

SINKING ISLANDS? FORMULATING A REALISTIC SOLUTION TO CLIMATE CHANGE DISPLACEMENT

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Forced migration from climate change has been a hot topic in academia and the media for almost two decades, partly because it puts a human face on the otherwise science heavy issue of climate change. Academics have put forward a number of international solutions for resettling displaced persons and financially supporting them and their host countries. However, these proposals often fail to account for the nature and scope of likely migration and the political realities of the international community. This Note adds to the literature by developing a framework for assessing the responsiveness and viability of any proposed solution to gaps in protection for climate displaced persons. It develops five principles based on a realistic examination of the nature and scope of climate displacement and the political realities of the climate regime, and it then evaluates leading academic proposals against those principles to discover which elements are the most efficient and realistic. Finally, this Note concludes by suggesting one possible nontreaty proposal that meets all five principles and fills existing gaps in protection.

INTRODUCTION	1173
I. THE REALITIES OF CLIMATE DISPLACEMENT	1175
A. <i>The Science: What Changes Will Prompt Migration?</i>	1175
B. <i>Climate Migration: Who Will Be Displaced?</i>	1177
1. <i>Migration Will Be Primarily Internal Rather than Transnational</i>	1178
2. <i>Movement Will Be Gradual, Not Sudden</i>	1179
3. <i>Movement Will Be Caused by a Multitude of Factors as Opposed to Solely by Climate Change</i>	1180
II. THE PROPOSALS	1181
A. <i>Rights Gap Proposals</i>	1182
B. <i>Funding Gaps</i>	1184

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C. *Regional and Bilateral Proposals* 1185

III. GUIDING PRINCIPLES FOR PROPOSALS TO ADDRESS CLIMATE DISPLACEMENT 1186

A. *Guiding Principle 1: In Situ Adaptation Strategies Should Be Incentivized* 1187

B. *Guiding Principle 2: Realistic, Operational Definition of Displaced Persons Covered by Proposed Solution* 1190

C. *Guiding Principle 3: Fair and Clearly Defined Allocation of Responsibility* 1193

D. *Guiding Principle 4: Effective Institutional Framework* 1198

E. *Guiding Principle 5: Political Feasibility* 1201

IV. SO WHAT WORKS? 1204

CONCLUSION 1208

TABLE 1: ELEMENTS OF POLICY PROPOSALS AS COMPARED TO THE PRINCIPLES 1209

“Climate change portends to generate millions of climate refugees, imperil human security and threaten regional and international stability.”¹

“[I]f predictions of global warming are borne out, . . . sea level rise and flooding of many coastal communities, plus . . . droughts . . . could eventually cause as many as 200 million people to be put at risk of displacement.”²

INTRODUCTION

The media has sensationalized the plight of the Pacific Islands, describing them as “drowning” and “sinking,” and pairing panicked commentary with misleading pictures of seasonal flooding.³ Displacement from climate change is a compelling story, in part because it provides a human face for otherwise distant effects and lends urgency

¹ Claudio Guler, *The Climate Refugee Challenge*, ISN SECURITY WATCH (Apr. 14, 2009), <http://www.isn.ethz.ch/isn/Security-Watch/Articles/Detail/?lng=en&id=98861> (last visited Aug. 8, 2012).

² NORMAN MYERS & JENNIFER KENT, ENVIRONMENTAL EXODUS: AN EMERGENT CRISIS IN THE GLOBAL ARENA I (1995).

³ Colette Mortreux & Jon Barnett, *Climate Change, Migration and Adaptation in Funafati, Tuvalu*, 19 GLOBAL ENVTL. CHANGE 105, 106 (2009) (noting “sensationalist accounts” of the situation in the Pacific Islands). For deceptive images, see, for example, *An Inconvenient Truth* (Lawrence Bender Productions 2006), which plays commentary about flight to Australia and New Zealand over images of seasonal flooding on the Pacific. See also Mortreux & Barnett, *supra*, at 106 (discussing the imagery in the film).

to efforts to address climate change.⁴ Academics similarly have been drawn to the issue of forced migration from climate change, although they are generally more attuned to the nuances of possible migration. Under current international law, there is no single, targeted mechanism for potential climate-induced migrants to gain either resettlement rights or financial and material assistance. Thus, a number of academics have proposed international treaties and solutions to address these gaps in international law and policy. The discourse tends to presume an identifiable group of people will be displaced by climate change and that a targeted international response is both necessary and appropriate to address this crisis. However, this creates an over-simplified perception of likely migration and, therefore, skewed responses. This Note examines the nature and scope of likely displacement and develops a framework for evaluating proposals' responsiveness to the actual problem.

A hard look at the migration decisions that climate change is likely to cause reveals that the reality of climate change displacement is nuanced. Migration will be prompted by multiple factors, such as capacity for adaptation⁵ and economic opportunity, rather than solely climate change impacts. Furthermore, most migration will occur within national borders, suggesting that international agreements will have limited effect. As a result of the mixed motivations for migration and internal migration, it will be (or already is) extremely difficult to identify, and thus, to assist climate migrants. Existing proposals to address climate displacement also tend to ignore the political realities of the international climate change regime. In order to craft a viable solution and protect displaced persons, it is imperative that proposals consider both the political climate and the realities of likely relocation.

This Note adds to the current literature by developing five guiding principles based on a realistic evaluation of climate displacement. Any effective proposal to address climate change displacement should follow these principles, which focus on addressing the scope and nature of likely migration, linkages with existing international

⁴ Jon Shenk recently made a documentary focusing on (now former) President Mohamed Nasheed of the Maldives in order "to give a human face to climate change." Vikas Bajaj, *Climate Prophet in Hot Water*, N.Y. TIMES, Apr. 1, 2012, at AR12; see also Neil MacFarquhar, *Islanders Fearing Climate Change Press a U.N. Debate*, N.Y. TIMES, May 29, 2009, at A4 (describing issues and Pacific Islanders' attitudes toward migration resulting from sea level rise); Nicholas Schmidle, *Wanted: A New Home for My Country*, N.Y. TIMES, May 10, 2009, (Magazine) at 38 (discussing the efforts of the former President of the Maldives to find a new country for the Maldives in the event of sea level rise).

⁵ Adaptive capacity can be defined as the ability to change one's livelihood or situation to survive in a changed environment.

regimes, and political feasibility. Part I delves into who climate change will affect and the scope and nature of likely displacement. Part II explores commonly cited and representative academic proposals to address forced migration. In light of a realistic assessment of the nature and scope of likely displacement and the current political landscape, Part III develops five guiding principles necessary for any viable proposal to protect potential migrants, and examines the proposals presented in Part II against that framework. Finally, Part IV suggests that one viable way to protect displaced persons is to recognize migration as an adaptation strategy and utilize resources already allocated for adaptation under the United Nations Framework Convention for Climate Change (UNFCCC).

I

THE REALITIES OF CLIMATE DISPLACEMENT

In order to craft any solution to climate displacement, it is necessary to understand the scope of the problem. Section A provides a brief background on the types of changes expected to give rise to migration, utilizing the 2007 Fourth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC).⁶ Building on this report, Section B establishes a picture of the most likely climate migrant by examining factors that contribute to migration and likely migration patterns.

A. *The Science: What Changes Will Prompt Migration?*

The IPCC Report notes that most of the observed increase in global average temperatures since the mid-twentieth century is over ninety percent a result of increased anthropogenic greenhouse gas (GHG) concentrations.⁷ Even if GHG emissions had stabilized in the last decade, the annual global temperature would still be expected to increase by about .3°C per decade from 2007 through 2027.⁸ GHG emissions have not stabilized, however, and thus further warming and resulting changes should be expected.

⁶ The Intergovernmental Panel on Climate Change (IPCC), established by the United Nations Environment Programme and the World Meteorological Organization, is a scientific body dedicated to “provid[ing] the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts.” *Organization*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, <http://www.ipcc.ch/organization/organization.shtml#.Tzg5ZUxSSqY> (last visited Aug. 8, 2012).

⁷ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SYNTHESIS REPORT 39 (2007) [hereinafter IPCC REPORT].

⁸ *Id.* at 45.

The IPCC Report outlines predicted changes on Earth by region based on a scale of certainty, ranging from virtually certain to exceptionally unlikely.⁹ Firstly, snow cover is projected to contract, exacerbating stresses on water resources given that glaciers are a major freshwater source for many regions.¹⁰ This problem is already evident from the shrinking of sea ice at the poles.¹¹ Although the thawing of the permafrost may attract migrants to countries such as Russia and Canada, where arable land will increase, it has already begun to impede the traditional way of life of indigenous Arctic peoples.¹²

Increased droughts and desertification are expected in subtropical land regions due to a combination of likely decreases in precipitation and very likely increases in heat waves.¹³ Crop productivity in these areas, particularly in Africa and Latin America, will decrease, raising the risk of famine and related migration.¹⁴ One study establishes a link between climate-driven crop yields in Mexico and the rate of emigration to the United States and predicts that between two and ten percent of Mexico's current population will emigrate in the future as a result of future predicted changes.¹⁵

Current models predict that tropical hurricanes and typhoons will become more intense, with increased precipitation and higher wind speeds.¹⁶ Although heavy storms or natural disasters do not always induce permanent migration, one study of Hurricanes Mitch and Katrina showed that poorer families were more likely to permanently migrate after sudden onset events.¹⁷ Considering that many people

⁹ The IPCC Report assesses uncertainty in specified outcomes across the following likelihood ranges: virtually certain (>99%), extremely likely (>95%), very likely (>90%), likely (>66%), more likely than not (>50%), about as likely as not (33%–66%), unlikely (33%), very unlikely (<10%), extremely unlikely (<5%), and exceptionally unlikely (<1%). *Id.* at 27.

¹⁰ *Id.* at 46, 49.

¹¹ See John Schwartz, *Courts Emerging as Battlefields for Fights over Climate Change*, N.Y. TIMES, Jan. 27, 2010, at A1 (noting that whereas the sea ice formerly accumulated as early as October, it still had not developed as late as January in 2010).

¹² Kivalina, a native Alaskan village located on a barrier reef, has been left unprotected from sea surges after the thawing of sea ice and is now seeking to relocate. *Id.*

¹³ See IPCC REPORT, *supra* note 7, at 46 (noting the “very likely” increase in hot extremes and heat waves and that “decreases are likely in most subtropical land regions” (emphasis removed)).

¹⁴ *Id.* at 48, 50.

¹⁵ Shuaizhang Feng, Alan B. Krueger & Michael Oppenheimer, *Linkages Among Climate Change, Crop Yields and Mexico-U.S. Cross-Border Migration*, 107 PROC. NAT'L ACAD. SCI. 14,257, 14,257 (2010).

¹⁶ IPCC REPORT, *supra* note 7, at 46.

¹⁷ See Robert A. McLeman & Lori M. Hunter, *Migration in the Context of Vulnerability and Adaptation to Climate Change: Insights from the Analogues*, 1 WILEY INTERDISCIPLINARY REVIEWS: CLIMATE CHANGE 450 (2010) (manuscript at 2-4), available at <http://>

living in low-level coastal systems are poor,¹⁸ extreme weather events could create a flow of permanent migrants if socioeconomic circumstances and adaptive capability remain the same.

Sea level rise has received the most attention as an impetus for migration. Although projections regarding the upper bounds or likelihood of sea level rise are uncertain, it is undisputed that the sea level will rise some amount.¹⁹ This will increase annual flooding in low-lying coastal areas, thereby affecting vulnerable local populations and decreasing annual crop yield in those areas. Together with increased storm events, sea level rise will reduce land mass through erosion. Finally, it will cause salination of freshwater systems. Due to sea level rise, the IPCC Report predicts that small islands as well as the Asian megadeltas are “likely to be especially affected by climate change.”²⁰

Although these predicted effects can all lead to migration, the impacts themselves (with the exception of possible loss of land mass) are not the sole impetus for migration. Other important contributing factors are vulnerability²¹ and lack of adaptive capacity.

