

**PROTECTING PEOPLE DISPLACED BY WEATHER-RELATED DISASTERS
AND CLIMATE CHANGE: EXPERIENCE FROM THE FIELD**

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INTRODUCTION

War and conflict are no longer the primary drivers of displacement. Extreme weather and climate variability are increasingly playing a role. In

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2012, more than 32 million people were displaced by rapid-onset natural hazards, ninety-eight percent of which were weather-related (primarily floods).¹ Slower-onset events linked to climate change, such as drought, changing rainfall patterns, and coastal erosion likely propelled many more people to migrate, although exactly how many we do not know.

Problematically, the character of human movement linked to climate-related events does not always fit well within the current legal and institutional frameworks, leaving open the question of when, and under what circumstances, people who move as a result of climate-related events or changes are entitled to unique rights and protections. Significant scholarly and public attention has focused on the glaring gap in the current legal framework for those people who will be forced to move across international borders as a result of extreme weather, sea level rise, and other climate change-related effects, and who do not fall into the current definition of refugees under international law.² For instance, a major concern is the lack of a clear solution for the inhabitants of low-lying island states who risk losing their territory altogether, as well as the question of how to safeguard their nationhood, safety, rights, and culture.

In contrast, this article focuses on both the *de jure* and *de facto* challenges in protecting people displaced within their own countries by natural disasters and the effects of climate change, using examples from developing and conflict-prone states. Internal displacement from climate change warrants attention for two reasons. First, there is consensus among experts that the vast majority of displacement from climate change-related effects will be internal.³ Second, the greatest human impacts are likely to occur in less-developed countries due not only to their pre-existing exposure to extreme weather events like typhoons, floods, and droughts, but also to their limited capacity to effectively prepare for, respond to, and recover from these crises.⁴ Thus, the primary responsibility to assist and protect people displaced by extreme weather and other climate change-related effects will fall on national governments in countries that already

1. Megan Rowling, *Disasters Displaced Over 32 Mln People in 2012, Rising Trend Forecast*, REUTERS (May 13, 2013), <http://www.trust.org/item/20130513114557-uo68q/>.

2. See, e.g., U.N. HIGH COMM'R FOR REFUGEES (UNHCR), INTERNALLY DISPLACED PERSONS: UNHCR'S PERSPECTIVE 1-2 (1995), available at <http://www.refworld.org/docid/3ae6b31cc4.html>.

3. Richard Black et al., *Migration as Adaptation*, 478 NATURE 447, 447 (2011).

4. Top rankings in various climate vulnerability indices include countries like Bangladesh, Haiti, Somalia, Pakistan, and Yemen. *Climate Change and Environmental Risk Atlas 2014*, MAPLECROFT GLOBAL RISK ANALYTICS, <http://maplecroft.com/portfolio/new-analysis/2013/10/30/31-global-economic-output-forecast-face-high-or-extreme-climate-change-risks-2025-maplecroft-risk-atlas/> (last visited May 1, 2014).

face enormous challenges like poverty, environmental degradation, and insecurity.

The first section of this article explains the ways in which more intense weather, sea level rise, and other environmental changes linked to climate change (hereinafter, “climate-related events”) may directly or indirectly influence human mobility. Section two examines the current normative frameworks for the treatment and protection of refugees and internally displaced people and explains why they are likely to prove insufficient in protecting those uprooted by climate-related events. Drawing from experience from the field, section three identifies operational challenges confronted by governments and humanitarian agencies in responding to displacement in two very different types of disasters: acute floods in Pakistan and Colombia in 2010 and 2011, and recurrent drought and food crises in West Africa’s Sahel region. The fourth section concludes with a set of recommendations for how to better prepare for, address, and manage climate-related displacement in a manner that respects the rights and dignity of those affected.

I. CLIMATE CHANGE AND HUMAN MOBILITY

As early as 1990, the Intergovernmental Panel on Climate Change (IPCC) concluded that one of the most significant impacts of climate change could be on human mobility.⁵ Since then, understanding of the various ways in which climate change and its environmental effects impact human movement has substantially increased. The IPCC’s most recent report draws on a new body of observational and theoretical research in the past five years that indicates not only that climate change effects are extremely likely to uproot increasing numbers of people in the coming decades—particularly in poor and developing countries—but also that migration can be an effective strategy for adapting to the impacts of climate change.⁶

A. Climate Change and the “Displacement-Migration Continuum”

There are three primary ways in which climate change may affect displacement and migration. First, climate change is anticipated to result in an increase in the frequency and force of hydro-meteorological hazards that

5. WORLD METEOROLOGICAL ORG. & U.N. ENV’T PROGRAMME (“UNEP”), CLIMATE CHANGE: THE IPCC 1990 AND 1992 ASSESSMENTS 103 (1992).

6. IPCC Working Group II, AR5, Chapter 12, available at http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap12_FGDall.pdf

force people to flee in the face of immediate, life-threatening harm (e.g., floods and storms). Floods in particular have the propensity to displace large numbers of people; between 2009 and 2012, floods were the primary driver of hazard-induced displacement.⁷ In many cases, people displaced by these events are able to return once the event is over. Recent research shows that displacement associated with sudden-onset, acute hydro-meteorological events like floods and storms, is relatively short-term and short-distance “depending primarily on the capacity of communities and local institutions to provide effective coping support.”⁸ However, when such events are likely to recur, people may move in anticipation of such events in order to avoid future harm (“anticipatory movements”), which may be permanent.

Second, slower-onset climate change-related effects, like changes in rainfall patterns, water scarcity, and ocean acidification, will affect natural resource availability upon which people—especially the poorest sectors of society—rely for their livelihoods and survival (e.g., agricultural yields and fisheries).⁹ These slower-onset environmental changes may cause, either directly or indirectly, people to leave their homes in search of alternative livelihoods. Human displacement due to these effects may be temporary or permanent.

Third, climate change is anticipated to result in increased storm surge, salt water inundation of fresh water sources, and sea level rise, thereby rendering certain areas—particularly low-lying atolls or coastal areas—uninhabitable.¹⁰ In the Arctic, which is warming at twice the rate of the rest of the planet, increased storm surge and permafrost melt are already forcing the relocation of dozens of indigenous Alaskan communities.¹¹ These changes are likely to result in permanent displacement.¹²

7. INT’L DISPLACEMENT MONITORING CENTRE (“IDMC”), GLOBAL ESTIMATES 2012—PEOPLE DISPLACED BY DISASTERS 6 (2013), available at <http://www.internal-displacement.org/assets/publications/2013/2012-global-estimates-corporate-en.pdf> [hereinafter IDMC].

8. Cecilia Tacoli, *Migration as a Response to Local and Global Transformations: A Typology of Mobility in The Context of Climate Change*, in THE DEMOGRAPHY OF ADAPTATION TO CLIMATE CHANGE 41, 43 (George Martine & Daniel Schensul eds., 2013), available at <http://www.africa-adapt.net/media/resources/851/the-demography-of-adaptation-to-climate-change.pdf>.

9. OLI BROWN, INT’L ORG. FOR MIGRATION, MIGRATION AND CLIMATE CHANGE 16 (2008).

10. Peter Roy & John Connell, *Climatic Change and the Future of Atoll States*, 7 J. OF COASTAL RES. 1057, 1068–69 (1991).

11. ROBIN BRONEN, CLIMATE-INDUCED DISPLACEMENT OF ALASKA NATIVE COMMUNITIES 1 (Brookings-LSE Project on Internal Displacement, 2013), available at <http://www.brookings.edu/~media/Research/Files/Papers/2013/1/30%20arctic%20alaska%20bronen/30%20climate%20alaska%20bronen%20paper.pdf>.

12. See also five scenarios for conceptualizing climate change-induced displacement identified by the UN Secretary-General’s Representative on the Human Rights of Internally Displaced Persons, Walter Kälin, which were subsequently adopted by the UN’s Inter-Agency Standing Committee Working Group on Migration/Displacement and Climate Change. Representative of Sec’y

Taken together, the effects of climate change will cause or contribute to a broad range of human movement (and may already be doing so) that spans a continuum and includes: (1) internal and external (cross-border) movement; (2) short-term, recurrent, and permanent movement; and (3) forced, voluntary, and anticipatory movement.

