The Rising Tide of Environmental Migrants: Our National Responsibilities

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I. INTRODUCTION

Global climate change is slowly yet significantly altering our planet. In China, the Gobi Desert is growing by 4,000 square miles every year.\(^1\) This invasive desert is encroaching upon 4,000 villages in the Gansu province where residents face the risk of having to abandon their villages.\(^2\) In Iran, 124 villages in the eastern provinces of Baluchistan and Sistan have been buried by drifting sand, and eighty-eight villages have become ghost towns in the area of Damavand due to lack of water.\(^3\) In Nigeria, 1,350 square miles of land are rendered useless every year due to desertification that has consumed parts of the nation’s arable farmland.\(^4\) In the Maldives, residents built a protective sea-wall around the nation’s capital in an attempt to shield the city from the rising sea levels that could eventually drown the nation’s 1,200 atolls.\(^5\) Haiti, where the 2010 magnitude 7.0 earthquake left over 200,000 dead and at least one million homeless,\(^6\) continues to struggle with the spread of waterborne diseases, food scarcity, and the need for reforestation in order to mitigate the effects of future floods and landslides.\(^7\)

The geographic sampling presented above demonstrates how the changing environment is eroding the livelihoods of people in nations across the globe. As the effects of climate change continue to surface, more and more people are involuntarily uprooted from their homes as a result of environmental factors.\(^8\) As the direct and auxiliary consequences of climate change accumulate, the staggering human cost of the changing environment has become readily apparent.

Economics, religion, war, politics, the environment, or any other host of factors can motivate an individual’s decision to migrate away from his

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2. Id.

3. Id.

4. Id.


8. DeWitte, supra note 5, at 212.
or her native homeland. In fact, migration “is considered ‘one of the oldest coping strategies’ in the face of life-threatening environmental crises.” In our globalized and interconnected world, environmental degradation as a result of climate change is an ever-increasing reason why people are being forced away from their homelands. In the past, human displacement as a result of an environmental catalyst was largely due to natural disasters. In the twenty-first century, however, environmental migration is increasingly triggered by slower-onset environmental degradation.

The United States, historically regarded as the land of opportunity, has been an immigration hotspot for both those looking for a better life as well as those fleeing for their lives. When Congress enacted the Refugee Act in 1980, Congress made a commitment to conform our national refugee laws to the international legal standards presented in Article 1 of the 1951 Convention Relating to the Status of Refugees. Congress affirmed our promise to “one of the oldest themes in America’s history—welcoming homeless refugees to our shores.” However, this promise, and the United States’ refugee laws, excludes environmental refugees. In fact, nowhere do our immigration laws recognize those who flee their homelands for environmental reasons as a group of people deserving of protection based on this status alone. As such, environmental refugees must either find a way to reach our shores and live clandestinely without lawful immigration status, or must be eligible for entry into the country based on another category of admission.

Involuntary migration due to the changing environment is a phenomenon occurring around the globe and one that is having an

10. Naser, supra note 9, at 717.
11. Id. at 717–18.
15. Id. at 1118–19.
increased impact on our nation. The impact of changing environmental factors on human existence is slowly but permanently modifying cultures and lifestyles, and it is inducing the migration of people across international borders. At this juncture of globalization and environmental change, the question that needs to be addressed is how should the United States accommodate the people that are forcibly displaced as a result of environmental changes? What rights, if any, do they have? This Note argues that as a matter of legal obligation and morality, environmental refugees qualify as legitimate refugees who must be afforded humanitarian protections within the structure of United States refugee and immigration laws.

The crux of this Note’s argument is that environmental refugees are legitimate—they are fleeing environmental degradation that has destroyed or consumed their homeland and way of life. Thus, environmental refugees deserve a chance at the same protections that other refugees are afforded. This Note maintains that our national justice system needs to be modernized to ensure the safety of environmental migrants. Part II briefly introduces the impacts of climate change, presents the most widely used definitions of an environmental refugee, and examines what geologic and socio-cultural changes are linked to migration triggered by the environment. Part III examines the system of international refugee law. Part IV analyzes the current United States immigration system and its shortcomings, whereas Part V argues why we as a nation should provide humanitarian assistance to environmental refugees. Finally, Part VI proposes several solutions for how the United States’ immigration system might be reformed to accommodate the inevitable and growing influx of environmental refugees.

II. CLIMATE CHANGE AND ENVIRONMENTAL REFUGEES

A. Climate Change and Its Impacts on People and Places

Climate change will affect every nation on this planet, and indeed, its presence can already be identified through the increased severity of natural disasters such as Hurricane Mitch and Hurricane Katrina. The frequency,
intensity, and severity of natural disasters has risen exponentially, from 100 reported natural disasters in 1974 to 400 in 2003.\textsuperscript{19} Climate change has many effects, including soil erosion, drought, desertification, flooding, and an increase in the occurrence and severity of natural disasters.\textsuperscript{20} In addition to the rise in natural disasters, since the Industrial Revolution, human behavior has contributed to an increasing level of greenhouse gases in the atmosphere.\textsuperscript{21} The scientific community is largely in agreement that these gases, and specifically carbon dioxide, are changing our earth’s ecosystems and are contributing to an increase in annual global temperatures.\textsuperscript{22}

The consequences of humankind’s impact on the earth are diverse and ever-increasing. Rising sea levels is one example of a mounting climate change induced environmental crisis that threatens millions of people who live along coastlines and in other low-elevation areas.\textsuperscript{23} This crisis is primarily caused by an increase in global temperature, which warms oceanic water temperatures.\textsuperscript{24} As water warms it expands and also leads to the melting of the polar ice caps, and by extension, the continued rise in sea levels.\textsuperscript{25} The island nation of Tuvalu has already lost one of its three islands and six atolls to this phenomenon.\textsuperscript{26} Rising sea levels will affect communities throughout coastal communities in polar and tropical regions alike, and many of its potential collateral consequences remain unknown.\textsuperscript{27}


\textsuperscript{19} Naser, supra note 9, at 720.

\textsuperscript{20} See generally Kolmannskog, supra note 18, at 13.


\textsuperscript{23} See Naser, supra note 9, at 723–25.

\textsuperscript{24} Id.

\textsuperscript{25} Lange, supra note 21, at 616–17.

\textsuperscript{26} Moberg, supra note 15, at 1109; Patrick Barkham, \textit{Going Down}, GUARDIAN (Feb. 15, 2002), http://www.guardian.co.uk/environment/2002/feb/16/weekendmagazine.globalwarming; see Doran, supra note 6, at 130.