B. *Climate Migration: Who Will Be Displaced?*

Since Professor Norman Myers estimated that the number of people displaced by climate change will be around 200 million by 2050,²² the issue of mass migration caused by climate change has received a lot of attention. However, this estimate is uncertain and

www.ncbi.nlm.nih.gov/pmc/articles/PMC3183747/pdf/nihms317400.pdf (last visited Aug. 8, 2012) (noting that other factors, including vulnerability and demographics, provided “push” factors in migration following sudden onset weather events).

¹⁸ Gordon McGranahan, Deborah Balk & Bridget Anderson, *The Rising Tide: Assessing the Risks of Climate Change and Human Settlements in Low Elevation Coastal Zones*, 19 ENV'T & URBANIZATION 17, 25 tbl.2 (2007) (noting that of the 618 million people living in these areas, 474 million are from low or lower-middle income as opposed to 144 million from upper-middle and high income groups).

¹⁹ See IPCC REPORT, *supra* note 7, at 45 (“Because understanding of some important effects driving sea level rise is too limited, this report does not assess the likelihood nor provide a best estimate or an upper bound for sea level rise.”).

²⁰ *Id.* at 72.

²¹ “Vulnerability,” in terms of this Note, can be defined as the inability to withstand the impacts of climate change due to the location of residence or livelihood.

²² See NORMAN MYERS, ORG. FOR SEC. & COOPERATION IN EUR., 13TH ECONOMIC FORUM, PRAGUE, ENVIRONMENTAL REFUGEES: AN EMERGENT SECURITY ISSUE 1 (2005), available at <http://www.osce.org/eea/14851> (last visited Aug. 8, 2012) (“When global warming takes hold, there could be as many as 200 million people overtaken by disruptions of monsoon systems . . . , by droughts . . . , and by sea-level rise and coastal flooding.”); U.N. DEV. PROGRAMME, HUMAN DEVELOPMENT REPORT, CLIMATE CHANGE AND FORCED MIGRATION: OBSERVATIONS, PROJECTIONS AND IMPLICATIONS 2007/17, at 5 (2007) (Oli Brown) [hereinafter DEVELOPMENT REPORT] (noting Myers’s estimate of “200 million climate migrants by 2050”).

required admittedly “heroic extrapolations.”²³ Although the *Stern Review of the Economics of Climate Change* acknowledged that “[t]his estimate has not been rigorously tested,” it also noted that the Myers estimate was “in line with evidence presented”²⁴ Much of the literature uses Myers’s estimate as support for the need for a solution.²⁵ Even if Myers’s estimate is correct, the complicated nature of migration decisions and movements will obscure who belongs to this group and, more importantly, who needs protection. Although there are political considerations behind simplifying the reasons for migration, doing so impedes the identification of an appropriate tool to tackle the issue. This Note seeks to clarify specific attributes of migration motivated by climate change in order to better understand how to address it.

1. *Migration Will Be Primarily Internal Rather than Transnational*

Although most discussions of climate change displacement focus almost exclusively on international migration,²⁶ empirical studies show that such migration will be primarily internal, meaning that it will occur within national boundaries. Bangladesh is often cited as a source of a large number of climate refugees because it has one of the populations most vulnerable to rising sea levels and increasingly frequent extreme weather events.²⁷ Yet, studies in Bangladesh have found that both rapid migration from sudden natural disasters and more gradual migration have been primarily internal.²⁸ These studies

²³ See DEVELOPMENT REPORT, *supra* note 22, at 6 (quoting personal communication with Professor Myers).

²⁴ SIR NICHOLAS STERN ET AL., *STERN REVIEW: THE ECONOMICS OF CLIMATE CHANGE* 77 (2006).

²⁵ See, e.g., Frank Biermann & Ingrid Boas, *Preparing for a Warmer World: Towards a Global Governance System To Protect Climate Refugees*, 10 GLOBAL ENVTL. POL. 60, 68 (2010) (discussing Myers’s estimates and finding that “most estimates currently appear to expect an additional number of climate refugees of about 200–250 million by 2050”); Bonnie Docherty & Tyler Giannini, *Confronting a Rising Tide: A Proposal for a Convention on Climate Change Refugees*, 33 HARV. ENVTL. L. REV. 349, 353 (2009) (relying on estimates ranging from 50 million to 200 million in 2100, using Myers’s estimates as the upper range); Jessica B. Cooper, Note, *Environmental Refugees: Meeting the Requirements of the Refugee Definition*, 6 N.Y.U. ENVTL. L.J. 480, 485 (1997–1998) (relying on Myers’s then-current estimate of 100 million by the year 2050, which was later revised to 200 million).

²⁶ See, e.g., Docherty & Giannini, *supra* note 25, at 354–57 (noting that “[t]he displaced will include both those who relocate within a country and those who leave their home state,” but focusing on transboundary migration that “may overwhelm not only receiving states but also the international legal system”).

²⁷ Jane McAdam, *Swimming Against the Tide: Why a Climate Change Displacement Treaty Is Not the Answer*, 23 INT’L J. REFUGEE L. 2, 11 (2011).

²⁸ For fieldwork and empirical evidence regarding sudden migration from natural disasters, see Jane McAdam & Ben Saul, *Displacement with Dignity: International Law and*

suggest that because migration tends to follow pre-existing routes, which sustain communities and reduces adaptation concerns,²⁹ future Bangladeshi migrants will likely move internally rather than across international borders.³⁰

The prevalence of internal migration is associated with gradual onset climate change as well as sudden events. Even within the small island states, the first migratory move has been internally to higher elevation islands within national boundaries.³¹ For example, the Native Alaskan village, Kivalina, is seeking to relocate very close to its original site.³² During dry spells and drought conditions in the West African Sahel, there has been no significant increase in the use of traditional migration routes to Europe.³³ This suggests that fears of a vast wave of transnational migration are exaggerated.

Part of the reason that movement is primarily internal is financial capacity. Displacement is a function of a population's vulnerability to the impacts of climate change, and the most vulnerable are often the poorest.³⁴ Because these people will often be unable to undertake international migration, concerns about a deluge of international refugees may be overstated.

2. *Movement Will Be Gradual, Not Sudden*

Much of the environmental degradation caused by climate change will happen slowly and, thus, permanent migration will happen gradually. The study of migration after Hurricanes Mitch and Katrina discussed earlier demonstrated that although some people did

Policy Responses to Climate Change Migration and Security in Bangladesh (Sydney Law Sch., Legal Studies Research Paper No. 10/113, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1701486 (last visited Aug. 8, 2012).

²⁹ See DEVELOPMENT REPORT, *supra* note 22, at 15 (“Even in the most extreme, unanticipated natural disasters—migrants, if they have any choice, tend to travel along pre-existing paths . . .”).

³⁰ Cf. Lisa Friedman, *How Will Climate Refugees Impact National Security?*, SCIENTIFIC AMERICAN (Mar. 23, 2009), <http://www.scientificamerican.com/article.cfm?id=climate-refugees-national-security> (describing international climate migration from Bangladesh as “the most feared global consequence of climate change” in terms of security interests).

³¹ See Maryanne Loughry & Jane McAdam, *Kiribati—Relocation and Adaptation*, 31 FORCED MIGRATION REV. 51, 52 (2008) (noting a movement of the population of Kiribati to the atoll of South Tarawa).

³² Schwartz, *supra* note 11.

³³ See McLeman & Hunter, *supra* note 17, at 3 (“[D]rought does not necessarily lead to sudden increases in levels of migration along these established transnational migrant networks.”). As discussed *supra* note 29, migration tends to follow pre-existing migratory paths. Therefore, the absence of increased traffic along traditional migratory routes from the Sahel to Europe suggests external migration is not increasing during these periods of drought.

³⁴ See *id.* at 9 (“[E]xisting research strongly suggests that environmentally influenced migration is closely linked with adaptive capacity.”).

permanently migrate, they tended to be extremely poor or part of a marginalized group.³⁵ Sergio O. Saldaña-Zorrilla and Krister Sandberg's study of the role of natural disasters in emigration from vulnerable regions of Mexico confirmed that migration decisions after disasters are heavily influenced by income and disaster frequency.³⁶ Because permanent migration following a natural disaster is a function of other factors, it is unlikely that one big storm would create millions of refugees that overwhelm receiving countries' capacity.

The Saldaña-Zorrilla and Sandberg study also showed that people migrate as their expectations of future income are altered.³⁷ For migration spurred by slower onset changes, this will occur more gradually as extreme events become more frequent or resources become constrained. Therefore, migration decisions will be made depending on individualized ability to recover from extreme weather events, prediction of future income, and access to resources.

3. *Movement Will Be Caused by a Multitude of Factors as Opposed to Solely by Climate Change*

A number of factors, particularly economic factors, contribute to migration decisions. The Pacific Islands, for example, have an existing culture of migration, with more than a third of Tuvaluans in the 1970s living overseas and sending remittances home.³⁸ Mortreux and Barnett's study in Tuvalu demonstrated that a third of the people interviewed were seeking to migrate, primarily to seek better employment and "more opportunities."³⁹ Although resource shortages and predictions of lost landmass affect people's expectations of future income, thus influencing migration decisions, this will occur along a vector. While for some the decision to migrate will be based more on the "push" factors of climate change, for others it will be based more on the "pull" of economic opportunities or a different lifestyle. Only rarely will climate change provide the sole impetus for moving.

Since climate displacement will involve primarily internal movement, it will strain resources in other areas of the home country,

³⁵ See *id.* at 4 ("[P]articuliar socioeconomic and demographic groups that were economically disadvantaged or marginalized were more likely to permanently relocate elsewhere.").

³⁶ Sergio O. Saldaña-Zorrilla & Krister Sandberg, *Impact of Climate-Related Disasters on Human Migration in Mexico: A Spatial Model*, 96 CLIMATIC CHANGE 97, 101 (2009) (noting that increased frequency of natural disasters adversely affects income, which can further predict increased out-migration).

³⁷ *Id.* at 98.

³⁸ See Mortreux & Barnett, *supra* note 3, at 107 (noting both the importance of remittances and the already high level of migration by young people in the Pacific Islands).

³⁹ *Id.* at 108 (internal quotation marks omitted).

creating a push factor for those with the resources or education to leave.⁴⁰ In Bangladesh, those who emigrate are usually wealthier professionals or those with the economic resources to leave and send money back home.⁴¹ Thus, climate change can indirectly cause international migration.

A subset of academic climate change literature focuses on the security issues and potential for violent conflict that can result from the scarcity of resources.⁴² People may flee certain areas in part due to these conflicts or resource shortages. This further complicates the identification of a “group” to target for assistance.

Ultimately, the hardest aspect of addressing displacement by climate change is the multi-causal nature of that migration. The factors affecting migration will most often be related to the resources of the migrants themselves. Although this Note is not the first to recognize the complicated picture of climate-induced migration, it seeks to use this complexity to inform the construction of an implementable solution. Part II explores a number of commonly cited proposals for addressing climate change displacement.

II

THE PROPOSALS

Given the attention paid to this topic in the media and its compelling, humanitarian nature, scholars have developed a number of proposals to fill the gaps in international law and policy regarding protections for persons displaced by climate change. Professor Katrina

⁴⁰ This has been shown to happen in past environmental disasters. For example, in the Dust Bowl Migration of the 1930s, those most likely to leave were those whose families or friends had already gone to California, providing social capital and access to networks, while those who stayed behind were more often poor and landless. McLeman & Hunter, *supra* note 17, at 4. See generally DONALD WORSTER, *DUST BOWL: THE SOUTHERN PLAINS IN THE 1930s* (2004) (describing the Dust Bowl Migration resulting from a four-year drought in the Southern Plains states of the United States).

