

***457 CLIMATE CHANGE DISPLACEMENT AND FORCED MIGRATION: AN INTERNATIONAL CRISIS**

In late summer and early fall of 2015, news of the plight of thousands of mid-Eastern refugees fleeing to Europe filled the mainstream media. The world watched in horror as these media outlets made daily reports on the suffering of migrants, from stories of people suffocating in the back of smugglers’ trucks to the drowning of a three-year old child who had washed up on the shores of a Turkish beach. In the United States, news stories from the mainstream media have appeared about towns in Alaska that are facing imminent relocation efforts due to rising seas and melting tundra. It is all a part of a growing global phenomenon--shocking, costly, and deadly exoduses. In the past, we have heard stories of climate change and animal displacement. However, this time the stories are not solely about polar bears, fish, and birds struggling to survive as their habitats change or disappear. Humans are now being forced to relocate in an effort to cope with the effects of climate change. According to climate scientist Richard Seager, “[t]he current refugee crisis marks a watershed moment in the history of global warming because it is the first wave of emigration to be explicitly linked to climate change”¹ Mass migration is going to become the new normal, and currently, there are few international or domestic laws in place that provide protection to climate change refugees.

*This paper critically examines how climate change migrants and the lack of coordinated international response threaten global security, how current international and domestic policies inadequately provide human rights protections to those refugees, and how international and domestic regulations can be written or amended to better safeguard the human rights of climate change migrants. Drawing on events from around the globe, including the United States, Africa, the Middle East, and small island nations in the South Pacific, this paper examines the multiple causes of human migration and the stresses it puts on a nation’s economic and political security. The paper discusses both the types and numbers of migrants as well as the terminology debate over what to call these migrants, which is one of the critical reasons why current international and domestic legal frameworks are inadequate in providing human rights protections to climate change-induced refugees. The paper concludes that the time is ripe for an international legal agreement addressing the concerns and needs of climate change- *458 induced migrants to be developed and adopted in order to provide a long-term human rights’ solution for climate change victims.*

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***460I. INTRODUCTION**

Human displacement and forced relocation, both within and across a country's borders, will become increasingly commonplace due to the repercussions of climate change. Climate change-based relocation, which once may have been thought of as something only happening in Hollywood films or affecting future generations, is occurring now. In 2008, a United Nations Human Development Report recognized climate change as the "defining human development issue of our generation."² Global warming is "unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level."³ A global failure to curtail greenhouse gas emissions sufficiently to avoid temperature increases of 2°C or more will cause sea levels to rise and severe weather events to accelerate in the near future.⁴

The Intergovernmental Panel on Climate Change (IPCC) estimates that average global temperature increases will range from 3.2°F to 7.2°F during the 21st Century, and that greenhouse gas (GHG) atmospheric concentration levels will reach 550 ppm by 2050.⁵ At best, global temperature increases that exceed 3.6°F are dangerous, and at worst, they are "catastrophic for large segments of humanity."⁶ The IPCC's Fourth Assessment Report describes six scenarios that could play out depending upon different assumed global temperatures and GHG concentration rates.⁷ Regardless of a low emissions and low temperature or high emissions and high temperature scenario, "the IPCC projects that a variety of [detrimental] impacts--including loss of coastal lands, flooding that could displace hundreds of millions of people, more extreme weather events, stress on regional water supplies, and significant biodiversity loss--will occur under all the scenarios considered."⁸

The United States Department of Defense has acknowledged that climate change threatens the national security of the United States in many ways, creating both direct effects (i.e., rapid sea rise, coastal erosion, and food scarcity) and indirect effects (i.e., migrations, terrorism, and poverty).⁹ The Defense Department's 2014 Quadrennial Defense Review noted that climate change, coupled with other global dynamics, including uncontrolled population growth, urbanization, and economic inequality, particularly in India, China, and Brazil, will lead to the devastation of homes, lands, and infrastructure.¹⁰ The stress caused by climate change will exacerbate resource competition for food, water, and other necessities, *461 while at the same time, place hardships on economies, societies, and governments around the globe.¹¹ Climate change and its deleterious effects will act as a "threat multiplier" by aggravating conditions such as poverty, environmental degradation, political instability, and social tensions--all of which pose as threats to human, political, and state security.¹² In other words, "in case of forced migration due to environmental shocks [i.e., flooding or droughts], migration [can] hinder development by increasing pressure on urban infrastructure and services, by undermining economic growth, increasing the risk of conflicts and social unrest[,] and spreading health risks."¹³

