

Confronting Environmental Migration

A Framework for Research, Policy and Practice

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OVERVIEW

In a future increasingly marked by a confluence of environmental change and increasing human vulnerability, effective responses to hazards will require the harmonisation of research, policy and praxis on the topic of environmental migration. Currently, strategic planning on the part of policymakers suffers from a lack of data and empirical research about environmental migration, and conversely, policy-oriented research on environmental migration remains sparse. Hence any way forward must unify academic, policy-based and practitioner communities under a common research agenda for environmental migration. This policy brief distils recommendations from academics of diverse research backgrounds and offers practical considerations for forging a common agenda.

The year 2008 saw considerable momentum build for environmental migration research. This paper summarizes key findings of a series of events, all organised by UNU-EHS, dedicated to the issue of environmentally forced migration including an Expert Workshop on Migration and the Environment (April 2008), the UNU-EHS Munich Re Foundation (MRF) Summer Academy (July 2008), both in Munich, and the International Conference on Environment, Forced Migration and Social Vulnerability (EFMSV) in Bonn (October 2008). The goal of this paper is to identify key issues for a research agenda in the field of environmental migration. In its simplest form, the agenda should include the following issues:

- Establishment of a **cross-referenced database** of migration-related resources, including digitised data, census data, GIS data, maps, photographs, academic articles, policy briefs, etc;
- A **compilation of case studies** from current research on environmental migration, and the corresponding announcement of this compilation in all major academic journals, indexing databases, policy dialogues, and conferences;
- **Capacity-building programmes** to improve data collection, to aid environmental migration researchers make their research relevant to policy, and to help sensitise and inform policy-makers on issues around climate change and environmental migration; and
- An organisational **architecture for planning, implementing and evaluating pilot programmes** targeted at environmental migrants that are based on state-of-the-art research on climate change and environmental migration.

INTRODUCTION: PROBLEM AND POLICY ALTERNATIVES

At the moment, human migration in response to environmental change and degradation is not entirely understood. Occurring in nearly every inhabited biosphere on earth, environmental migration is projected to increase at potentially alarming rates. Myers (2002) has conservatively estimated that by 2010, environmental drivers will have influenced about 50 million migrants, with that figure doubling or tripling shortly thereafter. The past year alone (2008) witnessed natural events in China and Myanmar that triggered the migration of some 7 million individuals. If climate change contributes to sea level rise according to current projections, during the second half of the 21st century, between 200 and 300 million individuals will be forced to adopt a permanent migration strategy (Watson et al, 1998; Warren et al, 2006). At present, 135 million people are threatened by severe desertification and another 550 million

people dealing with chronic water shortages (Gleick, 2000). Worsening environmental degradation and the collapse of livelihoods could easily tip these vulnerable populations towards temporary and permanent migration strategies, as well. When it does occur, environmental migration impacts strongly on local, regional, and international development and security, and often demands an immediate policy response, including resettlement — which can be extremely costly in both social and economic terms, as the Indian Ocean tsunami of 2004 and the internal diaspora following Hurricane Katrina in 2005 both proved. It comes as no surprise, then, that worst-case scenarios suggest that climate change and environmental migration could be the principal policy concern of the 21st century.

Effective responses to increased environmental migration require the harmonisation of research, policy and praxis.

One of the central challenges, however, is that policymakers lack the information necessary to effectively prevent, prepare for, or respond to environmental migration. Inadequate cooperation between researchers, practitioners and policymakers is an age-old dilemma for social problems. However, just as policy interventions with technological objectives (e.g. space exploration or public infrastructure development) depend upon dialogue with and participation of scientists at the cutting edge of research, so the same level of cooperation ought to exist to confront the many complex impacts of climate change and migration. Currently, research on environmental migration takes place in semi-isolated disciplines, with differing terminologies, methods, and priorities. Moreover, policymakers and practitioners commonly fail to take advantage of current research in order to blunt the negative social and economic consequences of migration. This dynamic results in sub-optimal outcomes at every turn: research winds up re-inventing its own wheel and failing to connect to policymakers; policy interventions, devoid of the conclusions of research, remain inadequate and ineffective and do not feed back into the research process; finally, and, most importantly, environmental migrants often experience downward social mobility, exclusion and impoverishment.