⁴¹ See McAdam, *supra* note 27, at 12 (“Those who move in a *regular* or lawful manner across borders will tend to be wealthier professionals, or less skilled workers who are nonetheless financially able to migrate for work abroad.”).

⁴² See, e.g., JARED DIAMOND, *COLLAPSE: HOW SOCIETIES CHOOSE TO FAIL OR SUCCEED* (2005) (recounting histories of civilizations destroyed by environmental degradation); Jon Barnett & W. Neil Adger, *Climate Change, Human Security and Violent Conflict*, 26 *POL. GEOGRAPHY* 639 (2007) (arguing that both direct and indirect impacts of climate change on human security may heighten the risk of violent conflict); Hans G. Brauch, *Climate Change, Environmental Stress and Conflict*, in *CLIMATE CHANGE AND CONFLICT* 9, 19 (Ger. Fed. Ministry for the Env’t ed., 2002) (analyzing “the conflict dimension of societal and political implications of climate change”); Neville Brown, *Climate, Ecology and International Security*, 31 *SURVIVAL: GLOBAL POL. & STRATEGY* 519 (1989) (explaining that ecological instability across the planet poses a fundamental threat to the international world order).

M. Wyman identifies two primary legal and policy gaps that these proposals seek to fill: a rights gap and a funding gap.⁴³ The rights gap occurs because individual or group victims of climate change lack rights to resettle in other countries under existing immigration conventions. Without a right to migrate legally, victims can be denied legal immigration status and the protections that come with it. Therefore, a number of academic proposals address this by either creating new rights of resettlement for possible climate migrants or fitting them into existing immigration categories. The funding gap occurs because displaced persons and their home countries lack guaranteed financial and material assistance for resettlement. A number of proposals seek to fill the funding gap by creating a sharing or compensation mechanism to pay the resettlement, remediation costs, and sometimes adaptation costs of climate change migrants. Section A outlines proposals to fill the rights gap, while Section B outlines proposals to fill the funding gap. Since many of the proposals seek to address both gaps, there is some overlap between the two sections. Finally, Section C presents proposals to address the issue bilaterally or regionally, thus leaving the focus and scope of the solution to the negotiating parties.

A. *Rights Gap Proposals*

Sujatha Byravan and Sudhir Chella Rajan propose a new global convention to establish special migration status for climate exiles and migrants.⁴⁴ Protection under this proposal is limited to those “living on small islands and along coasts in low-lying countries whose habitats and means of livelihood have been destroyed by climate impacts.”⁴⁵ Under this proposal, people living in areas likely to become uninhabitable “would be provided the early option of migrating legally in numbers that are in some rough proportion to the host countries’ cumulative greenhouse gas emissions.”⁴⁶ Byravan and Rajan suggest granting the right to relocate first and subsequently negotiating an international treaty addressing the logistics of how these rights are exercised, how costs are distributed, and what institution should be used to coordinate the migration.⁴⁷ The allocation of costs and

⁴³ Katrina M. Wyman, *Responses to Climate Migration*, 37 HARV. ENVTL. L. REV. (forthcoming 2013).

⁴⁴ Sujatha Byravan & Sudhir Chella Rajan, *Providing New Homes for Climate Change Exiles*, 6 CLIMATE POL’Y 247, 249 (2006).

⁴⁵ *Id.* at 248.

⁴⁶ *Id.* at 249.

⁴⁷ Sujatha Byravan & Sudhir Chella Rajan, *The Ethical Implications of Sea-Level Rise Due to Climate Change*, 24 ETHICS & INT’L AFF. 239, 242 (2010).

resettlement would focus on historical greenhouse gas consumption, but also give responsibility to new major emitters, such as China and India, in proportion to their emissions.⁴⁸ Although Byravan and Rajan admit there could be some ambiguity about who would qualify for these rights, they also believe that it will be easy to identify individuals based on present habitation and the extent of vulnerability.⁴⁹

An alternative approach to filling the rights gap is Jessica Cooper's proposal to grant displaced persons "refugee" status under the Convention Relating to the Status of Refugees (Refugee Convention).⁵⁰ She adopts Norman Myers's broad definition of environmental refugees, as "persons who can no longer gain a secure livelihood in their traditional homelands because of what are primarily environmental factors of unusual scope."⁵¹ Cooper argues that either the definition of "refugee" should be expanded to explicitly include environmental refugees, or alternatively "refugee" should be read to include these people already. Under the Refugee Convention, those who qualify for refugee status are entitled to certain protections such as the right not be forcibly returned to their home country and the right to resettle in other countries.⁵² Therefore, Cooper's proposal would build on the existing institutions under the United Nations High Commissioner for Refugees (UNHCR) to provide these protections to those displaced by environmental degradation.

Bonnie Docherty and Tyler Giannini propose a new, comprehensive international treaty that would address both the rights and funding gaps.⁵³ To address the rights gap, Docherty and Giannini would grant protected status to those who must leave their home countries "as the result of a sudden or gradual environmental disruption that is consistent with climate change and to which humans more likely than not contributed."⁵⁴ Under this proposal, this protected status would entitle individuals to human rights equivalent to other aliens in the host country or that country's nationals.⁵⁵

In his proposal for a new umbrella organization, the Climate Change Displacement Organization (CCDO), David Hodgkinson

⁴⁸ *Id.* at 253.

⁴⁹ *Id.* at 256.

⁵⁰ Cooper, *supra* note 25, at 486. The Convention Relating to the Status of Refugees entered into force on April 22, 1954. Convention Relating to the Status of Refugees, July 28, 1951, 19 U.S.T. 6223, 189 U.N.T.S. 137 [hereinafter Refugee Convention].

⁵¹ Cooper, *supra* note 25, at 484 n.19.

⁵² Refugee Convention, *supra* note 50, art. 33(1).

⁵³ Docherty & Giannini, *supra* note 25, at 392.

⁵⁴ *Id.* at 361.

⁵⁵ *Id.* at 379.

proposes similar protections for climate change displaced persons.⁵⁶ However, only those displaced as a result of an environmental disruption that was “very likely” caused by human contribution would qualify for protected status.⁵⁷ In contrast to Docherty and Giannini, under Hodgkinson’s convention, protected status designations would be granted to entire populations living in endangered areas, rather than to individuals.⁵⁸ Individuals in these groups would receive the same rights afforded to traditional refugees.⁵⁹ Regional and bilateral agreements would be negotiated through the CCDO to grant rights to those left stateless by climate change impacts based on the principles of proximity, self-determination, and safe-guarding of intangible culture.⁶⁰ Presumably this suggests negotiating land transfers or creation of sovereign areas in other states.

B. Funding Gaps

Most proposals also include a mechanism for providing financial assistance to those displaced by climate change. Frank Biermann and Ingrid Boas propose the creation of a Climate Refugee Protection and Resettlement Fund as a new protocol to the UNFCCC.⁶¹ The proposal is vague on the source of funds and the allocation of responsibilities, but it mentions sources such as an international air travel tax and grants based on the principle of common but differentiated responsibilities.⁶² The fund would pay the full incremental costs for resettlement of migrants indisputably displaced by sea level rise, extreme weather events, and water scarcity, and part of the costs

⁵⁶ David Hodgkinson & Lucy Young, ‘*In the Face of Looming Catastrophe*’: *A Convention for Climate Change Displaced Persons*, CCDPCONVENTION.COM, 11 (Jan. 20, 2012), [http://www.ccdpconvention.com/documents/A%20Convention%20for%20Climate%20Change%20Displaced%20Persons%20\(January%202012\).pdf](http://www.ccdpconvention.com/documents/A%20Convention%20for%20Climate%20Change%20Displaced%20Persons%20(January%202012).pdf). This is the latest paper on Hodgkinson’s proposed convention. A number of previous chapters, some of which are published, are available at his website: <http://www.ccdpconvention.com>.

⁵⁷ *Id.*

⁵⁸ *See id.* (proposing to define climate change displaced persons as “groups of people whose habitual homes have or will become temporarily or permanently uninhabitable as a consequence of a climate change event”).

⁵⁹ *Id.* at 17.

⁶⁰ *Id.* at 18.

⁶¹ Biermann & Boas, *supra* note 25, at 81.

⁶² Principle 7 of the Rio Declaration establishes the principle of common but differentiated responsibilities: “States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear . . . in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.” United Nations Conference on Environment and Development, Rio de Janeiro, Braz., June 3-14, 1992, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev.1 (June 13, 1992).

where climate change is a contributing cause of displacement.⁶³ Biermann and Boas would provide protection for persons displaced internally, as well as internationally, and for those displaced temporarily as well as permanently.⁶⁴

Docherty and Giannini's new international convention would include a new global fund that would allocate contributions based on common but differentiated responsibilities, taking into account each country's contributions to climate change and its capacity to pay.⁶⁵ Home states could receive funding to prevent migration through *in situ*⁶⁶ adaptation measures.⁶⁷ Host states could also receive funding, in some cases directly from the home state, for resettlement and transition costs.⁶⁸ Similarly, Hodgkinson's proposed CCDO umbrella organization includes a funding mechanism, for which contributions would be allocated based on common but differentiated responsibilities.⁶⁹ Hodgkinson argues that financial contributions to the fund should be mandatory, but he also notes this could be negotiated.⁷⁰

C. Regional and Bilateral Proposals

Some proposals reject relying on a global response to fill the rights and funding gaps. As an alternative, Jane McAdam and Angela Williams both advocate regional responses, arguing that a more targeted solution, based on the consent of the states involved, is more appropriate.⁷¹ McAdam believes that bilateral and regional agreements will better address the underlying problems, such as economic vulnerability, that prompt migration.⁷² Williams proposes negotiating regional and bilateral agreements through existing regional groups

⁶³ Biermann & Boas, *supra* note 25, at 81.

⁶⁴ See *id.* at 65-66 (proposing a definition of "climate refugees").

⁶⁵ Docherty & Giannini, *supra* note 25, at 386.

⁶⁶ *In situ* is defined to mean "situated in the original, natural, or existing place or position." RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY 987 (2d ed. 2001). I use the term "*in situ* adaptation measures" to refer to measures taken within home countries to reduce the impacts of climate change.

⁶⁷ See Docherty & Giannini, *supra* note 25, at 387 (describing how the authors' proposed fund would award aid for measures designed to reduce the impact of foreseeable refugee crises).

⁶⁸ *Id.* at 384.

⁶⁹ See Hodgkinson & Young, *supra* note 56, at 13 (further describing Hodgkinson's proposed fund and noting that developed state parties would make mandatory financial contributions to it).

⁷⁰ *Id.* at 13-14.

⁷¹ McAdam, *supra* note 27; Angela Williams, *Turning the Tide: Recognizing Climate Change Refugees in International Law*, 30 LAW & POL'Y 502 (2008).

⁷² McAdam, *supra* note 27, at 26 ("[I]nternational law retains sufficient flexibility to respond to particular scenarios through bilateral and regional agreements. In my view, this is where attention would best be focused initially.").

under the UNFCCC.⁷³ Williams also notes that parties should build on UNFCCC adaptation efforts when seeking to form regional agreements.⁷⁴ Williams suggests that regional associations, while having the independence to define the persons covered by their agreements, should consider “[a]dopting an approach whereby climate change refugees are identified along a graduating scale” and “differing degrees of protection to be accorded [will depend] on the severity of the situation.”⁷⁵ This would cover both gradual and sudden migration, and allow protection for those prompted by additional “push” and “pull” factors.

