



Climate Change and Migration

Study Team on Climate-Induced Migration

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Summary: Four main research challenges are posed by the intersection of climate change, broader environmental hazards and migration: How has the relationship between migration and the environment been conceptualized? To what extent has it been possible to measure the scale of environmental migration? What evidence is available regarding the impact of environmental migration? What research has been conducted on policy responses? Several factors make it difficult to predict the likely scale of environmental migration or its impacts. First, it is difficult to disaggregate the role of climate change from other economic, political and social factors driving migration. Second, migration data are lacking in developing countries that are likely to be most vulnerable to climate change. Third, the lack of data is largely due to the absence of an adequate definition to cover migrants affected by environmental factors under international law. Fourth, climate modeling techniques have not yet begun to account adequately for the impact of individual choice, the potential for international action and the variability of future emissions and meteorological scenarios. In advancing the future research agenda, it is essential from the outset not to focus solely on the potentially negative consequences of migration. Migration can contribute to adaptation to climate change, serving as an important strategy to reduce vulnerability to climate change, increase resilience and enable households to accumulate assets. We need much more evidence to demonstrate these impacts and to inform policy.

Migration, the Environment and Climate Change: Assessing the Evidence

by Frank Laczko

Recent estimates suggesting that between 200 million to 1 billion people could be displaced by climate change during the next 40 years have fuelled the perception that climate change is likely to be associated with a new era of mass migration. Although several experts have dismissed such figures as, at best, “guesswork” (IPCC, 2007) these estimates have helped focus policymakers’ attention on the subject of migration and climate change, and have led to calls for better data and research on the issue.

The main purpose of this paper is to review briefly existing research on the likely impact of environmental change on the movement of people. The topic of environmental migration is not a new topic of research. As early as 1990, the Intergovernmental Panel on Climate Change (IPCC, 1990: 20) warned that the greatest single impact of climate change could be on human migration – with millions of people displaced by shoreline erosion, coastal flooding and severe drought. In 1992 the International Organization for Migration (IOM) published a report on “Migration and Environment” in which it is stated:

“Large numbers of people are moving as a result of environmental degradation that has increased

dramatically in recent years. The number of such migrants could rise substantially as larger areas of the earth become uninhabitable as a result of climate change” (IOM, 1992).

However, until two or three years ago, the topic of migration and the environment was largely ignored by migration experts and policymakers. Indeed, in the 2005 report of the Global Commission on International Migration, there is barely a mention of the topic.

Part of this neglect may be due to the marginal consensus over the years among researchers about whether or not environmental migration is a distinct form of migration worthy of special study. There has been considerable disagreement about how to conceptualize the relationship between migration and climate change and about research methodologies to be used to investigate the topic further.

While it is recognized that there is a two-way relationship between migration and the environment, the main emphasis in this review is on research on the implications of environmental change for migration, rather than vice versa. This paper is based on the findings of a recent book published by

IOM titled *Migration, Environment and Climate Change: Assessing the Evidence* (IOM 2009). Given limitations of space, the paper focuses on four main research challenges which are discussed in the IOM book:

1. How has the relationship between migration and the environment been conceptualized?
2. To what extent has it been possible to measure the scale of environmental migration?
3. What evidence is available regarding the impact of environmental migration?
4. What research has been conducted on policy responses?

The paper is not limited to a focus on climate change but looks more broadly at the range of environmental factors which impact on migration. This is because many changes in the environment, such as earthquakes, which are not necessarily linked to climate change, have an enormous impact on the movement of people.

Conceptualizing the relationship between migration and the environment

The migration and environment research literature tends to fall into two broad and extreme categories:

1. work done by “minimalists” who suggest that the environment is only a contextual factor in migration decisions and
2. work done by “maximalists” who claim that the environment causes people to be forced to leave their homes (Fraser et. al., 2008).

Although many experts accept that climate change is a factor which can impact the decision to migrate, the conceptualization of this factor as a primary cause of forced displacement has been questioned (Black, 2001). While the environment can be a driver of migration, more often than not a complex combination of causes determines whether or not people move. Given the multiple causes of migration,

drawing a clear line between voluntary and forced movements is not always straightforward.

