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Development of a Decision Making Framework for Environmentally Induced Migration in Rangpur City

Md Mostafizur Rahman*

Department of Geography and Environmental Science, Begum Rokeya University, Rangpur, Bangladesh

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Abstract: Migration from rural to urban areas has become a regular event but due to environmental push people bound to migrate to cities over the recent years has become a matter of concern. The impact and severity of natural hazards by climate change causes displacing people not only physically but also increasing poverty by hampered their wealth and also causes threaten to their life. People loss their livelihoods temporary and permanently. Increasing number of people creates crisis in the city area. People suffer from lack of their basic needs (food, education, health care, shelter etc.) which make their life tough. Displaced people living in urban slums are in search of better and secure life. But urban slums located mostly in low lying environmentally hazardous area coupled with inadequate facilities. Growing number of people in urban slums over the recent past creates extra pressure on existing systems and challenge to government development activities like slum development and poverty reduction strategy. This paper depicts the migration pattern and its causes of displacement, while it has been found that majority of them displaced due to environmental push and their present socioeconomic condition makes their life worse. Planned migration and secured socioeconomic factors are suggested through this paper to reduce urban crisis and livelihood insecurity of urban poor.

Keywords: Environmental Push, Migration, Urban Slum, Rural-Urban migration, Poverty.

INTRODUCTION

The topic of environmental change, particularly climate change, and migration is increasingly debated in global policy circles. The existing, speculative estimates about the potential scale of environmentally induced human displacement underline the fact that we know little about how changes in the environment affect migration and that we lack the data and research necessary to move beyond such estimates. Research therefore needs to address issues such as environmental triggers and drivers that affect human mobility, the construction of evidence-based scenarios to characterize the migration process for environmentally induced migrants, providing the scientific basis for institutional and legal approaches as well as governance frameworks, and determining the links between adaptation and migration (Stal and Warner, 2009).

By revisiting definitions proposed by Renaud *et al*. (2007) who identified three categories of environmental migrants, namely ‘‘environmental refugees’’, ‘‘environmentally forced migrants’’, and ‘‘environmentally motivated migrants’’, this paper focuses on a process of defining the phenomenon of a person or people who ‘‘make a decision’’ to move because of environmental degradation or change at the point in time when they make their decision. This conceptual approach focuses on the necessity of migration in relation to environmental stressors. The approach examines the circumstances leading to a decision to move, including the state of the environment, and the coping capacities and adaptive abilities of those individuals or communities affected.

Migration due to environmental hazards has increasingly been drawing the attention of researchers and policy makers. Shocking estimates by renowned scholars that say there are presently 50 million environmentally-induced migrants, and there will be more than 200 million by the year 2050 (Myers, 2005) have, furthermore, aroused media interest. Climate change and environmental degradation are additionally fuelling the issue. Due to the presence and increasing importance of the topic, this paper is restrictively focusing on environmentally-induced migration. This form of migration does not, in most cases, follow classic migration theories. Migrants affected by environmental stress are distinguishable due to their causes and motivation leading to their migration decision. They generally do not respond to incentives at the place of destination, but to pressure at their place of origin. Effects of natural hazards are devastating and demanding for all people, but they have an especially terrible impact on poor people’s livelihoods. Because of the assumed high number of environmental migrants that already exist, and the estimated increase of their share due to population pressure and climate change, the question arises where the vast amount of displaced people can migrate to in order to find a sustainable livelihood. Especially in developing countries, where due to the vulnerability of the population the greatest share of environmental migrants is assumed to be, vast amounts of these displaced persons are flocking into the primate

***Corresponding Author:** Md Mostafizur Rahman

cities in expectation of job opportunities and sustainable livelihoods (Rondinelli, 1983).

The overall goal of the work is to present the conceptualization of a decision framework which has been developed to circumvent lack of consensus about definitions of environmental migration. It is hoped that following in-depth discussions and improvements of such a framework, it will become a useful tool for operational agencies that have to provide support to people who are displaced or migrate because of environmental stresses as it would provide a list of criteria that can then be used to determine appropriate and timely interventions.

METHODOLOGY

Following the hypothesis that the majority of rural-urban migrants in developing countries are likely to end up in the slums or squatters, the questionnaire was conducted in slum areas of Rangpur City so as to get a hold of maximum number of migrants as possible.There are 48 slums having 6054 households in RpCC, among them 90% of slums can be found surrounding the railway station. That's why this area was chosen to conduct the survey. Defacto and Modified Defacto methods were used for collecting data from the interviewees. In order to gain insight into the migration flows in Rangpur City, the motivation behind these was how the city is dealing with them and to estimate the city's potential offering of sustainable livelihoods. Some interviews were accomplished after the quantitative survey in order to confront the interviewees with the first results and to some extent get the collected data confirmed due to their expertise.

