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Climate-Induced Resettlement: Environmental Change and the Planned Relocation of Communities

Elizabeth Ferris

The 2010 meeting of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) recognized mobility as a form of adaptation to climate change in the form of migration, displacement, and planned relocations. While considerable work has been done on both migration and displacement, much less is known about how planned relocations will be used to adapt to the effects of climate change. This article examines some of the existing literature on relocations carried out in other contexts, such as development projects and disasters, and stresses the need for clarity of concepts and terminology. For example, it is presently unclear whether the term “relocation” applies only to the physical movement of people or also includes “resettlement” in the form of assistance to secure housing, restore livelihoods, and ensure access to services. Are evacuations in the aftermath of disasters a form of relocation? The article then illustrates some of the lessons learned from past experiences with relocations and concludes by highlighting present efforts to provide guidance for those who will be faced with planning relocations due to future climate effects.

Climate change will lead people to move as the areas where they live become uninhabitable. Some will leave—indeed, some are already leaving—because they see the handwriting on the wall and choose to migrate before they are forced to do so. The government of Kiribati has developed an innovative “migration with dignity” program to encourage its citizens to prepare by acquiring skills that will enable them to be sought-after migrants when the waters rise, rather than victims asking for charity.¹ Others will be forced to leave their communities due to changes in habitat brought about by either slow- or rapid-onset disasters, such as drought or floods. Still others will depend on their governments to relocate them when the time comes. While a body of research is evolving on climate change-induced migration and displacement, much less is known about this third type of population movement: relocations. This short article explores some of the literature on relocations, highlights some of the vexing definitional and conceptual issues, and reports on efforts to provide guidance to governments and others who may be involved in future climate change-induced relocations.

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Warming temperatures, rising sea levels, increased acidification of waters, and the mounting intensity and unpredictability of sudden-onset weather events are all affecting human habitats. In some cases, drought and desertification have led people to move to other parts of their country. For example, from 2010 to 2012 in the Horn of Africa, many pastoralists became sedentary as a consequence of drought,² while other individuals have been displaced not only within their countries but also across borders.³ In the Arctic, warming temperatures are leading to increased coastal erosion, the melting of sea ice and permafrost, and changing patterns of fish migration and animal foraging, all of which affect the sustainability of indigenous communities in the region.⁴ In still other cases, governments have declared “no build zones,” usually following a sudden-onset disaster where communities are forced—and often assisted—to move elsewhere.⁵

Communities are increasingly vulnerable to the effects of climate change, not just because of the growing volatility of natural hazards, but also because of patterns of human settlement. One-half of the world’s population lives within sixty kilometers of the coastline,⁶ making these communities particularly susceptible to the effects of intensifying storms and other weather-related events. Rural-urban migration has increased dramatically in recent decades (indeed 54 percent of the world’s population is now considered urban⁷) and as physical space becomes more crowded, people are living on ever-more marginal land. Poorer people are more likely to live in the most marginal areas, which are also the most vulnerable to natural hazards. In some cases, individuals are moving from communities experiencing climate pressure to places where they are even more vulnerable to environmental stressors.⁸

Meeting in Cancun in 2010, the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) agreed for the first time that mobility is a form of adaptation to climate change and invited states to undertake “measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migra-

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tion and planned relocation, where appropriate, at national, regional and international levels.”⁹ Although the research is less clear, it seems likely that those who will need assistance relocating will be among the poorest, most marginalized sectors of the population. As conditions deteriorate, those who have the means to move on their own will do so. For economic migrants, the research is clear: the most impoverished members of a community, unable to move, stay behind. It may be that they do not have the money for transportation

and relocation expenses, or they may have physical or other disabilities or family obligations that prevent them from migrating.¹⁰ It is reasonable to infer that similar patterns may emerge in climate change-induced migration.