\textsuperscript{27} \textbf{M. L. Parry, ET AL., Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change}, 2007,
Norman Myers, prominent environmental scholar, researcher, and professor,\textsuperscript{28} estimates that displacement due to climate change is predicted to affect approximately 200 million people globally by 2050.\textsuperscript{29} Similarly, Christian Aid, an international development charity, conducted a study that projects that between 2007 and 2050, “250 million people [will be] permanently displaced by climate change-related phenomena such as floods, droughts, famines, and hurricanes.”\textsuperscript{30} Citing an example germane to the United States, one study notes the correlation between climate-dependent crop yields in Mexico and the percentage of Mexican nationals who migrate to the United States.\textsuperscript{31} This study posits that between two and ten percent of the current population of Mexico will flee to the United States due to specific triggers caused by environmental instability and crises.\textsuperscript{32}

The demographic of people compelled to permanently relocate as climate refugees tends to be comprised of the extremely poor and marginalized sections of society.\textsuperscript{33} For many of those affected by climate change, their livelihoods are inseparably tied to their environment. For example, in Bangladesh, the Ganges, Brahmaputra, and Meghna Rivers provide Bangladeshis with the natural resources that small-scale, subsistence farmers need to survive.\textsuperscript{34} Increased flooding throughout Bangladesh has made the continuance of the Bangladeshi farmers’ traditional lifestyle impossible.\textsuperscript{35} As such, they have been involuntarily displaced to Dhaka or whatever place can haphazardly accommodate


\textsuperscript{28} Professor Myers is a visiting Professor at Green College at Oxford University in the United Kingdom and is an Adjunct Professor at Duke University. See Norman Myers, \textit{NICHOLAS SCH. FACULTY} (Jan. 2, 2014, 5:27 PM), http://fds.duke.edu/db/Nicholas/esp/faculty/normyers; Norman Myers, \textit{Environmental Refugees: an Emergency Security Issue, in 13TH ECONOMIC FORUM, PRAGUE} (2005), available at http://www.osce.org/node/14851.

\footnotesize{29. DeWitte, supra note 5, at 211.}


\footnotesize{32. Feng, Krueger & Oppenheimer, supra note 31, at 257.}

\footnotesize{33. McAnaney, supra note 18, at 1176–77, 1179.}

\footnotesize{34. DeWitte, supra note 5, at 216; Naser, supra note 9, at 724–25.}

\footnotesize{35. DeWitte, supra note 5, at 216.}
Generally, this results in a rural to urban migratory pattern. In fact, Bangladesh is considered a “hotspot” for migrants displaced by rising sea levels. Here, a rise in sea level of even ten to twenty centimeters could result in the displacement of millions of Bangladeshis.

For Bangladeshis, and residents of other low-elevation nations, forced displacement due to climate change is more than just a looming prediction. In the recent past, 500,000 Bangladeshis became homeless when half of Bangladesh’s Bhola Island permanently flooded. A side effect of low-elevation and island flooding is that saltwater can bleed into groundwater, poisoning the supply of groundwater that many towns and villages depend on for survival. Furthermore, lack of political stability and financial resources in Bangladesh means that there is minimal, if any, assistance to help environmental refugees who are fleeing flooding and attempting to rebuild their lives. Similarly, the nation of Vietnam is experiencing threats of flooding to the Mekong Delta. This delta produces fifty percent of the nation’s rice, sixty percent of its shrimp, and eighty percent of fruit crops. “A rise in sea level will not only force coastal residents to migrate, but will affect the entire nation’s food production.” While climate change directly and substantially impacts people and places, climate change also gives rise to daunting collateral consequences such as those faced by Bangladesh and Vietnam.

B. Who Are Environmental Refugees?

“[T]he human impact on the environment is creating a new kind of global casualty for the twenty-first century—an emergent class of environmental migrants.” Over the past thirty years, two sub-classifications of refugees have emerged from academic discourse:

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37. KOLMANNSKOG, supra note 18, at 20.
38. DeWitte, supra note 5, at 216; Naser, supra note 9, at 725.
39. DeWitte, supra note 5, at 216.
41. DeWitte, supra note 5, at 216.
42. Id. at 217.
43. Id.
44. Id.
45. Naser, supra, note 9, at 714.
environmental refugees and climate change refugees. The definition of the broader term “environmental refugees” emerged from the United Nations Environment Programme. This definition, coined by United Nations researcher Essam El-Hinnawi, reads, “[t]hose people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardizes their existence and/or seriously affected the quality of their life.” Subsequently, Myers put forth a similar definition of environmental refugees: “persons who no longer gain a secure livelihood in their traditional homeland because of what are primarily environmental factors of unusual scope.” As examples of those environmental factors, Myers cites instances of desertification, drought, flood, soil erosion, and natural disasters.

The narrower term “climate refugees” arose more recently in an effort to define a particular subset of environmental refugees that were relocating specifically due to climate change. Researchers from the Institute for Environmental Studies, Frank Biermann and Ingrid Boas, were among the first to advocate for this narrower definition of climate refugees. In their view, climate refugees include “people who have to leave their habitats, immediately or in the near future, because of sudden or gradual alteration in their natural environment related to at least one of the three impacts of climate change: sea level rise, extreme weather events, and water scarcity.”

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47. Id.
49. DeWitte, supra note 5, at 221–22.
50. Id.
51. DeWitte, supra note 5, at 222.
52. Id.; Frank Bierman & Ingrid Boas, Preparing for a Warmer World: Towards a Global Governance System to Protect Climate Refugees 3 (2007) available at http://www.sarpn.org/documents/d0002952/Climate_refugees_global_governance_Nov2007.pdf. The term “climate refugee” was popularized by Frank Biermann and Ingrid Boas in this joint publication. Mr. Biermann is a professor of political science and environmental policy and head of department of environmental policy analysis at the Institute for Environmental Studies in Amsterdam. Ms. Boas is a researcher with the Department of Environmental Policy Analysis at the Institute for Environmental Studies in Amsterdam.
53. DeWitte, supra note 5, at 22. See also; Atapattu, supra note 48, at 627–30; Bierman, supra note 52, at 8.
Harvard Law lecturers and scholars Bonnie Docherty and Tyler Giannini defined a climate refugee as someone who “is forced to flee his or her home and to relocate temporarily or permanently across a national boundary as the result of sudden or gradual environmental disruption that is consistent with climate change to which humans more likely than not contributed.”

The United Nations adds another definition to the mix, which places environmental refugees into the category of “displaced persons.” The United Nations adopted the term “environmentally displaced persons” to describe people “who are displaced from or who feel obligated to leave their usual place of residence, because their lives, livelihoods and welfare have been placed at serious risk as a result of adverse environmental, ecological or climatic processes and events.” This label seemingly encompasses both environmental and climate refugees and essentially parallels El-Hinnawi’s and Biermann and Boas’s definitions. However, although the definitional term “environmentally displaced persons” may sound official, the term carries no set of legal rights in the realm of international refugee law.