B. Current Understanding of Climate Change-related Human Movement

1. What We Know

Much of the scholarly and public focus in the context of climate displacement concentrates on the need for legal protection for people who flee their countries as a result of climate-related events. However, empirical research indicates that the majority of human displacement resulting from climate-related events will occur within state borders.¹³ This is consistent with migration patterns indicating that far more people migrate internally than internationally.¹⁴

In addition, certain regions of the world are likely to experience higher levels of climate-related population movement due to numerous factors. First is exposure to climate change-related hazards and impacts. Certain areas like flood-prone deltas, low-lying island atolls, and densely populated coastal areas are particularly vulnerable.¹⁵ Equally important are the preexisting vulnerabilities of those affected and their ability to cope with and adapt to these changes.¹⁶ Poor, developing and conflict-prone countries are especially at risk: numerous studies show that state failure and violent

Gen. on Human Rights of Internally Displaced Persons, *Displacement and Climate Change: Towards Defining Categories of Affected Person* (Inter-Agency Standing Committee Working Group on Migration/Displacement and Climate Change, working paper, 2008); WALTER KÄLIN & NINA SCHREPFER, PROTECTING PEOPLE CROSSING BORDERS IN THE CONTEXT OF CLIMATE CHANGE: NORMATIVE GAPS AND POSSIBLE APPROACHES 5 (2012), available at <http://www.refworld.org/pdfid/4f38a9422.pdf>.

13. VIKRAM KOLMANNKOG, CLIMATE CHANGE, DISASTER, DISPLACEMENT AND MIGRATION: INITIAL EVIDENCE FROM AFRICA 3, 16 (2009), available at <http://www.unhcr.org/4b18e3599.html>; ANDRAS VAG ET AL., ENVIRONMENTAL CHANGE AND FORCED MIGRATION SCENARIOS: PROJECT SYNTHESIS REPORT 72 (2009), available at http://seri.at/wp-content/uploads/2010/06/EACH-FOR_Synthesis_Report_090515.pdf.

14. Walter Kälin, *Conceptualizing Climate Change-Induced Displacement*, in CLIMATE CHANGE AND DISPLACEMENT: MULTIDISCIPLINARY PERSPECTIVES 81, 86 (Jane McAdam ed., 2010).

15. WORKING GRPS. I & II, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, MANAGING THE RISKS OF EXTREME EVENTS AND DISASTERS TO ADVANCE CLIMATE CHANGE ADAPTATION, SUMMARY FOR POLICYMAKERS 5–6, 14 (Simon K. Allen et al. eds., 2012), available at http://ipcc-wg2.gov/SREX/images/uploads/SREX-SPMbrochure_FINAL.pdf.

16. Frank Laczko & Christine Aghazarm, *Introduction and Overview: Enhancing the Knowledge Base, in MIGRATION, ENVIRONMENT AND CLIMATE CHANGE: ASSESSING THE EVIDENCE* 15 (Frank Laczko & Christine Aghazarm eds., 2009), available at http://publications.iom.int/bookstore/free/migration_and_environment.pdf.

conflict exacerbate natural hazard-related disasters and reduce people's adaptive capacity.¹⁷ In addition, poor countries, particularly those in which a large portion of the population is dependent on rain-fed agriculture for their livelihoods, have proven especially susceptible to climate-related shocks.¹⁸ Experts also agree that, outside the context of sudden-onset disasters, climate-related changes often act in concert with other socio-economic factors to drive displacement.¹⁹

For example, case studies from environmentally fragile rural areas of Bolivia, Senegal, and Tanzania show that “precipitating events” like unusually harsh droughts can have long-lasting impacts on local economies and livelihoods.²⁰ This can result in a downward spiral of emigration when socio-economic factors limit coping strategies or limit sources of income.²¹ “What is crucial in making these events so catastrophic is a socio-economic context which restricts people’s ability to rely on well-tested strategies and diversify their activities within both the agricultural and the non-farm sector.”²²

2. What We Don’t Know

There are, however, significant gaps in the current understanding of the problem. For example, social scientists are unable to predict the extent to which climate change will fuel tension, social unrest, or armed conflict.²³

17. Vikram Kolmannskog, *Climate Change, Human Mobility, and Protection: Initial Evidence from Africa*, 29 REFUGEE SURVEY Q. 103, 108–10 (2010) (discussing how armed conflict can exacerbate drought); TAMER AFIFI ET AL., CLIMATE CHANGE, VULNERABILITY AND HUMAN MOBILITY: PERSPECTIVES OF REFUGEES FROM THE EAST AND HORN OF AFRICA 13 (2012), available at <http://www.ehs.unu.edu/file/download/9951.pdf>.

18. See OXFAM, LEARNING THE LESSONS? ASSESSING THE RESPONSE TO THE 2012 FOOD CRISIS IN THE SAHEL TO BUILD RESILIENCE FOR THE FUTURE 5 (2013), available at http://www.oxfam.org/sites/www.oxfam.org/files/bp168-learning-the-lessons-sahel-food-crisis-160413-en_1.pdf (describing the effects of drought on food insecurity in the Sahel region of Africa).

19. See generally Vikram Kolmannskog & Lisetta Trebbi, *Climate Change, Natural Disasters and Displacement: A Multi-Track Approach to Filling the Protection Gaps*, 92 INT’L REV. RED CROSS 713 (2010), available at <http://www.icrc.org/eng/assets/files/review/2010/irrc-879-kolmannskog-trebbi.pdf> (explaining the many factors that influence climate change displacement); Cecilia Tacoli, *Migration, Climate Change and the Multiple Drivers of Mobility: Current Debates, Emp. MIGRATION CITIZENSHIP EDUC.* (Jan. 2012), http://migrationeducation.de/fileadmin/uploads/Cecilia_Tacoli_2012.pdf (stating “[t]here is now a broad consensus on the fact that climate change will result in increases in the numbers of people who move—but only as a contributing factor in the context of socio-economic and political transformations”).

20. Tacoli, *supra* note 8, at 44.

21. *Id.*

22. *Id.*

23. INT’L FED’N OF RED CROSS & RED CRESCENT SOC’YS, CLIMATE CHANGE AND HUMAN MOBILITY: A HUMANITARIAN POINT OF VIEW (2009), available at

There is little empirical evidence to suggest that natural resource scarcity will be a direct cause of armed conflict. However, there are cases in which increased competition over natural resources contributed to pre-existing political and social tensions, ultimately leading to armed conflict (e.g., Darfur).²⁴

In addition, there is still substantial uncertainty around the potential magnitude of the problem with a wide range of predictions on the numbers of people likely to be uprooted in the coming decades.²⁵ In recent years, the initial prediction that climate change will force millions of people to flee their countries en masse has given way to a more nuanced discussion of how the effects of climate change and potential adaptation or mitigation measures will interact with other socio-economic, cultural, demographic, and political factors to shape migration and mobility.²⁶

Environmental change is influencing, and will increasingly influence, environmental factors that drive people to move (e.g. site habitability; land productivity; food, water and energy security; and exposure to hazards). At the same time it will affect other drivers (e.g. producer prices, employment opportunities, conflicts and insecurity), both in source and in destination areas that can have significant mobility consequences.²⁷

II. EXISTING LEGAL AND NORMATIVE FRAMEWORKS

In recognition of their specific needs and vulnerabilities, refugees, internally displaced persons (“IDPs”), and international migrants are entitled to certain protections as provided under international, national, and

https://www.ifrc.org/Global/Publications/disasters/climate%20change/climate_change_and_human_mobility-en.pdf.

24. NORA DUDWICK ET AL., CREATING JOBS IN AFRICA’S FRAGILE STATES: ARE VALUE CHAINS THE ANSWER? (2011), available at http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2013/06/21/000442464_20130621120627/Rendered/PDF/786810PUB0EPI10ox0377351B00PUBLIC00.pdf; *Eyes of Darfur*, AMNESTY INT’L (Apr. 13, 2014), <http://www.eyesondarfur.org/conflict.html>.

25. ASIAN DEV. BANK, CLIMATE CHANGE AND MIGRATION IN ASIA AND THE PACIFIC: EXECUTIVE SUMMARY 2 (2009), available at http://www.preventionweb.net/files/11673_ClimateChangeMigration.pdf.

26. Tacoli, *supra* note 8, at 41.

27. INT’L ORG. FOR MIGRATION, COMPENDIUM OF IOM ACTIVITIES IN DISASTER RISK REDUCTION AND RESILIENCE 14 (2013), available at <https://www.iom.int/files/live/sites/iom/files/What-We-Do/docs/IOM-DRR-Compendium-2013-partI-II.pdf>.

regional laws and institutional frameworks.²⁸ Problematically, the character of human movement linked to climate-related events does not always fit well within current legal and institutional frameworks, leaving open the question of when, and under what circumstances, people who move in the context of climate change are entitled to unique rights and protection.

A. Cross-Border Climate-Related Movements

Those displaced across international borders as a result of natural disasters or the effects of climate change are unlikely to be protected under the 1951 Convention Relating to the Status of Refugees (“1951 Refugee Convention” or “Convention”), which is the key legal document defining who is a refugee, refugees’ rights, and the legal obligations of states to protect them.²⁹ A “refugee” as defined under the Convention is someone who:

owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country.³⁰

The *UN High Commissioner for Refugees (UNHCR) Handbook on Procedures and Criteria for Determining Refugee Status* (“Refugee Status Handbook”) under the Convention specifically states that the Convention “rules out such persons as victims of famine or natural disaster, unless they also have well-founded fear of persecution for one of the reasons stated.”³¹ In a recent decision, the High Court of New Zealand rejected a Kiribati man’s request for asylum as a “climate change refugee.”³² In this case, Ioane Teitiota argued he should be entitled to protection as a refugee because rising sea levels and environmental hazards caused by climate change were endangering his life on Kiribati, a low-lying island nation in

28. See *Asylum & the Rights of Refugees*, INT’L JUSTICE RES. CTR., <http://www.ijrcenter.org/refugee-law/> (last visited May 22, 2014) (listing human rights instruments that grant protection for refugees).

