

Environmental Change and Migration: State of the Evidence

Background Paper

Symposium on Environmental Change and Migration

May 28 & 29, 2014, Washington DC

1. Introduction

Experts generally agree that the environment is but one of the many reasons that prompt people to migrate, sometimes operating on its own but more often through other mechanisms, particularly loss of livelihoods affected by environmental disruption (Black et al 2011, Foresight 2011, White 2011). Climate change may well increase the likelihood of both internal and international migration through four pathways: increased drought and desertification, rising sea levels, more intense and frequent storms, and competition for scarce resources (Martin 2012). Recognizing these potential impacts, in 2010, Parties to the UN Framework Convention on Climate Change (UNFCCC) adopted the Cancun Adaptation Framework, which called on all countries to take “measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at national, regional and international levels.” To date, there is relatively little research, however, that focuses on the impact of these forms of migration on the migrants who move, the communities they leave, or the destinations to which they migrate.

This symposium aims to assess the current state of the evidence on these two dimensions of environmental change and migration: 1) the environmental determinants of movements of people in both acute and slow onset situations; and 2) movements of people as an adaptation strategy in the context of environmental change. The goal of the symposium is to examine current knowledge about the interconnections between the environment and migration, discuss the policy implications of what is known, identify issues and methods to fill gaps in knowledge, and develop a research agenda to improve future evidence-based policymaking in this area.

2. Environmental Change as a Determinant of Migration

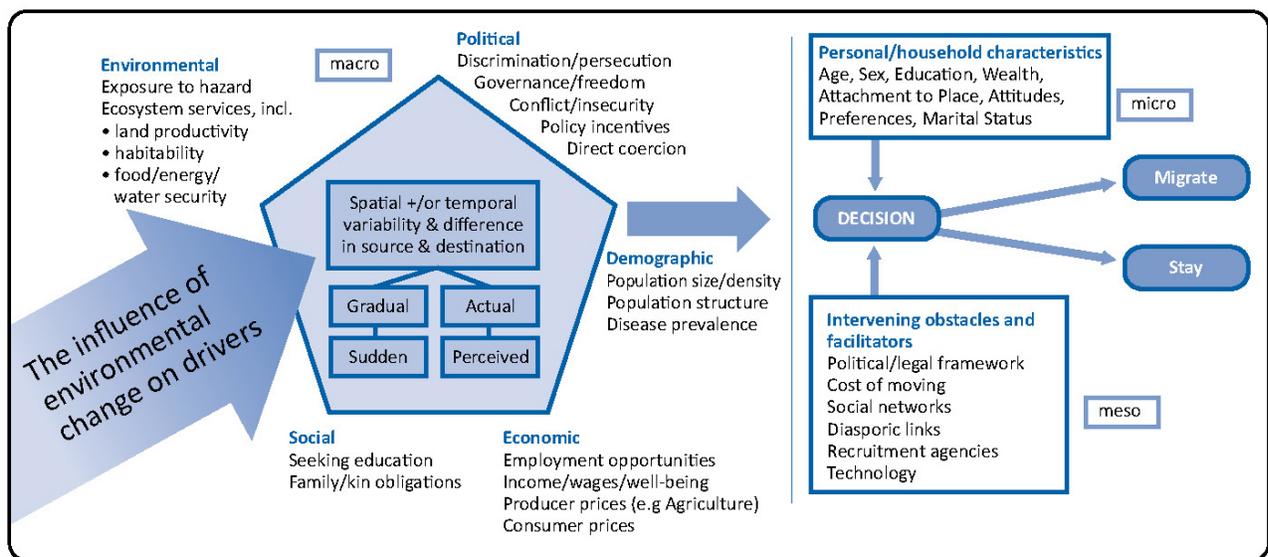
Better understanding the determinants of movement—whether it is migration, displacement, or relocation—requires research that is able to tease out the various factors that influence movements. The Foresight project provided an excellent framework for identifying the factors that help determine not only whether people move but also when and where they go (See Graph 1).