Given the possible scale of environmental migration in the coming century, this is not an acceptable way forward. We cannot afford to be unprepared for environmental migration scenarios, regardless of whether they occur within or across national lines. Peer-reviewed scientific and social-scientific research is the most powerful tool available for understanding and preparing for environmental migration. However, a formal organisation with the budgetary capacity to simultaneously organise, advocate for, and integrate research into policy may not be presently feasible. We are left with the alternative of forging a common research agenda for environmental migration.

BACKGROUND: BUILDING CONSENSUS ON A RESEARCH AGENDA

In order to query expert opinions on the feasibility and features of a potential research agenda, the United Nations University Institute for Environment and Human Security (UNU-EHS) and the Munich Re Foundation (MRF) convened two conferences and one summer academy in 2008. These resulted in hundreds of hours of collected work from experts, policymakers, scholars, practitioners, doctoral and post-doctoral researchers toward the development of such an agenda. The first conference, an expert meeting of 35 academics and policy makers in April 2008 in Munich, Germany, led to the creation of a document entitled 'The Research Agenda for Environmental Change and Migration', which became the staging ground for all future discussions on the topic.

In the course of the third Summer Academy on Environmental Change, Migration and Social Vulnerability, in Munich, Germany, in July 2005, 25 doctoral researchers from 16 different countries of origin critiqued, refined and distilled the work of the expert meeting. The role of the participants in the summer academy was to critically examine thematic areas identified by the experts, and to analyse research gaps and methodological challenges that became apparent. The result of the working session at the academy was a document entitled 'The Hohenkammer Challenge: New Frontiers for Research and Action', which became the disembarkation point for the present brief.

The discussions from these two meetings went on to inform the 'Bonn Points', a discussion framework assigned to the International Conference on Environment, Forced Migration and Social Vulnerability (EFMSV) in Bonn, Germany, in October 2008. One of the primary outcomes of the EFMSV conference was the formal establishment of an international coalition of researchers, policymakers, practitioners, and governmental and non-governmental institutions called the Climate Change, Environment and Migration Alliance (CCEMA). This fledgling alliance is well-situated to take the lead in advancing a global research agenda for environmental migration.

ALTERNATIVE STEPS TO CONNECT RESEARCH TO POLICY

A global research agenda for environmental migration should aim to streamline research, policy and practice. At the two above-mentioned conferences, a high degree of consensus emerged in support of such an agenda, with several broad priorities materialising from both meetings. In general, participants agreed that the following steps were necessary to advance research and connect research to policy. The skeletal framework for a research agenda would exist as such:

- A systematic compilation of existing research should be undertaken in order to take stock of instances of environmental migration past and present.
- A research agenda should be based on in-depth case studies from areas particularly vulnerable to environmental extremes and degradation.
- A key component of a research agenda should be a public information and knowledge management system to make data and research widely available to all stakeholders, especially local communities who are affected by migration (and who supply much of the raw data for researchers). This could be accomplished through networks, databases or websites.
- Effective research methods should be identified and communicated to researchers undertaking (or about to undertake) fieldwork.

- A research agenda should support capacity-building in areas of data collection, research skills, and training for policymakers, to insure that the processes of research and policy-making are engaging with one another.
- A primary outcome of a research agenda should be pilot programmes that are based on typologies, response guidelines and conclusions drawn from cutting-edge research.

While these key priorities remained consistent in each of the meetings, different thematic areas materialised, forming the basis for detailed recommendations. The expert meeting prioritised the following themes for research:

1. definitions and data;
2. factors driving environmental migration; and
3. policy scenarios and migration consequences.