While many of these proposals present creative and thoughtful solutions to the lack of current protection for potential migrants, they also overlook one or more important requirements for a viable solution given the realities of climate displacement and the political background. Building on Part I’s depiction of the nature and scope of climate change displacement, Part III develops five guiding principles that any realistic climate change proposal should follow. Part IV then evaluates the proposals discussed in this Part against these five guiding principles in order to develop a clearer picture of how to protect displaced persons.

III

GUIDING PRINCIPLES FOR PROPOSALS TO ADDRESS CLIMATE DISPLACEMENT

This section sets forth five “guiding principles” for realistic and feasible policy proposals to provide protection and support for climate change migrants. This framework focuses on finding a solution that both properly addresses the scope of climate displacement and is achievable given the current political climate. I developed these principles by examining the nature of potential displacement and the practical and political feasibility of solutions. The proposals presented in Part II are evaluated against each principle to illuminate the strongest elements of the current dominant academic proposals. Table 1 sets out the relevant elements of each proposal for each principle.⁷⁶

⁷³ See Williams, *supra* note 71, at 518-19.

⁷⁴ See *id.* at 519 (describing the UNFCCC’s conception of adaptation strategies).

⁷⁵ *Id.* at 522.

⁷⁶ Table 1 sets out the proposals examined here and compares their provisions against each of the principles.

A. *Guiding Principle 1:*
In Situ Adaptation Strategies Should Be Incentivized

In situ adaptation strategies aimed at reducing vulnerability should be the starting point of any analysis.⁷⁷ *In situ* adaptation measures are those implemented within home countries that prevent migration, such as expanded rainwater harvesting to reduce water shortages, improved land management to increase crop yields, and creation of marshlands to act as buffers against sea level rise and flooding.⁷⁸ Such measures are potentially the most efficient way to prevent large-scale migration. Vulnerable developed countries, such as Australia and the Netherlands, are already taking action to protect their populations.⁷⁹ Part I demonstrated that people are most likely to move when they lack the resources to adapt to the new conditions. *In situ* adaptation strategies can reduce the vulnerability of affected populations, and thus migration. These strategies are also more politically palatable: Many countries would be willing to provide foreign aid, but unwilling to set a precedent of accepting responsibility for climate change migrants within their borders.⁸⁰ Additionally, preventing migration through adaptation measures will be significantly cheaper than negotiating resettlement agreements and resettling displaced persons.⁸¹ Therefore, it is in the financial interest of potential host countries to invest in preventative adaptation strategies in countries with the most vulnerable populations. *In situ* adaptation will also provide protection to those who want to stay in their home countries, which avoids over-incentivizing migration as an adaptation strategy.

⁷⁷ See *supra* note 66 (defining *in situ* adaptation measures).

⁷⁸ See IPCC REPORT, *supra* note 7, at 57 tbl.4.1 (referring to these examples).

⁷⁹ Australia is investing heavily in recycled water plants and desalination facilities to address water scarcity. Norimitsu Onishi, *Arid Australia Sips Seawater, but the Drink May Be Costly*, N.Y. TIMES, July 11, 2010, at A6. Meanwhile, the Netherlands has undertaken an extensive (and expensive) infrastructure project to protect itself from widespread flooding and sea level rise. David Wolman, *Turning the Tides*, WIRE, Jan. 2009, at 108.

⁸⁰ See *infra* notes 128 (describing the willingness of countries to devote foreign aid in the aftermath of disasters), 142 (describing the United Nations High Commissioner of Refugees's (UNHCR) resistance to expanded refugee obligations), and 148 (describing immigration limitations by the United States and other countries).

⁸¹ Home countries may not devote sufficient resources to the costs of external migration since the migrants provide them with no political capital and the costs of resettlement and assimilation will be shifted to the receiving country. Although it is nearly impossible to accurately predict relative costs, it seems uncontroversial to suggest that the combination of negotiating a novel, multilateral resettlement treaty and the resettlement and transition costs for affected individuals will exceed the cost of *in situ* adaptation projects, many of which are already funded through the UNFCCC.

Proposals for a tailored solution to climate migration are best served by recognizing the importance of *in situ* adaptation, while also realizing that, ultimately, such strategies will not be enough to eliminate migration. Overlooking the importance of such measures ignores the intersection between poverty and the inability to adapt, and it weakens the argument that climate displacement is distinct from economic migration and requires an individual, tailored solution. Any claim that developed countries are responsible for contributing to resettlement costs or granting resettlement rights should acknowledge that, according to that logic, these countries are also obliged to contribute to adaptation to prevent migration. Docherty and Giannini build on this by obliging the international community to provide assistance to home states for preventive and remedial measures, as well as for resettlement.⁸² Proposals that do not extend the rationale for resettlement obligations to *in situ* adaptation, such as Biermann and Boas and Hodgkinson, discussed in Part II, are problematic given the importance of *in situ* adaptation.

Recognizing that migration is simply another adaptation strategy strengthens the rationale for the proposals, as developed countries have already recognized the importance of adaptation and have agreed to undertake obligations to assist affected countries with adaptation. The UNFCCC, the existing international regime for climate change negotiations, has prioritized *in situ* adaptation and has recognized that “[a]daptation must be addressed with the same priority as mitigation and requires appropriate institutional arrangements to enhance adaptation action and support.”⁸³ A number of existing financial mechanisms under the UNFCCC are dedicated to providing support for adaptation.⁸⁴ In 2010, the Conference of the Parties (COP), the representative body governing the UNFCCC, established an Adaptation Framework and an Adaptation Committee to support a “country-driven approach” to adaptation.⁸⁵ In 2011, the COP

⁸² See Docherty & Giannini, *supra* note 25, at 384 (listing “assistance . . . to support preventive measures” as one of three types of assistance the international community should provide).

⁸³ United Nations Framework Convention on Climate Change, Conference of the Parties, Cancun, Mex., Nov. 29-Dec. 10, 2010, *The Cancun Agreements: Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action Under the Convention*, U.N. Doc. FCCC/CP/2010/7/Add.1 (Mar. 15, 2011) [hereinafter *Cancun Agreements*].

⁸⁴ See *Funding for Adaptation*, UNITED FRAMEWORK CONVENTION ON CLIMATE CHANGE, http://unfccc.int/adaptation/implementing_adaptation/adaptation_funding_interface/items/4638.php (last visited Aug. 8, 2012) (listing the worldwide resources for adaptation funding in chart form).

⁸⁵ See *Cancun Agreements*, *supra* note 83, ¶¶ 13, 20 (establishing the Adaptation Framework and Committee, respectively).

further emphasized this focus by designating part of the newly created Green Climate Fund (GCF) to adaptation.⁸⁶ Proposals that seek to expand adaptation commitments under the UNFCCC to include migration, such as Angela Williams's regional proposal, are particularly efficient because they both prioritize *in situ* adaptation and build on existing commitments.⁸⁷ Proposals that emphasize *in situ* adaptation should address how these existing institutions will supplement their own system for addressing climate displacement or, if these mechanisms provide the primary mechanism for adaptation strategies, how they will be improved to work efficiently.

Even if they do not prioritize or provide for *in situ* adaptation, proposals that acknowledge the role that adaptation plays in migration decisions have a stronger basis for claiming that some subset of people will be displaced no matter what preventative measures are taken. For example, Biermann and Boas note, "[m]any poorer countries . . . are unlikely to be able to initiate sufficient adaptation programs, and climate-induced migration might be the only option for many communities in the South."⁸⁸ If proposals accurately account for the amount of migration that can be reduced through adaptation measures, this should reduce the risk of exaggerating numbers or relying on unfounded estimates. Proposals, like Hodgkinson and Young's and McAdam's, that note the importance of adaptive capacity in displacement decisions but do not discuss its role in reducing migration are less effective.⁸⁹

Other proposals completely gloss over the importance of adaptation strategies, partly giving into the somewhat hysterical characterization of likely migration floods. For example, Cooper concludes

⁸⁶ See United Nations Framework Convention on Climate Change, Durban, S. Afr., Nov. 28-Dec. 11, *Decisions Adopted by the Conference of the Parties*, 55, ¶ 8, FCCC/CP/2011/9/Add.1 (Mar. 15, 2012) [hereinafter *Durban Decisions*], available at http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_gcf.pdf (requesting the Board of the Green Climate Fund (GCF) to allocate funding between adaptation and mitigation activities).

⁸⁷ See, e.g., Williams, *supra* note 71, at 519 (describing the commitment to adaptation in both the UNFCCC and the Kyoto Protocol and how regional initiatives could work within these established frameworks to address migration).

⁸⁸ Biermann & Boas, *supra* note 25, at 61; see also Byravan & Rajan, *supra* note 44, at 249 ("No doubt . . . adaptation measures, e.g. improving coastal defences, will probably provide adequate security for many against climate change. But there will almost certainly remain one class of vulnerable populations for whom such actions cannot possibly suffice, simply because they have no place to go." (internal citations omitted)).

⁸⁹ See David Hodgkinson et al., *Copenhagen, Climate Change 'Refugees' and the Need for a Global Agreement*, CCDPCONVENTION.COM, 9 (2009) ("Adaptive capacity is integral to displacement decisions . . ."), available at http://www.ccdpconvention.com/documents/Copenhagen_And_CCDPs.pdf; see also McAdam, *supra* note 27, at 21 (noting the importance of local adaptation mechanisms).

that “prevention may be an ideal solution . . . [but it is a] distant prospect on which refugees cannot rely.”⁹⁰ Cooper’s focus on environmental refugees and her reliance on Myers’s enormous numerical predictions explain her dismissal of prevention.⁹¹ However, given the priority assigned to *in situ* adaptation by the UNFCCC and the strategies identified by the IPCC, it is short-sighted to overlook *in situ* adaptation as a tool to protect potential migrants. Proposals that do so will not withstand scrutiny as they may exaggerate the potential problem, encourage migration over adaptation, and discount those affected persons who would like to remain in their home countries.

B. Guiding Principle 2: Realistic, Operational Definition of Displaced Persons Covered by Proposed Solution

Any climate change displacement proposal must acknowledge and confront the complexities involved in identifying people displaced by climate change. Portraying displaced people as a readily identifiable group lacks a basis in reality since many factors cause migration, making climate-induced migrants hard to isolate. Therefore, proposals must clearly identify who will fall under their suggested regime, state how (if at all) to distinguish these persons from traditional economic refugees, and provide a strong reason for differentiating between the groups. As this Section describes, proposals to protect persons displaced by climate change will often limit protection to certain groups of displaced persons. Common limits are: the climate change impact causing displacement; whether displacement was necessary or partially voluntary; whether the impact causing displacement was direct, as in a drought, or secondary, as in fighting caused by a drought; or whether movement is transboundary or internal. Proposals that adopt bright line rules to identify those displaced by climate change must clearly explain how these rules will be operationalized given the complications identified in Part I. Proposals that seek to create a new international institution and create a narrow category of displaced persons may need to justify the costs inherent in such an endeavor against the benefits received by a limited number of people.

Since internal displacement may constitute the majority of movement caused by climate change, proposals should address internally displaced persons.⁹² Although this limit is easily operationalized,

⁹⁰ Cooper, *supra* note 25, at 488.

⁹¹ See *supra* note 25 and accompanying text for a discussion of Myers’s estimate.