29. Convention Relating to the Status of Refugees, July 28, 1951, 189 UNTS 137.

30. *Id.* at art. 1, A(2).

31. U.N. High Comm’r for Refugees, *Handbook on Procedures and Criteria for Determining Refugee Status under the 1951 Convention and the 1967 Protocol Relating to the Status of Refugees*, U.N. Doc. HCR/IP/4/ENG/REV1 (Jan. 1992), available at <http://www.unhcr.org/3d58e13b4.html> [hereinafter *Handbook on Procedures*]

32. *Teitiota v. Chief Exec. of the Ministry of Bus. Innovation & Employment*, [2013] NZHC 3125 (N.Z.).

the South Pacific.³³ The Court concluded that Teitiota's claim fell short of 1951 Refugee Convention legal criteria because he was unable to show that by returning to Kiribati, he would suffer "a sustained and systematic violation of his basic human rights such as right to life . . . or the right to adequate food, clothing and housing."³⁴

Jane McAdam and others have extensively examined whether other international or regional legal instruments, human rights principles, or complementary protection mechanisms might provide grounds for protection for those crossing an international border as a result of climate-related events, with unsatisfying results.³⁵ In short, there is no international law providing a clear and secure basis for protection for those forced to flee their countries as a result of natural disasters or the effects of climate change.³⁶

B. Internal Displacement

As mentioned above, experts believe that the majority of people displaced by climate-related events will be internally displaced, in which case the UN Guiding Principles of Internal Displacement ("Guiding Principles") may provide a protection framework.³⁷ While non-binding, the Guiding Principles are drawn from international humanitarian, human rights, and analogous refugee law. They provide standards for the provision of protection and assistance to IDPs and have been incorporated into national law in some countries.³⁸ Under the Guiding Principles, IDPs are defined as:

persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human

33. *Id.* ¶ 13–15, 21(41).

34. *Id.* ¶ 54.

35. *See, e.g.*, JANE MCADAM, CLIMATE CHANGE DISPLACEMENT AND INTERNATIONAL LAW: COMPLEMENTARY PROTECTION STANDARDS, (2011), *available at* <http://www.unhcr.org/4dff16e99.html>.

36. *Id.* at 7.

37. KOLMANNKOG, *supra* note 13, at 3, 16.

38. AM. SOC'Y OF INT'L LAW, INCORPORATING THE GUIDING PRINCIPLES ON INTERNAL DISPLACEMENT INTO DOMESTIC LAW: ISSUES AND CHALLENGES 3–4 (Walter Kälin et al. eds., 2010), http://www.brookings.edu/~media/research/files/papers/2010/1/19%20internal%20displacement/0119_internal_displacement_complete.pdf (last visited May 1, 2014).

rights or natural or human-made disasters, and who have not crossed an internationally recognized state border.³⁹

According to the Guiding Principles, national governments are responsible for providing assistance and protection to IDPs in recognition of their rights.⁴⁰

Once persons have been displaced, they retain a broad range of economic, social, cultural, civil and political rights, including the right to basic humanitarian assistance (such as food, medicine, shelter), the right to be protected from physical violence, the right to education, freedom of movement and residence, political rights such as the right to participate in public affairs and the right to participate in economic activities Displaced persons also have the right to assistance from competent authorities in voluntary, dignified, and safe return, resettlement or local integration, including help in recovering lost property and possessions. When restitution is not possible, the Guiding Principles call for compensation or just reparation.⁴¹

There are several regional agreements that adopt the Guiding Principles' protection framework including the 2009 Kampala Convention for the Protection and Assistance of Internally Displaced Persons in Africa and the 2006 Great Lakes Protocol on the Protection and Assistance to Internally Displaced Persons, both of which are legally binding for ratifying countries and cover those displaced by natural disasters.⁴² In particular, Article 5, paragraph 4 of the Kampala Convention provides that "States Parties shall take measures to protect and assist persons who have been

39. U.N. Econ. and Soc. Council, Comm. On Human Rights, Guiding Principles on Internal Displacement, U.N. DOC. E/CN.4/1998/53/Add.2 (Feb. 11, 1998), available at <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G98/104/93/PDF/G9810493.pdf?OpenElement> [hereinafter *Guiding Principles*].

40. *Id.*

41. *Questions and Answers About IDPs*, U.N. HUMAN RIGHTS, <http://www.ohchr.org/EN/Issues/IDPersons/Pages/Issues.aspx> (last visited May 1, 2014).

42. See AFRICAN UNION, AFRICAN UNION CONVENTION FOR THE PROTECTION AND ASSISTANCE OF INTERNALLY DISPLACED PERSONS IN AFRICA (KAMPALA CONVENTION) (2009), available at [http://www.au.int/en/sites/default/files/AFRICAN_UNION_CONVENTION_FOR_THE_PROTECTION_AND_ASSISTANCE_OF_INTERNALLY_DISPLACED_PERSONS_IN_AFRICA_\(KAMPALA_CONVENTION\).pdf](http://www.au.int/en/sites/default/files/AFRICAN_UNION_CONVENTION_FOR_THE_PROTECTION_AND_ASSISTANCE_OF_INTERNALLY_DISPLACED_PERSONS_IN_AFRICA_(KAMPALA_CONVENTION).pdf) [hereinafter KAMPALA CONVENTION]; INT'L REFUGEE RIGHTS INITIATIVE, THE GREAT LAKES PACT AND THE RIGHTS OF DISPLACED PEOPLE: A GUIDE FOR CIVIL SOCIETY 12 (2008), available at <http://www.refugee-rights.org/Publications/2008/GLReport.Sep2008.pdf>.

internally displaced due to natural or human made disasters, including climate change.”⁴³

1. Voluntary or Forced?

There are at least three protection gaps with respect to the applicability of the Guiding Principles to those internally displaced as a result of the anticipated effects of climate change. The first arises from the fact that the Guiding Principles require that the movement be “forced.” According to the Internal Displacement Monitoring Centre (“IDMC”), “[t]he non-voluntary nature of the movement is central to the definition of displacement. It includes people forced from their homes or evacuated in order to avoid the effects or a threat of natural disaster.”⁴⁴

However, in the context of climate-related movement, there are no widely accepted guidelines for determining at what point such movement is voluntary or forced. There is little dispute that in the case of acute, immediate-onset weather events, like floods or storms, flight will be considered involuntary, entitling those affected to protection as IDPs. This is also true where people are prevented from returning to highly vulnerable locations after an extreme hazard event or are resettled from hazard-prone areas.⁴⁵

The voluntariness of movement is much more difficult to decipher in cases resulting from changes in climate that lead to loss of livelihood. The loss of livelihood (e.g., repeated crop failures, collapse of fisheries) will eventually motivate people to move where adaption is not possible and if alternative livelihoods or economic opportunities are not available. This movement will be “planned,” but not necessarily voluntary if the person has no other option but to “leave or die here.” However, it will be difficult to determine at what point in time the decision to move actually becomes a last resort and can be considered involuntary or forced.

While it is easy to distinguish between internal and external movements, the distinction between forced and voluntary movement will become increasingly blurred with new forms and patterns of movements emerging. The Chairperson of the 2011

43. KAMPALA CONVENTION, *supra* note 42, at art. 5 ¶ 4.

44. IDMC, *supra* note 7, at 10.

45. *See generally* ROGER ZETTER, PROTECTING ENVIRONMENTALLY DISPLACED PEOPLE: DEVELOPING THE CAPACITY OF LEGAL AND NORMATIVE FRAMEWORKS (2011), available at <http://www.unhcr.org/4da2b6189.pdf> (discussing the legal framework of environmentally displaced persons).