The schematic includes macro level factors, demonstrating the multiple drivers of movement (economic, social, political, demographic as well as environmental)¹. It also demonstrates that both actual and per-

¹ Health factors not shown in the schematic may also be important in generating movements. Some people may migrate in search of better health care. On the other hand, research shows that acute health crises, including epidem-

ceived differences between conditions in source and destination communities are likely to influence mobility. On a temporal dimension, the graphic captures gradual and sudden onset drivers, which can in turn influence gradual or sudden movements. These drivers alone will not necessarily result in movement of people. The decision to migrate or stay is further influenced by personal and household demographic and socio-economic characteristics as well as intervening obstacles and facilitators that determine whether migration is feasible. The mix of all of these determinants that lead to the decision to migrate or to stay in place makes research on the determinants of migration from environmental change so complex an endeavor.

Graph 1



Source: Foresight Project, Migration and Global Environmental Change

Understanding the environmental factors themselves is the first order of research. The mechanisms through which environmental change may affect movements of people have only recently received serious attention from researchers. There are four paths, in particular, by which environmental change may affect migration either directly or, more likely, in combination with the other factors identified in the Foresight schematic:

- Changes in weather patterns that contribute to longer-term drying trends that affect access to essential resources such as water and negatively affect the sustainability of a variety of environment-related livelihoods including agriculture, forestry, fishing, etc.
- Rising sea levels and glacier melt that cause massive and repeated flooding and render coastal and low-lying areas uninhabitable in the longer-term.
- Increased frequency and magnitude of weather-related acute natural hazards, such as hurricanes and cyclones, which already destroy infrastructure and livelihoods and require people to relocate

ics and pandemics may result in little migration. In many cases, quarantine policies make it very difficult for people to move from one location to another.

for shorter or longer periods (IFRC 2011). As climate change intensifies these events, even more people in developing countries will be at risk.

- Competition over natural resources that may exacerbate pressures contributing to conflict, which in turn precipitates movements of people. Conflict will clearly make it more difficult to address the needs of climate-change affected populations, as witnessed in Somalia during the severe drought in the Horn of Africa. Only Somalia among the drought affected areas experienced high levels of famine and displacement.

These are very broadly conceived and do not include other environmental factors that may cause movement (for example, the destruction of habitat after a nuclear accident). Research on the ways in which different environmental changes affect people's lives and their propensity to move would be useful in increasing understanding of the interconnections between the environment and migration.

Also needed is research on the forms of movement that are likely to be associated with different environmental changes. The first two scenarios described above, for example, are likely to cause slow-onset migration, in which people seek new homes and livelihoods over a lengthy period as conditions in their home communities worsen. In some cases, the migration will likely be permanent and in other cases to be circular. The third and fourth scenarios are likely to create conditions that cause large-scale displacement, often in the context of emergencies. Depending on the specific situation, migrants from environmental change may resemble labor migrants, seeking better livelihood opportunities in a new location, or they may resemble refugees and internally displaced persons who have fled situations beyond their individual control. Research that goes beyond this broad characterization would be very useful for policymakers as responsibilities and responses to slow onset migration and large-scale displacement often differ within governments and other actors. During the symposium, these two forms of environmental hazard—acute and slow onset—will be discussed separately to assess what is known about each aspect in terms of the forms of movement they generate.

Understanding why people faced with very similar macro-level factors move or stay is also important. Research on vulnerability and resilience to environmental changes—that is, the capability to cope or adapt to them—may help policymakers and practitioners assess the degree to which people need to move and their ability to get out of harm's way. The most vulnerable populations may well be those who are trapped in fragile eco-systems, unable to support themselves there but unable to migrate to places of greater safety and opportunities. Among issues to be examined at the symposium are 1) who are the most vulnerable to environmental change; 2) what are sources of resilience to adapt to environmental change; and 3) in what ways do vulnerability and resilience affect decisions to move and the timing, scale and form of migration that may take place.

Research is also needed to identify which migration may be temporary and which will be more permanent. The decision as to whether return is possible involves a range of variables, including the extent to which the environmental causes—either direct or through other channels—is likely to persist or frequently reoccur. Policies in the receiving communities and countries, depending on whether the migration is internal or international, will also affect the likelihood for return or settlement in the new location. In addition to immigration policies, the policies affecting return and settlement include land use and property rights, social welfare, housing, employment, and other frameworks that determine whether individuals, households, and communities are able to find decent living conditions and pursue adequate livelihoods. Return and reintegration is also affected by plans and programs to mitigate future dislocations from environmental hazards.