The United Nations High Commissioner for Refugees (“UNHCR”) and international refugee law draw an important distinction between environmentally displaced persons and refugees. Within the international context, refugees are defined as those who flee their country because of fear of ethnic, religious or political persecution, or to escape conflict. Environmental refugees do not fit into the international rubric because of the absence of an underlying fear of persecution that embodies the internationally accepted definition of refugee. This important difference, which will be discussed in detail below, gives rise to the fundamental barrier environmental refugees face in gaining access to humanitarian protections on an international level.

The underlying argument in this Note applies to environmental refugees, climate refugees, and environmentally displaced persons. However, for the purpose of simplicity and inclusiveness, this Note uses

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54. Bonnie Docherty & Tyler Giannini, Confronting the Rising Tide: A Proposal for a Convention on Climate Change Refugees, 33 HARV. ENVT'L. REV. 349, 361 (2009); see also DeWitte, supra note 5, at 222.
55. KOLMANNSKOG, supra note 18, at 6; see also Atapattu, supra note 48, at 621.
56. Atapattu, supra note 48, at 621.
57. See Keane, supra note 18, at 215; see also Atapattu, supra note 48, at 621.
59. Id. at 14.
the broader term environmental refugees to refer to all three categories of refugees.\footnote{60}

\section*{C. Environmental Refugees Face Challenges in Gaining Recognition}

Given the multiple, vague, and all-encompassing definitions, it is not surprising that environmental migrants have had difficulty finding a place of acceptance within the textual rigidity of the international legal order. One prominent critique is that before a definition for environmental refugees can be accepted by the international community, the definition must be specific and defined around either a particular group of people or an explicit environmental impact.\footnote{61} The counterargument is that focusing too narrowly on a definition means that migrants who are legitimately involuntarily displaced may be excluded, as is the current situation with environmental refugees.

It is generally accepted that the changing environment can be an inductive factor for migration. However, one argument proclaims that there is a significant lack of evidence that “the environment can be a sole and substantive cause of migration, or that migration can have a direct and substantive impact on the environment.”\footnote{62} This argument ignores the fact that the vast majority of environmental refugees are comprised of poverty-stricken people usually reliant on a subsistence existence dependent upon the environment.\footnote{63} Relatedly, it can be difficult to categorically identify an individual reason for why some people migrate.\footnote{64} Often, the catalysts for migration overlap, and increasingly, there are mixed motives for why people are migrating, especially in slow-onset environmental cases.\footnote{65} In cases of mixed motives of migration, the changing environment’s effect on migration can be perceived as an ancillary reason for migration.\footnote{66} Other push-pull factors often used in the mixed motives theory include poverty, overpopulation, disease, malnutrition, unemployment, urbanization, and

\footnote{60. The policy implications of choosing a broader or narrower definition of refugees are very important. In no way does this Note mean to gloss over this importance. However, it is the author’s opinion that refugee protections should be granted to all three categories of environmental migrants who flee life threatening situations.
62. \textit{Keane}, \textit{supra} note 18, at 223.
64. \textit{See} Atapattu, \textit{supra} note 48, at 620–21.
65. \textit{Id. See also} McAnaney, \textit{supra} note 18, at 1177.
corruption. These concerns are particularly important because push-pull factors are a controlling factor for the immigration admissibility process, or lack thereof, in international and United States refugee law.

Another hindrance to the acceptance of environmental refugees is the inherent challenge in conveying that the severity and necessity of an environmental refugee’s displacement is comparable to that of a traditional refugee. Climate change manifests slowly, which acts to negate the severity of an environmental refugee’s situation. Migration that stems from the result of slow-onset environmental change is not perceived as an emergency or threatening enough to necessitate the use of humanitarian aid or international legal protection.

Arguably every nation on the planet is affected by some sort of environmental problem stemming from global climate change. Opening the floodgates of granting refugee protection to a class of people who exist in every country is not an operable solution for administrative reasons. Those opposing an extension of international protection to environmental refugees state that the changing environment is a global phenomenon similar to poverty. Arguably both are social problems that plague every region of the world and must be dealt with by each country individually. Another critique alleges that the terms environmental and climate refugee do not convey any official legal rights or protections in international law; the terms are actually legal misnomers. Considering these arguments, it is clear that although environmental refugees are not fleeing traditional notions of persecution, environmental refugees are still fleeing for their lives and are deserving of legal protections.

Drawing attention to some of the broad, large-scale immigration challenges that will be presented by environmental refugees’ migration, a 2009 report issued by UNHCR warns that environmental refugees that cross international borders might be eligible for general human rights protections in a receiving State, but they would likely not have a legal right of entry to that State. This report confirms that UNHCR, the
International Organization for Migration, and numerous international humanitarian organizations take the position that environmental refugees “have no legal basis in international refugee law.” The report further recommends that acceptance of environmental refugees “should be avoided in order not to undermine the international legal regime for the protection of refugees.”

III. INTERNATIONAL REFUGEE LAW

United States refugee law is predominantly derived from legal standards of international refugee law. As such, this Note will first explain the foundational texts and concepts of international refugee law to provide background and context for the United States’ refugee policies.

The legal framework for international refugee law provides specific guarantees and protections for asylees and refugees. Within this framework, it is generally the responsibility of the home nation to protect its own citizens. However, if people are displaced or severed from ties to their nationality because either the state is unable or unwilling to protect its people or because the state itself is the source of harm or persecution, international law assumes responsibility. Under this logic, in the case of a natural disaster or slow-onset environmental degradation that results in forced displacement, the international legal community will hold the affected nation’s government responsible for the protection of its own people. International law will not have any legal responsibility to provide protections to those forced to flee because the country of origin itself did not directly cause the refugees’ flight.

The founding principle of international refugee law derives from the international law concept of non-refoulement. The promise of non-refoulement declares that “states shall not ‘expel or return’ a refugee to


75. Id.

76. Id.


79. Id.; Atapattu, supra note 48, at 615–16.

80. Atapattu, supra note 48, at 616.

81. CONVENTION AND PROTOCOL, supra note 58, at 3.
tories ‘where his life or freedom would be threatened on account of his race, religion, nationality, membership of a particular social group or political opinion.’”

The principles of nondiscrimination and nonpenalization also are notable and persuasive underpinnings to the history of refugee law. Non-refoulement however, represents a bedrock standard that establishes the minimal treatment afforded to those protected by international law. “The principle of non-refoulement is so fundamental that no reservation or derogations may be made to it.”

