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**CLIMATE AND ENVIRONMENTAL CHANGE,  
HUMAN MIGRATION AND DISPLACEMENT:  
RECENT POLICY DEVELOPMENTS AND RESEARCH GAPS<sup>1</sup>**

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<sup>1</sup> The views expressed in the paper do not imply the expression of any opinion on the part of the United Nations Secretariat.

## INTRODUCTION

### **“Climate and environmental change, human migration and displacement: Recent policy developments and research gaps”**

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### **ABSTRACT**

This paper describes a process by which research and operational humanitarian organizations brought the issue of human migration and displacement to the attention of UNFCCC climate negotiators, and subsequently into the policy process; it further provides an outlook of how research, practice, and policy may move forward together in coming years to explore appropriate measures to address environmentally induced migration in the context of adaptation to climate change. To achieve this aim, the paper provides an overview of current research and policy discussions in the context of the recent Cancun Adaptation Framework, and the wider UNFCCC climate negotiations as they relate to adaptation strategies, and in particular climate related displacement.

The paper contains four sections: (I) introduction; (II) current discussions on climate induced displacement leading to the UNFCCC COP16 negotiations in Cancun; (III) research and information gaps on the topic; and (IV) policy considerations.

**Keywords:** migration and displacement, climate change, adaptation, UNFCCC climate negotiations, policy, governance, human security, development

## A. INTRODUCTION

Human migration and displacement in the context of climate change has come to the renewed attention of researchers and policy makers in recent years. The International Panel on Climate Change (IPCC) scenarios suggest that climate change is likely to be an increasingly important variable in this equation<sup>1</sup>. While there are no reliable estimates of the numbers of people who will move as a result of climate change impacts, the rise in the scale of population movement, in particular within countries, will be substantial<sup>2</sup>.

The media have recently highlighted significant flooding events in 2010 like the Pakistan floods which inundated up to 20 percent of the country and left an estimated 20 million people temporarily homeless. Further, similarly large floods in early 2011 in eastern Australia captured world attention as they inundated areas the size of France and Germany together, leaving many towns stranded for several weeks. These disastrous events are highly visible, but what is equally compelling are the set of questions about the interaction of a spectrum of human mobility (ranging from migration to displacement) and environmental changes of rapid-onset and slow-onset nature<sup>3</sup>.

These questions challenge existing approaches to migration displacement, and illustrate the need for fresh thinking about the impacts of changing environmental conditions, including climate change, and human migration and displacement. Today, new evidence-based research projects, methods, and concepts are emerging to help address some of the most important knowledge gaps around environmental change, migration, and displacement<sup>4</sup>. More work is needed to develop indicators, improved methods, and evidence to support policy around climate change, migration and displacement<sup>5</sup>.

## B. UNFCCC CLIMATE NEGOTIATIONS & HUMAN MIGRATION & DISPLACEMENT

The outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action (AWG-LCA) under the United Nations Framework Convention on Climate Change (UNFCCC) adopted in Cancun on 11 December 2010 acknowledges the need to address the movement of people as a result of climate change (paragraph 14 (f)). This section gives an overview of the timeline of the UNFCCC discussions on climate induced migration between 2007 and December 2010, which resulted in the Cancun Adaptation Framework (agreed by parties) in the following wording<sup>6</sup>:

14. Invites all Parties to enhance action on adaptation under the Cancun Adaptation Framework, taking into account their common but differentiated responsibilities and respective capabilities, and specific national and regional development priorities, objectives and circumstances, by undertaking, inter alia, the following:

...

(f) 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;

Adaptation was firmly established as a focus of the UNFCCC climate negotiations by the Conference of the Parties held in 2007 in Bali, Indonesia (COP13). This session created the Bali Action Plan which laid out the elements of adaptation. It further created the Ad Hoc Working Group on Long-Term Cooperative Action (AWG-LCA), a subsidiary body intended to prepare the ground for a successful climate agreement to succeed (or complement) the Kyoto Protocol. Between COP13 (Bali) and COP14 (Poznan), the tasks of the AWG-LCA were to explore in greater detail the proposals from Parties and Observers on elements for “enhanced action on adaptation and mitigation and the associated enabling and supporting actions”. During this time, the UNFCCC accepted submissions from both Parties and Observers, in order to begin

identifying concrete elements for an agreed outcome to be reached at the fifteenth session of COP. Thus, before COP 14 research and operational organizations had the opportunity to directly co-shape ideas for the draft negotiating text within the established process. In this context, the wider humanitarian community - including UN agencies, research, and civil society - massively mobilized in the period from 2008 to 2009 to ensure that the human face of climate change would be duly represented. That was the moment when the idea of environmentally induced migration was formally introduced in the UNFCCC process.

