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**Research Workshop on Migration and the Environment:
Developing a global research agenda**

16-18 April 2008, Munich, Germany

Workshop report

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Abstract: Gradual and sudden environmental changes are resulting in substantial human movement and displacement. The scale of such flows, both internal and cross-border, is expected to rise, with unprecedented impacts on lives and livelihoods. Currently, insufficient strategic thinking from policy makers is partly due to a lack of data and empirical research on this topic. Policy-oriented research on ways in which to manage environmental migration remains limited. An expert meeting in Munich supported by the Rockefeller Foundation addressed these gaps, and proposed an Environment and Migration Alliance to serve as a platform for research, discourse, and policy action in this area.

Introduction

“Environmentally induced migration” has so far received little attention from a scientific perspective... patterns of cause and effect relating to environmental migration remain largely unexamined”, (World in Transition, Climate Change as a Security Risk, German Advisory Council on Global Change, 2007).

Two issues of utmost scientific and policy relevance dominate discussions today: climate change and environmental degradation, and migration. Although it has often been argued that environmental change (including climate change) hold the potential to displace millions of people during the next few decades, there are widely varying estimates of the likely number of people who may be affected by environmental migration. Such estimates, although often highly speculative, draw attention to the fact that we know very little about the likely impact of changes in the environment on migration. In recent weeks, we again see millions of people displaced by natural hazards—5 million in Sichuan, China and an estimated 2 million in Myanmar. What the headlines do not show, however, is how slow-onset events including sea level rise and deforestation affect labour and seasonal migration, particularly internationally. Environmentally induced migration and human displacement affects at least 24 million people today. By 2050, climate change and environmental degradation could push over 200 million people to migrate.

Nor do we know much about how expected changes in migration patterns are likely to affect the environment. Policy makers lack the information necessary to prepare for, prevent, or respond to environmental migration in an effective manner.

To address the need for more sound empirical research and identify priority areas of research for policy-makers in the field of Migration and Environment, IOM together with UNU-EHS, and UNEP organized a research workshop which brought together 35 international experts in the fields of migration and environmental research. The meeting was hosted by the Munich Re Foundation (MRF) at the Munich Re headquarters and generously supported by the Rockefeller Foundation, which took place from 16 to 18 April 2008 in Munich, Germany. The Research Workshop on Migration and Environment contributes to

the understanding of the link and implications of climate change and environmental degradation for migration research and policy.

The main objectives of this workshop were to:

- Develop a **research framework** (identify key questions, research themes and innovative research methods needed for more accurate data collection and cross-cutting approaches to migration and the environment);
- **Compare perspectives** on migration, the environment, and social vulnerability across regions;
- **Identify priority areas** of research for policy makers;
- Create momentum among a core research network of experts through an **expert taskforce** to carry the research strategy forward;

Workshop results

The Research Workshop on Migration and the Environment made a significant contribution to a process of refining and delineating understanding about environmentally induced migration, and its relationship to climate change and a broad range of policy responses. The two major outcomes of the meeting was the initial definition of a global research and policy agenda, and the call for a Climate Change, Environment, and Migration Alliance (CEMA) to move the agenda forward. These two major findings are discussed in greater detail below.