While "climate change was once considered an environmental problem, it now impinges on every aspect of human life, including the international economy, public health, migration, employment, and, ultimately, international peace and

security.”¹⁴ The purpose of this paper is to focus on one aspect of climate change--migration induced by climate change--discussing how (1) climate change migrants and the lack of coordinated international response threaten global security, (2) current international and domestic policies inadequately provide human rights protections to those migrants, and (3) international and domestic regulations can be written or amended to better safeguard the human rights of climate change migrants.

II. II. THE STORY OF KIVALINA, ALASKA

Over the last fifty years, Alaska’s temperature has increased by more than twice the global average, increasing 3.5° F in the winter and 6.4° F in the summer.¹⁵ Permafrost, which is frozen subsoil that holds massive amounts of carbon and stabilizes the soil, keeps the northwestern Alaskan coast habitable.¹⁶ However, the rising temperature in Alaska is leading to permafrost degradation, resulting in ground subsidence in which the land previously held together by the hard ice collapses.¹⁷ Thawing permafrost not only causes landslides and coastal erosion, but also the collapse of infrastructure, including water, sewage, and electrical systems, homes, roads, bridges, and railroads, which all sink into the earth.¹⁸ The end result is that people will be forced to migrate to a new location. The villagers of Kivalina are facing such a dilemma. Kivalina, an Alaskan village located on a barrier island off the Chukchi Sea eighty miles north of the Arctic Circle, has been threatened by erosion caused by wave and sea storms for several decades.¹⁹ Experts analyzing Kivalina’s situation have called it “untenable,” and in 2003, the Government Accountability Office (GAO) said that Kivalina was in “imminent *462 danger” from erosion and from being over-washed in a storm.²⁰ In 2006, the U.S. Army Corps of Engineers wrote that “[i]t has long been apparent that the island would eventually succumb to natural forces, and that the village would have to be moved ... [and that such a] relocation effort is now critical to the survival of the community.”²¹ However, no federal agency has taken the lead in addressing the climate change threats to Kivalina and other Alaskan native villages, even though a disaster could be imminent. As for Kivalina, “their [relocation] efforts have been stymied by difficulties in choosing a new village site, funding the relocation effort, and social problems within the village stemming from overcrowding, poverty, and other difficult living conditions.”²² According to a February 2015 article in the Washington Post, “President Obama has proposed \$50.4 million in federal spending to help Native American communities grapple with climate change.”²³ However, that amount is less than half of what will be needed in order to relocate just the tiny village of Kivalina.

III. III. MIGRATION: MULTIPLE CAUSES

While the decision to migrate is rarely caused by a single factor, several of the commonly cited reasons for migration include: (1) economic, (2) social, (3) degraded security, and, (4) environmental conditions.²⁴ Even though there is no consensus on the main motivator for human migration, as physical changes in the environment occur due to climate change (i.e., droughts, floods, loss of land, rising temperatures, and rising sea levels), lands will be rendered inhospitable to human life, resulting in inhabitants either being uprooted and forced to leave their homes and lands, or attempting to remain and endure the direct effects of climate change.²⁵

One of the leading causes for human displacement is inadequate quantities of freshwater for irrigation, sanitation, and drinking, all of which are essential for human survival. Changes in precipitation, which can lead to droughts or floods, will, in turn, uproot many vulnerable populations. UN-Water, a UN interagency for fresh water-related issues, has reported that by 2080, in addition to the three billion people who currently live in waterstrapped environments, an additional 1.8 billion people will be forced to live in water-scarce environments due to changed precipitation, run-off, and glacial melting patterns.²⁶ A 2010 *463 report published by the International Food Policy Research Institute, estimated that wheat yields would decline between 1.3% and 9% between 2000 and 2030.²⁷ By 2050, this range is predicted to increase between 4.2% and 12%, and by 2080, between 14.3% and 29%.²⁸ Moreover, agricultural land in developed countries is expected to decline in area between 9% and 13%.²⁹ Unsurprisingly, when basic needs, such as food and water, cannot be met, and “populations are unable to survive where they are, they will do what people have done in similar situations throughout human history: [t]hey will move.”³⁰ Not only will more people face limited food and water sources, but “[w]here the most basic resource needs-- food and water--go unmet, [social and political] disputes spiral into full-fledged conflict, as evidenced by the ‘at least [seventeen] violent conflicts since 1990 [which] have been fueled in part by the degradation of renewable natural resources.”³¹ Thus, droughts and the expansion of dry, arid areas due to changes in climate, which result in both food and water shortages, will in turn spark mass migration, potential civil unrest, and serious threats to security. It is important to note that these consequences are intertwined. For instance, what started in Darfur as a local dispute between farmers and camel