Nansen Conference on Climate Change and Displacement acknowledged the ‘complexity of drawing a sharp distinction between “voluntary” and “forced” migration (displacement) spurred by environmental and development factors’ and concludes that ‘[m]otivation is a continuum, with “voluntary” at one end of the spectrum, in a gradual transition to “forced” at the other.’⁴⁶

Although there is no widely accepted definition of involuntary displacement in the context of slow-onset climate-related events, there is some consensus around drawing the line between voluntary and involuntary movement at the point in time when an area becomes uninhabitable. For example, Walter Kälin and Nina Schrepfer take the position that for slow-onset environmental degradation:

[s]uch deterioration may not necessarily cause displacement, but it may prompt people to consider migration as a way to adapt to the changing environment, and explain why people move to regions with better living conditions and income opportunities. However, if areas become uninhabitable over time because of further deterioration, finally leading to complete desertification, permanent flooding of coastal zones or similar situations, population movements will amount to forced displacement and become permanent.⁴⁷

The World Bank takes the view that “[i]nvoluntary displacement occurs when the decision of moving is made and imposed by an external agent and when there is no possibility to stay.”⁴⁸ This is close to Kälin’s distinction for internal migrants who he concludes are “[t]hose who decide to leave their homes and places of habitual residence because of effects of climate change, such as a deteriorating environment negatively affecting the

46. KÄLIN & SCHREPFER, *supra* note 12, at 22 (internal citations omitted).

47. *Id.* at 14; see also ELIZABETH FERRIS, PROTECTION AND PLANNED RELOCATIONS IN THE CONTEXT OF CLIMATE CHANGE 25 (2012), available at <http://www.brookings.edu/~media/research/files/papers/2012/8/protection%20climate%20change%20ferris/protection%20climate%20change%20ferris.pdf> (concluding that classification of the movement as forced requires an understanding of “when an area is determined to be (a) uninhabitable [or at risk of becoming such that relocation is necessary], and (b) when the cause of the uninhabitability is the result of the effects of climate change.”).

48. According to the World Bank: “Involuntary displacement can be caused by environmental degradation, natural disasters, conflicts or development projects. It is associated with loss of housing, shelter, income, land, livelihoods, assets, access to resources and services, among others.” *Social Development Involuntary Resettlement*, WORLD BANK, <http://go.worldbank.org/MRNITY6XN0> (last visited May 1, 2014).

production of food, but are not forced to leave or flee as life still would be possible there.”⁴⁹

Both the “habitability” test and the “possibility to stay” test have inherent difficulties. The “habitability” test has the advantage of focusing on external, physical factors—like fresh water availability or hazard risk—which tends to be more objective. The main problem with this definition of involuntary movement is that “[u]nhabitability may be a dynamic continuum rather than a definitive end-state.”⁵⁰

The “possibility to stay” test, on the other hand, focuses more on the subjective situation of those affected—and what alternatives they have available to them—making it much more difficult to draw broad distinctions. Under the “possibility to stay” test it may be possible for some people to find alternative livelihoods and ways to adapt due to resources and skill levels, but not for the poorest members of the community or those who lack skills. For example, how will slow-onset, climate-related changes affect the ability of the school teacher to stay versus the fisherman or farmer? The highly subjective nature of the test makes it less desirable. Regardless of which approach is used, both risk creating a perverse policy incentive whereby States may be willing or obligated to provide protection and assistance to vulnerable populations only after the situation turns dire or the harm is imminent, thereby dis-incentivizing more planned movements that could save costs, and potentially lives.

2. Is the Trigger Event a “Disaster”?

Complicating the lack of clarity on what is meant by “forced” displacement is the requirement in the Guiding Principles that the trigger event be a “disaster,” which is not defined therein.⁵¹ According to the UN International Strategy for Disaster Reduction (“UNISDR”) a “disaster” is “[a] serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources.”⁵² This definition is useful, although it may preclude smaller-scale, recurrent, or compounding climate-related events (e.g., repeated flooding or poor rainfall leading to decreasing agricultural yields), which may affect people in different ways at different times. Must a

49. KÄLIN & SCHREPFER, *supra* note 12, at 26.

50. FERRIS, *supra* note 47, at 25.

51. KÄLIN ET AL., *supra* note 38.

52. *Terminology*, U.N. INT’L STRATEGY FOR DISASTER REDUCTION (Aug. 30, 2007), <http://www.unisdr.org/we/inform/terminology>.

climate-related event be declared a disaster before those displaced are entitled to protection? Who should make this determination?

Some experts do not see the lack of a definition of “disaster” in the Guiding Principles as a limitation. Walter Kälin, for example, concludes:

[e]ven though the Guiding Principles do not explicitly include climate change as a cause of internal displacement, they list the causes of internal displacement in a non-exhaustive manner. In particular, they explicitly recognize natural and man-made disasters as possible causes of displacement, irrespective of whether or not they relate to changing climate patterns.⁵³

However, the problem is that this presumes that the “changing climate patterns” that drive displacement will always rise to the level of a “disaster.” It is not inconceivable that situations will arise in which people internally displaced by climate-related events and in need of protection and assistance will not be able to access it because their predicament is not considered acute or wide-scale enough to warrant a disaster declaration. In the United States, for example, Native Alaskan communities threatened by melting permafrost, increased storm surge, and rapid coastal erosion linked to climate change have been unable to obtain government assistance under America’s federal disaster law because their plight has not been declared a disaster.⁵⁴

3. Are Climate-related Events the Sole or Contributing Cause or Push Factor?

A third protection gap with respect to the applicability of the Guiding Principles to those internally displaced in the context of climate change arises when the climate-related event is not the sole or direct cause of human movement. It is well recognized that if a person’s decision to move is motivated exclusively by economic considerations, he or she is considered an economic migrant and not a displaced person or refugee.⁵⁵ A migrant is a person who:

53. KÄLIN & SCHREPFER, *supra* note 12, at 22.

54. Robin Bronen, *Statutory Limits Prevent an Effective Response to Communities at Climate Risk*, THEGUARDIAN.COM (May 16, 2013), <http://www.theguardian.com/environment/2013/may/16/statutory-limits-response-communities-climate-risk>

55. Handbook on Procedures, *supra* note 31, ¶ 62.

voluntarily leaves his [home] in order to take up residence elsewhere. He may be moved by the desire for change or adventure, or by family or other reasons of a personal nature. If he is moved exclusively by economic considerations, he is an economic migrant (and not a displaced person or refugee).⁵⁶

Thus, in the case of slower-onset climate-related events, the question arises regarding whether the event or change was the primary or exclusive cause of the movement.

While the nature of the displacement-migration continuum makes it difficult to make a clear-cut determination between climate-related displacement and voluntary or economic migration, the Refugee Status Handbook can serve as a useful model:

It may be assumed that, unless he seeks adventure or just wishes to see the world, a person would not normally abandon his home and country without some compelling reason. There may be many reasons that are compelling and understandable, but only one motive has been singled out to denote a refugee. The expression ‘owing to well-founded fear of being persecuted’—for the reasons stated—by indicating a specific motive automatically makes all other reasons for escape irrelevant to the definition.⁵⁷

A similar argument could be made for determining status as a climate-related displaced person. Climate-related events may not be the only factors that contribute to mobility, but by making the same assumptions that “a person would not normally abandon his home and country without some compelling reason,” then those displaced by climate-related events should not need to demonstrate that climate change was the sole cause of the flight.

III. EXPERIENCE FROM THE FIELD

Refugees International’s experience in assessing the response to climate-related humanitarian emergencies in the past several years provides some important contextual examples of the institutional and operational challenges to protecting people displaced by climate-related events. The

56. *Id.*
57. *Id.* ¶ 39.

experiences below shed light on protection gaps that occurred in the response to acute and protracted flooding in Pakistan and Colombia in 2010 and 2011, and increased rainfall variability and recurrent food crises in the Sahel region of West Africa.⁵⁸

A. The Pakistan and Colombia Floods: Acute, Rapid-Onset Disasters

1. Background

In 2010, Pakistan experienced the worst flooding in its history.⁵⁹ Flash floods in the country's mountainous north—brought on by a massive and unprecedented amount of rain—tore away roads, bridges, and entire villages. As rain continued to fall over the next several months, the massive deluge of water moved south, ultimately submerging one fifth of the country's land mass, an area the size of Great Britain. More than 18 million people were affected, 9 million of whom were left homeless.⁶⁰

Meanwhile, halfway across the globe, one of the strongest La Niña episodes in a century was wreaking havoc in Colombia.⁶¹ By December

58. The information contained in this report is based on both desk research and field visits by Refugees International ("RI") staff to Pakistan in September 2010 and July–August 2011, to Colombia in March 2011 and February 2012, and to Burkina Faso and Niger in 2012. During field visits, RI visited affected areas and conducted confidential interviews with affected individuals, and local and international stakeholders. For more information on RI's findings, please see ALICE THOMAS & RENATA RENDÓN, *REFUGEES INT'L, CONFRONTING CLIMATE DISPLACEMENT: LEARNING FROM PAKISTAN'S FLOODS* 6–10 (2010), available at <http://refugeesinternational.org/sites/default/files/ConfrontingClimateDisplacement.pdf>; ALICE THOMAS, *REFUGEES INT'L, SURVIVING ALONE: IMPROVING ASSISTANCE TO COLOMBIA'S FLOOD VICTIMS* i–ii (2011), available at http://refugeesinternational.org/sites/default/files/Surviving_Alone_FINAL2.pdf; Alice Thomas, *Pakistan: Flood Survivors Still Struggling to Recover*, *REFUGEES INT'L* (Aug. 31, 2011), <http://www.refugeesinternational.org/policy/field-report/pakistan-flood-survivors-still-struggling-recover>; Alice Thomas, *Colombia: Flood Response Improves, but Challenges Remain*, *REFUGEES INT'L* (Mar. 27, 2012), <http://www.refugeesinternational.org/policy/field-report/colombia-flood-response-improves-challenges-remain>; Alice Thomas, *Sahel: Recurrent Climate Shocks Propel Migration; Resilience Efforts Face Challenges*, *REFUGEES INT'L* (Aug. 1, 2013), <http://www.refugeesinternational.org/policy/field-report/sahel-recurrent-climate-shocks-propel-migration-resilience-efforts-face-challeng> [hereinafter *Sahel Report*].