Those who do not have the means to move from areas that are no longer habitable because of the effects of climate change will need to be relocated by

their governments. It is a fundamental responsibility of a government to protect its people and keep them safe. This responsibility is expressed in most countries every time a building is constructed: it is the responsibility of the government to determine whether a building is safe for occupancy through building codes and oversight. Just as governments have a responsibility to evict people from buildings that are not safe, so too they have a responsibility to move people from areas where it is unsafe for them to live.

There seems to be an attitude among political leaders and policymakers that to talk about relocations means giving up on mitigation efforts and accepting the inevitability of the disastrous effects of a much warmer world. But governments can learn from disaster risk management, which includes measures both to mitigate the risks of natural hazards and to develop contingency measures to respond to disasters that occur in spite of mitigation efforts.

The Vexing Issue of Definitions

There has been remarkably little research on the issue of planned relocations in the context of climate change.¹¹ One of the obstacles to further thinking about the issue is confusion around terminology. Terms such as “relocation,” “planned relocation,” “assisted relocation,” “preemptive relocation,” “resettlement,” “evacuations,” and “displacement” are used interchangeably and mean different things to different researchers.

Some define relocation as the process of physically moving people, distinct from resettlement, which is the process that follows, encompassing reconstructing homes, re-establishing livelihoods, and ensuring access to services. It is possible for a government to physically move people without providing support for their resettlement, as has occurred in different contexts, such as in Zimbabwe’s Operation Murambatsvina in 2005, where hundreds of thousands of urban residents were evicted from their homes ostensibly to relieve urban congestion, and in Somalia in 2014, when the government moved people from internally displaced person (IDP) camps in central Mogadishu to the outskirts of the city.¹² Others argue that it is irresponsible for a government to relocate communities without providing for their resettlement. Rather than seeing resettlement as a separate task that comes after the physical relocation of people, they argue that the term “relocation” should encompass resettlement as well as the transport of communities.

There is a very large body of research on displacement, relocations, and resettlement made necessary because of development projects. In these contexts, for example, when a dam is constructed and a valley is subsequently flooded, people are permanently relocated elsewhere. Relocation is a permanent and irreversible movement. However, this is not always the case when people are relocated from an area that has experienced a particular disaster. People may be relocated and even assisted in resettling in their new locale and subsequently return to their original communities when the flooding subsides.¹³

If relocations are not always permanent, it is difficult to draw a line between relocations and evacuations. People are evacuated during or after a

sudden-onset disaster as a life-saving activity and then are expected to return to their homes when the disaster passes. But evacuations have a way of lasting longer than anticipated. For example, many of those evacuated during Hurricane Katrina never returned to New Orleans. This raises the question: For how long should they be considered “evacuees”? Similarly, tens of thousands of people were evacuated after the 2011 tsunami and nuclear disaster in Japan; many will likely never return home.¹⁴ Should they be considered evacuees, resettlers, or something else?

While the terminology used to describe these patterns of mobility or population movement is difficult, there are also conceptual difficulties. Are all relocations planned? With the majority of climate change effects accumulating over years or decades, there should be time for at least as much planning as for large infrastructure projects and yet, there has been little reference to relocations in the National Adaptation Plans of Action developed in the UNFCCC.¹⁵

Another difficulty concerns the question of where the funding to support relocation and resettlement will come from. For those relocated because of infrastructure development, the financing of resettlement is often included in the costs of the overall project. But for those who have to be moved because of the effects of climate change, there will be no expected economic benefit that can be used to finance the resettlement. Still another question is whether relocations made necessary by the effects of climate change are only to be carried out by governments. Could private entities—say, large corporations or communities themselves—undertake such activities? If so, what is the responsibility of governments? If, for example, one oil company decides to move its employees because of coastal erosion, but another company decides it is not worth the expense, does government have a role to play?

A central question that comes up in considering relocations is whether the relocation is voluntary or forced. Who decides whether an area is inhabitable and what degree of risk is acceptable? Does the government have the right to force people to relocate if it determines the area is no longer safe? Do communities have a right to refuse relocation? What if some members of the community choose to stay behind and take their chances with the consequences of climate change? What about cases where climate change is used to justify displacing people from their land for economic or political reasons? And what about situations where the government does not enjoy the trust of its people?

