



Factors affecting whether environmental migration is temporary or permanent: Evidence from Bangladesh[☆]



Mohammad Abdul Munim Joarder, Paul W. Miller^{*}

Curtin University, Australia

ARTICLE INFO

Article history:

Received 19 October 2012
Received in revised form 24 July 2013
Accepted 28 July 2013

Keywords:

Environmental change
Adaptation strategies
Internal migration

ABSTRACT

This study examines whether environmental migrants in Bangladesh move permanently or temporarily. The analyses are based on data collected in 2010 and 2011, and cover four themes, namely migrant characteristics, environmental change related factors, conflict and adaptation strategies, and social networks. The estimates obtained from binary logit models show that most sets of variables have statistically significant impacts on the temporary migration versus permanent migration decision. Females are more inclined to migrate temporarily, a finding which is consistent with prior studies that argued that female migration is one temporary household survival strategy in the face of an environmental crisis. The probability of intending to move temporarily is significantly affected by the prior occupational experience: Migrants who were previously engaged in agriculture or fishing are more inclined to migrate permanently. Those households who reported that they had lost assets due to environmental hazards are shown to have a higher probability of becoming permanent migrants. In contrast, loss of livestock and crop failure are associated with a greater likelihood of temporary migration. The empirical results reveal the groups that can be targeted in destination regions in settlement policy, and equally the groups whose return home can be facilitated once any immediate danger has passed.

Crown Copyright © 2013 Published by Elsevier Ltd. All rights reserved.

1. Introduction

Environmental change is one of the major contemporary scientific, social and economic challenges. Among the economic challenges are the key issues of understanding the adaptation strategies that people will put in place in the face of environmental change, and understanding the extent to which environmental change will lead to movements of people, and whether these movements will be temporary or permanent (Black et al., 2011a).

In covering these issues the literature has drawn a distinction between extreme weather events (e.g., Hurricane Katrina) which typically result in higher proportions of forced environmental

migration, and slow-onset events, such as global warming, and salinisation, where the associated migration is termed voluntary environmental mobility. Though it is still in its infancy, this literature has reached a number of findings.

First, most environmentally induced migration has tended to be within nation states rather than between nation states (Findlay, 2011; Hugo, 2011). Second, many influences on migration, such as internal conflicts, can have a negative effect on the abilities of people to adapt to the adverse consequences of environmental change (Raleigh, 2011), and this negative effect may be more detrimental to the poor than to those on higher incomes. Third, environmental pressures can also limit population mobility, due to a reduced demand for casual labour and reduced disposable income with which to meet the costs of the migration. Fourth, temporary movements tend to be to locations close to the origin, and characterised by high rates of return migration. Permanent movements tend to be to destinations characterised by social/cultural support networks. Fifth, environmental pressures are generally viewed as a more minor cause of the movement of peoples than are the fundamental economic and social drivers that have been stressed in research over the past five decades (Black et al., 2011a; Hugo, 2011). This, as Findlay (2011, S52) states, points "...to the conclusion that where future international migration does take place from environmentally precarious locations, it will be mostly limited to those who have resources, or the skills to

[☆] We are grateful to Redwan Ahmed for assisting us during the pilot survey in 2010. We also acknowledge Farzana Raihan of the Department of Forestry and Environmental Science, Shahjalal University of Science and Technology, regarding her assistance in the construction of the survey instrument and the collection of the final set of data. We also thank Abu Awal Md. Shoeb of the Computer Science and Engineering Department, Shahjalal University of Science and Technology, for constructing the final software for data entry. Constructive comments from two anonymous referees are also acknowledged with thanks. Miller acknowledges financial assistance from the Australian Research Council.

^{*} Corresponding author at: School of Economics and Finance, Curtin University, WA 6845, Australia. Tel.: +61 8 9266 7758; fax: +61 8 9266 3026.

E-mail address: Paul.Miller@curtin.edu.au (P.W. Miller).

become upwardly mobile or who are able to deploy their cultural capital effectively". Hence, as summarised by Findlay (2011: S57), "...the most likely effect of environmental change over the next 50 years will be to amplify and modify pre-existing migration channels, and that it is these that will shape the pattern of migration destinations selected by future environmentally linked movers".

From this perspective, it is apparent that some insights into the likely nature of the flows of people in coming decades can be gleaned from study of current migration flows. This is the approach taken in this study, using data on internal environmental migrants in Bangladesh. The aim is to provide information on the factors that determine whether environmental migrants will be permanent or temporary. As Black et al. (2011a, S6) note, "...for policy and in terms of social and economic impact, key issues are whether migrants move across borders, or whether migration takes the form of temporary, seasonal or permanent mobility...". The temporary versus permanent nature of environmental migration is important in terms of understanding the pressures that destination regions are likely to experience. It is also important in terms of understanding the nature of the relief that needs to be put in place in affected, origin regions.

2. Bangladesh: environmental change and internal migration

Bangladesh is situated on a flood plain delta that slopes gently from the north to the south, meeting the Bay of Bengal at the southern end. It has slightly more than 700 km of coastline. Bangladesh experiences many natural hazards: see Etzold et al. (2013) for a review.