Participants in the summer academy, which had the advantage of drawing from results of the expert meeting, identified four roughly equivalent thematic areas for research:

1. assessment (definitions, data and measurement);
2. driving factors;
3. socio-cultural factors; and
4. policy dimensions.

50 million migrants by 2010, while 135 million threatened by desertification, and 550 million by chronic water shortages at present.

Participants of the summer academy in July 2008 decided that two of the three thematic areas proposed in the expert meeting in April 2008 required elaboration (assessment and policy dimensions) and that a fourth new area, socio-cultural factors, was required to orient migration research toward local social, economic and political circumstances. The area called 'socio-cultural factors' speaks to the distinctness of specific migration scenarios, local adaptive capacities and histories which bear heavily on a community's ability to reconstitute itself during and after a migration.

In the chart on the following page, the key discussions that took place in both the expert meeting (April 2008) and in the summer academy (July 2008) are represented by thematic area. Since many of the same discussions were repeated and elaborated, equivalent and complimentary discussions are grouped side-by-side alphabetically. Similarly-themed insights, opportunities and needs are grouped next to one another horizontally, and those areas in which one group made a recommendation not addressed by the other group are represented by "n/a" (not applicable). The concrete recommendations that emerged by consensus from discussions around each thematic area are listed in the final column labelled 'General Recommendations', which summarises those recommendations from both groups and provides a basis for the concluding section of this brief.

Priority Areas	Expert Meeting April 2008	Summer Academy August 2008	General Recommendations
1. Definitions, data, and assessment	<p>a. n/a</p> <p>b. Definitions of environmentally induced migration are starting points for both research and policy.</p> <p>c. Currently existing data and statistical sources should be digitised. Data collection should be improved.</p> <p>d. Correlating data on migration flows with environmental variation over time may serve to generate consensus about models and methods for measuring migration, and about policies and legal conditions that give rise to migration.</p> <p>e. Environmental data should not dominate socio-economic data in building scenarios for study.</p> <p>f. Uncertainty in modelling approaches must be carefully accounted for, as meteorological and socio-economic data leave large room for error.</p> <p>g. n/a</p>	<p>a. The five priorities for migration assessment are: 1) Risks of migration (drivers and attribution) 2) Process of migration 3) Historic and actual migration 4) Response to migration 5) The consequence of migration</p> <p>b. Research is dependent upon appropriate application of definitions. Research would benefit from harmonised definitions across disciplines.</p> <p>c. A need exists to develop a catalogue of migration data, which should include census data, GIS data, surveys, photographs, maps, etc.</p> <p>d. n/a</p> <p>e. Methods should be participatory with local communities; research should be inter-disciplinary, multi-scalar, and sensitive to social networks; and approaches should consider both qualitative and quantitative methods.</p> <p>f. n/a</p> <p>g. Concerned institutions should support the creation of a structured compendium of empirical studies involving environmental migration.</p>	<ul style="list-style-type: none"> • Definitions should be standardised across disciplines. This could be done through the recognition of an environmental migration taxonomy in international law. • Existing data should be digitised, catalogued and made widely available. • Data collection should be improved. • Institutions should support the creation of, and actively contribute to, an international compendium of case studies on environmental migration.