⁹² See *supra* Part I.B.1 (explaining that displacement is primarily internal, rather than transnational).

excluding internal migration from consideration or discussion overly narrows the scope of any proposed solution and leaves the majority of affected persons unprotected. Both Byravan and Rajan's rights-based proposal and Docherty and Giannini's proposed international treaty restrict coverage to international migration, as opposed to internal displacement.⁹³ Byravan and Rajan propose to only cover those who are left stateless by disappearing territory.⁹⁴ It is unlikely that these proposals will cover most migrants as people in coastal nations, like Bangladesh, will move inland. Therefore, the benefits may not be outweighed by the transaction costs of negotiating a new global treaty,⁹⁵ as both Byravan and Rajan and Docherty and Giannini propose.

Although principles of sovereignty usually preclude interference with domestic affairs,⁹⁶ the international community will be called upon to provide material assistance if developing countries face a shortage of resources once their population centers shift. The most effective and least intrusive way of limiting coverage by movement is to provide differing protections to internally displaced persons and transnational migrants. Hodgkinson notes that although internal migration is primarily the duty of the home state as provided by the Guiding Principles on Internally Displaced Persons,⁹⁷ the international community should be required to provide assistance on request by home states.⁹⁸ This distinction sidesteps sovereignty issues and still provides protection for the majority of projected displaced persons.

To overcome causation issues resulting from scientific uncertainty, some proposals limit coverage by the type of environmental impact that triggered displacement. The least effective of these limits

⁹³ See, e.g., Byravan & Rajan, *supra* note 47, at 241 (limiting coverage to climate exiles whose original state and its territory have ceased to exist); Docherty & Giannini, *supra* note 25, at 349 n.2 (limiting coverage to those crossing international borders).

⁹⁴ See Byravan & Rajan, *supra* note 44, at 249 ("Under our proposed framework, people living in areas that are likely to be obliterated or rendered uninhabitable would be provided the early option of migrating legally . . .").

⁹⁵ See Richard B. Stewart, *International Trade and Environment: Lessons from the Federal Experience*, 49 WASH. & LEE L. REV. 1329, 1346-47 (1992) (discussing the "slow and cumbersome" process of negotiating multilateral environmental agreements and the issues of free riders).

⁹⁶ See U.N. Charter art. 2 (basing the U.N. on "the principle of the sovereign equality of all its Members" such that "[n]othing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state").

⁹⁷ The Guiding Principles on Internally Displaced Persons is a non-binding soft law instrument produced by the UNHCR and is treated as customary law. It is primarily a human rights document. See generally Representative of the U.N. Secretary-General, *Guiding Principles on Internal Displacement*, U.N. Doc. E/CN.4/1998/53/Add. 2 (Feb. 11, 1998).

⁹⁸ Hodgkinson et al., *supra* note 89, at 12-13.

are those that strictly define the type of impact, such as sea level rise, which may serve as a basis for protecting affected populations.⁹⁹ Although this bright line appears easy to operationalize, when the defined impacts indirectly cause migration, it may be no easier to identify the protected group. Furthermore, these proposals leave no flexibility for future scientific understandings of climate change impacts. Proposals that allow for continued scientific understandings to inform scope of coverage may be more operational. For example, Docherty and Giannini limit the scope of coverage to those displaced by environmental disruption “consistent with climate change and to which humans more likely than not contributed” as determined by a scientific body.¹⁰⁰ Hodgkinson et al. propose similar coverage, but they apply a stricter standard of 90% certainty of human contribution.¹⁰¹ By putting the decisions in the hands of scientists, these decisions have the veneer of objectivity, but this may not be the reality.¹⁰² Most importantly, this approach will not require renegotiation as certainty regarding impacts from climate change increases. McAdam’s and Williams’s regional and bilateral approaches avoid this problem by allowing different regions to address those impacts that will likely affect movement in those areas.

A final way to limit the coverage of these proposals is by the urgency of the displacement. Proposals often focus on “forced,” as opposed to “voluntary,” migration, communicating a perceived difference in those who move because their home becomes uninhabitable and those who move due to a scarcity of resources or because agriculture is less viable. Docherty and Giannini limit their definition to forced migration on the rationale that these people are most in need of humanitarian assistance and its consistency with the Refugee Convention.¹⁰³ While this initially appears sensible, when dealing with climate displacement as opposed to government-sponsored persecution (as the Refugee Convention does), this distinction becomes arbitrary. Drawing a bright line at forced, as opposed to voluntary, migration mischaracterizes likely movement, which will happen

⁹⁹ See Biermann & Boas, *supra* note 25, at 67 (restricting climate change refugees to victims of sea level rise, extreme weather events, drought, and water scarcity); Byravan & Rajan, *supra* note 47, at 242 (limiting coverage to victims of sea level rise).

¹⁰⁰ Docherty & Giannini, *supra* note 25, at 361.

¹⁰¹ Hodgkinson et al., *supra* note 89, at 8-9.

¹⁰² The traditional idea that scientists and scientific research is apolitical or objective has been undermined in recent years, particularly in the area of climate change. See generally David Demeritt, *The Construction of Global Warming and the Politics of Science*, 91 ANNALS ASS’N AM. GEOGRAPHERS 307 (2001).

¹⁰³ See Docherty & Giannini, *supra* note 25, at 369 (describing why “the proposed definition limits itself to migration that is forced due to threats to a refugee’s survival”).

gradually as a result of multiple causes, and thus only protects a small portion of affected persons. Biermann and Boas specifically choose not to use this limitation as it would “artificially minimize the scale of the problem and could create different levels of protection and support without much basis in political, legal or ethical criteria.”¹⁰⁴

The most effective way of distinguishing along the spectrum of voluntary and forced migration seems to be a graduated scale of protections. Williams proposes that the most acute displacements (such as those arising from sinking states) are entitled to the most protection and assistance, while more gradual movements (such as those caused by decreasing crop yields in Mexico) could still receive some lower level of protection.¹⁰⁵ This is similar to Biermann and Boas’s suggestion of offering different financial support based on displacing impacts.¹⁰⁶ A graduated scale that recognizes the multi-causal nature of migration decisions by varying protection both by impact, as evaluated by a scientific body such as the IPCC, and by urgency, may afford tailored, efficient protection to those climate change migrants. The least arbitrary and operational definitions of protected migrants provide a scale of differential protections based on a range of factors, including migration path and urgency of migration, or base protections on impact type while providing flexibility for future development of scientific knowledge.

C. Guiding Principle 3:

Fair and Clearly Defined Allocation of Responsibility

Proposals must clearly explain how and on what basis responsibility for dealing with displaced persons should be allocated. Although it is tempting to allocate responsibility based on the UNFCCC principle of “common but differentiated responsibilities,”¹⁰⁷ that principle was developed to clarify who needed to reduce emissions causing the overall problem. Using that principle to assign responsibility to one country for the effects experienced by specific individuals strains traditional notions of causation. Furthermore, the most recent climate negotiations in Durban intimate that the regime is moving away from this division of responsibility.¹⁰⁸ In his political philosophy article

¹⁰⁴ Biermann & Boas, *supra* note 25, at 65.

¹⁰⁵ See Williams, *supra* note 71, at 522 (suggesting a scaled solution where scenarios at one end represent an acute form of refugee status and scenarios at the other end represent chronic displacement).

¹⁰⁶ See Biermann & Boas, *supra* note 25, at 81 (proposing to cover full incremental costs for those affected by sea level rise and partial incremental costs for other impacts).

¹⁰⁷ For further discussion, see *infra* notes 123-26 and accompanying text.

¹⁰⁸ The decisions adopted in Durban included an agreement for all members of the UNFCCC, including developing countries, to commit to a legally binding regime by 2020

Distributing Responsibilities, David Miller addresses the problem of finding a principle for assigning “remedial responsibility” or “having a responsibility towards the deprived or suffering party that is not shared equally among all agents.”¹⁰⁹ His piece takes up the “difficult but vital question of determining who in any given context should be singled out as having the responsibility for responding to the needs of others.”¹¹⁰ Although Miller’s discussion is general, it offers “concrete guidelines for responsibility sharing,”¹¹¹ which are particularly relevant to the problem posed by climate change displacement—how to allocate responsibility if multiple parties could potentially assist.¹¹² This Section will apply Miller’s useful framework to identify and evaluate potential bases for distributing responsibility.

with no mention of common but differentiated responsibilities. See Dan Bodansky, *The Negotiations that Would Not Die*, OPINIO JURIS (Dec. 11, 2011, 10:28 AM), <http://opiniojuris.org/2011/12/11/the-negotiations-that-would-not-die> (last visited Aug. 8, 2012) (“[T]he Durban Platform does not include any mention of the principle of ‘common but differentiated responsibilities’”). Numerous commentators have noted that the Durban Conference may signal a departure from the previous allocations of responsibility and the entire framework of climate negotiations. See, e.g., Robert Stavins, *The Platform Opens a Window: An Unambiguous Consequence of the Durban Climate Talks*, ROBERT STAVINS BLOG.ORG (Jan. 1, 2012), www.robertstavinsblog.org/2012/01/01/the-platform-opens-a-window-an-unambiguous-consequence-of-the-durban-climate-talks (last visited Aug. 8, 2012) (noting that the elimination of differing responsibilities between developed and developing countries is a “dramatic departure from some seventeen years of U.N. hosted international negotiations on climate change”); Elliot Diringer, *Durban – How Big a Deal?*, CENTER FOR CLIMATE AND ENERGY SOLUTIONS (Dec. 11, 2011, 2:27 PM), www.c2es.org/blog/diringere/durban-how-big-a-deal (last visited Aug. 8, 2012) (“Only time will tell whether the Durban climate talks produced an historic breakthrough. It’s possible.”).

¹⁰⁹ David Miller, *Distributing Responsibilities*, 9 J. POL. PHIL. 453, 454 (2001). Miller’s article is primarily aimed at individual bodies, rather than collective bodies such as states. However, he notes that his analysis focusing on distribution of responsibility applies to collective bodies as well. For an analysis of the complications of assigning responsibility to collective bodies, see generally David Miller, *Holding Nations Responsible*, 114 ETHICS 240 (2004). When multiple parties could be at fault, Miller favors a connection theory, which fixes responsibility on someone with a connection to the victim. In the case of climate change, finding a “connected party”—one that is more connected to victims than any other—will be difficult. Some states (e.g., England) will be connected to many, but will lack the capacity to help all of them. Additionally, it is unlikely that every affected population has a connection to a country with the capacity to provide assistance. Since Miller’s proposed solution does not provide a comprehensive solution, proposals to address displacement will have to address the shortcomings of the four principles.

¹¹⁰ Leif Wenar, *Human Rights and Equality in the Work of David Miller*, 11 CRITICAL REV. INT’L SOC. & POL. PHIL. 401, 405 (2008).

¹¹¹ See Tally Kritzman-Amir, *Not in My Backyard: On the Morality of Responsibility Sharing in Refugee Law*, 34 BROOK. J. INT’L L. 355, 370-72 (2009) (discussing David Miller’s theory of responsibility sharing).

¹¹² In fact, it has already been applied in other immigration law contexts. See *id.* at 357 (arguing that David Miller’s work is applicable to refugee policy).