The *Guiding Principles on Internal Displacement*, developed in 1998 and endorsed by the United Nations in 2005, address the concept of arbitrary displacement and stipulate that in order not to be arbitrary, several conditions must be met. These conditions are that:

- a) specific decision shall be taken by a State authority empowered by law to order such measures;
- b) adequate measures shall be taken to guarantee to those to be displaced full information on the reasons and procedures for their displacement and, where applicable, on compensation and relocation;
- c) the free and informed consent of those to be displaced shall be sought;
- d) the authorities concerned shall endeavor to involve those affected, particularly women in the planning and management of their relocation;

- e) law enforcement measures, where required, shall be carried out by competent and legal authorities; and
- f) the right to an effective remedy, including the review of such decisions by appropriate judicial authorities, shall be respected.¹⁶

While these principles are helpful in formulating policies on relocation, there are many questions about how these are to be carried out in practice.

Learning from Experience, but Which Experiences?

Governments relocate their people because of development projects, as a preventive measure against natural hazards, for environmental reasons, and sometimes for political reasons. These experiences may be relevant to relocations undertaken because of the effects of climate change.¹⁷ This section highlights some of the experiences from the literature, beginning with cases where communities themselves have decided that relocation is necessary and then a few cases where governments have taken the initiative to relocate their people.

In some cases, communities themselves have decided that they must relocate because of the effects of climate change. In Alaska, for example, a number of indigenous communities have already developed plans to move their communities.¹⁸ Inhabitants of the Carteret Islands in Papua New Guinea have tried to relocate on several occasions in the past with the support of the government, but have not yet been successful in finding either land or a receptive host community.¹⁹ Efforts to relocate another community in Papua New Guinea also ran into difficulties, particularly over cultural differences between the community being resettled and the host community.²⁰ The government of the Maldives has prepared plans to consolidate the country's population on a more limited number of islands, but again, there is little information about how this will play out in practice.²¹

The governments of both China and Vietnam have relocated large numbers of people over the past decade at least in part for environmental reasons. Vietnam has not only relocated communities as a way of mitigating the risk of flooding, but is one of the few countries to presently view relocations as part of its climate change adaptation strategies.²² There are other cases where community experiences with relocations have been broadly successful. For example, thirty-five families were moved in Arizona to avoid the risk of flooding with generally positive outcomes.²³ Following devastating earthquakes in 2010 and 2011 in Canterbury, New Zealand, the government offered inhabitants whose homes were in the "red zone" of areas determined to be unsuitable for rebuilding the option of relocation. Those who were resettled reported that they were in better conditions than before the move and it seems that governmental efforts to consult and engage with communities were instrumental factors in the success of the program.²⁴ Success in resettling a small community in Queensland, Australia in the aftermath of flash flooding was attributed mainly to the flexibility of the government in consulting with the affected community and tailoring programs to expressed needs.²⁵

Whether the initiative comes from the community or from the government, the literature suggests that restoration of livelihoods is a key factor in determining whether or not a relocation initiative is successful.²⁶ In some cases, residents have refused to abandon their communities even when their surroundings have been destroyed by natural disasters because of fears regarding their ability to make a living elsewhere. Researchers have examined the difficulties of restoring livelihoods in communities relocated after major earthquakes in both Iran and Peru, finding that people resisted relocation because of concerns about livelihoods, community, and access to services.²⁷ In other cases, these concerns have been so great that people have simply refused to move, as documented in one community in Turkey where a majority of those affected by a 2010 earthquake decided not to relocate to a safer locations because of inadequate consultation about their needs and concerns.²⁸