herders over limited water resources, morphed into widespread civil wars and mass migration due to advancing desertification.³²

While climate change is rarely a direct source of conflict, it does act as a threat multiplier by exacerbating resource scarcity and existing vulnerabilities (i.e., scarce financial resources, weak governments, and ineffective legal systems).³³ Climate change drains a society's ability to adapt to changing environments, thereby "weakening the institutional capacity of states to resolve conflict through peaceful and democratic means, and creating or exacerbating political instability."³⁴ This is particularly evident in situations where the capability of a state or government to handle climate change's ecological, social, and economic impacts is limited.³⁵ If a state is already vulnerable to instability and is unable to cope with climate change, the destabilizing impacts of climate change can only worsen the effects, creating "breeding grounds for instability, for insurgencies, [and] for warlords."³⁶

Since climate change is a threat multiplier, exacerbating and compounding negative social and economic vulnerabilities, it is not surprising that researchers have recently ***464** concluded that the prolonged 2007 to 2010 drought in Syria had a catalytic effect, leading to the devastating Syrian uprising beginning in 2011.³⁷ Scientists highlight that "the drought exacerbated existing water and agricultural insecurity and caused massive agricultural failures and livestock mortality. The most significant consequence was the migration of as many as 1.5 million people from rural farming areas to the peripheries of urban centers."³⁸ Most of these climate-displaced persons migrated to the outskirts of Syria's cities, which were already burdened by a 2.5% local population annual growth and the influx between 2003 and 2007 of an additional 1.2 to 1.5 million Iraqi refugees, who have since remained in Syria.³⁹ By 2010, 20% of Syria's urban population was made up of internally displaced persons (IDPs) and Iraqi refugees.⁴⁰ In 2002, Syria's total urban population was 8.9 million.⁴¹ By the end of 2010 this figure had jumped to 13.8 million, a more than 50% increase in a mere eight years.⁴² This percentage increase was far greater than the percentage increase for the entire population of Syria as a whole.⁴³ The stress on Syria's urban centers caused by the burgeoning population growth, further strapped Syria's already vulnerable and necessary resources. For instance, before the drought's onset in 2003, agriculture accounted for 25% of Syrian gross domestic product.⁴⁴ However, after the driest winter in Syria's observed record in 2008, wheat production failed and the agricultural share dropped to 17%.⁴⁵

Neglected by the Assad Regime, the rapidly growing urban outskirts of the city, "marked by illegal settlements, overcrowding, poor infrastructure, unemployment, and crime ... became the heart of the developing unrest."⁴⁶ Consequently, "the migration in response to the severe and prolonged drought exacerbated a number of the factors often cited as contributing to the unrest, which include unemployment, corruption, and rampant inequality."⁴⁷ Rapid demographic change encourages instability, and whether the Syrian drought was a primary or secondary factor contributing to the Syrian uprising, it is uncontroverted that "drought can lead to devastating consequences when coupled with preexisting acute vulnerability, caused by poor policies and unsustainable land use practices in Syria's case and perpetuated by the slow and ineffective response of the Assad regime."⁴⁸ As the Syrian drought and the resulting destabilizing migration illustrate, "threats to security emanating from climate change are many and varied, [both] internal and external, and are already beginning to occur."⁴⁹