This disagreement on the role of the environment in inducing migration is reflected in further disagreement over terminology. It is common to describe those who move for environmental reasons as climate change refugees or as environmentally displaced persons and to characterize such movements as forced migration. Popular with the media, the term “environmental refugees” has been used to describe the whole category of people who migrate because of environmental factors. This broad definition, while evoking an image that has brought public attention to the issue, is not sufficiently precise to describe all the various types of movements which may be linked to environmental factors. In some situations, such as natural disasters, people may have little choice but to move, and may be forcibly displaced. In other situations where environmental change is gradual, movement is more likely to be voluntary as people have time to weigh their options, and environmental change may be one of many factors inducing them to move.

It is perhaps more useful, instead, to think in terms of a continuum:

“Population mobility is probably best viewed as being arranged along a continuum ranging from totally voluntary migration... to totally forced migration, very few decisions are entirely forced or voluntary” (Hugo, 1996).

In the absence of an internationally agreed definition, IOM developed a working definition in 2007 which defines “environmental migration” as follows:

“Environmental migrants are persons or groups of persons who, for reasons of sudden or progressive change in the environment that adversely affects their lives or living conditions, are obliged to leave their habitual homes, or choose to do so, either temporarily or permanently, and who move either within their country or abroad.”

The purpose of this definition is to try to encompass population movement or displacement, whether it be temporary

or permanent, internal or cross border, and regardless of whether it is voluntary or forced, or due to sudden or gradual environmental change.

Measuring the scale of environmental migration

How many people have been migrating in recent years due to environmental change and how many more people are likely to migrate in the future? There are no firm answers to these questions, but it is assumed that most of the migration that will occur will be mainly within those developing countries which are likely to be most affected by climate change. Today, approximately three-quarters of all migrants move within borders, and only 37 per cent of migration in the world is from developing to developed countries (UNDP, 2009).

Probably, the best available data on environmental migration are data on the numbers of persons displaced as a result of natural disasters. In 2008, for example, it has been calculated that 20 million people were displaced by sudden-onset climate-related extreme weather events (OCHA-IDMC, 2009). However, even in the case of natural disasters where better data exists, we have no global data on migratory movements related to natural disasters (Hugo, 2008). At best, there are estimates that can be derived from displacement data relating to particular crises (Naik, 2009). Despite the fact that the reported number of disasters has doubled over the last two decades (Basher, 2008) we have not seen a major impact on international migration flows, as much displacement is short distance and temporary. The Tsunami which hit Asia in 2004 claimed the lives of an estimated 200,000 persons and displaced around 400,000 others, yet the vast majority of those who were forced to move relocated to nearby areas (Naik et al., 2008).

Extreme environmental events such as cyclones, hurricanes, earthquakes, tsunamis and tornadoes tend to capture the media headlines, but gradual changes in the environment may have a much greater impact on the movement of people in the future. For example, during the period 1979 to 2008, 718 million people were affected by storms compared to 1.6 billion people affected by droughts (EM DAT, 2009). Unfortunately, however, there is relatively little information on the links between numbers affected by gradual changes in the environment and migration.

Reasons for lack of statistics

There are several factors which make it difficult to predict the likely scale of environmental migration (Brown, 2008). First, it is difficult, as mentioned earlier, to disaggregate the role of climate change from other economic, political and social factors which drive migration. Second, there is a basic lack of migration data available in developing countries which are likely to be most vulnerable to climate change. For example, in a recent report, the Commission on International Migration Data for Development Research and Policy noted that many countries still do not include basic questions about migration in their censuses. Even in the ongoing 2010 census, several countries including Japan, Mexico, Korea, the Philippines, and Egypt, do not include questions on the place of birth. One-third of countries also do not ask about previous residence in another country (CGD, 2009).

Third, the lack of data is largely due to the absence of an adequate definition to cover migrants affected by natural disasters under international law.

Fourth, it is extremely difficult to predict the impact of climate change. Climate modeling techniques have not yet even begun to account adequately for the impact of individual choice, the potential for international action and the variability of future emissions and meteorological scenarios (Brown, 2008).

Evidence of the impact of environmental migration

There is relatively little reliable data on the impact of environmental migration because there has been relatively little empirical research on this topic. There are many good studies on the impact of migrants on environments, on land use, deforestation, and so forth, but there is almost no reliable evidence on the effects of environmental factors, “controlling for other influences, on out-migration, particularly from rural areas” (Bilsborrow, 2009). In a review of literature over the past 50 years, of 321 publications, including 153 articles in peer-reviewed journals and 29 books, only two articles were found which investigate the effects of environmental factors on out-migration based on quantitative multivariate methods (Moriniere, 2009).