Better understanding the likelihood of internal versus international as well as short versus long distance movements occur is a further area of needed research. Many experts believe that most migration will be

internal (except for low-lying small island states without higher elevations) or immediate cross border into neighboring countries. Such migration may be particularly challenging as the receiving communities and countries will likely have few resources, legal structures, or institutional capacity to respond to the needs of the migrants. Geographical proximity may also mean that destination areas face some of the same environmental challenges as areas of migration origin (e.g. drought, desertification) and may offer little respite in this regard. Why do certain communities become destinations—that is, what are the pull factors that attract those who move in the context of environmental change? What are the factors that those who move take into account in choosing where to migrate, and how much choice do they actually have? Case studies of existing patterns of internal and immediate cross border movements will be useful in identifying the patterns of movements and the likely impacts on the migrants themselves as well as their source and destination communities. So too would be studies of the determinants of longer distance movements, including those from developing to more developed countries. Understanding the intervening factors, including legal frameworks and policy choices, is particularly important in the context of cross border movements since governments set policies that determine who can enter legally and for what purposes.

3. Migration as an Adaptation Strategy

As discussed above, the Cancun Adaptation Framework called on governments to take “measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at national, regional and international levels.” This language placed migration firmly on the climate-change adaptation agenda. Climate adaptation strategies related to migration fall into two major categories: First, and more commonly, governments view adaptation to climate change as a way to reduce migration pressures and allow people to remain where they are by modifying agricultural practices, management of pastoral lands, infrastructure such as dykes and coastal barriers, fishing patterns and other strategies to reduce pressures on fragile eco-systems.

Second, migration may instead be seen as an adaptation strategy itself. Some countries see migration as a way to reduce population pressures in places with fragile eco-systems; others recognize that resettlement of some populations may be inevitable, but should be accomplished with proper planning. Moreover, migrants already living outside of vulnerable areas may be important resources to help communities adapt and respond to climate change, a perspective that is of particular interest to development policy makers. Just as migrants are contributing to the broader development of their home countries, such strategies envision that the diaspora may have the technical knowledge and financial resources to help communities cope with the effects of climate change. Finally, in the absence of appropriate migration strategies, populations that should be relocated from hazardous situations may be trapped in place, unable to leave on their own.

Research is scarce on both issues—the efficacy of strategies to reduce emigration pressures, and the impacts of migration on migrants and communities of origin and destination when used as an adaptation strategy. With regard to the first issue, interdisciplinary research will likely be needed, engaging the expertise of researchers familiar with agriculture, fishing, infrastructure, land use and tenure and other relevant issues as well as those who understand the determinants of migration. Strategies that focus on specific environmental responses that do not take into account the other macro, meso and micro factors discussed above are unlikely to be efficacious in influencing migration patterns. Similarly, research to assess the strengths and weaknesses of these approaches will need to factor in a range of variables in order to come to useful conclusions on

efficacy of the adaptation strategies. As many of these strategies are still in the planning stage, thinking through what factors to consider in evaluations would be timely.

A new body of research is beginning to assess the impact of migration as an adaptation strategy. The Rainfalls project, for example, posits four likely outcomes of migration for those who move as well as their families left behind: 1) some families will prosper as a result of migration; 2) others will survive but not be materially better off; 3) still others will be worse off having migrated; and 4) a final group will be trapped in place unable to migrate. Research to replicate or challenge these findings in other locations and with other environmental drivers would help expand understanding of the potentially multiple impacts of migration on those most affected by environmental change. Similarly, understanding the impacts derived from different forms of movement (displacement, migration and relocation) would help identify the strengths and weaknesses of these approaches to environmental adaptation. Do those who move voluntarily in anticipation of environmental harm show greater capacity to improve their situation than those who are spontaneously displaced or forced to participate in planned relocation programs? Alternatively, does the involvement of third parties (e.g., humanitarian organizations in the case of displacement and development actors in the case of relocation) offset some of the harms that might otherwise occur when people are forced to leave home? What other factors influence the outcomes of different types of movements?