The issues of security and stability have also struck home in Alaska as the story of the Kivalina villagers illustrates. As sea levels rise due to climate change, more coastal ***465** communities around the world will be uprooted. Sea levels rose approximately 15 to 20 centimeters during the 20th century, with rate levels being greater near the end of the century.⁵⁰ Although scientific models depict a variety of sea level rise projections, ranging from sea level increases from two feet to six feet by 2100 depending on the amount of GHGs, what is not debatable is that sea levels will rise and force the migration of millions of people.⁵¹

Close to two-thirds of the world's population live within fifty-miles of coastlines.⁵² Climate Central, an independent organization of scientists and journalists who research and report on climate change issues, found that, assuming GHG emissions continue to increase at their current rate, "147 to 216 million people live on land that will be below sea level or regular flood levels by the end of the century."⁵³ However, these figures are conservative, and some data indicate that as many as 650 million people will be impacted by rising seas.⁵⁴ The country that is expected to be most at risk is China, with 4% of the population, or 41 to 63 million people, threatened by rising seas and flood waters.⁵⁵ To put this in perspective, China's looming displacement figures could be more than ten times greater than Syria's numbers, having proportional crippling consequences.⁵⁶

In the United States, which is ranked as the eleventh most at-risk country for exposure to sea level rise, approximately five million people live within four feet of local high-tide levels. Over the next few decades, rising seas coupled with increased

storm surges will lead to devastating floods, inundating many of these vulnerable regions.⁵⁷ Indeed, a study published by the *Proceedings of the National Academy of Sciences* found that if carbon emissions levels are not reduced and continue to increase at their current rate through the year 2100, at least 1,100 U.S. cities and towns will be mostly underwater as a result of rising seas.⁵⁸ Consequently, large segments of the population will be forced to flee from their homes and relocate to new areas.⁵⁹ Florida, Louisiana, and New York have been identified as the top three states with risk to properties along coastlines. In these states alone, “an estimated \$1.5 trillion in residential homes are exposed to storms, and almost \$1 trillion of them are concentrated in just fifteen metropolitan regions.”⁶⁰

***466** Although scientists have yet to determine whether climate change caused Hurricane Sandy in 2012, which struck the upper east coast of the United States, climate change (in particular, global warming-related sea level rise) more than likely exacerbated Sandy’s effects.⁶¹ In Lower Manhattan New York, the storm surge generated by Sandy broke the official record previously set in 1960 during Hurricane Donna, with water levels reaching 9.15 feet above the average high-tide lines.⁶² As a direct result of Hurricane Sandy, 73 people lost their lives, tens of thousands of people were displaced, forced to leave their homes and temporarily reside in make-shift shelters, and billions of dollars in damage occurred to essential infrastructure systems, such as power transmission and water and sewage lines.⁶³ Hurricane Sandy was also extremely costly to the U.S. economy, with \$70 billion in total damage and \$35 billion in insured losses.⁶⁴ In addition, the Federal Emergency Management Agency (“FEMA”) reports that it has designated an additional \$1.4 billion for assistance to disaster survivors, \$7.7 billion for assistance to state, local, and tribal governments, and \$518 million for hazard mitigation grants.⁶⁵ The disastrous effects of Hurricane Sandy highlight the fact that climate change-related catastrophes can increasingly stress a country’s economic resources and political and social stability.