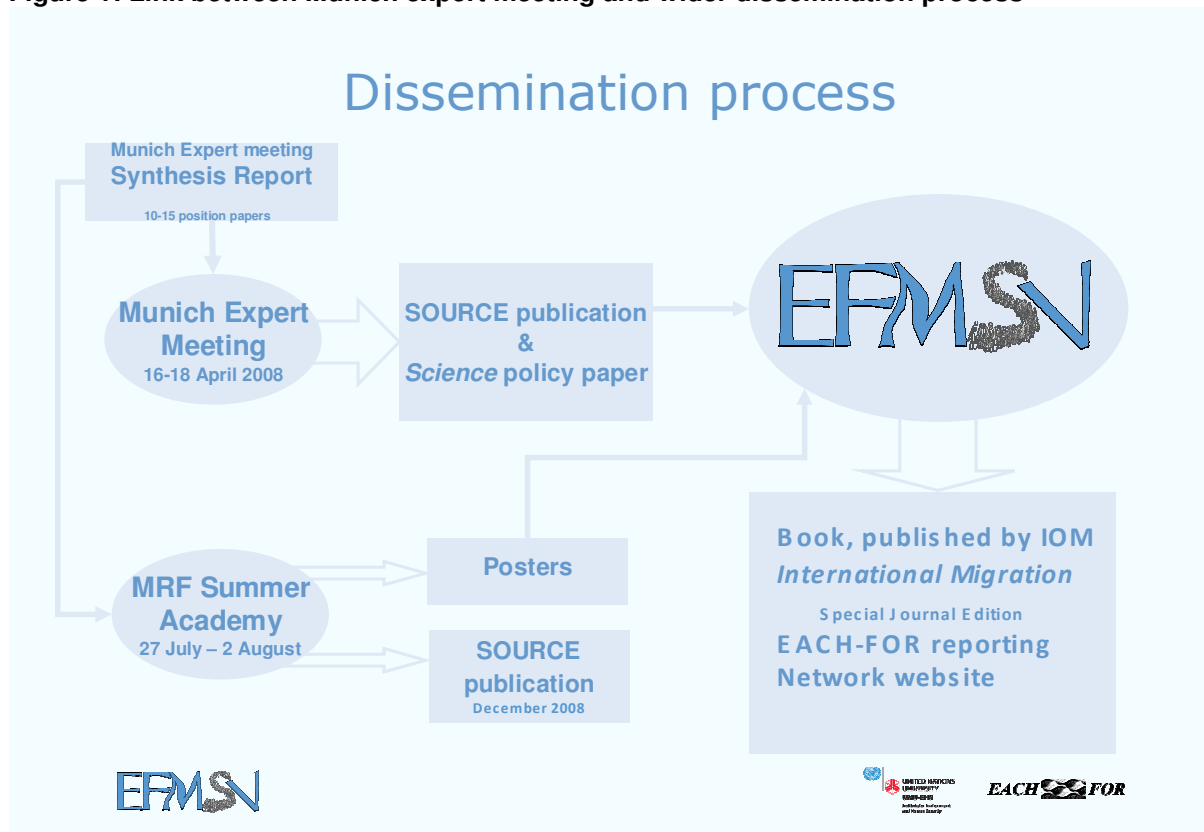
Additionally, the research workshop played a central role in linking experts, policy makers, academics, and practitioners across the institutions involved. For example, the IOM hosted an international conference in Bangkok in February 2007 to target the issue of environmentally induced migration. In February of 2008, IOM hosted another high-level (ministerial) meeting in Geneva with the Human Security Network to examine the impacts of climate change on migration and human security. At these and other events the IOM called for the formulation of a research and policy agenda on the topic. The April workshop in Munich supported by the Rockefeller Foundation was a milestone in developing this agenda.

For the United Nations University Institute for Environment and Human Security (UNU-EHS), the workshop formed one of four pillars in a multi-year focus on environmentally induced migration research, illustrated in the graph below. UNU-EHS is involved in the EC-funded EACH-FOR project (www.each-for.eu), a global comparative study on environmental change and forced migration scenarios. UNU-EHS is responsible for fieldwork and the dissemination of project results, which it designed in a four-pillar approach shown in Figure 1 below. The four pillars are:

1. Expert dialogue (April expert workshop in Munich, supported by the Rockefeller Foundation and in collaboration with IOM, UNEP, and Munich Re Foundation).
2. A series of policy dialogues with European parliamentarians and ministries (not shown in graph)

3. A capacity building Summer Academy on Environmental change, migration, and social vulnerability hosted by Munich Re Foundation
4. And the process culminating in an international conference “Environmental Change, Forced Migration, and Social Vulnerability EFMSV” (www.efmsv2008.org) in Bonn from 9 to 11 October, 2008.