Results are mixed in most research studies on relocations. For example, a study of eighteen Sri Lankan households forced to relocate from no-build zones after the 2004 South Asian tsunami found that while some of those relocated lost their livelihoods (especially fisherfolk), others reported enhanced job opportunities in their communities of resettlement.²⁹ No-build zones

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were also designated in the Philippines following the devastation of Typhoon Haiyan in 2013 and the government is presently embarking on an ambitious plan to relocate a million people from these areas. Experience suggests that relocating communities is a complex process

involving much more than acquiring land and constructing new homes. Re-creating livelihoods, restoring public services, and involving communities in decision-making are all essential to the success of such moves.³⁰

Conclusion

It is impossible to know how many people will have to be relocated in the future because of climate change effects. Although, given scientific studies of extreme weather reports, as well as reports from communities in the Arctic and other high-risk areas, it is not unreasonable to expect that numbers could reach into the millions.³¹ This suggests necessary relocations on an unprecedented scale, yet there is little guidance for how governments or international and regional organizations can support this process.

In March 2014, a joint United Nations High Commissioner for Refugees (UNHCR), Brookings, and Georgetown initiative supported by the European Union hosted a meeting in Sanremo, Italy with roughly fifty experts, government representatives, and members of international organizations to begin talking about the issue of planned relocations in the context of climate change.³² The meeting generated considerable interest and the three organizations are presently working to follow up with a comprehensive review of relevant case

studies, analyses of existing and relevant legal and operational principles, a small meeting to grapple with the issue of definitions, and an expert consultation among legal experts with backgrounds in climate change law, natural disaster law, development-induced displacement, refugees and forced migration, and human rights law. The ultimate goal is to draft guidance for governments and others who may be involved in such relocations in the future. While this is an important initiative, much

more work is needed on the issue of relocations by specialists in climate change, migration, and related fields. More importantly, policymakers in countries around the world need to begin both assessing the potential need to relocate communities and developing plans to do so in ways that

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uphold the rights of affected communities and facilitate positive outcomes. This is an issue that could well affect people living in places as diverse as the mega-deltas of South Asia, coastal Alaska, and drought-affected region of the Sahel. Planned relocations will be an important component of climate change adaptation policies and the need for international guidance to support governments and others involved in the process is urgent.

Notes

¹ Nic Maclellan, “Kiribati’s Policy for “Migration with Dignity”,” *DevPolicy Blog*, January 12, 2012, http://devpolicy.org/kiribati_migration_climate_change20120112/.

² Justin Ginnetti and Travis Franck, *Assessing Drought Displacement Risk for Kenyan, Ethiopian and Somali Pastoralists* (Geneva: Internal Displacement Monitoring Centre, 2014).

³ Nansen Initiative, “The Nansen Initiative: Disaster-Induced Cross-Border Displacement,” <http://www2.nanseninitiative.org/>.

⁴ Elizabeth Ferris, *A Complex Constellation: Displacement, Climate Change and Arctic Peoples* (Washington DC: Brookings, 2013), <http://www.brookings.edu/research/papers/2013/01/30-arctic-ferris>.

⁵ Correa, E. (ed.) *Preventive Resettlement of Populations at Risk of Disaster: Experiences from Latin America*, (Washington, DC: The World Bank, 2011), <http://www.preventionweb.net/english/professional/publications/v.php?id=23775>.

⁶ United Nations Environment Programme, *Cities and Coastal Areas* (New York: UNEP, 2013), http://www.unep.org/urban_environment/issues/coastal_zones.asp.

⁷ United Nations Department of Economic and Social Affairs, “World’s Population Increasingly Urban with More than Half Living in Urban Areas,” *UN DESA*, July 10, 2014, <http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html>.

⁸ Foresight, *Migration and Global Environmental Change: Final Project Report*, (London: The Government Office for Science, 2011), <https://www.gov.uk/government/publications/migration-and-global-environmental-change-future-challenges-and-opportunities>.

⁹ UN General Assembly, *United Nations Framework Convention on Climate Change: Resolution* (UN, 2011), <http://unfccc.int/2860.php>.

