. Dhaka: Urban Studies Programme (USP), Department of Geography, University of Dhaka.
- IPCC WGII. (2014). *Planned Relocation as an Adaptation Strategy* The Intergovernmental Panel on Climate Change (IPCC). Geneva.
- Kelley, K., Clark, B., Brown, V., & Sitizia, J. (2003). Good Practice in the Conduct and Reporting of Survey Research. *International Journal for Quality in Health Care*, 15(3), 261-266.
- Khan, M. Z.-u. H., Hasan, M., Masud, M. S., Magumdar, T. K., & Haque, M. (2009). *Impact Assessment of Climate Change and Sea Level Rise on Monsoon Flooding*. Climate Change Cell
- Kraler, A., Cernei, T. and Noack, M. (2011). *Climate Refugees: Legal and Policy Responses to Environmentally Induced Migration*. European Parliament. Brussels.

- Kuhn, R. (2001a). *Understanding the Social Process of Migration in Bangladesh*. (Labour and Population Working Papers). Research and Development Corporation (RAND), Santa Monica.
- Kuhn, R. (2001b). *Never Far From Home: Parental Assets and Migrant Transfers in Matlab, Bangladesh*. (Working Papers-01-12). Research and Development Corporation (RAND), Santa Monica.
- Kuhn, R. (2004). *Diversity or Heterogeneity? Motivations for Family and Individual Migration from Rural Bangladesh*. (Institute of Behaviour Science, University of Colorado). Boulder.
- Leininger, M. M. (1985). Ethnography and Ethnonursing: Models and Modes of Qualitative Data Analysis. In M. M. Leininger (Ed.), *Qualitative Research Methods in Nursing* (pp. 33-72). Orlando: Grune & Stratton.
- Mahbub, A. Q. M. 1997. *Mobility Behaviour of Working People in Bangladesh: Rural-Rural and Rural-Urban Circulation*. Dhaka: Urban Studies Programme (USP), Department of Geography, University of Dhaka.
- Mahmood, R. A., & Siddiqui, T. (2014). *Differential Impact of Migration on Poverty and Wellbeing: Evidence based on Bangladesh Data*. Paper presented at the Presented at the KNOMAD International Conference on Internal Migration and Urbanization, held on April 30-May 1, 2014, Dhaka.
- Martin, M., Billah, M., Siddiqui, T., Abrar, C., Black, R., & Kniveton, D. (2014). Climate-related Migration in Rural Bangladesh: a Behavioural Model. *Population Environment*, 36, 85-110.
- Martin, M., Kang, Y. h., Billah, M., Siddiqui, T., Black, R., & Kniveton, D. (2013). *Policy analysis: Climate Change and Migration Bangladesh*. (Working paper 4). Refugee and Migratory Movements Research Unit (RMMRU), University of Dhaka, Sussex Centre for Migration Research (SCMR), University of Sussex, with support from Climate & Development Knowledge Network (CDKN), Dhaka.
- Patton, M. Q. (1987). *How to Use Qualitative Methods in Evaluation*. London: Sage.
- Piguet, E. (2008). *Climate Change and Forced Migration*. (Research Paper No. 153). Policy Development and Evaluation Service, UNHCR, Geneva.
- Sabates-Wheeler, R., and Waite, M. 2003. "Migration and Social Protection: A Concept Paper." Working Paper -T2. Development Research Centre on Migration, Globalisation and Poverty, University of Sussex. Brighton.
- Scoones, I. 1998. "Sustainable Rural Livelihoods: A Framework for Analysis." IDS Working Paper-72. Institute of Development Studies (DS), University of Sussex. Brighton.
- Sherezad, L. 2004. "Improvements in the Quality of Primary Education in Bangladesh, 1990 - 2002." Background paper commissioned for the EFA Global Monitoring Report 2005, The Quality Imperative. Paris.
- Siddiqui, T., & Billah, M. (2014). Adaptation to Climate Change in Bangladesh: Migration the Missing Link. In S. Vachani & K. Usmani (Eds.), *Adaptation to Climate Change in Asia* (pp. 117-141). Cheltenham: Edward Elgar.
- Siddiqui, T., & Sikder, M. J. U. (2009). Rural to Urban Migration for Domestic Work in Bangladesh. In C. R. Abrar & J. Saleey (Eds.), *Social Protection and Marginalised Migrant Workers in India and Bangladesh* (pp. 57-81). Dhaka: University Press Limited.
- Siddiqui, T., & Skinner, J. (2008). *Migration from Chars: Risks, Costs and Benefits*. Unpublished. Refugee and Migratory Movements Research Unit (RMMRU), University of Dhaka. Dhaka.
- Siddiqui, T., and Sikder, M. J. U. 2006. "Internal Migration in Bangladesh: The Remittance Dynamics of Domestic Workers and Rickshaw Pullers." Refugee and Migratory Movements Research Unit (RMMRU), University of Dhaka. Dhaka. Unpublished.
- Sinthia, Ahmed. S. 2013. Sustainable Urban Development of Slum Prone Area of Dhaka City. *World Academy of Science, Engineering and Technology*, 7, 328-335.
- Tacoli, C. (1998). *Bridging the Divide: Rural-urban Interactions and Livelihood Strategies*. (Gatekeeper Series No-77). Sustainable Agriculture and Rural Livelihoods Programme, International Institute for Environment and Development (IIFD), London.
- Taylor, A., & Peter, C. (2014). *Strengthening Climate Resilience in African Cities: A Framework for working with Informality*. African Centre for Cities.
- Thime, S. (2006). *Social Networks and Migration: Far West Nepalese Labour Migrants in Delhi*. Edision: Transaction Publisher.
- Tredoux, C., & Smith, M. (2006). Evaluating Research Design In M. T. Blanche, K. Durrheim & D. Painter (Eds.), *Research in Practice: Applied Methods for the Social Sciences* (2nd ed., pp. 160-186). Cape Town: University of Capetown Press (Pyt) Ltd.
- UNISDR.(2009). *2009 UNISDR Terminology on Disaster Risk Reduction*. Gendva: UNISDR.
- Weber, M. (1978). *Economy and Society: An Outline of Interpretive Sociology* (Vol. 1&2). California: The University of California Press.