The interview guide was divided into four thematic blocks:

- Migration to Rangpur in general
- Environmental migrants
- The economic development of the city and the potentiality for migrants to maintain sustainable livelihoods (Ward Commissioners were asked to provide information regarding their ward only)
- Specific questions regarding the interviewee's position

Study Area

Rangpur City Corporation is covering an area of around 203 $km^2$and a population of 2,881,086 (BBS, 2011)lies on the bank of Ghaghat River. Geographically this city is located between $25^0$38′ and 25^0 52′ North Latitudes and 89^0 05′ and 89^0 20′ East Longitudes. Rangpur City Corporation is formed of previously established Rangpur Pourashava and 8 union of Rangpur Sadar Upazila. This city covers most of the Sadar Upazila. This town was established in 16th December 1769 during the British period and became City Corporation in 01 July, 2012.

RESULT AND DISCUSSION

Description of Sample Group

The survey was conducted from the 9th of December, 2017 to the 19th December, 2017. During this time, 60 interviews were taken in total. These were quite evenly distributed throughout the three slum clusters. Since most questions aimed to get information about the reasons for migration and the current living condition of a person including his family (household-heads were questioned; 90 percent of the interviewees are married, only two percent are single), it can be assumed that the answer patterns of females do not significantly differ.

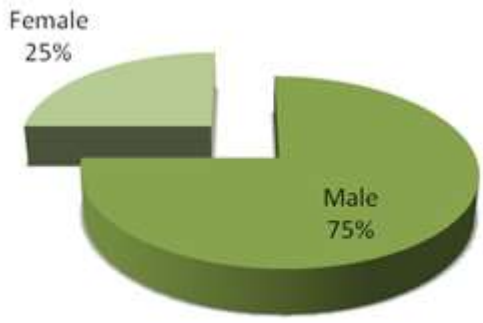

Diagram 01: Male-Female percentage of interviewee

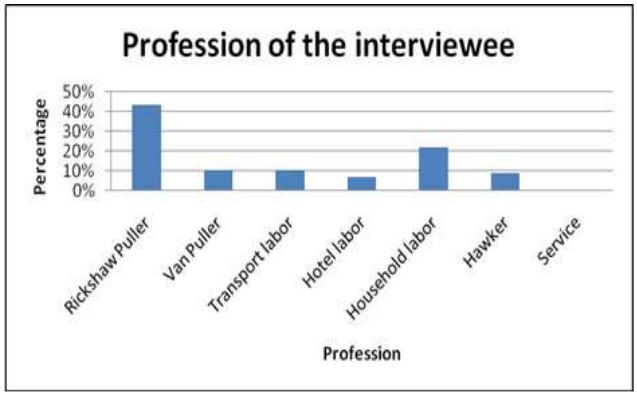

Diagram 02: Age distribution of interviewee

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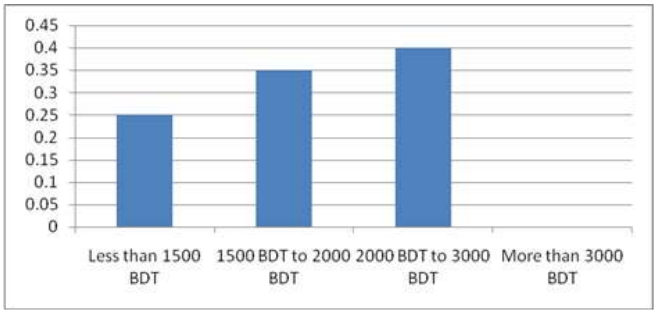