59. *Pakistan Floods Still Claiming Lives, Six Months On*, *BBC NEWS SOUTH ASIA* (Jan. 28, 2011, 3:24 PM), <http://www.bbc.co.uk/news/world-south-asia-12308913>.

60. U.N. OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFS. ("U.N. OCHA"), *PAKISTAN FLOOD RELIEF AND EARLY RESPONSE PLAN—REVISION 1* (2010), https://docs.unocha.org/sites/dms/CAP/Revision_2010_Pakistan_FRERRP_SCREEN.pdf.

61. See generally DARA, *HUMANITARIAN RESPONSE INDEX—FOCUS ON COLOMBIA* (2011), available at http://reliefweb.int/sites/reliefweb.int/files/resources/HRI2011_Focus_on_colombia.pdf (discussing the effect of several flood events, including the 2010 La Niña floods).

2010, ninety-three percent of the country's municipalities were experiencing floods and landslides, forcing President Santos to declare a state of emergency.⁶² Repeated and heavy rains persisted through the normally dry months. By the end of 2011, close to 5 million people had been affected, and thousands displaced, some several times.⁶³

In the case of humanitarian emergencies arising from climate-related events—whether sudden or slow-onset—the most immediate way to protect and meet the needs of those forced to flee is implementation of a timely and effective system for responding. National governments bear the primary responsibility for assisting and protecting their citizens when natural disasters strike. Most governments, especially those in disaster-prone countries, have adopted disaster response and management laws and systems, to effectuate this responsibility, and disaster management institutions at the national, regional, and local levels to implement these laws and systems. Given their high exposure to frequent flooding and other natural hazards,⁶⁴ both Pakistan and Colombia have relatively advanced disaster management laws, procedures, and institutions.

The UN has also adopted a “cluster system” for responding to humanitarian emergencies when called upon by national governments to assist.⁶⁵ In order to ensure coordination and maximize service delivery, clusters composed of UN agencies and national and international nongovernmental organizations coordinate their activities around a specific humanitarian service or “cluster” (e.g. food, water, sanitation and hygiene, etc.).⁶⁶ In each cluster, an agency is designated as the “cluster lead” to lead coordinate programming with other humanitarian actors and the government and collect information about the situation on the ground.⁶⁷

62. U.N. OCHA, COLOMBIA—FLOODING/WINDSTORM IN PUTUMAYO DEPARTMENT, SITUATION REPORT NO. 1 (Oct. 5, 2012), *available at* <http://reliefweb.int/report/colombia/colombia-floodingwindstorm-putumayo-department-situation-report-no-1>.

63. *Id.*; DARA, *supra* note 61, at 2, 5.

64. Colombia is ranked 10th on the list of countries with the highest level of risk to natural hazards, and has the highest recurrence of extreme events in South America. *Colombia Dashboard*, WORLD BANK, http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCCode=COL&ThisTab=NaturalHazards (last visited May 1, 2014). Pakistan is also exposed to a number of natural hazards and has the highest risk of floods in South Asia. Earthquakes have caused the highest number of fatalities while floods occur most frequently and affect the largest number of people. The monsoon rains, which occur from July through September, result in frequent and severe flooding in the Indus River Basin where millions of people live in low-lying areas. *Pakistan Dashboard*, WORLD BANK, http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile&CCCode=PAK&ThisTab=NaturalHazards (last visited May 1, 2014).

65. *Cluster Coordination*, U.N. OCHA, <http://www.unocha.org/what-we-do/coordination-tools/cluster-coordination> (last visited May 1, 2014).

66. *Id.*

67. *Id.*

This information is meant to help identify and assess current needs and gaps, agencies' capacity to respond, and the rate of progress.⁶⁸ In the case of the Pakistan floods, the government called on the international community for assistance, thereby activating the cluster system. In Colombia, the national government, which felt it had the capacity to respond effectively to the floods, took the lead and the international community had a far more limited role.

2. Operational and Institutional Gaps in the Response

The massive and unprecedented scale of the floods in Pakistan and Colombia would have created enormous challenges under any circumstances. Nonetheless, in the context of sudden-onset, climate-related disasters, three operational or institutional gaps warrant particular attention, as they appeared to create the biggest barriers to assistance and protection.

a. Failure to Implement Disaster Management Laws and Procedures on a Local Level

The floods in Pakistan and Colombia both exposed a serious lack of implementation of national disaster management laws and procedures at the local level. Given the wide geographic scope of the floods in both countries, provincial and local disaster management bodies were invariably the first—and sometimes the only—responders.⁶⁹

In Colombia, provincial and local response authorities lacked the staff and resources necessary to address the widespread nature of the disaster, which, at its height, affected ninety-three percent of municipalities.⁷⁰ While local disaster response committees (“CLOPADs”) in some areas proved successful in preparing for the floods, in many municipalities, “citizens complained that their CLOPAD either did not exist or did not know what it was doing.”⁷¹ Even where CLOPADs were operational, municipalities had extremely limited funds to prepare for and respond to the floods. As a result, they were largely dependent on outside assistance, which was

68. *Id.*

69. Undoubtedly, lack of staff and other shortcomings at the national level was a problem. In the case of Pakistan, for example, the National Disaster Management Authority (“NDMA”) had only twenty-one staff and a limited annual budget at the time the floods hit. JENNIFER MCKAY ET AL., NAT'L DISASTER MGMT AUTH., PRIME MINISTER'S SECRETARIAT ISLAMABAD, PAKISTAN 2010 FLOOD RELIEF: LEARNING FROM EXPERIENCE: OBSERVATIONS AND OPPORTUNITIES 1 (2011), available at http://www.ndma.gov.pk/Documents/flood_2010/lesson_learned/Pakistan%202010%20Flood%20Relief-Learning%20from%20Experience.pdf.

70. SURVIVING ALONE, *supra* note 58, at 1, 17.

71. *Id.* at 10.

inadequate and often extremely slow in arriving.⁷² This occurred despite the fact that at the national level, the government had been quite successful in marshaling significant funds for the response.

In Pakistan, recent changes to the disaster management system that decentralized authority had not been fully implemented.⁷³ The Provincial Disaster Management Agency (“PDMA”) in the hardest hit province, Sindh, was significantly under-resourced and unprepared, while the PDMAs in Punjab and Baluchistan, two other heavily affected provinces, did not yet exist.⁷⁴

Given increasing evidence that floods, storms, and other hydro-meteorological events are becoming more frequent and intense, overwhelming the capacity of even the most developed countries to respond, current disaster management laws and systems must be revised and enhanced. In doing so, governments must ensure that disaster management laws and procedures are fully implemented at the local and community levels, as well as adequately funded through, for example, mandatory disaster relief budget set-asides.

b. Slow and Insufficient Early Recovery Programs

Despite the massive scale of displacement, in both Pakistan and Colombia, the vast majority of people returned as soon as the floodwaters receded—and in some cases even sooner than that—in order to salvage assets and begin rebuilding their lives.⁷⁵

Returning populations faced many of the same needs and vulnerabilities as displaced persons. Most returned to houses and belongings which were damaged or destroyed, and were forced to live in unsafe, makeshift shelters next to their former houses. Many lacked access to clean water and sanitation, and children especially suffered from dehydration, diarrhea, and

72. *Id.* at 10–11.

73. MCKAY, *supra* note 69, at 2.

74. ARIF AZAD & HELEN MCELHINNEY, READY OR NOT: PAKISTAN’S RESILIENCE TO DISASTERS ONE YEAR ON FROM THE FLOODS 18 (2011), available at <http://www.oxfam.org.nz/sites/default/files/reports/bp150-ready-not-pakistan-resilience-disasters-floods-260711-en.pdf>.

75. Lindsey Brickle & Alice Thomas, *Rising Waters, Displaced Lives*, 45 FORCED MIGRATION REV. 34, 34 (2014). Overcrowded, unsafe, and unsanitary conditions in shelters and camps also motivated people to return. Those who did not return voluntarily were ultimately forced to do so as a result of government policies requiring that camps and shelters be closed after a certain period of time following the disaster, even for those who had nowhere to go. *Id.*

other illnesses.⁷⁶ The floods also destroyed crops and livestock, resulting in increased food insecurity and loss of livelihoods.