Miller starts by identifying four principles to allocate responsibility: causal responsibility, moral responsibility, capacity, and community.¹¹³ Miller bases his principle of casual responsibility on a “common sense understanding of causation.”¹¹⁴ The case of climate change, however, confounds such an understanding. Putting to one side the difficulty in attributing migration decisions to climate effects alone, it is impossible to prove that emissions from any one state caused the specific displacing effects experienced by an individual in another country. For a proposal to rely successfully on causal responsibility, it would need to attribute the cause to the entire group of emitters. Miller’s framework suggests “if several agents together caused P’s condition . . . responsibility should be distributed in proportion to causal responsibility.”¹¹⁵ This ties into the concept of “common but differentiated” responsibilities and historical emissions,¹¹⁶ but it does not solve the break in the causal link between states’ emissions and affected individuals or take into account the capacity of historical emitters. Furthermore, it ignores the political reality that many historical emitters will be unlikely to assume this responsibility.¹¹⁷ Any proposal to share burdens internationally based on causal responsibility will fail on the causal link either between emissions and the displacing impact or between the change and the migration. Byravan and Rajan’s focus on both causal and moral responsibility further attenuates the causal link by advocating grants from the guilty nations to individuals rather than nations.¹¹⁸

Miller defines his second principle, moral responsibility, in two ways. The first, narrower sense is linked to blame. The second, broader sense asserts that “people are to be held morally responsible for the results of their actions, so long as these actions themselves satisfy certain conditions of intentionality, voluntariness, etc., without implying that they are blamable for what they did.”¹¹⁹ Although it may be true theoretically that once climate change reaches a level of scientific certainty, those countries that failed to curb emissions are morally responsible for its effects, it is politically unlikely that any

¹¹³ See Miller, *Distributing Responsibilities*, *supra* note 109, at 464 (listing the four principles).

¹¹⁴ *Id.* at 455.

¹¹⁵ *Id.* at 456.

¹¹⁶ See *supra* note 62 for a description of the principle of common but differentiated responsibilities.

¹¹⁷ See *infra* notes 143–48 and accompanying text for a discussion of this problem.

¹¹⁸ See Byravan & Rajan, *supra* note 47, at 253 (proposing that “historically large emitters . . . take responsibility for providing immigration rights [granted to individuals] based on their shares of cumulative greenhouse gas emissions”).

¹¹⁹ Miller, *Distributing Responsibilities*, *supra* note 109, at 459.

historical or current emitters will admit *moral* responsibility. Thus, moral responsibility is not a realistic basis for allocating responsibility. Proposals such as Byravan and Rajan's that rely solely on moral and/or causal responsibility are not politically feasible since developed states will resist signing on to such obligations.

Miller's third principle, capacity, assigns responsibilities according to the agent's capacity to perform them.¹²⁰ Miller further splits capacity into effectiveness and ability to shoulder costs.¹²¹ Capacity seems to be the strongest rationale for assigning responsibility to the international community to address climate displacement, particularly when linked with elements of causal and moral responsibility. Accepting this principle could lead to a slippery slope regarding the scope of international obligations toward more vulnerable states. Docherty and Giannini's international convention will seek "financial assistance proportional to states' contributions to climate change and capacity to pay."¹²² In economic downturns, however, capacity may be just as politically infeasible as moral responsibility. By pairing capacity with causal responsibility, Docherty and Giannini avoid setting a precedent that requires developed countries to assume responsibility for all problems related to wealth disparity. Although supplementing capacity with the moral or causal principles cabins the idea, the framework then begins to look a lot like common but differentiated responsibilities.

Biermann and Boas, Docherty and Giannini, and Hodgkinson all allocate responsibility based on the principle of common but differentiated responsibilities, which is similar to Miller's capacity, moral, and causal responsibility principles.¹²³ The principle of common but differentiated responsibilities maintains that developed states carry a heavier burden because they have greater responsibility for causing the problem. According to the principle, developed states have a moral responsibility to address climate change. Finally, and perhaps most importantly, the principle recognizes that developed states have a greater capacity to address the problem. Although this has been accepted in the past as an established principle of

¹²⁰ *Id.* at 460.

¹²¹ *Id.* at 461.

¹²² Docherty & Giannini, *supra* note 25, at 379.

¹²³ See Biermann & Boas, *supra* note 25, at 77 ("For developing countries, a protocol on climate refugees based on the principle of common but differentiated responsibilities . . . could become a major negotiation goal . . ."); Docherty & Giannini, *supra* note 25, at 386 (arguing that the "climate change refugee instrument should allocate international contributions according to states' common but differentiated responsibilities"); Hodgkinson et al., *supra* note 89, at 11 (noting that common but differentiated responsibilities should be the basis upon which developed state parties make contributions to a fund).

international environmental law, which underlies the UNFCCC, the principle has not been effective in getting key states, such as the United States, to accept binding obligations to reduce greenhouse gas emissions.¹²⁴ Hodgkinson recognizes this and suggests the allocation of financial responsibility could be negotiated.¹²⁵ Furthermore, as mentioned above, recent climate negotiations at Durban suggest that the climate regime is moving away from the common but differentiated responsibilities allocation of responsibility.¹²⁶ Perhaps noting these complications with common but differentiated responsibilities, many proposals focus primarily on capacity when describing the reason for common but differentiated responsibilities and how financial obligations will be determined.

Miller's last principle, community, suggests that special ties between people that lead them to form a community also impose responsibilities on members of that community.¹²⁷ One could argue that this principle comes into play by virtue of human rights. The international community regularly reaches out to provide assistance following natural disasters or conflict. Such assistance is not motivated by causal or moral responsibility, but rather by a combination of capacity and a sense of empathy.¹²⁸ In terms of framing the issue to

¹²⁴ For a discussion of common but differentiated responsibilities, see *supra* note 62. President George W. Bush rejected the transformation of the principle into legally binding obligations when he rejected the Kyoto Protocol and rescinded the signature of the U.S. representative. See Letter from President George W. Bush to Members of the Senate on the Kyoto Protocol on Climate Change (Mar. 13, 2001) ("I oppose the Kyoto Protocol because it exempts 80% of the world, including . . . China and India from compliance . . . [T]he Kyoto Protocol is an unfair and ineffective means of addressing global climate change concerns.").

¹²⁵ See Hodgkinson & Young, *supra* note 56, at 14 ("We recognise, however, various problems with the principle and, in determining the hard issue of the level of specific state party contributions to the Fund, it may be . . . largely a matter for negotiation.").

¹²⁶ See Bodansky, *supra* note 108 (describing the Durban Agreement's shift away from common but differentiated responsibilities).

¹²⁷ *Id.*

¹²⁸ In the wake of recent natural disasters, world leaders have expressed strong ties of community and solidarity with affected nations and have offered financial and other support. See, e.g., Press Release, Hillary Rodham Clinton, Secretary of State, Earthquake in Christchurch (Feb. 22, 2011), <http://www.state.gov/secretary/rm/2011/02/156913.htm> ("The United States stands ready to provide assistance to the government of New Zealand and to the brave people of Christchurch. Our long history of friendship and mutual support in times of need is an example of our enduring bond."); President Barack Obama, Remarks on Japan (Mar. 17, 2011), *available at* <http://www.politicsdaily.com/2011/03/17/transcript-of-president-obamas-march-17-remarks-on-japan-crisis/> (last visited Aug. 8, 2012) ("Across the Pacific . . . [the Japanese] will find a hand of support extended from the United States . . . After all, we have an alliance that was forged more than half a century ago . . . [We] share ties of family, ties of culture, and ties of commerce."); Press Release, Dr. Manmohan Singh, Prime Minister of India, PM Condoles Loss of Life in Japan Earthquake, Offers Help (Mar. 11, 2011), <http://pmindia.nic.in/press-details.php?nodeid=1205>

gain political support, the community principle can play an important role. McAdam notes that “[r]esponses would be better achieved by focusing on States’ burden-sharing obligations to each other and responsibility to the international community as a whole.”¹²⁹ By framing the problem as a humanitarian issue, countries, particularly the United States, may be better able to enact domestic legislation. However, no proposal should assume that states have taken on special obligations based simply on community alone.

Unlike a sense of global community, regional community ties may be a viable basis for assigning responsibility. Regional groups of nations, such as Europe or Oceania, may owe stronger obligations to one another than to more distant nations with different cultural foundations or strategic interests. Regional and bilateral agreements avoid the international political minefield by allocating burdens through negotiation. States in a particular region, such as the South Pacific, have a joint interest in ensuring the future stability of the region and migrant flows, and therefore will undertake obligations based on their own self-interest. This basis for responsibility avoids potentially politically unfeasible efforts to persuade such states to accept moral or causal responsibility for the problems caused by climate change. Despite being a workable basis for allocating responsibility, community cannot be the sole basis because it overlooks states’ ability to assist and obligations to assume responsibility for the effects of climate change in other countries.

D. Guiding Principle 4: Effective Institutional Framework

Any realistic approach to climate displacement must identify an effective institutional framework within which it will work, whether it already exists, is a new institution, or will operate outside a formal organization (through courts, for example). An effective institutional framework will need political buy-in from states providing assistance, states receiving assistance, and affected individuals. That is, the states and individuals concerned must trust and utilize the institution to carry out its intended function. In the case of existing institutions, this will depend on individuals’ and states’ present experiences with these institutions. For new institutions, the best way to get political buy-in from both states and non-state actors arguably is to provide for an inclusive negotiation period (e.g., to determine the role and scope of

(“India stands in full solidarity with the Government and people of Japan at this hour. We are ready to help Japan in any way required . . .”).

¹²⁹ McAdam, *supra* note 27, at 22.

each institution's responsibilities). Ultimately, political buy-in will likely relate to perceived need for and ease of use of the institution.¹³⁰ In addition to political buy-in, any proposed institutional framework should minimize bureaucracy and cumbersome decisional processes by creating linkages with existing regimes where possible.

Proposals seeking to work within existing frameworks (usually the UNHCR and the UNFCCC) will need to address shortcomings of those institutions as far as climate displacement is concerned and to explain how those shortcomings will be remedied in the future. Proposals that seek to use the UNHCR, such as Cooper's, fail in this regard as the UNHCR has publicly stated that expanding its mandate to include climate migrants would overwhelm its institutional capacity.¹³¹

The UNFCCC has its own institutional shortcomings. For example, Biermann and Boas's proposal to implement a new binding protocol, similar to Kyoto Protocol, under the UNFCCC with the COP serving as the governing body will face flexibility issues.¹³² Since the UNFCCC requires consensus for any decision,¹³³ it is extremely difficult to negotiate new protocols or flexibly respond to emerging issues in later years. For example, the Kyoto Protocol took eight years to negotiate.¹³⁴ As Docherty and Giannini observe, the UNFCCC "was not designed for, and to date has not adequately dealt with, the problem of climate change refugees."¹³⁵ Finally, because of the substantive overlap in the subjects of climate change migration and refugee law, if a proposal seeks to work within either the UNHCR or the UNFCCC, it needs to address how these two regimes will work together or who will have responsibility and why.

¹³⁰ Docherty & Giannini's is the only proposal examined in this Note that provides for direct participation. See Docherty & Giannini, *supra* note 25, at 388, 398–400 (discussing the importance of involving civil society and affected communities in both resettlement decisions and the negotiation phase of the treaty).

¹³¹ UNITED NATIONS HIGH COMM'R FOR REFUGEES, ENVIRONMENTAL GUIDELINES (2005), available at <http://www.unhcr.org/refworld/pdfid/4a54bbd10.pdf>.

¹³² See Biermann & Boas, *supra* note 25, at 77 (proposing the establishment of a new binding protocol under the UNFCCC).

¹³³ UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE SECRETARIAT, A GUIDE TO CLIMATE CHANGE CONVENTION PROCESS 33 (2d ed. 2002), available at <http://unfccc.int/resource/process/guideprocess-p.pdf> ("As there is no agreed voting rule, almost all decisions must be adopted by consensus. Consensus is usually interpreted to mean that there is no stated objection to a decision.").

¹³⁴ Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22 (entered into force Feb. 16, 2005). The United States, the largest emitter of greenhouse gases at the time, did not ratify the Kyoto Protocol, causing the protocol to lose credibility. See *supra* note 124.

¹³⁵ Docherty & Giannini, *supra* note 25, at 358.