Priority Areas	Expert Meeting April 2008	Summer Academy August 2008	General Recommendations
2. Factors driving environmental migration	<p>a. Research and policy should recognise that migration history and networks influence migration behaviours.</p> <p>b. Environmental change has a multiplier effect on other migration drivers. Other factors become important, such as governance, poverty, health, lack of social cohesion and conflict, etc.</p> <p>c. Mass migration as a homogenous group is unlikely, with the exception of resettlement. Migration affects different demographics (age, gender, ethnicity, class, etc.) differently.</p> <p>d. Migration typologies differ, depending on the environmental stressor (slow-onset vs. rapid events), type of migration (temporary vs. permanent) and the unit of analysis (individual/household vs. community).</p> <p>e. n/a</p>	<p>a. Historical factors are crucial for understanding present-day migration, e.g. origins of political economies, trajectories of development, histories of environmental change and anthropogenic pressure on ecosystems, and systems of social inequality and conflict.</p> <p>b. Research and policy should acknowledge the complexity of driving factors: it is difficult to isolate single drivers within complex, multi-directional ecological and social processes.</p> <p>c. n/a</p> <p>d. n/a</p> <p>e. Migration must be identified in its more incipient and subtle forms along with more notable examples.</p>	<ul style="list-style-type: none"> • A research agenda needs to include a mechanism for identifying tipping points for migration. • A research agenda needs to include a mechanism for identifying “hot spots” for environmental migration.
3. Socio-cultural factors	<p>a. n/a</p> <p>b. n/a</p>	<p>a. Research about migration should demonstrate loss of life, livelihood and property, as well as non-material, social and psychological losses and traumas, particularly the loss of social networks. Research should also illustrate cases where migration has served to increase physical and social capital for the affected communities.</p> <p>b. The private sector of a given community, regional or state should be a focus of study: how it conditions, delimits, and potentially exacerbates environmental degradation and migration.</p>	<ul style="list-style-type: none"> • Case studies should account for socio-cultural factors, particularly migration outcomes, migration history, local adaptive capacity, and private-public sector linkages.

Priority Areas	Expert Meeting April 2008	Summer Academy August 2008	General Recommendations
3. Socio-cultural factors (continuation)	c. n/a d. n/a	c. Research should aim to find and articulate the links between environmental migration and other global issues—such as inequalities in health, housing, and food. d. Research methods should be developed and deployed that are specific enough to individual places that they are culturally sensitive towards those populations, at the same time as being generalisable and reproducible enough that they may be translated across populations.	<ul style="list-style-type: none"> Case studies must imbed migration into broader social, economic and political contexts.
4. Policy scenarios and migration consequences	a. n/a b. n/a c. n/a d. Migration needs to be discussed within the context of strategies of adaptation to environmental change. e. Policy scenarios addressing environmentally-related displacement and relocation strongly affect social, economic and political structures. f. Research should highlight the pressures of environmental migration to urban areas and the consequences for urban development.	a. Case studies from extant migration research in which aspects of the public good (e.g. security, equality) are abused or neglected should be identified. b. Research should generate policy recommendations that provide a range of alternatives with justifications for each option. Analysis should anticipate the potential consequences, both intended and unintended, of these policy tools. c. There is an urgent need to connect current research to policy-making regimes. d. Migration research should provide details about the adaptive capacities of specific nations. e. Case studies of environmentally-induced migration should offer insight to scale, linkages and sectors. f. n/a	<ul style="list-style-type: none"> Case studies should be policy oriented and provide specific recommendations for future policy. Case studies should identify national adaptive capacities. Scenarios need to be developed for the different types of environmental migration, e.g. self-settling migrants, resettled migrants, rural-to-urban migrants, etc., along with a set of guidelines for practitioners to react within these situations. Institutions should support the creation of a typology of policy alternatives for environmental migration. Institutions should support pilot programmes based on cutting edge research.

KEY CONCLUSIONS: DISTINCTIONS AND CONFLICTS

As the chart shows, there is a considerable amount of overlap in the conclusions reached by both the expert group meeting and the summer academy meeting. Most salient is the continued need for a common intellectual and logistical framework on which researchers, policymakers, and practitioners can meet and collaborate, a need which has been long-known (and which mirrors similar needs found in many related fields) to those working in the field but which to date has not yet been adequately resolved. One of the primary conclusions to come from this exercise is that accumulating evidence on environmental migration will serve both research and policy communities. Secondly, the disparities in terminology (including, but not limited to, the recurrent debate about ‘migrants’ versus ‘refugees’) often obstruct research and policy interventions and occlude the needs of the affected populations. Furthermore, the methods for assessing and comparing instances of environmental migration remain impoverished. Most needed at this juncture is a dialogue on the standardisation of assessment and policy tools for influencing outcomes, as it is clear that gaps remain at the conceptual level (how to conceive of the problem, and design a research strategy to address it) and the practical level (how to implement the recommendations drawn from those conclusions).