Given the quick rate at which displaced people returned home, early recovery programs provided an important opportunity to help them get back up on their feet more quickly and increase resilience to future shocks. For example, in Pakistan, a timely seed distribution program allowed millions of affected farmers who lost crops in the floods to plant in time for the winter harvest, thereby avoiding a food crisis. Early interventions in the health, water, and sanitation sectors were also lauded for averting the spread of water-borne illnesses. In addition, cash compensation and cash for work programs provided a much-needed injection of resources that allowed affected families to meet early recovery needs.

Yet in both countries there was insufficient funding for implementation of early recovery programs especially in the shelter and livelihood sectors. In Pakistan, the emergency response by the clusters tended to focus on camps, despite the fact that large numbers of people had already returned home.⁷⁷ As one UN official noted, “[b]y the time we finished setting up the camps, they were empty We needed a returned strategy, not a return strategy.”⁷⁸ This was due in part to the government’s decision to bifurcate the emergency response and early recovery phases of the flood response. When the UN Development Programme (“UNDP”), the agency that leads the early recovery cluster, finally released the Strategic Early Recovery Action Plan in April 2011 (eight months after the floods hit),⁷⁹ it failed to garner strong financial support from either donors or the Pakistani government, which was then emphasizing developmental interventions instead.⁸⁰

In Colombia, the slow pace of construction of transitional shelters was of particular concern. Many families who lost homes were displaced three or four times while awaiting completion of transitional housing.⁸¹ In addition, the lack of early recovery livelihood programs made it especially difficult for poor households because the government stopped delivering food aid to most areas at the end of 2011 despite continuing need.⁸²

76. See generally Haider Warraich et al., *Floods in Pakistan: A Public Health Crisis*, 89 BULL. WORLD HEALTH ORG. 236 (2011), available at <http://www.who.int/bulletin/volumes/89/3/10-083386/en/> (discussing the health crisis associated with flooding that occurred in Pakistan in 2010).

77. U.N. OCHA, *supra* note 60, at 48.

78. Brickle & Thomas, *supra* note 75, at 34.

79. *Pakistan: Flood Survivors Still Struggling to Recover*, *supra* note 58.

80. *Id.*

81. Brickle & Thomas, *supra* note 75, at 35.

82. *Colombia: Flood Response Improves, But Challenges Remain*, *supra* note 58.

While meeting the life-saving needs of those displaced by disasters should always be a priority, experience shows that the failure to address their recovery needs – especially for secure shelter and livelihoods -- can prolong displacement and increase vulnerability. Especially in the context of rapid-onset disasters where displaced populations often return as soon as possible, humanitarian actors must increase their focus on identifying ways to help vulnerable populations get back on their feet more quickly and become self-sufficient. Early recovery programs must start immediately, and early recovery must be incorporated across all clusters when identifying and prioritizing needs. In addition, national governments and major humanitarian donors like the U.S. should increase funding for early recovery programs which are often the most underfunded sectors.

c. Need for a Rights-Based Approach to Disaster Response

A third shortcoming in the humanitarian response to the Pakistan and Colombia floods was the lack of a rights-based approach as outlined in the Guiding Principles.⁸³ As is the case with most natural disasters, the floods in Pakistan and Colombia had a disproportionate impact on the most vulnerable, including women, ethnic minorities, the poor, and those who had been previously displaced by conflict. In both Pakistan and Colombia, initial flood-relief activities failed to fully account for the vulnerabilities of these groups, thereby creating protection risks.⁸⁴

In Pakistan, women in particular struggled to access government cash assistance through the Watan Cards, which were issued based on possession of a Computerized National Identity Card (“CNIC”).⁸⁵ Since most women were registered in the name of a male relative, widows and female-headed households who lacked their own CNIC cards had trouble accessing their Watan Cards.⁸⁶ Moreover, benefits were not always distributed based on

83. KÄLIN ET AL., *supra* note 38. See also Garrett Bradford, *Learning from Natural Disasters*, REFUGEES INT’L BLOG (June 7, 2011), <http://www.refugeesinternational.org/blog/learning-natural-disasters> (noting how Alice Thomas has urged a rights-based approach for Pakistan and Colombia in relation to disasters experienced by those countries).

84. Anastasia Moloney, *Colombia Flood Victims at Risk as Rainy Season Looms*, THOMSON REUTERS FOUND. (Mar. 23, 2012, 7:27 PM), <http://www.trust.org/item/20120323192700-n1aeu>; Chris Lom, *Pakistan—After the Deluge*, MIGRATION, Winter 2010, at 4, 5; Elaine Engeler, *Mass Communications Programme Talks & Listens to Pakistan’s Flood Victims*, MIGRATION, Winter 2010, at 8, 9; SURVIVING ALONE, *supra* note 56, at *i*; PROT. THEMATIC WORKING GRP., U.N. HIGH COMM’R. FOR REFUGEES, RAPID PROTECTION ASSESSMENT REPORT PAKISTAN FLOODS 2011 16–23 (2011), available at <http://pakresponse.info/LinkClick.aspx?fileticket=S2FrJAwH35U%3D&tabid=112&mid=780>.

85. RICCARDO POLASTRO, ET AL., INTER-AGENCY REAL TIME EVALUATION OF THE HUMANITARIAN RESPONSE TO PAKISTAN’S 2010 FLOOD CRISIS 43 (2011), available at <http://daraint.org/wp-content/uploads/2011/03/Final-Report-RTE-Pakistan-2011.pdf>.

86. *Id.* at 53.

need, but often upon relationships with local officials or proximity to urban areas, meaning that some of the most vulnerable groups could not access any assistance.⁸⁷

Part of the problem in Colombia was the fact that the government instituted separate legal and institutional frameworks for responding to displacement from man-made versus natural disasters. In the case of the 2010 floods, this meant that flood IDPs were not entitled to the same rights and protections as those displaced by conflict because Colombia's Internal Displacement Law does not include those displaced by natural disasters within the definition of "internally displaced persons" (in contrast to the Guiding Principles which extend protection to those displaced by natural disasters).⁸⁸ Thus, none of the existing institutions, protocols, and procedures for responding to conflict-related displacement, which are quite well developed and effective given the country's long history with internal conflict, was considered or implemented during the flood response because they did not apply.⁸⁹ Moreover, despite lack of assistance and widespread discrimination in the provision of relief, flood IDPs did not have the same legal recourse provided to conflict IDPs.

In contrast, Pakistan's system relies on the same disaster management authorities to respond to both conflict-related and natural disaster emergencies.⁹⁰ This resulted in important operational efficiencies, most notably in Khyber Pakhtunkwa ("KP"), a province in northwestern Pakistan where the flash floods first hit.⁹¹ There, the PDMA had substantial prior experience working with humanitarian agencies, as well as the Pakistani army, in response to displacement caused by both the 2005 earthquake and the 2008–2009 Taliban insurgency and subsequent government-led counter-insurgency.⁹² However, because Pakistan has not adopted any law or policy related to the rights of IDPs, the PDMA and the National Disaster Management Authority ("NDMA") are not required to implement a rights-

87. *Id.* at 36.

88. KÄLIN ET AL., *supra* note 38; *see also* L. 387, julio 24, 1997, 43,091 DIARIO OFICIAL [D.O.] (Colom.) (applying protections to only those displaced by conflict).

89. *FARC-EP and PDAGs Cause Mass Displacements on Venezuela Border*, MONTHLY HUMANITARIAN BULL.: COLOM. 1, 6 (2013).

90. Brickle & Thomas, *supra* note 75, at 35.

91. *Id.*

92. *See* INT'L DEV. COMM., HOUSE OF COMMONS, THE HUMANITARIAN RESPONSE TO THE PAKISTAN FLOODS: GOVERNMENT RESPONSE TO THE COMMITTEE'S SEVENTH REPORT OF SESSION 2010–12 2 (2011), *available at* <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmintdev/1435/1435.pdf> (explaining how the previous response to the 2005 earthquake strengthened the response to the 2010 floods).

based approach to displacement, such as the one prescribed by the Guiding Principles, regardless of the cause.⁹³

Prior to the floods, both countries had large populations of people displaced by conflict (IDPs in the case of Colombia, Afghan refugees and IDPs in the case of Pakistan). Given their preexisting vulnerabilities—including poverty and lack of secure land tenure in many cases—these groups proved particularly vulnerable both in terms of exposure to the flood hazard (many lived on marginal, flood and landslide-prone lands) and discrimination in the response. For example, thousands of Afghan refugees living in a settlement outside Peshawar that was decimated by the floods were prevented from rebuilding after the flood events, ostensibly due to the area's susceptibility to flooding, even though they had resided there for decades.⁹⁴ However, many viewed it as an opportunity for the government to push Afghan refugees off of the land.⁹⁵

Conflict IDPs in Colombia faced similar challenges. According to the national Ombudsman's Office, IDPs were more susceptible to flooding to begin with because conflict had driven them into otherwise undesirable land in high-risk areas.⁹⁶ The Colombian human rights organization CODHES (La Consultoría para los Derechos Humanos y el Desplazamiento) estimated that four in ten people affected by the floods were conflict IDPs.⁹⁷ Moreover, many live in areas of the country where the government lacks access and control due to the presence of illegal armed groups, making it harder for assistance to reach them.