On the other hand, creating a new institution requires a compelling reason why these existing institutions, which took considerable political capital and costs to establish, are completely inadequate to deal with the problem of climate migration. Docherty and Giannini's reasoning that "an independent convention . . . allows for the instrument to be creatively tailored to the complexity of the problem" and that negotiations could "involve communities and civil society" does not adequately explain why the problem cannot be addressed through a protocol to the UNFCCC that provides for participation when a large portion of preventing migration—adaptation—is already addressed through that mechanism.¹³⁶

Proposals that create a new institution must ensure that the institution is streamlined with existing international institutions and regimes such as the UNFCCC or the UNHCR. An efficient solution cannot involve overlapping or conflicting regimes. Any proposal to address climate displacement should utilize the expertise of the UNFCCC's subsidiary bodies, such as the Adaptation Fund or the Subsidiary Body for Scientific and Technological Advice. Hodgkinson's and Docherty and Giannini's proposals suggest creating completely new scientific bodies to research climate displacement and new funds to which developed countries are obligated to contribute.¹³⁷ However, creating duplicative bodies may increase bureaucracy that developing countries already have trouble negotiating. Furthermore, if internationally constituted scientific bodies come to vastly different conclusions regarding climate change, it could increase the difficulty of reaching consensus on the subject.

In order to work effectively, any institution or mechanism that provides financial or technical aid must minimize bureaucracy and avoid cumbersome rules of procedure that make it difficult to reach those who need help. Biermann and Boas note that even though existing funds could support climate refugees, the level of funding is not enough for the current purposes, as these funds rely on voluntary government contributions.¹³⁸ Given the lack of funding, it may be better to strengthen the existing adaptation funds under the UNFCCC,¹³⁹ as creating an entirely new fund may dilute the total

¹³⁶ *Id.* at 350.

¹³⁷ *See id.* at 388-91 (proposing the creation of a new Global Fund, a scientific body that would make determinations related to the definition and division of financial responsibility, and a coordinating agency to oversee human rights protection); *see also* Hodgkinson et al., *supra* note 89, at 10-11 (suggesting a Climate Change Displacement Organization, with four core bodies: assembly, council, fund and environment, and science organization).

¹³⁸ Biermann & Boas, *supra* note 25, at 80.

¹³⁹ For a discussion of these funds, see *infra* note 160 and accompanying text.

amount of assistance developing countries receive. If developed countries are not currently contributing enough, they are unlikely to increase contributions through a new fund. Furthermore, as discussed in Part IV *infra*, the new Green Climate Fund may provide an opportunity to improve existing funds by streamlining them and broadening the protections provided to include climate migrants.

For global proposals that seek to facilitate resettlement, utilizing the example of the UNHCR is key to success. Docherty and Giannini would model their coordinating agency on the UNHCR to help oversee human rights protection but tailor the response to the climate displacement problem.¹⁴⁰ This is an effective institutional framework for addressing resettlement since using UNHCR as a baseline avoids the problem of reinventing the wheel in negotiations. However, as outlined in my fifth principle, this solution may not be politically feasible.

Williams's and McAdam's regional and bilateral proposals do not suggest strong institutional frameworks for funding or human rights protection. Williams suggests using pre-existing regional frameworks, such as the African Union, Organization of American States, European Union, and the Association of Southeast Asian Nations (ASEAN), and then coordinating through the UNFCCC.¹⁴¹ However, she does not suggest how human rights will be protected, how populations will be resettled, or how the UNFCCC will ensure coordination. Therefore, supplementing her regional framework with a coordinating body under the UNFCCC similar to the one suggested by Docherty and Giannini may be the most effective institutional framework.

E. Guiding Principle 5: Political Feasibility

Any policy proposal needs to be politically feasible. This means taking into account what obligations different states will be willing to undertake given their past behavior or current political stances. Each proposal will eventually succeed or fail based on its political feasibility. Some proposed solutions may be ideal theoretically, but are not realistic due to political considerations.¹⁴²

¹⁴⁰ Docherty & Giannini, *supra* note 25, at 388-89.

¹⁴¹ See Williams, *supra* note 71, at 520-22 (suggesting what a regional approach to climate change displacement might look like).

¹⁴² For example, Cooper's proposal to include climate displacement in the Refugee Convention is unrealistic due to resistance from both the human rights community and state parties who do not want to take on the additional burdens of this form of resettlement. Cooper is one of the only scholars who has attempted to fit persons displaced by climate change into a refugee framework. See generally Cooper, *supra* note 25. In her note, Cooper acknowledges the resistance of the UNHCR and other groups to expanding the

Part of the difficulty in formulating a politically feasible solution is the amorphous nature of the group likely to be displaced by climate change. Since potential migrants are difficult to identify, there is insufficient political will to address the problem. Many developed nations will be unwilling to subsidize the resettlement of peoples who may or may not need to move based on problems that may or may not be caused by climate change. The key to garnering popular support is to frame the issues in a manner that resonates with and generates support from nations with the capacity to contribute. For example, some countries may be more willing to commit if burden sharing is based on humanitarian principles rather than on historical responsibilities.¹⁴³ Additionally, the more public support for an issue, the more willing governments will be to commit to addressing the problem.¹⁴⁴

Proposals that require enactment of a new international convention are unlikely to be politically feasible. The failure to obtain commitments to binding obligations under either the Kyoto Protocol or the UNFCCC COP signaled a trend away from legally binding obligations in the climate change regime.¹⁴⁵ Given this background and the high transaction costs of negotiating multilateral treaties,¹⁴⁶ it is unlikely that an entirely new, climate-related treaty with binding obligations is feasible. As Docherty and Giannini admit, “there may be a reluctance to develop a new treaty given the existence of two seemingly relevant conventions.”¹⁴⁷ Furthermore, many developed countries, notably the United States, have resisted expanding immigration rights in recent years in light of the economic downturn, making it less likely that these nations would be able to garner domestic support to take on additional obligations toward climate

definition of refugee and thus the unlikelihood that her first proposal would be adopted. *Id.* at 499-501.

¹⁴³ Compare Letter from President George W. Bush, *supra* note 124 (rejecting the Kyoto Protocol’s allocation of burdens), with Press Release, Earthquake in Christchurch, *supra* note 128 (pronouncing the willingness of the United States to contribute foreign aid in the wake of a natural disaster), and Obama, Remarks on Japan, *supra* note 128 (announcing the United States’s commitment to aiding Japan in the wake of its humanitarian disaster).

¹⁴⁴ See generally Benjamin I. Page & Robert Y. Shapiro, *Effects of Public Opinion on Policy*, 77 AM. POL. SCI. REV. 175, 189 (1983) (finding from an empirical study that “[w]hen Americans’ policy preferences shift, it is likely that congruent changes in policy will follow”).

¹⁴⁵ For a discussion of the trend away from legally binding instruments and an exploration of other possibilities, see generally Robert O. Keohane & David G. Victor, *The Regime Complex for Climate Change*, 9 PERSP. ON POL. 5 (2011).

¹⁴⁶ See Daniel Bodansky, *What’s So Bad About Unilateral Action To Protect the Environment?*, 11 EUR. J. INT’L L. 339, 344 (2000) (noting that creating a multilateral environmental agreement can be more difficult than managing one).

¹⁴⁷ Docherty & Giannini, *supra* note 25, at 400.

change migrants.¹⁴⁸ Feasible policies will utilize established patterns of migration. For example, many people from islands in the South Pacific already migrate to the United States, Australia, and New Zealand.¹⁴⁹ People will likely continue to follow those routes and to relocate to communities that share their traditions and language.¹⁵⁰

Furthermore, it is unrealistic to assume that affected migrants will support any proposal that does not allow them to relocate along existing routes. From this perspective, it appears that regional or bilateral instruments, as suggested by McAdam and Williams, are the most feasible treaty routes for addressing climate displacement, at least in the near future. Since people are most likely to migrate internally or within their regions, this retains flexibility for responding to the specific problems at issue in the region, be it desertification or sea-level rise. Furthermore, “regional agreements are more likely to . . . achieve a greater level of commitment from participating states,” given the smaller scale of prospective commitments and the absence of international politics.¹⁵¹ Williams’s proposal of regional agreements coordinated by the UNFCCC may allow these regional organizations to utilize existing institutions, like the IPCC or Subsidiary Body for Scientific and Technological Advice (SBSTA), for scientific guidance, and to use the existing Adaptation Fund and Committee to address *in situ* adaptation. Williams’s regional agreement would also allow for a more flexible and higher standard of protection for those in need.

¹⁴⁸ A number of state legislatures in the United States, most notoriously Arizona, have passed laws aimed at reducing immigration. See Kevin R. Johnson, *Immigration and Civil Rights: State and Local Efforts To Regulate Immigration*, 46 GA. L. REV. 609 (2012) (discussing the current legal challenges to the constitutionality of numerous state and local immigration measures focusing on Arizona). The federal government has also limited immigration by prohibiting non-U.S. citizens from working for the federal government. See Consolidated Appropriations Act of 2010, Pub. L. No. 111-117, 123 Stat. 3034 (2009) (prohibiting use of appropriated funds to pay noncitizens without permanent resident status, thus preventing the federal government from hiring noncitizens except in special cases). New Zealand and Australia have also been reluctant to allow unlimited numbers of climate migrants into their countries. See MacFarquhar, *supra* note 4 (describing political debates and limits both Australia and New Zealand are putting on Pacific Island immigration).

¹⁴⁹ See generally Geoffrey Hayes, *Maximizing Development Benefits and Minimizing Negative Impact in the Pacific Islands Sub-Region* 16-24 (Workshop on Strengthening National Capacities To Deal with International Migration, Apr. 22-23, 2010), <http://test.actionbias.com/sites/test/files/Maximizing%20Development%20Benefits%20and%20Minimizing%20Negative%20Impact%20in%20Pacific%20Islands%20Subregion.pdf> (describing migration patterns from the Pacific Islands to these receiving countries).

¹⁵⁰ See DEVELOPMENT REPORT, *supra* note 22 and accompanying text (noting that many migrants will want to go somewhere similar to their homelands in terms of available occupations and lifestyle).

¹⁵¹ Williams, *supra* note 71, at 518.

In sum, these five principles are guideposts to a viable policy to protect persons displaced by climate change impacts. While I believe all five are necessary to create an effective, efficient solution, they may not be sufficient; there may be additional factors to consider, such as participation rights for individuals and communities. But any proposal that does not satisfy all five principles will not effectively protect displaced persons. Many of the proposals presented are normative because they attempt to construct an ideal solution. Although ideals are important toward developing protection for displaced persons, it is imperative that solutions take into account political and migratory realities.

IV SO WHAT WORKS?

The nature of climate displacement requires that proposals to create protection and support for displaced persons take into account certain considerations in order to be viable, effective, and efficient. Part IV suggests that currently, the most feasible way of addressing the funding gap in protecting displaced persons is to characterize migration as an adaptation strategy, similar to developing drought-resistant crops, as opposed to creating a separate agreement on resettlement and refugee rights.

At the recent Durban Climate Change Conference, the UNFCCC and the international community emphasized a continued focus on in-country adaptation.¹⁵² The GCF, which was created in Cancun and further developed in Durban, has a dedicated funding window for adaptation.¹⁵³ Portraying migration as another adaptation tool may allow developing countries to access existing resources dedicated to adaptation. This framework can build on existing international cooperation and acceptance of adaptation as an appropriate goal. Thus, developing countries should push those developing the institutional

¹⁵² See *supra* note 86 and accompanying text (describing the focus on adaptation at the Durban Climate Change Conference); see also *Durban Decisions*, *supra* note 86, at 80 (“Acknowledging that national adaptation planning can enable all . . . country Parties to assess their vulnerabilities, to mainstream climate change risks and to address adaptation . . .”). Under the Nairobi Work Programme, the COP asked the SBSTA to organize two technical workshops, one on water, climate change impacts, and adaptation, and another on ecosystem based approaches for adaptation. United Nations Framework Convention on Climate Change, Durban, S. Afr., Nov. 28-Dec. 11, *Draft Decision, Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change*, 1, http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_nairobi.pdf.