Figure 1: Link between Munich expert meeting and wider dissemination process



The workshop will also lead to several publications in the coming year:

- UNU-EHS and IOM will publish several of the expert position papers in the proceedings of the EFMSV conference, either in a book published by IOM and Springer Verlag or in a special journal edition of *International Migration*
- A synopsis of the outcomes of the April expert workshop will be submitted to *International Migration* for publication
- Co-organizers of the April expert workshop in Munich have written to the editor of *Science Magazines Policy Forum* to explore the magazine’s appetite for publishing a policy-relevant article about the topic area and results of the expert workshop

The dialogue and debate at the expert workshop were very rich, and organizers and participants expressed interest in following up in one year’s time with

another workshop, possibly linked to the work plan of the Alliance idea and implementation of parts of the global research and policy agenda.

Emerging global research and policy agenda

Experts at the workshop identified key priority areas for research related to 3 thematic areas identified by IOM, UNU-EHS, and UNEP:

- Definitions and data;
- Factors driving environmental migration;
- Policy scenarios and migration consequences.

Definitions and data

Participants agreed that more work was needed to conceptualize environmentally induced migration, and to quantify migration responses to the impact of environmental change and degradation. Specific work in the following areas was recommended:

- *Definitions of environmentally induced migration:* Experts discussed the advantages and disadvantages of different definitions appearing in the literature and policy discourse. Definitions are the starting point for both research—which must define a phenomena before it studies and measures it—and policy, which requires a definition in order to assign responsibilities and design action. Experts noted that it is easier to identify environmentally induced migrants after rapid-onset events such as tsunamis or major storms. Longer-term environmental degradation interacts with migration in complex ways that make it difficult to clearly attribute why people are moving and whether they are environmentally induced migrants.
- *Currently existing data and statistical sources; a point of departure:* Resources such as national statistical institutes can provide relevant information at regular intervals, but these institutions do require assistance in improving data collection, data quality, and digitalization of data. Census data combined with GIS modeling can reveal relevant demographic structures, and over time may begin to reveal general patterns of migration flows and directions.
- *Correlate migration flow data with environmental variation over time:* It may be possible to use currently available data to identify the magnitude of flows of migrants. Research might correlate estimated flows with environmental variation over time and across countries. Cross disciplinary studies could examine the same indicators and build consensus on models and methods (census data, early warning), and laws and policies which may impact both the environment and potential migration patterns (driving decisions at farm level that give rise to land management processes), etc.
- *A note of caution in measuring environmentally induced migration:* Experts underscored that care must be exercised in measurement attempts. For example, the complexity of meteorological scenarios and socio economic scenarios leave large opportunities for error. The extent to which the

environment is the main push factor or one of many needs to be taken into consideration when measuring environmental migration. Current estimates of environmentally induced migration vary widely, from 25 million to almost 700 million. For appropriate policy responses, uncertainty in modeling approaches must be carefully accounted for.

- *Environmental data dominates in scenario building:* Scenarios in the literature right now are largely based on environmental scenarios of the IPCC rather than an analysis of current and expected migration trends and migration policy developments.. A more balanced integration of data and knowledge used to form policy approaches to manage environmentally induced migration is needed. Similarly, the lessons learned from experiences of using existing approaches and legal frameworks must be explored in greater depth, through both a research agenda and a policy dialogue process.

Factors driving environmental migration

Experts agreed that the mechanisms linking migration and environmental degradation and change are complex and interlinked. They identified some of the most important points that connect migration responses to environmental degradation and change.