International treaties, specifically the 1951 Convention Relating to the Status of Refugees (“1951 Convention”) and the 1967 Protocol, are foundational texts in this area. The 1951 Convention prescribes minimum standards of treatment for refugees once they are safely relocated to a host country. These standards and rights include access to the judicial system, the right to primary education, the right to work, and the ability to obtain refugee and travel documentation. The 1967 Protocol sets parameters for the scope of refugee law. When the signatories of the 1951 Convention committed their nations to the promise of refugee resettlement, the United States initially abstained from signing the 1951 Convention. It was not until 1968 that the United States became a signatory to the 1967 Protocol relating to the Status of the Refugee and affirmed our national promise to uphold the rights of non-refoulement. Today, 147 nations have acceded to the 1951 Convention, the 1967 Protocol, or both.

The definition of a refugee under the 1951 Convention was drafted after World War II and is grounded in Article 14 of the Universal Declaration of Human Rights of 1948. This declaration acknowledged and promulgated the right of a persecuted person to seek asylum in other countries. The 1951 Convention remains the centerpiece document that

83. CONVENTION AND PROTOCOL, supra note 58, at 3.
84. Id.
85. Id.
86. Id.
87. Id. at 4.
88. KERWIN, supra note 82, at 2.
90. CONVENTION AND PROTOCOL, supra note 58, at 5; UNHCR, supra note 89, 1.
91. CONVENTION AND PROTOCOL, supra note 58, at 2.
92. Id.
guides international protection for refugees, even to this day.\textsuperscript{93} The refugee protections enumerated in the 1951 Convention however, were originally designed to protect refugees who fled from persecution in Europe that occurred before January 1951.\textsuperscript{94} Accordingly, under the 1951 Convention, the term “refugee” shall apply to a person who:

As a result of events occurring before 1 January 1951 and owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it.\textsuperscript{95}

The 1967 Protocol amended the 1951 Convention and broadened the scope of refugees’ protections to include coverage for all people who flee persecution on account of the five protected grounds throughout the globe.\textsuperscript{96} While the geographic and temporal scope has been broadened, the types of refugees included in the protections have never been expanded.\textsuperscript{97}

International law recognizes two primary categories of migrants who flee their homelands, refugees and internally displaced people. Within the parameters of international law, “refugees” migrate across international borders whereas “internally displaced people” flee their specific homeland yet remain within the boundaries of their native country.\textsuperscript{98} This distinction is relevant for the discussion in this Note because international law and policy has yet to create a doctrine that has jurisdiction over internally displaced persons who remain within the jurisdiction of their home state.\textsuperscript{99} However, with increasing globalization the connectivity of neighboring and regional countries that share environmental resources will be difficult to ignore. Thus, international law and policy may viably become an increasingly powerful and guiding force in the future development of environmental regulation and environmentally instigated migration for internally displaced people as well as refugees.

Presently, the protections of international law are not extended to those who are forced to flee their homes due to slow-onset environmental

\begin{thebibliography}{99}
\bibitem{93} Id.
\bibitem{94} Id.
\bibitem{95} Id. at 14.
\bibitem{96} Id. at 4.
\bibitem{97} See Doran, \textit{supra} note 6, at 121–22.
\bibitem{98} Atapattu, \textit{supra} note 48, at 616.
\bibitem{99} Id.
\end{thebibliography}
changes such as rising sea levels and desertification. To be considered eligible for international protection as a refugee, the migrant must fit three eligibility requirements defined in the 1951 United Nations Convention Relating to the Status of Refugees. First, to qualify as a refugee the person must have suffered from persecution or must have a well-founded fear of future persecution on account of race, religion, nationality, membership in a particular social group, or political opinion. Second, the refugee must be outside of his or her home country to claim refugee status. Third, the refugee must be either unable or unwilling to avail him or herself of the protection of his or her home country.

Environmental refugees will find it impossible to qualify as a refugee under the 1951 Convention definition for two primary reasons. First, those fleeing environmental degradation are not fleeing persecution, nor do they have a well-founded fear of persecution. This first requirement has two prongs. The claimant must demonstrate both a subjective fear of persecution and their fear must be “well-founded, or supported by an objective situation.” Second, flight due to environmental factors is not included in the compartmentalized list of criteria for persecution, which includes race, religion, nationality, membership in a particular group, or political opinion. Thus, it is clear that environmental refugees will not satisfy the eligibility requirements necessary to be granted international protection as a refugee under the 1951 Convention.

Any attempt to broaden the internationally ratified definition of refugee to include environmental refugees will likely be met with severe resistance. There are several arguments that support this opposition. First, broadening the reach of the current refugee definition arguably devalues existing protection for refugees. Second, environmental refugees do not meet any of the requirements of the current definition of refugee, and thus to include them would completely restructure the

100. DeWitte, supra note 5, at 219.
101. Id.
102. CONVENTION AND PROTOCOL, supra note 58, at 14.
103. Id.
104. Id.
105. See generally Moberg, supra note 15.
107. Atapattu, supra note 48, at 617.
108. Id. at 622; see Aurelie Lopez, The Protection of Environmentally-Displaced Persons in International Law, 37 Envtl. L. 365, 391–92 (2007); Moberg, supra note 15, at 1128.
Third, environmental changes affect nations across the globe, and to open the floodgates of international law to a broader designation of refugees would significantly backlog the system. Finally, wealthy nations that would be forced to absorb many of these poor, unskilled environmental refugees and do not want them. Because the international legal community has firmly refused to modify the refugee definition, international refugee law fails to protect nontraditional refugees who are being forced to migrate internationally for reasons that give rise to life-threatening circumstances.

IV. THE UNITED STATES’ IMMIGRATION LAWS

In conformity with international refugee law, the United States does not recognize environmental refugees as a subset of refugees entitled to legal protection. Nor does the United States confer any path to citizenship or lawful immigration status on the basis of status as an environmental refugee alone. However, to acknowledge a commitment to refugee protections, the principles of the 1951 Convention and the 1967 Protocol were officially codified into United States law by the Refugee Act of 1980. This codification adopted the international legal definition of refugee, and the 1951 Convention became a national promise.

In the United States, the Refugee Act of 1980 created the Office of Refugee Resettlement, which provides for the resettlement of refugees and

111. Atapattu, supra note 48, at 623–24, 627; Doran, supra note 6, at 127–28.
112. See Atapattu, supra note 48, at 636 (“No one wants to be left holding the problem of climate refugees.”). For a comprehensive critique, see generally Morrissey, supra note 46.
113. See Moberg, supra note 15, at 1128; Atapattu, supra note 48, at 622.
114. See DeWitte, supra note 5, at 219; CONVENTION AND PROTOCOL, supra note 58, at 3.
115. See Doran, supra note 6, at 123.
116. See Hong, supra, note 17, at 327.
seeks to transition them into a self-sustaining lifestyle within the United States as soon as possible after entry. In 2012, President Barack Obama budgeted for the admittance of 76,000 refugees from across the globe. This total allotment is further subcategorized by region, designating a specific number of refugees that may be admitted per area of the globe. In comparison, the Immigration and Refugee Board of Canada admitted 12,983 refugees in 2011. Also notable, in August 2012, Australia’s prime minister increased the number of annual refugee intake from 13,700 per year to 20,000, Australia’s largest increase in thirty years.