For the Poznan session (COP 14), AWG-LCA Chair Michael Zammit Cutajar had compiled an assembly document - reflecting submissions by applied research and the humanitarian community - which mentioned migration for the first time.<sup>7</sup>

From COP14 2008 onwards, migration maintained its presence in the draft negotiating text. During the sixth AWG-LCA session in June 2009, Parties provided general comments on its structure and content of the LCA text, stated reservations and objections to elements of the text, and proposed additions and modifications. At the opening plenary, Jonathan Pershing (Head of Delegation, US) expressed concern about the use of the term “climate refugee” in the draft text. Since that statement, however, there appears to be no public record of Party objections or concerns about the inclusion of the issue in the UNFCCC negotiations text. The UNFCCC noted Pershing’s recommendation and revised the wording around migration and displacement which was then carried forward in discussions from Bangkok and Barcelona in the autumn of 2009 to Copenhagen’s COP15 in December 2009.

In the high-pressure circumstances of the COP15 negotiations in Copenhagen, UNFCCC delegates to the AWG-LCA continued working on elements of a broader adaptation framework, which at the time included the key words “migration and displacement “. During those drafting sessions, some Parties suggested that an array of themes be added in to a paragraph on migration and displacement: Human rights, mother earth, climate justice, compensation to vulnerable people, and other items were proposed. The concern was expressed that the paragraph on migration and displacement would be difficult to include, if it was couched in these terms. Parties consulted and decided that it was sufficiently important to include migration and displacement and compromises were found for the placement of other issues (such as placing human rights in the perambulatory text as a principle), and the wording became anchored in what later was accepted as the outcome text from COP15 (FCCC/CP/2010/2, in Paragraph 4(f)).

The COP15 process created a text whose legal status was under discussion, but most areas of adaptation were not to subsequently re-opened for discussion. Therefore the wording and content of the paragraphs on adaptation did not change significantly throughout the year of 2010.

After missing the window of opportunity for reaching an international agreement at COP15, there was pressure to create a package of balanced outcomes for Cancun. In this context, delegates focused increasingly on what kinds of elements could be included in a possible Cancun Adaptation Framework. At COP 16, Parties decided to accept the draft text containing the Cancun Adaptation Framework several key specific elements such as paragraph 14(f) on migration and displacement; an Adaptation Committee; and a work program on loss and damage.

### **C. POLICY CONSIDERATIONS FOR RESEARCH AND ACTION**

This section summarises some of the possible policy priorities for research and action on climate change and migration. Now that migration and displacement have been highlighted in the UNFCCC climate negotiations, policy makers increasingly ask “what do governments need to know about the potential impacts of climate change and human mobility in order to prepare their own appropriate legal, institutional, and governance approaches?” The potential scale of future movements may require support for those countries and communities most affected by internal and immediate cross-border environmental

migration as less and least-developed countries may not have sufficient capacities or resources to manage or respond to such flows.

Knowledge gaps in the research about environmental change, migration and displacement can be divided across four areas<sup>8</sup>:

- Environmental processes that trigger migration: There is not yet a widely agreed and measurable definition of human mobility linked to environmental change. This contributes to the already difficult task of compiling accurate data sets or precise figures across scientific studies<sup>9</sup>.
- The process of environmental migration itself: More evidence-based research is needed to characterize the drivers in origin areas (e.g., livelihood insecurity, environmental hazards, conflict, demographic pressures, gender inequality, etc.) and the pull factors in areas of destinations (e.g., demand for labour, aging population).
- Policy frameworks and institutions that address environmentally induced migration: A few examples of policy frameworks addressing this issue are available, such as temporary protection status (TPS) in the United States and Europe or principles and soft laws for protecting people who have been displaced by environmental events. Yet beyond humanitarian approaches for rapid-onset extreme events, there are significant governance gaps. Complex and slow onset events could pose a major challenge to legal and governance frameworks, in part because responsibility and temporal limits are difficult to assign. Moreover various institutions that deal with different issues related to the impacts of climate change may have a tendency to operate in “silos” and may approach issues such as climate change within narrow sectoral perspectives.
- Understanding environmentally induced migration - including resettlement and relocation - as adaptation, or something beyond adaptation. More understanding is needed about what combinations of factors lead to human mobility enhancing resilience of affected people, or undermining resilience. This will add to the analysis of the role migration and displacement may play in the future as the impacts of climate change become are expected to become more pronounced.