Diagram 03: Profession of the interviewees

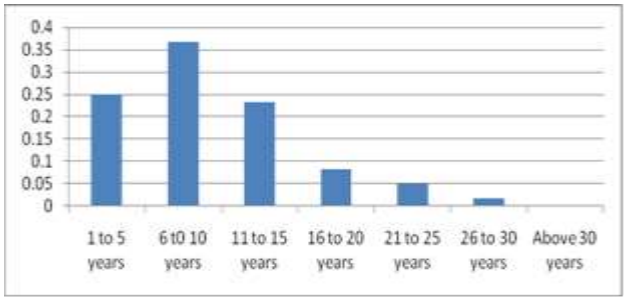
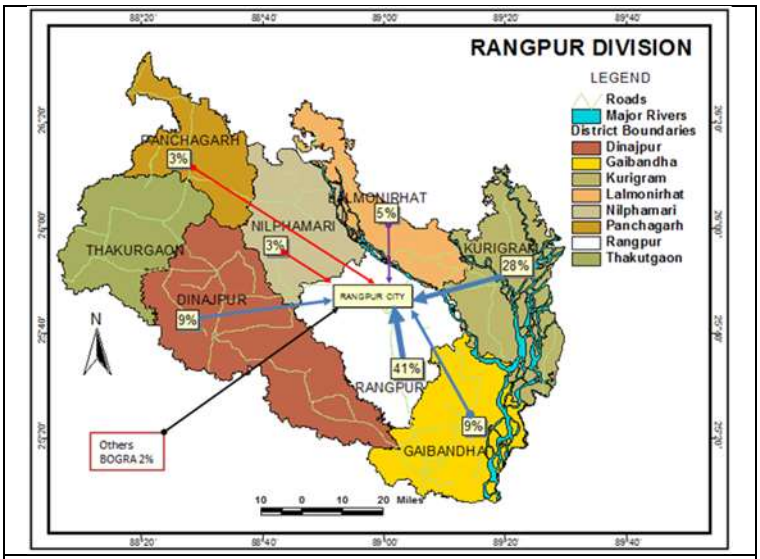


Diagram 04: Monthly income of the interviewees

Origin of the Migrants

Among the 60 interviewees 41% people belong to rural part of the Rangpur district, 28% interviewee are from the Kurigram district, 9% from the Gaibandha and Dinajpur district. From the Lalmonirhat district percentage of the interviewee is 5%, 3% people come from Nilfamari district, 2% of the interviewee come from Panchagar district and one or two people of the entire interviewee sample are from Bogra district.



Map 1. Origin of the Migrant People

Duration of Stay of the Migrant Interviewee

These environmentally displaced people were found to stay in the city for a long time like 37% people living for 6-10 years, 25% for 1-5 years and 23% for 11-15 years. Duration of the migrant's stay is illustrated in the figure bellow.

Determination of Migrant's Type

The result reveals that 58% of the interviewee migrates due to poverty, 37% said it was river bank erosion which triggers them to migrate and only 5% said they migrated due to frequent flood.

Table 1. Classification of the migrant people

Reason of the Migration	Percentage	Forced migrants percentage	Motivated migrants percentage	Not Environmental Migrant
River bank erosion	37%	20%	17%	-
Flood	5%	3%	2%	-
Poverty	58%	-	-	58%

The above table helps us to find the migration pattern and also help us to find out the potential environmental event which causes the maximum migration in response to a particular natural hazard. This figure indicates that, 20% of the interviewee migrated due to river banks erosion and they lost their land/home. It will be more efficient rehabilitation if the 20% affected people rehabilitated first rather giving instant support all the 37% people.

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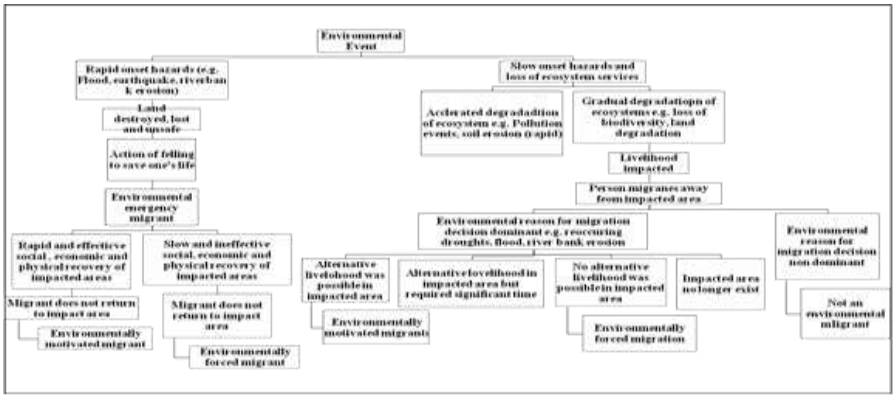

Figure 01: Decision Making Framework for Environmentally Induced Migrants

Reflecting on the nature and manner in which the environment degrades or changes can help provide insights into the different mechanisms by which humans respond and adapt to deal with the environmental stress they face. When it comes to moving as a response strategy in the face of environmental stress, the pace of change in the environment will have a significant influence on the mode of migration.

CONCLUSION

This paper has sketched a decision framework for understanding the impacts of environmental stressors on migrants. One of the significant aspects of this conceptual framework is that it provides a point of departure for more in-depth and refined discussions of how the environment interacts with migration trends. The framework recognizes there is a need to not only examine the impact response to an environmental event but also the ability to cope and recover. As such, concepts of vulnerability, adaptation and resilience need to be brought together, and this is what has been attempted here through the concept of livelihoods.

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***Corresponding Author:** Md Mostafizur Rahman