Another area of needed research is on the role of Diasporas in helping communities of origin adapt to environmental change. The role of Diasporas is an area of growing interest in the migration and development literature. This requires differentiation between the input of individual migrants and households and collective contributions of those banding together in hometown associations, professional groups and other associations. To what extent are Diasporas aware of the environmental changes facing their home countries and communities? What strategies are they currently supporting to help their home countries and communities adapt to the changing environment? To what extent would they support various adaptation strategies?

Since a number of governments are considering planned relocation of their citizens from environmentally hazardous areas to new sites, another essential area of research draws the lessons learned from other efforts to relocate populations. Two forms of planned relocation come to mind: development-induced resettlement and reintegration, and refugee resettlement. The former occurs when development projects, such as hydroelectric dams, require the removal of large numbers of people and their relocation elsewhere. Early research on these projects raised many questions about their impacts on the resettled groups, many of whom were worse off after relocation than they had been previously. Examination of more recent examples, particularly those that benefited from application of the World Bank guidelines on involuntary resettlement, may provide guidance for countries facing the potential for large-scale relocation in the future. Which strategies were beneficial for all parties and which ones were not? Similarly, refugee resettlement programs differ in terms of the impacts they have on those participating in relocation. Generally, refugees choose to apply for resettlement although they do not always have much real choice since they may be unable to return home or to remain in place. Refugee resettlement tends to be towards wealthier countries. Understanding the strategies that help participants in this process integrate into their new communities would nevertheless be useful as planning proceeds on relocation.

Finally, research would help identify some of the opportunities and barriers to the use of migration as an adaptation strategy. Some of these involve law and policy. For example, many likely destination countries do not have the legal frameworks for admission of those seeking to migrate across international borders. Most countries use strict admissions categories that generally focus on ties to the destination—family and employment are most common. Many do have humanitarian categories but mostly related to refugees—that is, those who have a well-founded fear of persecution on account of their race, religion, nationality, membership in a particular social group or political opinion. The vast majority of persons moving at least in part because of environmental change would not qualify under these categories. In some countries, there are also legal and policy barriers to internal migration, such as restrictive residence permits and difficulties in accessing identity documents. In addition, there are practical barriers to migration that need to be identified more precisely and assessed in the context of environmental change. Some are geographic—where is the safest and closest place? Others are economic—what are the costs of migration and how are they borne by those needing to move? Still others are social—what role do networks play in determining whether, when and to where people move—and technological—what are the best and safest modes of migration and does access to modern communication and social media affect the short and long term experience of those who move?

4. Conclusion

This background paper aimed to provide an overview of the state of the literature on environmental change and migration and to identify some areas of research that is needed to build a stronger evidence base for policymaking. It is not meant to be exhaustive in laying out a research agenda. The symposium on environmental change and migration should provide the opportunity for discussion of these issues as well as those emanating from research undertaken by participants and the experiences of policymakers and practitioners working on issues related to environmental change and migration.

To summarize, the core questions to be addressed during the symposium include:

- What do we know about the environmental determinants of migration, displacement and planned relocation?
- How do environmental factors relate to the many other causes of population movements in these three cases (migration, displacement and planned relocation)?
- What do we know about the impact of migration, displacement and planned relocation undertaken in the context of environmental change on the economic well-being of migrants, communities of origin, and communities of destination?
- What do we know about the impact of migration, displacement and planned relocation undertaken in the context of environmental change on the psychological, health and social well-being of migrants, communities of origin, and communities of destination?
- What do we know about the ways in which political and legal frameworks affect and are affected by migration, displacement and planned displacement occurring in the context of environmental change?
- What are the policy implications of these findings?
- What are the gaps in knowledge, and how can they be best filled?

Cited References

Black, R., W. Adger, N. Arnell, S. Dercon, A. Geddes, D. Thomas (2011) “The Effect of Environmental Change on Human Migration.” *Global Environmental Change* 21, S3–S11

Foresight: Migration and Global Environmental Change (2011) Final Project Report. The Government Office for Science, London

Martin, S. (2012) “Environmental change and migration: legal and political frameworks,” *Environment and Planning C: Government and Policy*, Vol. 30, 2012: pp. 1045 – 1060

White, G. (2011) *Climate Change and Migration*. Oxford: Oxford University Press.