Some of the following examples for policy perspectives could help shape activities around climate induced displacement and migration<sup>10</sup>:

- Foster adaptation alternatives to prevent displacement. Human mobility can be part of strategies to help people adapt to climate change. It can be an effective way to manage the risks associated with climate change when done voluntarily and with appropriate planning. However, displacement (especially when it is not orderly and insufficiently managed) can be an indicator that adaptation is failing if few other realistic options exist for people (move or perish, distress migration).
- Where possible, help people stay through sustainable rural and urban development: In many cases, climate induced displacement can be avoided by ensuring livelihood security for affected people both in rural and urban areas. Up to 25% of the world’s population today are farmers, with higher percentages in many developing countries. Climate change will take its toll on the ability of these people to feed themselves and their families in the future. When livelihoods fail, people may experience forced migration or displacement.
- Where necessary, help people go in safety and dignity: Paragraph 14(f) notes the possibility that planned relocation may be part of future adaptation scenarios. In cases where movement of human populations is the best or possibly only adaptation strategy, effective policy responses can help to ensure that movements are orderly and safe. Policies should avoid situations where people are forced to move (distress migration) or move in emergency situations. Policies should aim to ensure that displaced people do not become more vulnerable.

- Support disaster risk reduction and conflict mediation strategies while strengthening humanitarian responses. If governments do not take action to reduce the risks people face from acute crises arising from natural disasters and competition over resources leading to conflict, they will be called upon to help later, and then the problem will be much more difficult to address. Invest today in resilience building strategies designed to preempt uncontrolled crisis situations.
- Identify guiding principles, effective practices and institutional frameworks to help governments in developing appropriate laws, policies and programs to address environmentally induced internal and international migration. Current laws, policies and institutional arrangements are inadequate to deal with complex movements of people. Of particular concern is the possibility that large numbers of people may be rendered stateless if rising sea levels inundate island countries and low-lying, densely populated delta areas. Guiding principles are needed today to shape thinking about how to manage potential larger-scale relocation in the future.

#### D. CONCLUSIONS

Research has substantiated the fact that environmental change is one of a larger set of factors that affect human migration and displacement worldwide. Processes such as natural disasters and shifts in climate patterns which may bring glacial melt, sea level rise and desertification are and will increasingly affect migration and displacement. Some of the most vulnerable regions include areas like low-lying islands and deltas, coastal areas, areas dependent on glacial-fed water systems and areas subject to persistent drought. Field-based research suggests that most environmentally induced migrants and displaced people will move within their own countries. Some movements will resemble familiar migration and displacement patterns, but other movements will likely occur under emergency circumstances or complex humanitarian crises, particularly where climate change exacerbates natural hazards, such as cyclones, and communal violence and conflict.

This paper outlined a process by which research and the humanitarian community helped bring these issues to the UNFCCC climate negotiations process. In 2008 a combination of factors contributed to drawing policy maker attention to migration and displacement in the context of climate change. From 2009 and moving forward, research will continue responding to Party questions about migration and displacement and operational organizations will offer insights about the implications of climate change on resilience and vulnerability of populations of concern. With the inclusion of climate induced displacement, migration, and planned relocation in the Cancun Adaptation Framework, many new windows of opportunity have opened for work on the issue. States have asked what kinds of activities they could undertake to start getting prepared. The time to come provides opportunities to fill knowledge gaps and support decision makers with more and better quality information about the role of environmental factors in the combination of issues that affects human migration and displacement.

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<sup>1</sup>IPCC (1990): *First Assessment Report (FAR)*. Geneva. Available at: [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.shtml](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml). IPCC (2007): *Fourth Assessment Report: Climate Change 2007 (AR4)*. Available at: [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.shtml](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml)

<sup>2</sup> Warner, K., Narusova, A., Kniveton, D. (2010). "Climate change, environmental, and migration: Frequently Asked Questions". A summary for decision makers at the UNFCCC Climate Negotiations in Cancun (COP16). Climate Change, Environment and Migration Alliance (CEMA). United Nations University is a co-founder and member of the Climate Change, Environment and Migration Alliance (CEMA), which provides an informal framework for inter-governmental and non-governmental representatives of all the key constituencies - migration, the environment, humanitarian, development and academia.