Comparing refugee admittance numbers with the reality of climate change’s effects on human populations demonstrates several important points. First, the number of refugees that are seeking protection worldwide is alarmingly high. UNHCR estimates the number of global refugees and internally displaced people to be over 43.7 million, and many environmental refugees are not included in this total. Second, the United States notably admits a significant number of refugees. While the United States is clearly doing its part to absorb global refugees, refugee protection is not solely concerned with numbers. The United States’ national refugee admittance policy should also reflect acknowledgement of the types of refugees that now exist in the world. Because the United States has been one of the largest contributors to climate change, it should therefore lead the effort to protect the type of refugees that it bears

119. See id. § 1521(a).
120. Id. § 1522(a)(1)(A).
122. Id. (listing Africa’s ceiling as 15,000, East Asia’s as 19,000, Europe’s as 2,000, Latin America’s as 5,500, Near East/South Asia’s as 35,500, and unallocated reserve’s as 3,000).
126. See supra note 121 and accompanying text.
responsibility for creating. Thus, due to its wealth, size, and pollution contribution, the United States should be a global leader in setting policy to include environmental refugees.

According to United States law, the Attorney General is vested with ultimate discretionary authority to administer and interpret the law’s definition of refugee. Utilizing this discretion, the Attorney General has the authority to modify the United States’ definition of refugee to encompass environmental refugees without offending international law. The Attorney General’s ability to use this discretion to include environmental refugees within the scope of the refugee definition has been largely constrained by politics and historical practice.

In theory, there are several avenues for lawful immigration that environmental refugees might be able to apply for. In reality, however, these avenues are virtually nonexistent for environmental refugees. Theoretically, environmental refugees may try to qualify for asylum, withholding of removal, and the United Nations Convention Against Torture. A grant of asylum is the most desirable of these three options because it confers a path to lawful permanent resident status, provides derivative status to family members, and allows the successful applicant the ability to travel outside the United States.

The statutory requirements necessary to be granted asylum are, however, all based on the 1951 Convention’s definition of refugee as one who flees persecution or has a well-founded fear of persecution on account of his or her race, religion, nationality, membership in a particular social group, or political opinion. As discussed above, environmental refugees will rarely be able to demonstrate persecution or a well-founded fear. If applicants cannot prove asylum, they are also unlikely to establish the criteria necessary to obtain withholding of removal. Under the Immigration and Nationality Act, withholding also requires the applicant

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127. Lange, supra note 21, at 613; Mayer, supra note 9, at 367–77; Juliet Eilperin, Climate Shift Tied to 150,000 Fatalities: Most Victims are Poor Study Says, WASH. POST (Nov. 17, 2005), http://www.washingtonpost.com/wp-dyn/content/article/2005/11/16/AR2005111602197.html.


129. Id.

130. See generally Hong, supra note 17, at 342–43.


132. Immigration and Nationality Act § 208(b)(3)(A); Kerwin, supra note 82, at 3.

133. Immigration and Nationality Act § 208(b)(1)(B)(i); CONVENTION AND PROTOCOL, supra note 58, at 14–16.
to meet the 1951 Convention’s definition of refugee.\textsuperscript{134} Withholding of removal is comparable to the international law concept of the right to non-refoulement, but it carries a higher burden of proof than asylum.\textsuperscript{135} Refugees may also argue for protection under the Convention Against Torture, which bestows withholding of removal protection upon the refugee, if it is more likely than not that the refugee would be tortured upon return to the refugee’s home country.\textsuperscript{136} Environmental refugees will have difficulty securing these three protections due to the narrow definition of refugee and the slim likelihood that environmental refugees would be fleeing both torture and environmental displacement in their home states.

There are three additional avenues for environmental refugees who cannot meet the definition of refugee but who would be displaced and whose safety would be threatened if returned home: (1) temporary protected status (“TPS”), (2) administrative closure or prosecutorial discretion, and (3) parole. Foreign nations may be designated as TPS nations if adverse conditions exist within the country that temporarily prevent nationals who are currently outside of their home country from returning home safely.\textsuperscript{137} Nations have been considered TPS states as a result of armed conflict and civil war, environmental disasters or epidemics, or other extraordinary and temporary conditions.\textsuperscript{138} Importantly, TPS is only available to those refugees who are physically present within the United States at the time their home state is designated as a TPS nation.\textsuperscript{139} Thus, TPS cannot be preventatively or reactively applied for by those fleeing their home countries at the time of impending environmental crisis or disaster.\textsuperscript{140}

Furthermore, TPS is premised on foreign nations self-proclaiming that they are temporarily unable to protect and care for their citizens should

\textsuperscript{134} Immigration and Nationality Act § 241(b)(3).
\textsuperscript{135} Kerwin, supra note 82, at 3.
\textsuperscript{137} Temporary Protected Status, U.S. CITIZENSHIP & IMMIGRATION SERVS., http://www.uscis.gov/portal/site/uscis/menuitem.eb1d4c2a3e5b9ac89243ca7543f6d1a/?vgnextoid=848f7f2ef0745210VgnVCM100000082ca60aRCRD&vgnextchannel=848f7f2ef0745210VgnVCM100000082ca60aRCRD (last visited Jan. 23, 2013) [hereinafter US TPS]. The current countries that are designated as TPS countries include: El Salvador, Haiti, Honduras, Nicaragua, Somalia, Sudan, South Sudan, and Syria.
\textsuperscript{138} Id.
\textsuperscript{139} Id.
\textsuperscript{140} Id.
they return home.\textsuperscript{141} When granted, TPS only confers temporary protection in the United States that varies in duration depending upon the severity of the crisis existing in the foreign home state.\textsuperscript{142} Those TPS recipients whose homeland has been significantly altered or permanently destroyed by environmental factors will have no choice but to relocate from the United States at the conclusion of this temporary buffer status.\textsuperscript{143} Therefore, while TPS is a helpful and essential benefit for the short-term, it is not a meaningful solution to the impending global crisis of environmentally displaced migrants.

Additionally, environmental refugees may also request a grant of administrative closure or prosecutorial discretion from Immigration and Customs Enforcement ("ICE") or Customs and Border Protection ("CBP").\textsuperscript{144} Discretion may be awarded when either of these agencies "essentially decides not to assert the full scope of the enforcement authority available to the agency in a given case."\textsuperscript{145} For administrative closure, the government removes the refugee from the active docket of removal proceedings but keeps the refugee technically "in proceedings," meaning that the refugee has no legal status and is ignored until there is a new reason to take action on the case.\textsuperscript{146} Prosecutorial discretion involves dismissal or mitigation of an immigration charge such as deciding not to file a charging document or issuing a stay of removal.\textsuperscript{147} This discretion

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141. Id.; 8 U.S.C. § 1254a; but see Moberg, supra note 15, at 1109–11 (noting that countries such as Tulvau will never be able to utilize this form of relief because their residents will not be able to return to their home nation).