2.1. Types of natural hazards

The United Nations Development Programme (2004) identified Bangladesh as the country most vulnerable to tropical cyclones, and the sixth most vulnerable country to floods. Floods have been particularly destructive. For example, floods in Bangladesh in 1998 and 2004 left forty-five million and thirty-six million homeless, respectively, and an estimated combined death toll of 3000–7600 (International Disaster Database, 2010).

Another major environmental change issue in Bangladesh is river bank erosion. More than one million people are estimated to lose their homes or land to river erosion each year (Refugee and Migratory Movements Research Unit, 2007). Seasonal food deprivation, or *monga* (lean period), is also a recurrent problem in the north-west of Bangladesh. This lean season is caused, in part, by the mainly agriculture-dependent economic structure, along with poor agro-climate conditions. Furthermore, ecological vulnerability often intensifies the effects of crop seasonality; that is, the *monga* period is often preceded by drought or floods (Afsar, 2005; Khandker et al., 2012; Etzold et al., 2013). Another environmental problem in Bangladesh is more directly "man-made". Bangladesh is located at the tail end of the Ganges basin. The decrease in flow of the Ganges River due to the construction of the Farakka Barrage in West Bengal (India) now means that seawater pushes up the delta, creating heavy inland flooding during tidal surges.

2.2. The outlook

While recent history thus paints a grim picture of the consequences of environmental change in Bangladesh, the outlook is even more dismal (see McAdam and Saul, 2010 for a thorough recent assessment). According to a World Bank report, Bangladesh will face sea level rises of 30 cm and 50 cm by 2030 and 2050,

respectively (Faisal and Parveen, 2004). The loss of coastal lands to the sea is thus predicted to reach three percent by the 2030s and six percent by the 2050s (Tanner et al., 2007). Rabbani (2009) argued that over 35 million people would be displaced in Bangladesh in the case of a one metre sea level rise this century. In this situation, in the absence of adaptation strategies, Bangladesh may lose up to one-fifth of its surface area due to a rising sea level. These possible outcomes are reflected in the various summary measures of risk reported. The World Risk Report for 2012, for example, which operationalised risk as an interaction between exposure to natural hazards and the vulnerability of societies, assigned Bangladesh a ranking of 5 out of 173 countries. Only Vanuata, Tonga, the Philippines and Guatemala were ranked above Bangladesh as global risk hotspots (see United Nations University Institute for Environment and Human Security et al., 2012).

2.3. Environmental migration as a response

In terms of responses to the effects of environmental change, the issue addressed in this study is migration (see also Adamo and de Sherbinin, 2011). In the case of extreme weather or rapid-onset events (e.g., cyclones) people may need to migrate—the forced environmental migration. Many of these forced migrants have difficulty returning to their origin. But migration has also been a response to slow-onset events in Bangladesh. A study by Haque and Zaman (1989) investigated displacement induced by riverbank erosion in one of the worst affected sub-districts of Bangladesh, and found that 60 percent of the respondents had been displaced at least once in their life time. Mahmood's (1995) findings, based on a survey in Bangladeshi urban slums, showed that up to 50 percent of squatter dwellers had moved to the cities due to river bank erosion. According to Black et al. (2011b, 442), "...displaced people initially try to relocate themselves within the village, or in neighbouring villages, reflecting the fact that the annual cycle of flooding both erodes land and may slowly create new areas for potential settlement as a result of siltation. While river bank erosion may occur overnight, sedimentation is a considerably longer process and may not necessarily occur in the same location". As a result some of the displaced people gradually move to other areas, particularly in the upland or resource-based areas where access to agricultural and common property land is relatively easier, causing further environmental degradation.

Movement of people has also been linked to the other environmental challenges noted above. The Farakka Barrage has destroyed rice fields and thus forced people to find alternative jobs in Bangladesh (Swain, 1996). These movements of people have been concentrated among the lower stratum of the society (Swain, 1996). In terms of the size of the movements, it has been reported that 600,000 people migrate from affected areas each year, mainly to Dhaka, Chittagong, Chittagong Hill tracts and Sylhet (Roy, 2011; Reuveny, 2007).

2.4. Challenges associated with environmental migrants

The environmental induced migrants who have drifted to the border areas of the Chittagong hill tracts and Sylhet have occupied lands that are in fact the property of Indigenous peoples, such as Khasia, Monipuri, Garo, Santal Chakma, Marma and Mandi. Indigenous people generally earn their livelihood by cultivating in the hills (termed as *Jum*) and by growing betel leaf, whereas the internal migrants cultivate the river plains and engage in fishing, and also collect firewood and cut trees for making furniture and other wood products. These activities create conflict with the Indigenous groups. In addition, most of Indigenous groups are either Buddhist or Hindu, whereas the majority of the environmental migrants are Muslims. There is thus a degree of religious

Download English Version:

<https://daneshyari.com/en/article/10505026>

Download Persian Version:

<https://daneshyari.com/article/10505026>

[Daneshyari.com](https://daneshyari.com)