Accumulating evidence on environmental migration will serve both research and policy communities.

One major distinction between the two meetings was the inclusion of socio-cultural factors by the summer academy meeting. This conclusion was drawn from the oft-forgotten fact that migrations always happen to a specific place: even though migration processes retain common characteristics and impacts, ultimately migration remains a phenomenon unique to each affected locality. Though it is possible to broadly analyse environmental migration, it does not (and cannot) occur in the abstract; rather, migration occurs in specific places that have specific ecological histories (including ‘tipping points’ for migration and prior migratory pathways) at the same time as they have specific social and cultural practices, mores, and adaptations which equally affect and are affected by migration. In the particular case of forced migration and resettlement, the social fabric of a community is almost inevitably ripped apart during the migration experience, and is rarely woven back together following the trauma the experience affords. These resultant ruptures can lead to an ever-deteriorating ‘secondary disaster’ in which migrants experience impoverishment, marginalisation, difficulty integrating to new surroundings, disarticulation of social structures, and poor outcomes for mental and physical health. As local conditions necessarily inform the response to a migration incident, research on environmental migration cannot fail to take into account local variables, as they condition both conceptual and practical approaches towards preventing and mitigating impacts of environmental migration.

The other primary consensus between the two meetings was that research on environmental migration must be not just policy-relevant, but policy-oriented; in other words, that the dialogue between researchers and policymakers must begin at the conceptual stage rather than wait until all conclusions have been drawn. This recommendation is not intended to sacrifice the objectivity of the research (which the peer-review process is designed to safeguard) but rather to ensure that individual case studies and theoretical syntheses are from the outset useful to those institutions and governments directing the responses of hazard prevention, adaptation, and mitigation. While the expert group meeting suggested a particular research focus on urban areas in this context, the conclusions from the summer academy would be equally applicable to both urban, rural, and transitional areas—and consequently to those political agencies and administrators responsible for the well-being of those areas.

Key conclusions:

- An integrated dialogue between researchers, policymakers, and practitioners on the standardisation of assessment and collection of data regarding environmental migration is necessary.
- Local aspects of environmental migration—differences in culture, ethnicity, religion, prior migration history, and so on—are not subsidiary to research objectives but are rather central to them, and are a valuable source of data on adaptation and mitigation.
- In this context, research must still be conducted with a view towards contributing to the public good, and to the capacities of policymakers to better implement frameworks (short- and long-term) to protect the communities of which they are the primary steward.

CONSENSUS AND MOMENTUM TOWARDS A GLOBAL RESEARCH AGENDA

With these specific recommendations in place for the future of research on environmental migration, we anticipate for the coming century a continued refinement of all approaches to the issue. Despite the grim scenarios projected by the scientific community, we are optimistic about the opportunities that this crucial dialogue will bring. Moreover, researchers, policymakers, and practitioners will benefit from the international infrastructure geared towards these issues that is presently forming: CCEMA becomes a strong candidate to house a global research agenda, and UNU-EHS and MRF have proven critical to such an agenda's inception. For it to flourish, however, this agenda will need further partnerships and stakeholders. Neither the expert group nor the summer academy proposed detailed alternatives for the implementation of a research agenda. Implementation issues will have to be taken up by CCEMA's steering committee and advisory group. However, CCEMA's coordination unit is well-positioned to manage a repository of data and case studies. CCEMA's network, consisting of a broad range of stakeholders, becomes a platform for harmonising research goals. These issues require further discussion.

If this past year (2008) saw considerable momentum build for environmental migration research, then the coming year (2009) will be marked by climate change negotiations in Copenhagen—consequently the timing to propose a research agenda on this topic is auspicious. It is our hope that a research agenda can be a starting point for engaged research, sensible policy and improved responses in 2009 and beyond.

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