¹⁰ United Nations Development Programme, *Human Development Report 2009* (New York: UNDP, 2009), <http://hdr.undp.org/en/content/human-development-report-2009>.

¹¹ One exception: The Brookings-LSE Project on Internal Displacement, Georgetown University, Institute for the Study of International Migration, and Office of the United Nations High Commissioner for Refugees, *Planned Relocations, Disasters and Climate Change: Consolidating Good Practices and Preparing for the Future* (Washington DC: UNHCR, 2014), <http://www.brookings.edu/research/papers/2014/03/14-planned-relocations-climate-change>.

¹² Anna Kajumulo Tibaijuka, *Report of the Fact-Finding Mission to Zimbabwe to Assess the Scope and Impact of Operation Murambatsvina by the UN Special Envoy on Human Settlement Issues in Zimbabwe* (United Nations, 2005), <http://ww2.unhabitat.org/documents/ZimbabweReport.pdf>; Mark Yarnell, *When Push Comes to Shove: Displaced Somalis Under Threat* (Washington DC: Refugees International, 2013), <http://refugeesinternational.org/policy/field-report/when-push-comes-shove-displaced-somalis-under-threat>.

¹³ Alex Arnall, David S.G. Thomas, Chasca Twyman, and Diana Liverman, “Flooding, Resettlement, and Changes in Livelihoods: Evidence from Rural Mozambique,” *Disasters* 37, no. 3 (2013): 468–488; Luis Artura and Dorothea Hilhorst, “Floods, Resettlement and Land Access and Use in the Lower Zambezi, Mozambique,” *Land Use Policy*, 36 (2014): 361–368.

¹⁴ Daniel Kaufmann and Veronika Penciakova, “Japan’s Triple Disaster; Governance and the Earthquake, Tsunami and Nuclear Crises,” *Brookings*, March 16, 2011, <http://www.brookings.edu/research/opinions/2011/03/16-japan-disaster-kaufmann>; The Law Library of Congress Global Legal Research Center, *Japan: Legal Responses to the Great East Japan Earthquake of 2011*, (Washington DC: The Law Library of Congress, 2013), <http://www.loc.gov/law/help/japan-earthquake/>.

¹⁵ Now called National Adaptation Plans (NAPS); United Nations Framework Convention on Climate Change, “National Adaptation Plans,” *United Nations*, http://unfccc.int/adaptation/workstreams/national_adaptation_plans/items/6057.php

¹⁶ UN Office for the Coordination of Humanitarian Affairs, *Guiding Principles on Internal Displacement* (United Nations, 1998), <http://www.brookings.edu/~media/Projects/idp/GPEnglish.pdf>.

¹⁷ See for example: Elena Correa (ed.), *Preventive Resettlement of Populations at Risk of Disaster: Experiences from Latin America* (Washington, DC: The World Bank, 2011), http://www.gfdr.org/sites/gfdr/files/publication/preventive_resettlement_LAC_experiencesDS150.pdf.

¹⁸ Robin Bronen “Climate-induced Community Relocations: Creating an Adaptive Governance Framework Based in Human Rights Doctrine,” *NYU Review of Law & Social Change*, 35 (2011): 357–407, <http://socialchangenyu.com/2012/08/24/climate-induced-community-relocations-creating-an-adaptive-governance-framework-based-in-human-rights-doctrine/>.

¹⁹ Julia B. Edwards, “The Logistics of Climate-Induced Resettlement: Lessons From the Carteret Islands, Papua New Guinea,” *Refugee Survey Quarterly*, 2013, 32 (2013): 52–78.

²⁰ David Lipset, “The New State of Nature: Rising Sea-levels, Climate Justice, and Community-based Adaptation in Papua New Guinea (2003–2011),” *Conservation and Society*, 11, no. 2 (2013): 144–158.

²¹ Uma Kothari, “Political Discourses of Climate Change and Migration: Resettlement Policies in the Maldives,” *The Geographical Journal*, 180, no. 2 (2014): 130–140.