142. US TPS, supra note 137.

143. See generally id.


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The Rising Tide of Environmental Migrants

applies to a broad range of enforcement decisions and is especially used for lower priority, noncriminal cases. However, there is no right to the favorable exercise of discretion by an enforcement agency. Therefore, while administrative and prosecutorial discretion are existing remedies, in practice, they are unpredictable and unlikely to be awarded environmental refugees.

The third and sparsely used means of immigration protection that an environmental refugee could hope for is parole. Parole, a term of art in immigration law, is a legal means for admitting persons in refugee-like and other compelling situations who do not meet the narrow definition of refugee established by the 1951 Convention. Parole is similar to administrative or prosecutorial discretion in definition as well as in practice. The U.S. Citizenship and Immigration Services website states, “[h]umanitarian parole is used sparingly to bring someone who is otherwise inadmissible into the United States for a temporary period of time due to a compelling emergency.” Citizenship and Immigration Services further specifies that parole is to be granted “based on urgent humanitarian reasons or if there is a significant public benefit.”

Thus, the only established means of relief that environmental refugees can hope for when coming to the United States are TPS, administrative or prosecutorial discretion, and parole. There is no official recognition or affirmative immigration status for environmental refugees within the United States immigration system.

V. WHY CARE ABOUT ENVIRONMENTAL REFUGEES

One point that this Note has yet to address is why lawmakers and citizens in the United States should care about providing protection for environmental refugees. What sort of obligation, if any, does the United States owe to environmental refugees? This Note argues that the United

148. Morton Memorandum, supra note 145, at 2, 4; see also Immigration Pol’y Center, supra note 147; Kerwin, supra note 82, at 24.

149. Morton Memorandum, supra note 145, at 6.


151. Kerwin, supra note 82, at 25.


153. Id.
States has both a legal and a moral obligation to care for environmental refugees.

The first reason why the United States has a duty to legally and morally protect environmental refugees is because the United States and other wealthy nations have largely been the cause of climate change related environmental problems.\textsuperscript{154} In reality, climate change is disproportionately affecting poor nations that have done little to contribute to the problem. Environmental refugees who suffer the most severe and life-altering devastation resulting from climate change live in nations such as Bangladesh\textsuperscript{155} or Haiti, nations that both minimally contribute to climate change and have minimal “financial influence in the international world.”\textsuperscript{156} Thus, the United States and other wealthy nations’ “energy- consumptive lifestyles are having lethal impacts on other people around the world, especially the poor.”\textsuperscript{157}

Similarly, poor nations disproportionately carry the burden of accommodating refugees.\textsuperscript{158} While poorer nations are home to thousands, and sometimes millions of refugees, the United States and other wealthier nations are systematically restricting access to their own territories.\textsuperscript{159} Poorer nations simply cannot absorb the influx of migrants into their urban areas given their limited resources and lack of infrastructure.\textsuperscript{160} Given this disparity, the United States should be morally accountable for at least helping to provide for a reasonable percentage of the environmental refugees who are displaced due to climate change. The morality argument can find support in the principle of non-refoulment because the United States’ responsibility to not expel a refugee to a place where the refugee’s life or freedom would be threatened\textsuperscript{161} exists regardless if the source of harm is the refugee’s government or the local environment.

A second reason why the United States has a moral duty to protect environmental refugees is because slow-onset environmental degradation is truly a global problem. As globalization and the world’s population continue to increase, nation-to-nation interconnectedness will also increase, making the plight of environmental refugees more and more of

\begin{itemize}
\item \textsuperscript{154} Lange, \textit{supra} note 21, at 613; Mayer, \textit{supra} note 9, at 367–77.
\item \textsuperscript{155} See \textit{supra} note 26 and accompanying text; DeWitte, \textit{supra} note 5, at 215–16.
\item \textsuperscript{156} Moberg, \textit{supra} note 15, at 1122; Mayer, \textit{supra} note 9, at 376.
\item \textsuperscript{157} Eilperin, \textit{supra} note 127; Mayer, \textit{supra} note 9, at 376.
\item \textsuperscript{158} Mayer, \textit{supra} note 9, at 367–77.
\item \textsuperscript{159} JASTRAM & ACHIRON, \textit{supra} note 78, at 7.
\item \textsuperscript{160} See generally KOLMANNSSKOG, \textit{supra} note 18, at 20; Naser, \textit{supra} note 9, at 724–25; Eilperin, \textit{supra} note 127.
\item \textsuperscript{161} Kerwin, \textit{supra} note 82, at 2.
\end{itemize}
the United States’ problem. As mentioned earlier, Myers projects that there will be upwards of 200 million environmental refugees in the world by 2050. As these numbers continue to swell, more countries such as the United States will be forced to confront the issue of how to resettle environmental refugees. National boundaries are blurring, and international law may well emerge as an increasingly important body of positive law in the context of national environmental and refugee law.

Moreover, given the interconnectedness of the world, involuntary migration due to the changing environment often implicates collateral consequences. For example, poorer nations are simultaneously experiencing repercussions of climate change in the form of health epidemics and disease outbreaks such as dengue fever, diarrhea, and malaria. Other collateral consequences include increased urbanization. The cyclical patterns of these social ills are hopelessly intertwined; disease outbreaks are aggregated by urbanization, which is aggregated by environmental degradation, which results in forced migration. Poor nations are currently fighting against all of these social challenges, and that will inevitably take a toll on the rest of the world.

A third reason for why there is a duty to protect refugees is because much of the United States’ affluence is a result of years of unchecked carbon emissions. Therefore, it is morally fair for the United States to internalize the detrimental effects of their own industrial processes. A basic tenant of international environmental law is that one country’s actions should not negatively impact the land of another sovereign. Adhering to this tenant, the United States must do more to help environmental refugees. This moral obligation is especially implicated when the United States’ own actions are a major contributor to climate change and therefore many environmental refugees’ displacement.

162. See Kolmannskog, supra note 18, at 20 (“In one way or another, all countries will eventually be affected by climate change”).


164. Eilperin, supra note 127.

165. DeWitte, supra note 5, at 214.

166. See id. at 214–15.

167. Jeff Spross, This is President Obama’s Plan to Get the World on Board the Fight Against Climate Change, THINK PROGRESS (Jan. 24, 2014), http://thinkprogress.org/climate/2014/01/24/3203791/obamas-climate-plan-world/.