Relatively few social scientists who focus on migration – and rely on data from censuses and household surveys – have been engaged in data collection or research on the environment (IOM, 2009). Moreover, the little research that has been conducted on the effects of environmental change on migration has tended to focus on the negative consequences of environmental migration. Few studies have explored how migration can be a coping or adaptation strategy or how migration can relieve pressure on environmentally degraded areas (IOM, 2009), as suggested in studies in countries such as El Salvador, Jamaica and the Philippines that have found that migrants respond to extreme environmental events by increasing their remittances (UNDP, 2009).

Research on Policy Responses

Research on policy responses to environmental migration is in its infancy. There has been little analysis of what “standards, policies or programmes are most appropriate for managing this category of internal or international migration flows” (Leighton, 2009). As most environmental migration is expected to occur within and between developing countries in the South, there has been little incentive for policymakers in destination countries in the North to adjust their immigration policies. Few destination countries have elaborated specific policy measures to respond to environmental migration, and none currently have a pro-active policy to resettle those affected by environmental disasters (Martin, 2009). At best, policies are ad hoc, with some countries taking measures to allow migrants to remain temporarily in the destination country when disasters occur at home.

A recent review of current policy responses in destination and origin countries finds that there is also little coherence between environmental change and migration policies (Martin, 2009). For example, few of the major middle-income developing countries which are major source countries for migrants, such as Mexico, India and China, have included any reference to migration in their climate change adaptation plans. Although many countries clearly lack adequate resources to respond to the growing number of natural disasters, the international community has at least established a policy framework for responding to emergencies. On the other hand, a strategy and policy framework

to address the impact of gradual environmental change is largely lacking, and would require linking development, environment and migration policies in a much more coherent manner (World Bank, 2009: 25).

Analysis of policy responses to environmental migration has also tended to focus much more on responses to extreme environmental events rather than on how best to manage the impact of gradual changes in the environment on population mobility. Research tends to focus on questions such as how best to provide emergency assistance to those who are displaced, how to reduce disaster risk and how to improve the legal and normative framework for the protection of the displaced. A number of studies have also discussed whether there is a case for introducing a new set of legal instruments to protect the environmentally displaced. Zetter (2009), in a review of this discussion, concludes that there is little opportunity or need to create an entirely new set of legal instruments to address environmental migration. There is much scope within existing legal frameworks to provide protection to those who are forced to move for environmental reasons, but there is a critical lack of capacity in many states to implement existing frameworks and it is here where there is a need for much more research.

Frank Laczko is the Head of Research at the International Organization for Migration (IOM), Geneva.

The International Organization for Migration (IOM) is an intergovernmental organization committed to the principle that humane and orderly migration benefits migrants and society.

PHOTO CREDIT: Floods in Ifo refugee camp, Dadaab, Kenya, UNHCR: B. Bannon, December 2006.

References

All citations may be found in *Migration, Environment and Climate Change: Assessing the Evidence*, edited by Frank Laczko and Christine Aghazarm, IOM, Geneva, 2009.

Study team members

Susan Martin, Institute for the Study of International Migration, School of Foreign Service, Georgetown University, Washington, DC (Co-Chair)

Koko Warner, Institute for Environment and Human Security, United Nations University, Bonn, Germany (Co-Chair)

Jared Banks and Suzanne Sheldon, Bureau for Population, Refugees and Migration, U.S. Department of State, Washington, DC

Regina Bauerochse Barbosa, Economy and Employment Department, Sector Project Migration and Development, German Technical Cooperation (GTZ), Eschborn, Germany

Alexander Carius, Moira Feil, and Dennis Tänzler, Adelphi Research, Berlin, Germany

Joel Charny, Refugees International, Washington, DC

Dimitria Clayton, Ministry for Intergenerational Affairs, Family, Women and Integration, State of North Rhine-Westphalia, Düsseldorf, Germany

Sarah Collinson, Overseas Development Institute, London, United Kingdom

Peter Croll, Ruth Vollmer, Andrea Warnecke, Bonn International Center for Conversion, Bonn, Germany