If climate change is not mitigated, storms like Hurricane Sandy and the damage caused by them will be more commonplace. Destruction affecting all aspects of people’s lives will stem from climate change if GHGs are not curbed. Studies on climate change effects indicate that Florida is the most vulnerable state in the nation to sea level rise, with Miami having the largest amount of exposed assets and the fourth-largest population vulnerable to sea level rise in the world.⁶⁶ Miami-Dade County’s estimated beachfront property value is more than \$14.7 billion, not including infrastructure. With sea levels expected to rise between nine inches to two feet by 2060, threatening the sustainability of the state’s beaches, much of this beachfront property will succumb to rising surges and disappear among the waves.⁶⁷ In addition, in an attempt to prevent beach erosion, Miami-Dade County is spending roughly \$32 million for beach erosion prevention and beach re-nourishment between 2013 and 2017.⁶⁸ Moreover, Miami-Dade County alone has more people living less than four feet above sea level than any other state except Louisiana.⁶⁹ With approximately 95% of Florida’s sixteen million residents living within 35 miles of coastal areas and sea levels expected to rise from eight inches to 2.5 feet by 2100, Florida’s coastal regions are vulnerable to being overwhelmed by rising seas and ***467** floods caused by increasingly occurring storm surges.⁷⁰ Besides the vertical rise of the sea, Florida residents are also susceptible to the horizontal advancement of ocean water.⁷¹ The Natural Resources Defense Council reported that the horizontal advance of ocean water flowing inland is 150 to 200 times the vertical rise.⁷² Consequently, sea level rising is going to directly cause flooding of homes, hotels, and property within 200 to 250 feet of the current shoreline, resulting in significant damage to Florida’s cities, beaches, ecosystems, tourist centers, infrastructure, economy, and agriculture systems.⁷³ When faced with such devastating harm to people and property, including people being uprooted from their homes, the United States needs to put policies and legal frameworks in place to deal equitably with internally displaced migrants. However, because climate change-induced migration also occurs at a global level, the United States also needs to consider implementing legal regimens in conjunction with other nations in order to address migration at an international level.

A. Types of Migrations

The above effects of climate change, from “coastal inundation[,], rising air temperatures, decreased rainfall[,] ... rising ocean temperatures[,] ... [and] increased coastal flooding,” which are going to render many vulnerable regions inhospitable, will have direct effects on security and human survival, primarily unfolding in the form of mass migration.⁷⁴ There are three crucial types of migration: internal, cross-border, and international migration. Each is coupled with its own, unique difficulties and problems for policy makers seeking to address human displacement.⁷⁵ First, internal migration, or migration within a country’s borders, will have social, political, and economic ramifications for that country.⁷⁶ These impacts can be quite severe as evidenced by the human displacements that resulted from Hurricane Sandy and the drought in Syria. Another geographical area that is frequently mentioned in the discourse on internal migration is Bangladesh. For example, “the Chittagong Hill tribes in Bangladesh have been involved in violent conflicts with the state over the influx of Bengalis from

the plains, whom they view as a threat.”⁷⁷ This situation in Bangladesh shows the severe social consequences that can arise as a result of dysfunctional internal migrations. Second, “cross-border migration, [or] migration that crosses international borders, can fuel ethnic tensions in receiving nations and possibly lead to international conflict ... [due to] the sudden influx of people ... overwhelm[ing] host nations.”⁷⁸ Scarce land and water resource competition in Africa has fueled cross-border migration, and in turn, has led to “resource-based armed conflicts and loss of life of people living along the borders of Sudan, Kenya, *468 Ethiopia, Tanzania, and Uganda.”⁷⁹ Indeed, the International Organization of Migration noted that “[i]n Africa, [which the International Panel on Climate Change (“IPCC”) has cited as the continent most likely to be affected by climate change,] almost 700,000 people had to move because of environmental degradation and natural disasters in 2008.”⁸⁰

In 2011, East Africa suffered its worst drought, which resulted in the migration of more than 300,000 people, mostly women and children, into neighboring countries such as Kenya and Ethiopia.⁸¹ Although governments in these two countries have continued to provide asylum to those in need, this massive influx of refugees has severely drained the host nation’s resources.⁸² The world’s largest refugee camp, located in Kenya, receives approximately 10,000 climate change refugees every week.⁸³ The camp, Dadaab, is consequently overcrowded--sheltering four times its maximum capacity (the current number of registered refugees is approximately 354,000).⁸⁴ Cross-border migration from Mexico to the United States, raises threats to national security concerns for the United States. Over the past three decades, Mexican farmers have produced 3.8% less maize due to the effects of climate change.⁸⁵ Princeton University researchers examining human migration from Mexico to the United States found that “a [ten] percent reduction in crop yields would lead an additional [two] percent of the population to emigrate.”⁸⁶ By “combining this data with climate change predictions, the Princeton researchers concluded that between 1.4 million and 6.7 million Mexicans could opt to migrate as a result of the effect of climate change on declining agriculture production by 2080.”⁸⁷