169. See generally Lange, supra note 21, at 613; Spross, supra note 167.
When the 1951 Convention was signed and the rights of the refugee were made a priority of international law, the signatory nations committed to doing their part to reconstruct societies and heal the many broken lives that were shattered by state sponsored persecution in the devastation of World War II. Sixty years later, the world is facing climate change, a new societal enemy that will take global collaboration to control and correct. The ratification of the 1951 Convention and the 1967 Protocol symbolized the United States’ acceptance of global responsibility for refugees without regard to nationality. This ratification also should include protection from environmental triggers. This Note urges the United States to accept responsibility for their actions in creating the modernized society and to work together to protect environmental refugees who have been marginalized and sacrificed in the process.

VI. PROPOSED SOLUTIONS

For the abovementioned reasons, environmental migration is a growing concern, especially with the advent of climate change. The terms environmental refugee and climate refugee are evolving terms that bring to light the reality that environmental factors are increasingly forcing people to emigrate. Environmental refugees have few options when seeking refuge under the constraints of current international and national refugee law. To cure this growing human rights dilemma, the United States must recognize that environmental refugees are valid refugees and that they are fleeing legitimate threats to their lives and livelihoods. This Note proffers several solutions that would amend the existing infrastructure of the United States’ immigration systems to accommodate environmental refugees.

A. Solution One: Reform the Definition of Refugee

Environmental refugees have become an unavoidable part of our globalized world. The reasons people are migrating today, where they are migrating from, and where they are headed, is a vastly broader inquiry today than ever before. Due to the global scope of environmental degradation and the connectivity of uninhabitable environments and shrinking resources, the treaty signed in 1951 no longer offers adequate protection for the growing and diversified classes of refugees in our international system.

170. Doran, supra note 6, at 121; CONVENTION AND PROTOCOL, supra note 58, at 2; Mayer, supra note 9, at 375–76.
One proposal to accommodate the plight of environmental refugees is to reform the internationally accepted definition of “refugee” to include a broader and more realistic definition of who contemporary refugees actually are. In Article I, the 1951 Convention endorses a single definition of the term refugee, which excludes the contemporary classification of environmental refugees. When broken down into segments, the 1951 Convention states that a refugee is (1) a person, (2) outside their country of nationality, (3) who is unable or unwilling to return or to avail herself to the protections of that country, (4) because of past persecution or a well-founded fear of future persecution, (5) on account of race, religion, nationality, membership in a particular group, or political opinion. In order for environmental refugees to qualify under this definition, segments four and five need to be either expanded or removed.

In addition to expanding the definition of refugee, other elements of the refugee definition could be expanded or eliminated. For example, law professor Scott Rempell advocates for a broader definition of persecution. While this expansion argument can be made in many creative ways, the point is that the current definition of “refugee” under United States refugee law is inadequate and underinclusive. Importantly, the United States has the power to redefine its own definition of refugee even if the international community is unwilling to do so.

Two regional bodies, the Organization of African Unity and the Cartagena Declaration, have managed to expand the definition of refugee beyond the traditional confines.

The Organization of African Unity states that a refugee is “any person compelled to leave his/her country owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or the whole of his country of origin or nationality.” The Cartagena Declaration specifies that refugees are “[p]ersons who flee their countries because their lives, safety or freedom have been threatened by generalized violence, foreign aggression, internal conflicts, massive

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172. Id.; Doran, supra note 6, at 121; see Kozoll, supra note 106, at 273.
violation of human rights or other circumstances which have seriously disturbed the public order.”

Despite this expansion, both regional bodies failed to explicitly include environmental refugees or to mention environmental triggers as a source of flight within the expanded definition of refugee.

While the purpose of the Organization of African Unity and the Cartagena Declaration was to protect refugees fleeing “civil disturbances, widespread violence, and war,” these two expanded definitions are a step in the right direction for the plight of environmental refugees. Both definitions contain a catch-all phrase legitimizing flight for events that “have seriously disturbed the public order.” Unquestionably, the effects of climate change and natural disasters can be classified as events that disturb the public order. Therefore, environmental refugees arguably can secure legal refugee protection under these catch-all provisions. While this Note does not proffer a proposed environmental refugee definition, at a minimum, the United States should expand its refugee definition to include a similar catch-all provision where environmental refugees may be considered for legal protections.

B. Solution Two: Broaden TPS

A third proposal for granting legal protections to environmentally displaced persons includes broadening TPS. There are several ways in which TPS could be broadened that would be beneficial to environmental migrants. Although granting TPS is not a permanent solution for any migrant, it is a temporary safe-zone, and any effort to acknowledge and protect environmental refugees is exponentially better than the current international regime that offers no protections and/or rights.

The first way TPS could be broadened would be for TPS to cover more countries that are facing serious and imminent environmental degradation. This could be countries such as the Maldives or Tuvalu that will eventually disappear due to rising sea levels or countries in the horn of Africa that are drying up due to lack of water and desertification. TPS

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177. Id.
178. Keane, supra note 18, at 216.
179. IASTRAM & ACHIRON, supra note 78, at 13.
180. Id. at 9.
181. This author was unable to find any examples of environmental refugees who had successfully secured refugee protection under either the Organization for African Unity or the Cartagena Declaration.
182. DeWitte, supra note 5, at 218–19.
183. KOLMANNSKOG, supra note 18, at 1512.
could even be subdivided regionally to acknowledge that refugees from a specific geographical region are in need of protection—irrespective of internationally recognized national borders. The categorical breadth of TPS also could be expanded to include environmental degradation beyond natural disasters. While in no way does this argument mean to devalue the severity of natural disasters, the devastation that results from slow-onset environmental change such as desertification and drought can give rise to comparable destruction and suffering.\textsuperscript{184}

The second way TPS could be broadened would be to extend its duration to allow those who are victims of environmental change to stay longer in the United States. An increase in duration would allow people who are fleeing slow-onset environmental degradation more time to consider possible permanent relocation options and would allow the home country time to address the environmental issue. Realistically, extending the time allowed in a host country is not a permanent, long-term solution. This extended grant of time may result in environmental refugees overstaying their TPS status as well as refugees being suspended longer in limbo, which hinders their rehabilitation.

\textit{C. Solution Three: Create an “Environmental Refugee” Visa Category or an “Environmental Refugee” Defense from Removal}

A further option for the United States to consider is to create a new category of environmental refugee visa or removal defense to exist within the structure of our nation’s immigration laws.\textsuperscript{185} This new category could be crafted in many different ways. As to the visa, one option would be to establish an environmental refugee visa for those who are fleeing slow-onset environmental changes. As with other visas, families could apply for it in advance from their country of origin in anticipation of their pending migration. The number of available visas could be capped at a very low number, and would thus create minimal administrative stress on our existing system.