In responding to major disasters like the floods in Pakistan and Colombia, addressing the unique protection needs of the more vulnerable sectors of the population is essential. Waiting until after the disaster hits will make identifying those risks and vulnerabilities far more challenging. Thus, national governments and others involved in the humanitarian response must put in place laws, protocols and procedures that recognize physical, social, and economic inequities. Moreover, ensuring that the disaster response recognizes and prioritizes the needs of poor, marginalized, and disenfranchised populations requires the adoption of rights-based disaster management frameworks that treat those affected or displaced by natural disasters as rights-holders, not as beneficiaries of disaster relief,

93. AM. SOC'Y OF INT'L LAW, *supra* note 38.

94. THOMAS & RENDÓN, *supra* note 58, at 12.

95. *See id.* (highlighting the risk of refugees to be displaced without protective mechanisms).

96. SURVIVING ALONE, *supra* note 58, at 9.

97. Bruno Moro, *Note from the Humanitarian Coordinator* in U.N. OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFS., EMERGENCY RESPONSE FUND COLOMBIA: ANNUAL REPORT 2010 I (2010).

along with accountability procedures like Ombudsmans' offices or legal recourse mechanisms that empower them to enforce those rights.

B. Erratic Rainfall and Recurrent Drought in West Africa's Sahel

West Africa's Sahel region provides a contrasting example of the way in which slowly unfolding climate-related changes can combine with other factors to propel human movement. Many experts have asserted that migration can provide an important adaptation strategy for people living in areas that become less and less habitable due to the effects of climate change.⁹⁸ This is especially true in parts of the world like the Sahel where migration has long been used as a way for younger members of the household to attain new skills and work opportunities offering higher wages while sending home remittances to supplement their families' income. Less well understood is when migration becomes a "negative" coping strategy that actually increases the vulnerability of households to climate-related shocks, as described below.

1. Rainfall Variability, Recurrent Drought, and Growing Food Insecurity in the Sahel

The Sahel is a semi-arid swath of grasslands and shrubs that borders the Sahara Desert. It is home to many of the world's poorest countries, and malnutrition rates in many areas regularly exceed the emergency threshold of 15 percent.⁹⁹ In Burkina Faso, Niger, Mali, and Chad, almost fifty percent of children below the age of five are chronically malnourished.¹⁰⁰ The Sahel region's fragile environment and susceptibility to drought contribute to the food insecurity among its people, eighty percent of whom rely on rain-fed agriculture for their livelihoods.¹⁰¹

Explosive population growth means that the Sahel's population of more than 100 million people will double in 25 years.¹⁰² Sahelian countries also experience frequent political instability, with the separatist insurgency and

98. Jon Barnett & Michael Webber, *Accommodating Migration to Promote Adaptation to Climate Change* (World Bank, Working Paper No. 5270, 2010).

99. Rank for Sahel Countries: Niger 186/186; Chad 184; Burkina Faso 183; Mali 182; The Gambia 165; Mauritania 155; Senegal 154; Nigeria 153; Cameroon 150. Chris Whong, *Human Development Index and its Components*, U.N. DEV. PROGRAMME, <https://data.undp.org/dataset/Table-1-Human-Development-Index-and-its-components/wxub-qc5k> (last updated Dec. 8, 2013).

100. *Sahel Report*, *supra* note 58.

101. *Id.*

102. *Id.*

military coup d'état in Mali being the most recent example.¹⁰³ In addition, the historic trade routes traversing the region have proven highly vulnerable to terrorist and criminal networks that present regional and global security risks.¹⁰⁴

Although the Sahel region is prone to droughts, over the past decade, marked changes in rainfall patterns have emerged.¹⁰⁵ By some observations, temperatures have risen between 0.2 and 0.8 degrees Centigrade.¹⁰⁶ Rains have become more erratic in terms of quantity, timing, and geographic scope,¹⁰⁷ making droughts and poor harvests more frequent.¹⁰⁸ At the same time, flooding has also become more acute. In 2012, severe floods in Niger and Chad displaced more than a million people while flooding in northern Nigeria displaced more than 6 million.¹⁰⁹ Numerous climate experts have attributed these changes in rainfall patterns to global warming, and there is strong consensus that in the coming decades, the region will experience more unpredictable weather accompanied by temperature rise in the range of 7 to 10° Fahrenheit by mid-century.¹¹⁰

These changes are, in turn, having enormous impacts on the Sahel's livestock herders (pastoralists) and farmers who rely on crops to feed their animals (agro-pastoralists), given their dependence on rainfall for their livelihoods. This is especially the case for agro-pastoralists, for whom proper forecasting of the timing, location, and quantity of precipitation is crucial for planting. Pastoralist and agro-pastoralist communities in Burkina

103. *Id.*

104. For a more thorough analysis of current governance and security challenges facing the Sahel, see U.N. Sec. Council, *Report of the Secretary-General on the Situation in the Sahel Region*, ¶ 6, U.N. Doc. S/2013/354 (Jun. 14, 2013), available at http://www.un.org/en/sc/ctc/docs/2013/2013-09-20_SG_Report_Sahel_EN.pdf.

105. MOUSSA NA ABOU, CLIMATE CHANGE ADAPTATION AND FOOD INSECURITY IN MARADI DISTRICT—NIGER 3, 7 (2010), available at http://www.africa-adapt.net/media/resources/784/ICID%20Paper_MOUSSA%20NA%20ABOU%20Mamouda.pdf; Sharon E. Nicholson, *The West African Sahel: A Review of Recent Studies on the Rainfall Regime and Its Interannual Variability*, INT'L SCHOLARLY RES. NOTICES METEOROLOGY, 1, 1–2 (2013), available at <http://www.hindawi.com/journals/isrn/2013/453521/> (discussing the history of drought in the Sahel region and a change in the region's storm systems).

106. BENOÎT SARR, *Present and Future Climate Change in the Semi-Arid Region of West Africa: a Crucial Input for Practical Adaptation in Agriculture*, ATMOSPHERIC SCI. LETTERS 108 (2012), available at http://www.agrhymet.ne/portailCC/images/pdf/asl_368_Rev_EV.pdf.

107. ABOU, *supra* note 105; Nicholson, *supra* note 105.

108. MALCOM POTTS ET AL., CRISIS IN THE SAHEL—POSSIBLE SOLUTIONS AND THE CONSEQUENCES OF INACTION 1, 14 (2013), available at http://bixby.berkeley.edu/wp-content/uploads/2013/04/potts_2013_oasis_crisis_in_the_sahel.pdf.

109. IDMC, *supra* note 7.

110. POTTS ET AL., *supra* note 108, at 9. Another helpful report about the information in this paragraph is U.N. ENV'T PROGRAMME, CLIMATE CHANGE AND VARIABILITY IN THE SAHEL REGION: IMPACTS AND ADAPTATION STRATEGIES IN THE AGRICULTURAL SECTOR (2006), available at <http://www.unep.org/Themes/Freshwater/Documents/pdf/ClimateChangeSahelCombine.pdf>.

Faso and Niger reported being highly aware of abnormal and harmful changes in temperatures and rainfall patterns that were directly undermining their ability to feed their families.¹¹¹

In 2012, poor rains combined with high food prices across the Sahel region resulted in a food crisis that left 18 million people without sufficient food and put one million children at risk of starvation.¹¹² The crisis followed on droughts in 2005 and 2009.¹¹³ The recurrent nature of these shocks suggest that the poorest households are unlikely to be able to recover in the intervening time before the next crisis hits, rendering them more and more vulnerable and less prepared to withstand the next shock.

A recent food security trend analysis conducted by the UN World Food Programme in Niger found that two years after the 2009 crop failure, poor households in Niger had not recovered, despite above average crop yields in 2010. Worse yet, in roughly a third of districts, resiliency levels (measured in terms of the extent to which households resorted to negative coping strategies like eating less, borrowing, and selling assets) were even lower in 2010 than in 2009.¹¹⁴ In short, evidence suggests that it takes most poor households more than a year to recover from a drought or other crisis, and a single crisis can continue to have negative impacts beyond one growing season.

All this leads to the question of the extent to which these changes are resulting in increased levels of migration, new types of migration, or forced migration. Interviews with affected communities in Burkina Faso and Niger in 2013 found evidence that increased climate variability—combined with structural factors such as smaller plot sizes, consistently high food prices, and population growth—meant that a significant number of poor households felt they had no other choice but to leave their villages in search of other forms of income.¹¹⁵ For example, in food-insecure villages in northern and central Burkina Faso, many people now seek work at artisanal

111. *Sahel Report*, *supra* note 58.