Third, climate change will also entail international migration that crosses regions, which, “although not as dramatic as cross-border migration, ... may cause long-term impacts on the receiving region.”⁸⁸ For instance, the flow of immigrants from the Middle East and Africa into Western Europe, particularly into Italy, has become a prominent news topic in *469 recent weeks. The Italian Ministry of Interior estimated that the number of migrants coming into Italy in 2014 was 170,000, which is four times the number of registered asylum seekers than in 2013.⁸⁹ The majority of these migrants are from Syria, with 42,323 Syrian refugees arriving in Italy in 2014.⁹⁰ However, not all of those migrants successfully made the journey to Italy. The International Organization for Migration (IOM) estimates that 3,200 migrants died in 2014 while trying to cross the Mediterranean Sea.⁹¹ The Italian Navy, Italian Coast Guard, and many commercial ships were able to save many migrants--roughly 160,000--but not all.⁹² These rescues are not without controversy. Mare Nostrum, an Italian program under which five Italian navy ships patrol the Mediterranean Sea between North Africa and Italy, expended more than \$11.5 million per month conducting such rescues.⁹³ Many Italians are displeased and frustrated by the number of increasing migrants because Italy is facing its own economic downturn and has limited funds for these ongoing rescue and asylum efforts.⁹⁴ This influx of migrants into Italy highlights not only the dangers that migrants encounter crossing international borders, but also the social, economic, political, and security stresses that an upsurge in migration can place on the host country.

Additionally, two subcategories of mass migration (one voluntary and the other involuntary) have been identified, providing useful classifications of people displaced by climate change effects. Some climate change migrants will be motivated to leave a “steadily deteriorating environment in order to pre-empt the worse.”⁹⁵ Other climate change-induced refugees are forced to evacuate immediately in response to natural disasters and severe weather events.⁹⁶

B. Climate Change-Induced Migration Triggers

Although there is no single type of climate change-related event that triggers mass human migration, five generally accepted standards, sometimes known as “push factors,” have been established by the United Nations.⁹⁷ First, an “increase in both number and severity of sudden-onset natural disasters because of climate change, particularly hydro-meteorological disasters such as flooding, hurricanes, typhoons, cyclones, and mudslides, can cause large-scale displacement [of people].”⁹⁸ A study conducted by Global Reports estimates that between 2008 and 2013, 85% of all human displacement associated with rapid-onset disasters was triggered by weather-related events; “[w]eather-related hazards displaced an average of twenty *470 seven million people each year, with a low of 13.8 million in 2008 and a peak of 38.3 million in 2010.”⁹⁹ In 2013, weather-related events were responsible for 94% of human displacements, forcing 20.6 million people to flee their homes that year.¹⁰⁰ In particular, hydro-meteorological events were the cause of almost all weather-related human migration between the years 2008 and 2013.¹⁰¹ Even though the exact proportions varied annually, floods caused 67% and storms 32% of

weather-related human displacement over that six-year period, but the proportions varied from year to year.¹⁰² With sudden-onset disasters, such as Hurricane Sandy, displacement is usually temporary and return is usually a viable solution, but the ability to return to a person's home "is dependent on the measures adopted for recovery of 'social, economic and physical characteristics of the affected area.'"¹⁰³ For example, in 2005, Hurricane Katrina temporarily displaced 1.5 million people; however, 300,000 residents from Louisiana and Mississippi were permanently displaced by that hurricane.¹⁰⁴

The second push factor, slow-onset environmental degradation in the forms of drought, desertification, reduction of water availability, recurrent flooding, and increased salinization, will also cause large-scale displacement.¹⁰⁵ Even though such degradation "may not necessarily cause forced displacement strictly defined," it can "incite people to move to regions with better income opportunities and living conditions before it becomes impossible to stay at home. However, if areas become uninhabitable because of complete desertification or sinking coastal zones, then population movements would amount to forced displacement and become permanent."¹⁰⁶ Short of permanent displacement, some communities affected by climate change have resorted to adaptive migration in which family members repeatedly leave and return to their homes as a way of mitigating the effects of scant resources. This cyclical pattern becomes a way of life.