- *Migration history and networks influence migration:* Research and policy approaches in the future should recognize the significance of context and history of environmental migration cases, including past migrations (networks). The specific contexts of migration patterns are critical to document and analyze. Migration patterns may vary over time in response to environmental stressors. Many forms of migration, such as circular migration which may be a response to environmental pressures in early stages, may be manifest later as flight. Pre-existing migration patterns can influence response to environmental stressors: The tendency to migrate in the face of environmental migration may increase when temporary migration is already an established phenomena.
- *Environmental change has a multiplier effect on other migration drivers.* More erratic weather, rising sea level and other climate change impacts exacerbate migration and environmental degradation. However, environmental change itself must combine with other factors to cause migration. The links between migration and environmental change are multidirectional, making it necessary to examine other factors such as faulty governance, poverty, lack of social cohesion and conflict, etc. Research is needed about the impacts of both migration and environmental policy on different groups of people, including who has adapted and who has been displaced. Poverty plays a significant linking role between environment and migration, with environmental impacts on livelihoods a key factor that can affect migration decisions.

Experts at the April Munich meeting also explored who is most likely to migrate in areas affected by environmental changes.

- *Mass migration as a homogenous group unlikely:* Different people in a community are affected in different ways: gender, age, socio-economic status all affect environmentally induced migration. This creates a highly differentiated group, each subcomponent having different policy implications. For example, in the face of slow-onset environmental change those who are able to move—those with money, social networks, and alternative livelihoods—will tend to migrate independently. The vulnerable poor, those with no capacity to move, the very young and the elderly may be left behind initially, and forced to resettle later. Gender and demographic structure also play a role in environmentally induced migration patterns. Property rights, resource distribution and family roles affect men and women’s migration patterns, particularly when the environment becomes a strong push factor.
- *Migration typologies differ, depending on the environmental stressor :* Research and policy must make distinctions about the type of environmental stressor and the nature of human movement. Slow and rapid onset environmental situations will contribute to different migration patterns, ranging from temporal displacement and permanent displacement, to cyclical migration and permanent migration both internally and internationally.

Policy scenarios and migration consequences

Experts discussed possible policy scenarios and migration consequences.

- *Migration needs to be discussed more within the context of adaptation strategies* to environmental and climate change. The development community often characterizes migration as a failure of adaptation, rather than as a form of adaptation. Similarly, governments do not widely view migration as an adaptation alternative, and very few national adaptation plans (NAPAs) mention migration or relocation options. Policy dialogue, especially at the national level, is needed to understand how climate change impacts affect livelihood potential. Migration is a livelihood issue not only reflecting where people are emigrating from, but also where they are immigrating to. To move discussions about environmentally induced migration closer to adaptation, policy makers need to understand thresholds and critical tipping points. These points help policy makers see the implications for migration and relocation in their adaptation plans.
- *Policy scenarios addressing environmentally related displacement and relocation* strongly affect existing social, economic and political structures. Rapid-onset events that lead to massive displacement or the impacts of resettlement on resident and migrating populations pose challenges for societal norms and standards, as well as property rights and political representation. The process of relocation has profound impacts on both displaced populations and receiving communities, but most policy focuses almost entirely on the process of the move rather than the process of what happens to resettled people in the longer term. Displacement and resettlement can be traumatic for affected communities, affecting the group identity and culture, livelihoods and social capital. Resource depletion in destination areas might increase. Humanitarian aid patterns under

current policy tend to go to people who have been displaced or relocated, rather than to residents of receiving communities potentially aggravating scenarios for conflict. Looking at other forms of displacement and how policy has addressed it (i.e. in conflict situations) can help shape appropriate policies. In particular, research and policy dialogue should address displacement and resettlement with local governments including mayors and provincial governments.