Frank Laczko, International Organization for Migration, Geneva, Switzerland

Agustin Escobar Latapi, Centro de Investigaciones y Estudios Superiores en Antropología Social (CIESAS), Guadalajara, Mexico

Michelle Leighton, Center for Law and Global Justice, University of San Francisco, San Francisco, California and Munich Re Foundation-UNU Chair in Social Vulnerability

Philip Martin, University of California, Migration Dialogue, Davis, California

Heather McGray, World Resources Institute, Washington, DC

Lorenz Petersen, Climate Change Taskforce, German Technical Cooperation (GTZ), Eschborn, Germany

Aly Tandian, Groupe d'Etudes et de Recherches sur les Migrations (GERMS), Gaston Berger University, Senegal

Agnieszka Weinar, Directorate-General Justice, Freedom and Security, European Commission, Brussels, Belgium

Astrid Ziebarth, German Marshall Fund of the United States, Berlin, Germany.

List of papers

Developing Adequate Humanitarian Responses
by Sarah Collinson

Migration, the Environment and Climate Change: Assessing the Evidence
by Frank Laczko

Climate Change and Migration: Key Issues for Legal Protection of Migrants and Displaced Persons
by Michelle Leighton

Climate Change, Agricultural Development, and Migration
by Philip Martin

Climate Change and International Migration
by Susan F. Martin

Climate Change, Migration and Adaptation
by Susan F. Martin

Climate Change, Migration and Conflict: Receiving Communities under Pressure?
by Andrea Warnecke, Dennis Tänzler and Ruth Vollmer

Assessing Institutional and Governance Needs Related to Environmental Change and Human Migration
by Koko Warner



Transatlantic Study Teams

The GMF Immigration and Integration Program's Transatlantic Study Teams link the transatlantic debate on international migration flows with its consequences for sending and receiving regions. Through compiling existing data, policy analysis, and dialogue with policymakers, selected study teams gather facts, convene leading opinion leaders on both sides of the Atlantic, promote open dialogue, and help to advance the policy debate. Study teams are chosen by a competitive selection process, based on the overall quality of their proposal, its policy relevance, institutional strength, sustainability, and potential for synergies. The Transatlantic Study Team 2009/2010 is investigating the impact of climate change on migration patterns. Environmental deterioration, including natural disasters, rising sea level, and drought problems in agricultural production, could cause millions of people to leave their homes in the coming decades. Led by Dr. Susan F. Martin, Georgetown University, and Dr. Koko Warner, UN University, the team consists of scholars, policymakers and practitioners from the migration and environmental communities.

The German Marshall Fund of the United States (GMF) is a non-partisan American public policy and grantmaking institution dedicated to promoting better understanding and cooperation between North America and Europe on transatlantic and global issues. GMF does this by supporting individuals and institutions working in the transatlantic sphere, by convening leaders and members of the policy and business communities, by contributing research and analysis on transatlantic topics, and by providing exchange opportunities to foster renewed commitment to the transatlantic relationship. In addition, GMF supports a number of initiatives to strengthen democracies. Founded in 1972 through a gift from Germany as a permanent memorial to Marshall Plan assistance, GMF maintains a strong presence on both sides of the Atlantic. In addition to its headquarters in Washington, DC, GMF has seven offices in Europe: Berlin, Bratislava, Paris, Brussels, Belgrade, Ankara, and Bucharest.

The Institute for the Study of International Migration is based in the School of Foreign Service at Georgetown University. Staffed by leading experts on immigration and refugee policy, the Institute draws upon the resources of Georgetown University faculty working on international migration and related issues on the main campus and in the law center. It conducts research and convenes workshops and conferences on immigration and refugee law and policies. In addition, the Institute seeks to stimulate more objective and well-documented migration research by convening research symposia and publishing an academic journal that provides an opportunity for the sharing of research in progress as well as finished projects.

The UN University established by the UN General Assembly in 1973, is an international community of scholars engaged in research, advanced training and the dissemination of knowledge related to pressing global problems. Activities focus mainly on peace and conflict resolution, sustainable development and the use of science and technology to advance human welfare. The University's Institute for Environment and Human Security addresses risks and vulnerabilities that are the consequence of complex environmental hazards, including climate change, which may affect sustainable development. It aims to improve the in-depth understanding of the cause effect relationships to find possible ways to reduce risks and vulnerabilities. The Institute is conceived to support policy and decision makers with authoritative research and information.