An example of adaptive migration has occurred in rural households in the West African Sahel region.¹⁰⁷ As rainfalls decrease, agricultural land dries up and crops fail, which *471 in turn places pressures on households to conserve food resources.¹⁰⁸ Consequently, communities in the region have adapted by resorting to temporary migration--a system that has become known as "eating the dry season."¹⁰⁹ This process entails families sending their young men and women to search for jobs during dry periods when there is less work to be done at home.¹¹⁰ Although an individual's ability to migrate depends on his or her family's resources, "[m]any of these young adults migrate to regional urban centers to seek employment and send remittances from earned income back to their rural homes."¹¹¹ Other areas of the Sahel experience "rural-to-rural migration, [in which] households move to other rural villages to adapt to local environmental conditions. During prolonged dry periods, young children may be sent out of the drought-affected area to stay with relatives elsewhere, further reducing pressure on household resources."¹¹² Regardless of the resulting migration patterns, the goal of adaptive migration is the same--to preserve food resources and expand economic opportunities during times of unfavorable environmental conditions.¹¹³

The third push factor of climate change-induced migration is the permanent loss of state territory.¹¹⁴ Of particular concern is the "sinking" of small island developing states (SIDS).¹¹⁵ There are currently fifty two territories across the Atlantic, Indian, and Pacific oceans that are classified as SIDS.¹¹⁶ While SIDS are "geographically disparate, ... [they] risk many of the more globally widespread climate impacts, including coastal inundation, rising air temperature, decreased rainfall, and rising ocean temperatures."¹¹⁷ Many of these areas could "become uninhabitable and in extreme cases the remaining territory of affected states could no longer accommodate the whole population or such states would disappear entirely. If and *472 when this occurs, the population would be permanently displaced to other countries."¹¹⁸ For example, the islanders of Kiribati are particularly susceptible to becoming climate change migrants due to Kiribati's vulnerable position.¹¹⁹ Kiribati, which is an island located about 8,000 km northeast of Australia, consists of 32 atolls, most of which are less than three meters above sea level with an average width of only a few hundred meters.¹²⁰ Thus, retreat to higher ground on those atolls is impossible.¹²¹ In fact, Kiribati's President, Anote Tong, recently finalized the purchase of twenty square kilometers on Vanua Levu, an island in Fiji, for \$8.77 million for use when the time comes for residents to flee.¹²² It is estimated that with a 0.5 to 2.0 meter sea level rise, 1.2 to 2.2 million people residing on SIDS from the Caribbean, Indian Ocean, and Pacific Ocean will be displaced.¹²³ In addition to the humanitarian crises that will stem from this displacement, SIDS are expected to confront severe economic losses from the impacts of climate change on their agriculture.¹²⁴ Without any type of adaption measures, high-lying islands, such as Viti Levu in Fiji, could suffer agricultural losses of between \$23 to \$52 million per year by 2050.¹²⁵ On low-lying islands like Kiribati, the economic losses are lower, but still damaging. The annual losses are projected to be between \$8 million and \$16 million.¹²⁶ These SIDS are like the canary in the coal mine--that is, they are an early indicator of what other states can expect from the impacts of climate change. Thus, the international community needs to pay attention to and learn from the experiences of the SIDS. It cannot afford a "wait-and-see" or a "wait-to-believe" attitude.

The fourth UN-recognized push factor is that increased natural disasters mean that governments will need to designate areas that are "too dangerous for human habitation."¹²⁷ While these evacuation plans from such disaster zones involve short-term displacement to areas within close proximity of the high-risk zone, they "may lead to permanent internal displacement until other durable solutions are found for those affected."¹²⁸ For instance, *473 almost 250,000 Japanese migrants are still displaced from the 2011 Fukushima Daiichi nuclear power plant disaster that was triggered by an earthquake and a resulting tsunami.¹²⁹ While the Fukushima refugees are not climate change refugees per se, they are environmentally displaced refugees who, in all likelihood, will never be able to return home because their land has been rendered permanently inhospitable by

radioactive material. The fifth climate change push factor indicated by the UN is the violence and conflict that will erupt due to the depletion of natural resources.¹³⁰ With decreases in cultivable land and water resources, people will inevitably be forced to move from region to region. Consequently, armed conflict and violence will be sparked or escalated as people fight over the basic necessities for survival. Many people, most notably from economically weak countries, will “have to share limited resources. These circumstances ‘have been identified as triggers or concomitant factors in the emergence or aggravation of conflict situations.’ The lack of security arising out of conflict ultimately leads to mass migration.”¹³¹ The mass exodus of people from Syria beginning in 2011 and continuing to the present is a prime case in point.