¹⁵³ *Durban Decisions*, *supra* note 86, at 58, ¶ 2 (“[The Fund will] provid[e] support to developing countries . . . to adapt to the impacts of climate change, taking into account the needs of those developing countries particularly vulnerable to the adverse effects of climate change.”).

framework for the Adaptation Committee and the GCF to explicitly include migration as an adaptation strategy. Although some of the proposals have previously dismissed using adaptation to address migration because the UNFCCC funds and goal do not mention migration,¹⁵⁴ the GCF's establishment creates a unique opportunity to push for inclusion of migration as an adaptation strategy.¹⁵⁵ This strategy works with the majority of the five guiding principles while keeping an eye on the biggest stumbling block: political feasibility.

First, by characterizing migration as simply another adaptation tool, the emphasis remains on *in situ* adaptation. This should result in an optimal investment in preventative measures so that migration will be minimized. However, where resettlement is inevitable, funding and resources will still be available because migration is simply another method of adapting to the changed conditions.

Biermann and Boas argue that combining refugee funding with existing funds "would put climate refugees in competition with other concerns, . . . where adaptation measures might be motivated through additional concerns such as the protection of powerful economic interests" and, therefore, a *sui generis* regime for addressing the funding gap is necessary.¹⁵⁶ However, as Wyman points out, there will always be competition for funding.¹⁵⁷ Furthermore, as discussed in Part III.E, a *sui generis* regime is likely politically infeasible and overlooks the extent of the connection between *in situ* adaptation and likely migration.

An operational definition of covered persons does not naturally build into the adaptation framework. However, if *in situ* adaptation reduces underlying economic "push" factors, it will be easier to identify those moving due to impacts of climate change that cannot be mitigated. This framing of the issue does not require distinctions based on whether migration is external or internal. Regardless, the COP will need to develop an operational scope of coverage to decide which migrants should receive financial assistance. As mentioned in Part III.B, Williams's proposed graduated scale of protections is a good starting point for creating an operational and realistic definition.

¹⁵⁴ See, e.g., Biermann & Boas, *supra* note 25, at 80 (questioning whether specialized environmental funds are "the most appropriate mechanisms for the specific funding problem of climate refugees"); Docherty & Giannini, *supra* note 25, at 359 ("[The UNFCCC's] adaptation efforts focus primarily on prevention and mitigation of climate change itself, rather than assistance for those who cross borders to flee climate change's effects.").

¹⁵⁵ For a discussion of how the new adaptation window for the GCF could be structured to allow for adaptation, see Wyman, *supra* note 43, at 9–14.

¹⁵⁶ Biermann & Boas, *supra* note 25, at 81.

¹⁵⁷ Wyman, *supra* note 43, at 39–40.

Such a scale would provide the greatest protection to those suffering the most acute displacements, while also providing protections to those who move more gradually or have mixed motivations for resettlement.

The issue of allocating responsibility may be simplified since the parties to the UNFCCC have already agreed to contribute funding to adaptation. Although the GCF provides a dedicated funding window for adaptation, there is still no agreement as to who will provide that money.¹⁵⁸ Therefore, despite developed countries' existing consent to support the formulation of National Adaptation Plans in developing countries, there is no clear allocation of responsibility for funding adaptation measures through the GCF. This is one of the most politically divisive issues in the climate change regime, and it remains to be seen how quickly it can be resolved and funds can be made available. As discussed in Part III, the most politically palatable option is to distribute responsibility according to Miller's principles of capacity and community, since those who will be forced to resettle will be the poorest and most vulnerable.

As for Principle 4, which calls for an effective institutional framework, one of the biggest benefits of characterizing migration as an adaptation strategy is the ability to build into existing institutional frameworks under the UNFCCC. This reduces the transaction costs of creating new institutions, allows access to the expertise of scientific bodies associated with the UNFCCC, and builds on existing political buy-in. Even Biermann and Boas acknowledged in their proposal that “[i]ntegration of the protection of climate refugees into a broader adaptation protocol could allow for more holistic adaptation planning in regions at risk, which will include . . . a combination of adaptation and voluntary resettlement programs.”¹⁵⁹ Under the UNFCCC, there are currently four funds relevant to adaptation.¹⁶⁰ However, both developing and developed countries view these institutions as problematic.¹⁶¹ As Biermann and Boas note, funding is currently

¹⁵⁸ See *Climate-Change Summit: A Deal in Durban*, THE ECONOMIST (Dec. 11, 2011), <http://www.economist.com/blogs/newsbook/2011/12/climate-change-0> (“[T]here was no agreement—and little discussion—on the important question of where the money will be found.”).

¹⁵⁹ Biermann & Boas, *supra* note 25, at 78.

¹⁶⁰ Jessica M. Ayers & Saleemul Huq, *Supporting Adaptation to Climate Change: What Role for Official Development Assistance?*, 27 DEV. POL'Y REV. 675, 677–78 (identifying the four funds: the Least Developed Countries Fund, which addresses the National Adaptation Plans; the Special Climate Change Fund, which also addresses mitigation; the Global Environmental Facility Trust Fund's Strategic Priority for Adaptation; and the Kyoto Protocol's Adaptation Fund).

¹⁶¹ *Id.* at 678–79 (describing problems developing countries face from existing funds).

insufficient to support existing purposes.¹⁶² Although the new Adaptation Committee is intended to streamline these existing institutions,¹⁶³ it is yet to be determined how the Committee will interact with existing funds or the GCF, which is run by its own Standing Committee. This raises bureaucratic inefficiency concerns. If the UNFCCC can streamline older funds under the newly negotiated bodies, there is the potential for the new institutions to receive needed political buy-in from both developed and developing countries for an efficient institutional framework to address adaptation. Currently, the UNFCCC is still the cheapest institution to use. Most states actively participate in the UNFCCC even if they regard its funding mechanisms with suspicion.

Finally, addressing migration through existing adaptation channels builds on existing agreements, making it more politically feasible than most proposals. Despite an inability to agree to binding mitigation obligations, the parties to the UNFCCC have agreed on adaptation goals and commitments. Working through the Adaptation Committee to qualify migration as an adaptation strategy eligible for support may be less divisive than creating an alternative protocol that requires COP consensus or an entirely new institution that requires participation from all states to be effective.¹⁶⁴ If the COP delegates decision-making power over the funds to the committee, it will have more efficient and flexible decision-making abilities. However, attempting to address the rights gap through the UNFCCC is less likely to succeed given that the United States and other developed nations have balked at accepting binding obligations for greenhouse gas limitations based on common but differentiated responsibilities. Thus, it is unlikely that developed nations will willingly provide

¹⁶² See Biermann & Boas, *supra* note 25, at 80 (“[T]he level of funding is not enough even for the current purposes of the [four] funds.”).

¹⁶³ *Durban Decisions*, *supra* note 86, ¶ 92, at 19 (“[T]he Adaptation Committee shall be the overall advisory body to the Conference of the Parties on adaptation to the adverse effects of climate change”); *Id.* ¶ 99, at 19 (“Requests the Adaptation Committee to engage and develop linkage through the Conference of the Parties with all adaptation-related work programmes, bodies, and institutions under the Convention”).

¹⁶⁴ For a discussion of the requirement that all COP decisions be made by consensus, see *supra* note 133. It is still unclear whether the Adaptation Committee could make such a decision without agreement from the COP; however, one of its functions is to provide “technical support and guidance to the Parties . . . with a view to facilitating the implementation of adaptation activities” *Durban Decisions*, *supra* note 86, ¶ 93(a), at 19. At the very least, in its role as “the overall advisory body to the Conference of the Parties on adaptation,” the Adaptation Committee could more easily secure a recommendation to include migration as an approved adaptation strategy to the COP. *Id.* ¶ 92, at 19. That said, given the consensus rule and other reasons outlined under Principle 5 in Part III, it seems unlikely the COP itself would approve such a move.

resettlement rights to climate migrants as doing so might weaken their negotiation stance that all parties must help combat climate change.

Although this strategy does not necessarily address all the problems associated with climate change displacement, it may be the most efficient and realistic solution in light of the current political climate. By focusing on *in situ* adaptation, migration should be minimized. Thus, when it does occur, it should be more easily identifiable as inevitable. Given that most developed countries provide temporary disaster relief to citizens of other countries,¹⁶⁵ it is likely that humanitarian principles will motivate countries that have the capacity to provide rights to migrants. This would address the rights gap.

The success of this proposal depends on the future development of the GCF and the Adaptation Committee. If the GCF is properly funded and managed, and the Adaptation Committee controls dispensation of dedicated adaptation funds, the GCF may become an effective institutional framework for addressing the funding gap for both *in situ* adaptation and migration.

CONCLUSION

The problem of displacement by climate change is much more complicated and nuanced than that of the sensationalized sinking island. The amorphous nature of the problem, combined with the politically divisive nature of the international climate change regime, make it very difficult to address effectively. By realistically examining the nature of the displacement and the realities of international regimes, it is possible to formulate the essential elements of a successful proposal. This Note has attempted to identify some of these elements and propose an efficient and realistic strategy to ameliorate climate change displacement. The reality is that despite the very real nature of the problem and the predicted numbers of affected populations, climate change displacement raises more questions than the international community is likely to agree on solving, particularly given the divisive and inefficient nature of the climate change regime. Therefore, the most realistic strategy at present is to focus on *in situ* adaptation and to generate support for displaced persons through adaptation windows.

¹⁶⁵ See Wyman, *supra* note 43, at 45 (discussing the temporary protection status provided by the United States and certain European countries).

TABLE 1: ELEMENTS OF POLICY PROPOSALS AS COMPARED TO THE PRINCIPLES

Proposal	Principle 1: Adaptation	Principle 2: Definition	Principle 3: Allocation	Principle 4: Institution	Principle 5: Political Feasibility
Byravan & Rajan	Despite adaptive measures, some will have to move	Small island and coastal individuals; international; habitat and livelihood destroyed	Historical greenhouse gas consumption plus proportionately new major emitters	New treaty; institution undefined	Unlikely; allocation of responsibility and new treaty
Hodgkinson	Adaptive capacity is an important factor in migration decisions	Populations; displaced by sudden or gradual impact consistent with climate change to which humans very likely (90%) contributed	Common but differentiated responsibilities but open to negotiation	New org.: Climate Change Displacement Organization	Unlikely; new institution
Biermann & Boas	Despite adaptive measures, some will have to move	Full protection: Displaced by sea level rise, extreme weather events, or water scarcity; climate change a contributing factor	Grants based on common but differentiated responsibility, also new sources (airplane tax, etc.)	New protocol to UNFCCC	Possibly feasible
Docherty & Giannini	Developed countries also have an obligation to contribute to preventative measures	Forced international migration due to sudden or gradual impact consistent with climate change that humans more likely than not contributed	Common but differentiated responsibility plus capacity to pay	New organization and treaty	Unlikely; new institution
Cooper	Prevention is a distant prospect	Amend Refugee Convention definition to include persons who can no longer gain a secure livelihood in traditional homelands because of primarily environmental factors of unusual scope	As in Refugee Convention	UNHCR	Not feasible; UNHCR
McAdam	Adaptive capacity is an important factor in migration decisions	As defined by treaty	As agreed in treaty	Bilateral treaty	Feasible
Williams	Expand adaptation commitments under UNFCCC to include migration	Regions define protected category; suggests graduated scale of protection depending on severity of impact	As agreed in treaty	UNFCCC and regional organizations (EU, OAS, ASEAN)	Feasible