²² For a summary of relevant Vietnamese laws, see: UN Development Programme, *Migration, Resettlement and Climate Change in Vietnam* (Ha Noi: UNDP, 2014), 19, <http://www.undp.org/content/dam/vietnam/docs/Publications/Migration%20&%20Climate%20change%20-%20Eng.pdf>; Sarah Rogers and Mark Wang “Environmental Resettlement and Social Dis/re-articulation in Inner Mongolia, China,” *Population and Environment*, 28 (2006), 41–68; Vo Thanh Danh “Evaluation of the Living with Flood Policy: The Case of the Resettlement Program in Vietnamese Mekong Delta,” in ed. Mart A. Stewart and Peter A. Coclanis, *Environmental Change and Agricultural Sustainability in the Mekong Delta* (Springer, 2011), 181–204.

²³ Ronald W. Perry and Michael K. Lindell, “Principles for Managing Community Relocation as a Hazard Mitigation Measure,” *Journal of Contingencies & Crisis Management*, 5, no. 1 (1997): 49–59.

²⁴ Canterbury Earthquake Recovery Authority, *Greater Christchurch Recovery: Briefing to Incoming Ministers 2014*, (Canterbury: 2014).

²⁵ Tetsuya Okada et al., “Recovery and Resettlement Following the 2011 Flash Flooding in the Lockyer Valley,” *International Journal of Disaster Risk Reduction* 8 (2014): 20–31.

²⁶ Arnall, Thomas, Twyman, and Liverman, "Flooding, Resettlement, and Changes in Livelihoods." L. Artura, D. Hilhorst, "Floods, Resettlement and Land Access and Use in the Lower Zambezi, Mozambique," *Land Use Policy*, 2014, 36:361–368; Henry Ngenyam Bang and Roger Few, "Social Risks and Challenges in Post-disaster Resettlement: The Case of Lake Nyos, Cameroon," *Journal of Risk Research*, 15, no. 9 (2012): 1141-1157; Benjamin. F. Timms, "The (Mis) Use of Disaster as Opportunity: Coerced Relocation from Celaque National Park, Honduras" *Antipode*, 43, no. 4 (2011): 1357-1379.

²⁷ S. Ali Badri et al., "Post-disaster Resettlement, Development and Change: A Case Study of the 1990 Manjil Earthquake in Iran," *Disasters*, 30, no. 4 (2006): 451–468; Anthony Oliver-Smith, *Development & Dispossession: The Crisis of Forced Displacement and Resettlement* (Santa Fe: School for Advanced Research Press, 2009).

²⁸ Nese Dikman, "Relocation or Rebuilding in the Same Area: An Important Factor for Decision Making for Post-Disaster Housing Projects," in *Post-disaster Reconstruction: Meeting Stakeholder Interests: Proceedings of a Conference Held at the Scuola Di Sanità Militare, Florence, Italy, 17-19 May 2006*, ed. David E. Alexander (Florence, Italy: Firenze University Press, 2007).

²⁹ Danesh Jayatilaka, *Stretching the Mandate: An Issue Paper on Contemporary Challenges for UNHCR Sri Lanka* (UNHCR, 2005).

³⁰ Alice Thomas, "One Year after Super-Typhoon Devastates the Philippines, Resettling Displaced People Creates New Opportunities and Risks," *Refugees International* (blog), entry posted December 1, 2014, <http://refugeesinternational.org/blog/one-year-after-super-typhoon-devastates-philippines-resettling-displaced-people-creates-new-opp>.

³¹ Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis* (Intergovernmental Panel on Climate Change (WHO, UNEP, 013), <http://www.ipcc.ch/>).

³² The Brookings-LSE Project on Internal Displacement, Georgetown University, Institute for the Study of International Migration, and Office of the United Nations High Commissioner for Refugees, *Planned Relocations, Disasters and Climate Change*.