In the removal realm, the environmental refugee defense could be crafted as an affirmative defense or waiver. Additionally, asylum or withholding of removal within the United States’ immigration laws could be amended to include an exception to grant coverage for environmental refugees.\textsuperscript{186} This exception could be granted upon satisfying specific

\textsuperscript{184} SYNTHESIS REPORT, supra note 22, at 45–54.
\textsuperscript{186} See supra notes 131–66 and accompanying text.
terms and conditions such as leaving one’s homeland because of a changing environmental factor that made further habitation life-threatening or impossible.\textsuperscript{187} The other elements necessary to receive asylum or withholding could remain unchanged.\textsuperscript{188} and this avenue of relief would essentially achieve the same purpose as the abovementioned environmental refugee visa.

\textbf{D. Solution Four: Regional, Multi-Jurisdiction Development Projects}

If the international community wishes to prevent the movement of large numbers of environmental refugees, it must prevent the environmental causes of their migration.\textsuperscript{189} The forced migration of people away from their homelands is a growing consequence of climate change that will only worsen as desertification, deforestation, soil erosion, and rising sea levels continue. An effective solution against environmental degradation and by succession, forced migration, centers on small-scale, regional collaboration and planning.\textsuperscript{190} Therefore, binational efforts to correct the sources of the environmental degradation before the changing environment gives rise to involuntary migration are imperative.

Improving access to clean and safe water, an issue that the borderland between the United States and Mexico has been facing for decades, is increasingly a catalyst for involuntary migration from Mexico to the United States.\textsuperscript{191} While water pollution and water scarcity throughout Mexico are not the sole causes of migration, these environmental risk factors are increasingly becoming a dominant contributor. Increased droughts, desertification, and rises in global temperatures will continue to adversely affect crop productivity in Mexico, aggregating the risk of famine and forced migration.\textsuperscript{192} In 2009, Mexico City was forced to suspend water supplies for three days each month due to record shortages

\begin{thebibliography}{99}
\bibitem{187} See Mayer, supra note 9, at 360 (“Small island developing states, where internal displacement will be impossible, demonstrate a clear case for this necessity.”).
\bibitem{188} Immigration and Nationality Act § 208(b)(1)(B)(i); \textit{Convention and Protocol}, supra note 58, at 14–16.
\bibitem{189} Keane, supra note 18, at 218.
\bibitem{192} McAnaney, supra note 18, at 1176; see supra notes 31–32 and accompanying text.
\end{thebibliography}
of the city’s fresh water supply. The Centre for Atmospheric Sciences of the Universidad Autónoma de México estimates that by 2020, precipitation rates in the metropolitan zone of Mexico City could fall by five percent whereas temperatures may rise by up to 1.2 degrees Celsius. Environmental changes such as these exemplify Mexico’s pressing need to improve access to clean and safe water. “Mexico’s urban areas generate 243 cubic meters of wastewater per second of which 25% drain off somewhere into the land/-cityscape, and only a third of which is treated.” These mounting environmental risk factors are giving rise to increased emigration from Mexico as farmers are unable to raise productive crops and cities are unable to provide basic resources such as safe drinking water for residents.

In an ongoing development project called “Border 2020,” the U.S. Environmental Protection Agency has partnered with the government of Mexico to collaborate on water treatment projects located in the United States and Mexico border region. Because the United States and Mexico share watersheds derived from the Rio Grande and Colorado Rivers, collaborative, multi-jurisdictional planning efforts are crucial to successfully combating water scarcity. Currently, this region has prioritized some of the borderland’s most pressing needs: improving access to safe drinking water, implementing adequate collection and treatment of wastewater, stormwater management, and understanding the regional impacts of climate change on water availability.

Similarly, through conversations surrounding the North American Free Trade Agreement, the United States and Mexico established a bilateral Border Environmental Cooperation Commission as well as the North American Development Bank. The primary goals these organizations are working to address mirror the goals of the Border 2020 mission—establishing access to safe drinking water, and regulating the

194. Id.
195. Id.
196. Feng, Krueger & Oppenheimer, supra note 31, at 14,275; see generally ENVTL. PROTECTION AGENCY, supra note 191.
197. Id.
198. Id.
199. Id.
collection and treatment of wastewater and stormwater.\textsuperscript{201} The Border Environmental Cooperation Commission is currently operating an abundance of development projects in the Baja California region, many of which are centered on water and wastewater projects.\textsuperscript{202} In Ensenada, Mexico, a desalination project is underway to treat wastewater and provide greater access to safe drinking water.\textsuperscript{203} This project has the capacity to produce 250 liters of water per second and is projected to help 96,000 residents of the Ensenada, Baja California area.\textsuperscript{204}

This binational, regional approach could be implemented broadly across the globe as a way to combat the many diverse impacts of climate change. A binational approach is preferable to a global effort. Binational, regional development prioritizes “bottom-up approaches for decision-making,” and emphasizes input and active participation from various regional actors.\textsuperscript{205} By encouraging accountability and a strong sense of collaboration and ownership in problem-solving, localities are able to devise more effective and pragmatic solutions suitable and sustainable for each particular region or climactic change.

\section*{VII. CONCLUSION}

Forced migration of environmental refugees is a globalized concern that will only increase with the rapid pace of climate change. While the term environmental refugee is currently an unofficial and unrecognized concept in United States refugee law, this must change. Environmental refugees constitute an evolving class that currently embodies thousands of refugees facing involuntary displacement. The silent and seemingly underappreciated story of environmental refugees is a harsh and sad reality that our country’s immigration laws must confront. We have an affirmative duty and obligation to be leaders in the international realm of refugee and human rights law. And as leaders, globally recognized for our advocacy of fundamental fairness and justice, the time has come to implement fundamental fairness into the practice of our immigration system.

\begin{thebibliography}{99}
\bibitem{1} \textsuperscript{201} \textit{Id.}; \textit{ENVTL. PROTECTION AGENCY, supra} note 190.
\bibitem{2} \textsuperscript{202} \textit{Certified Projects, BORDER ENVTL. COOPERATION COMM’N} (Jan. 5, 2014, 7:50 PM), \url{http://www.becc.org/projects/certified-projects#cf[environmental-sector]=.water-wastewater}.
\bibitem{3} \textsuperscript{203} \textit{Desalination Plant Ensenada, Baja California, BORDER ENVTL. COOPERATION COMM’N} (Dec. 26, 2012), \url{http://www.becc.org/projects/certified-projects/desalination-plant-ensenada-baja-california}.
\bibitem{4} \textsuperscript{204} \textit{Id.}
\bibitem{5} \textsuperscript{205} \textit{See ENVTL. PROTECTION AGENCY, supra} note 190.
\end{thebibliography}