112. OXFAM, *supra* note 18.

113. *See generally Niger Food Crisis Timeline*, BBC NEWS (July 20, 2005, 12:26 PM), <http://news.bbc.co.uk/2/hi/africa/4699643.stm> (discussing the timeline of drought in Niger, a country in the Sahel); *Niger: On the Front Lines of the War Against Hunger*, OXFAM (July 2010), http://www.oxfam.org/en/emergencies/west-africa-food-crisis/niger-front-lines-war-against-hunger?utm_source=oxf.am&utm_medium=orh&utm_content=redirect (discussing the drought in Niger in 2009, a country in the Sahel).

114. World Food Programme, *Measuring Household Resilience to Food Insecurity in a Shock-Prone Environment: A trend analysis in Niger, 2006–2011* (2011) (draft) (on file with author) [hereinafter WFP].

115. *Sahel Report*, *supra* note 58.

gold mines.¹¹⁶ Conditions at many gold mining sites are extremely dangerous and child labor is widespread with children as young as 12 working at local mining sites.¹¹⁷

In these instances, family members cannot afford to migrate internationally to countries that might offer them opportunities like new skills or higher wages.¹¹⁸ Rather, as a last resort, they go to urban centers to engage in petty trade, or in the worse cases, to beg. This distress migration is especially widespread during crisis years. One non-government organization in Niger estimated that during the 2005 food crisis, 80 to 90 percent of people in some hard-hit areas were forced to leave their villages to survive.¹¹⁹ But exactly how many are leaving and for how long is not entirely clear.

2. Need for Improved Monitoring and Understanding

Two important observations can be made from what is occurring in the Sahel. First, the extent of migration and displacement in the context of slower-onset climate-related changes is much harder to measure and less understood. At present, there are no global estimates for the number of people displaced by slower-onset disasters like droughts or food crises that may evolve over several years because there are no widely accepted methodologies for doing so.

The annual estimates of numbers of people displaced by natural disasters compiled by IDMC do not include individuals displaced by slower-onset disasters like droughts or more gradual changes linked to global warming.¹²⁰ In addition, there are insufficient analyses of how

116. Larry C. Price, *The Cost of Gold in Burkina Faso: Holes*, PULITZER CTR. (Aug. 5, 2013), <http://pulitzercenter.org/reporting/burkina-faso-mining-gold-child-labor-holes> (interviewing children who dream of making “enough money so that [they] do not have to do this anymore”).

117. *Burkina Faso: Gold Rush Hits Education*, INTEGRATED REG’L INFO. NETWORKS (Aug. 30, 2012), <http://www.irinnews.org/printreport.aspx?reportid=96210>; see also *PBS NewsHour: Children in Burkina Faso Take on Dirty, Dangerous Work of Digging Up Gold* (PBS television broadcast July 10, 2013), available at http://www.pbs.org/newshour/bb/world-july-dec13-burkinafaso_07-10/.

118. JULIUS HOLT, FOOD ECON. GRP., SYNTHESIS OF THE RESULTS OF THE FIELD SURVEYS COMPLETED DURING HOUSEHOLD ECONOMY ANALYSIS TRAINING PROGRAMME FOR THE SAHEL 16 (2011), available at http://www.hea-sahel.org/documents/Autres-publications/FEG-synthesis-report-HEA-studies-in-the-sahel_7.pdf. For more information, see U.N. ENV’T PROGRAMME, CLIMATE CHANGE, CONFLICT AND MIGRATION IN THE SAHEL 8, 57 (2011), available at http://www.unep.org/pdf/UNEP_Sahel_EN.pdf; *Sahel Report*, *supra* note 58.

119. Alice Thomas, *Sahel Villagers Fleeing Climate Change Must Not Be Ignored*, GUARDIAN (Aug. 8, 2013, 7:38 PM), <http://www.theguardian.com/global-development/poverty-matters/2013/aug/02/sahel-climate-change-displacement-migration>; *Sahel Report*, *supra* note 58.

120. IDMC, *supra* note 7, at 10.

closely migration trends correlate with climate-related shocks, and whether people migrate to urban areas, gold mines, or other agricultural areas.

Another crucial data gap is the positive or negative impacts on those migrating and those left behind, and, significantly, the new protection risks such movement creates. In regions like the Sahel, seasonal labor migration both internally and to other more prosperous coastal countries has long been a way for poor families to supplement income. There is an assumption that certain types of labor migration can improve resilience by providing alternative sources of household income during and in the aftermath of droughts, food crises, and other shocks. Less understood is how high levels of out-migration—both internally and internationally—during times of crises can erode resilience and undermine both food security and the social and economic wellbeing of vulnerable households.

Data on household coping strategies in the Sahel region suggest that some forms of migration can have negative impacts on household resilience. For example, according to a recent analysis by the UN WFP of the time it took poor households in Niger to recover from the 2009 drought, the least resilient households resorted to the highest levels of migration—as well as asset and livestock sales—as a way to cope during and following the drought.¹²¹ Moreover, it took these households at least three years to recover from the drought despite a good harvest in 2010.¹²² Households resorting to lower levels of migration recovered more quickly. Other multi-country studies also indicate that migration in response to increasing rainfall variability may not always prove an effective adaption strategy.¹²³ Thus, key to building resilience will be an understanding of when migration helps build household resilience as well as when and under what circumstances it can undermine it.

People who are forced to flee their homes for any reason inevitably face risks, including exploitation and extortion, insufficient access to employment and public services, gender-based violence, and damage to family and community ties. Thus, it is crucial for governments, donors who

121. WFP, *supra* note 114.

122. *Id.*

123. See WARNER ET AL, WHERE THE RAIN FALLS: CLIMATE CHANGE, FOOD AND LIVELIHOOD SECURITY, AND MIGRATION 17 (2012), available at http://i.unu.edu/media/unu.edu/publication/31459/WTRF_Global_Policy_Report_smaller.pdf (“Households with more diverse assets and access to a variety of adaptation, livelihood diversification, or risk management options—through social networks, community or government support programmes, and education—can use migration in ways that enhance resilience. Those households which have the least access to such options—few or no livelihood diversification opportunities, no land, little education—use (usually) internal migration during the hunger season as a survival strategy in an overall setting of erosive coping measures which leave or trap such households at the margins of decent existence.”)

support them, and researchers to increase their understanding of how migration in the context of slow-onset disasters can either help or hurt those affected. Major donors such as the United States and the European Union, along with regional governments and aid agencies, must do more to understand and respond to climate displacement, whether it occurs in the Sahel or other parts of the globe.

IV. RECOMMENDATIONS

The fact that natural disasters are affecting more and more people, as well as the likelihood that climate change will cause an increase in extreme weather events, points to a need for national governments to reconsider their positive obligations to protect people displaced by the events. States should anticipate and take measures to prevent or mitigate conditions likely to bring about displacement and threaten human rights.

Of utmost importance is the need for states to improve their laws and institutions to enhance disaster management capacity. It is critical that governments ensure that disaster management systems are adequately funded and fully implemented at the local and community level. New procedures and mechanisms must also be put in place to strengthen accountability and oversight, allow greater input by affected communities, and improve access to complaint mechanisms. Central to the protection of people displaced by natural disasters is the need for states to develop and implement rights-based disaster management frameworks that treat those affected or displaced by natural disasters as rights-holders, not as beneficiaries of disaster relief.

Governments must improve procedures for protecting displaced populations both during their displacement and upon return resettlement or relocation. Experience shows that local government-run evacuation centers are often poorly managed and fail to effectively protect IDPs. This is especially true where schools are used as evacuation centers—as eviction is necessary in order to allow schools to reopen.

In countries affected both by conflict and natural disasters, a recommended approach to disaster management is to place responsibility for responding to both man-made and natural disasters within the same ministry or institution—as is the case in Pakistan—thereby building capacity, promoting accountability, and maximizing allocation of resources.

National governments, international agencies, and donors must also do far more to ensure that early recovery programs are funded and implemented as early on in the response as possible. Especially in the case of sudden-onset disasters like floods and storms in which populations tend

to return as soon as possible, the humanitarian response must focus more on programs that restore livelihoods and increase resilience.

Finally, a better understanding is needed as to how climate-related changes act in concert with other factors as a driver of mobility. Information on mobility patterns is also essential for local governments that will need to plan for provision of local services.¹²⁴ Promoting migration as a way for vulnerable communities to adapt to climate change will be successful only if accompanied by an improved understanding of the links between migration and vulnerability. In any context, migration must be promoted as a way to increase the overall resiliency of those affected—not as just a coping strategy.

124. See generally Tacoli, *supra* note 8 (discussing what policymakers should account for in relation to migration and climate change).