- *Environmentally induced migration increases pressure in urban areas.* Evidence about current environmentally induced migration suggests that movement from rural to urban areas can add additional pressure to already fragile urban infrastructures and services. The public health, water, and sanitation sectors are particularly affected. Policy makers need to know the magnitude of migrants expected to arrive in urban areas. In most developing countries, the transition in development has not fully occurred yet. This implies that, coupled with growing environmental pressures, cities in developing countries could experience large-scale inflows of environmentally induced (and other) migrants. The policy challenge is to identify how environmental pressures translate into additional migrant flows to the cities.

Climate Change, Environment, and Migration Alliance

All participants agreed on the need for a global interdisciplinary research program. Several key priorities for further work were identified, including:

- Systematic stock-taking of existing research evidence in order to highlight the implications for policy, and to develop new methods and approaches which could be applied in a second phase involving fieldwork;
- Global research program, based on new in-depth studies, using a common research design focusing on those parts of the world expected to be worst affected by environmental degradation and extreme environmental events;
- Information and knowledge management - networks, databases, websites, to ensure that the results of research findings and key policy developments are shared in an effective manner between a range of stakeholders;
- Capacity-building projects - examples mentioned included projects to enhance data collection through better use of existing data sources or the creation of new data-sets, research capacity-building to ensure that countries likely to be most affected by environmental migration will have an adequate research base, training workshops for policy-makers, to share policy lessons and best practices based on policy-oriented research.

To accomplish these aims, the experts recommended the formation of a Climate Change, Environment, and Migration Alliance (CCEMA). The experts proposed the Alliance to bring environmental dimension of migration into the mainstream of sustainable development policy, and to bring the migration issue into ongoing

environmental change and climate change discourse. The Alliance can in the future serve as a focal point and clearing house for knowledge about environmentally induced migration.

The Alliance will bring together UN and intergovernmental organizations, experts, NGOs, civil society, and governments to better understand the root causes of environmentally induced migration, and find solutions to the related risks posed by climate change. The Alliance provides a forum and gathering point for exchange of new information relevant to policy and practice for environmentally induced migration. The Climate Change, Environment, and Migration Alliance aims to fulfil four objectives:

1. **To provide a neutral forum for policy dialogue** to help deal with the migration- and displacement-related impacts of climate change and environmental degradation, especially in developing countries. The Alliance will draw on the expertise of the public and private sectors to build strategic discussions and more informed policy dialogue;
2. **To improve the knowledge base** about environmentally induced migration, including databases and innovative research approaches.
3. **To conduct and support pilot projects** for the application of approaches to address regional environment and migration, in partnerships and through existing organisations and programmes. To identify success stories and disseminate information on the environmental factors that affect migration, as well as migration factors that affect the environment. These activities will focus on developing countries but will at the same time evaluate solutions that have been used in a variety of settings such as displacement, refugee management, disaster management, and environmental management;
4. **To promote practical solutions** for addressing environmentally induced migration through improved legislation, research, awareness raising, humanitarian assistance, and institutional strengthening. These solutions will be formed in cooperation with other organisations and initiatives and within existing frameworks such as the United Nations, international financial institutions, international donors and the private sector;

The Climate Change, Environment, and Migration Alliance will undertake policy-relevant research, capacity building, dissemination of findings, and networking activities.

Conclusions

As the need for identifying appropriate adaptation pathways for climate change becomes more acute, it is imperative to address how changing environmental conditions affects individual and group decisions to migrate. A new level of policy and scientific attention to this issue is required to identify the policy alternatives to smooth the way forward and avoid tensions over natural and social resources or even potential conflict.

The time to address the effects of dangerous environmental change including climate change is now. Action must be concerted and swift: Policy makers, the scientific community, civil society and other actors must seek solutions for those people who are currently and who may be induced to migrate in order to seek safe and sustainable existences. To achieve human security in the face of expected climatic shifts, careful government intervention, particularly in issues of resettlement and accelerated adaptation, must be undertaken. To this end, experts from the Munich expert Research Workshop on Migration and Environment urged the creation of the Climate Change, Environment, and Migration Alliance to champion coordinated policy attention and action today.