<sup>3</sup> Warner, K. 2010. Global Environmental Change and Migration: Governance challenges. *Global Environmental Change, Special Issue focusing on Resilience and Governance*. Vol. 20: 402-413. doi: 10.1016/j.gloenvcha.2009.12.001; Thow, A.; de Blois, M. (2008): *Climate change and human vulnerability*:

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<sup>4</sup> See Jäger, J.; Frühmann, J.; Grünberger, S.; Vag, A. (2009): *Synthesis Report. Environmental Change and Forced Migration Scenarios Project*, 64-66. Available at: [http://www.each-for.eu/documents/EACHFOR\\_Synthesis\\_Report\\_090515.pdf](http://www.each-for.eu/documents/EACHFOR_Synthesis_Report_090515.pdf); Warner, K., Erhart, C., de Sherbinin, A., Adamo, S.B., Onn, T.C. 2009. "In search of Shelter: Mapping the effects of climate change on human migration and displacement." A policy paper prepared for the 2009 Climate Negotiations. Bonn, Germany: United Nations University, CARE, and CIESIN-Columbia University and in close collaboration with the European Commission "Environmental Change and Forced Migration Scenarios Project", the UNHCR, and the World Bank; Laczko, F. and C. Aghazarm, eds. (2009): *Migration, environment and climate change: assessing the evidence*. Geneva: IOM, UNU-EHS, CCEMA, Rockefeller Foundation; 2009; Massey D.; Axinn W.; Ghimire D. (2007): *Environmental change and out-migration: evidence from Nepal*. Report 07-715. Population Study Center. University of Michigan. Institute for social research. Available at: <http://www.psc.isr.umich.edu/pubs/pdf/rr07-615.pdf>; Warner, K.; Renaud, F.; Hamza, M.; Oliver-Smith, A.; Julca, A. (2010): Climate change, environmental degradation and migration. In: *Natural Hazards* (doi:10.1007/s11069-009-9419-7). No. 55, pp. 689-715;

<sup>5</sup> Martin, S., Warner, K. (2010): *Impact of climate change on migration and development*. Paper for the Civil Society Days. Global Forum on Migration and Development Mexico 2010. Roundtable 3: Migration and Development: Tools and Evidence for Policy and institutional Coherence. Session 3.2. Civil Society Days, in Puerto Vallarta, Mexico, 8-9 November 2010. Available at [http://gfm2010mexico.hsplatform.com/archivos/portal/doc\\_2\\_103\\_ImpactMartinWarner32.pdf](http://gfm2010mexico.hsplatform.com/archivos/portal/doc_2_103_ImpactMartinWarner32.pdf); Martin, S.F. (2009): *Managing Environmental Migration*. In Laczko, F. and Aghazarm, C. (Eds): *Migration, Environment and Climate Change: Assessing the Evidence*. IOM, Geneva; Martin, S.F. (2010): *Climate Change, Migration, and Adaptation*. Background Paper for the Transatlantic Study Team on Climate Change and Migration, German Marshall Fund.

<sup>6</sup> UNFCCC Conference of the Parties (2010). Decision -/CP.16. Outcome of the work of the Ad Hoc Working Group on long-term Cooperative Action under the Convention. FCCC/AWGLCA/2010; available at: [http://unfccc.int/files/meetings/cop\\_16/application/pdf/cop16\\_lca.pdf](http://unfccc.int/files/meetings/cop_16/application/pdf/cop16_lca.pdf).

<sup>7</sup> See FCCC/AWGLCA/2009/16/Rev.1 paragraphs 63(g) on measuring, verifying, and reporting of emissions reductions (section C, ILO submission); paragraph 112(f) and 112(h) in (section D, UNU submission, IASC and UNU submissions). <http://unfccc.int/resource/docs/2008/awglca4/eng/16r01.pdf>.

<sup>8</sup> Stal, M., Warner, K. (2009) *The Way Forward Researching the Environment and Migration Nexus*. Research Brief based on the Outcomes of the 2nd Expert Workshop on Climate Change, Environment, and Migration. 23 - 24 July 2009, Munich, Germany. United Nations University. ISSN: 1816-5788. October 2009; Warner, K. and Laczko, F. *Migration, Environment and Development: New Directions for Research*. International Migration and Development. Continuing the Dialogue: Legal and policy perspectives. Joseph Chamie and Luca Dall'Oglio (Eds). IOM and Center for Migration Studies. ISBN 1-57703-047-8. New York and Geneva. pp: 235-253.

<sup>9</sup> Further, governance issues arise related to definitions: Some refer to "environmental refugees" while others refute that the word "refugee" has a specific legal meaning in the context of the 1951 Geneva Convention Relating to the Status of Refugees. See Castles, S. (2002): *Environmental change and forced migration: making sense of the debate* In: *New Issues in Refugee Research*. Working Paper No. 70. United Nations High Commissioner for Refugees (UNHCR), Geneva; Dun, O. and Gemenne, F. 2008 "Defining Environmental Migration", *Climate Change and Displacement*. *Forced Migration Review* 31:10-11.

<sup>10</sup> Martin, S., and Warner, K. (2010). *Climate change and migration: Findings of the transatlantic study team*. German Marshall Fund Study Team on Climate Change and Migration, German Marshall Fund, September 2010. <http://www.ehs.unu.edu/article/read/gmf>