C. Migration by the Numbers

Because of climate change’s complexity, it is difficult to determine exact numbers of displaced persons due to climate change. Accordingly, there is no uniform global estimate of the number of climate change-induced migrants, especially in light of the fact that there is no international organization to collect data on such movements.¹³² Approximations of the numbers of climate change-induced migrants vary depending on the source and the method of collecting data.¹³³ In addition, definitions of “environmental displacement” contribute to varying estimates and predictions.¹³⁴ Christian Aid liberally projects that one billion people will be compelled to migrate by 2015 due to climate change-induced disasters.¹³⁵ Friends of the Earth predict that there will be 150 million climate change migrants globally by 2050.¹³⁶ Conservative estimates by Professor Norman Myers of Oxford University in 2005 concluded that as many as 200 million climate-induced migrants would be displaced by 2050.¹³⁷ However, critics of Professor Myers’ study point to his rudimentary methodology and that his estimate is “problematic and conservative.”¹³⁸ Despite this criticism, the most commonly reported numbers for climate change-induced migration fall between 200 to 250 million migrants *474 worldwide by 2050, which would mean that one out of every forty five people in the world would have been displaced by climate-related factors.¹³⁹

D. Migration: A Type of Adaptation Strategy

As these numbers indicate, migration is an important form of climate-change adaptation. Other types of adaptation measures include flood protection, engineering for more productive land use (i.e., land terraces, river and beach dikes, beach nourishment, storm walls, and reservoir storage), and researching and developing draught and flood-resistant crop varieties.¹⁴⁰ However, “the ability to migrate is, by definition, a function of mobility.”¹⁴¹ Migration requires access to money, and it depends largely on family and social ties as well as government regulations.¹⁴² During the 1930s Dustbowl Years in the United States, typical migrants were the families of tenant farmers from the Great Plains with no ancestral ties to the land. Three hundred thousand “Okies,” most of them intact nuclear families, migrated west, many of them to California.¹⁴³ For the most part, unless the government mandates an emergency evacuation,

[t]he decision to migrate is normally taken at a household level ... and relies on individual calculations of social and financial capital. Migration is typically not the first adaptive response households take when confronted by climate stress; rather [it] is resorted to when other means of adaptation (such as selling livestock) are insufficient to meet their immediate needs and often when their communities or governments have proven incapable of giving assistance.¹⁴⁴

Even though migration may be an extreme form of adaptation, it may nonetheless be the only feasible climate change response strategy. As the above numbers demonstrate, “environmentally induced migration and displacement has the potential to become an unprecedented phenomenon--both in terms of scale and scope.”¹⁴⁵ The Irish potato famine in the mid-19th century resulted in one million deaths and another two million people migrating over a course of ten years.¹⁴⁶ Climate change migration’s “effects on the global economy, international development, and national budgets could have significant implications for almost *475 all dimensions of human security and wellbeing, in addition to political and state security.”¹⁴⁷ Thus, key policy responses to environmental migration should include protection and supportive services for migrants, such as investing in the environmentally impacted regions to reduce the flow of migrants, investing in host regions to help relieve them of the burdens on infrastructure due to receiving a substantial number of migrants, and considering rights-based resettlement efforts for populations directly displaced by the effects of climate change.¹⁴⁸

All three types of migrants--internally, cross-border, and internationally displaced persons--come with their unique set of problems for the international legal community, which has yet to address the impacts of climate change and its concordant

disasters. Currently, the extent to which climate change-induced migrants can use international law for their benefit is narrow, if non-existent. Thus, states need to be proactive and develop the proper, legal protective frameworks to guarantee that the rights of migrants and host regions are not violated.

E. The Terminology Debate

One of the critical reasons that international legal frameworks are lacking with respect to climate change-induced migration is, according to the United Nations High Commissioner for Refugees (“UNHCR”), that “it is becoming increasingly difficult to categorize displaced people because of the combined impacts of conflict, the environment and economic pressures.”¹⁴⁹ In connection with this deficiency, the international legal community has also been unable to adequately address the needs of climate change-induced migrants due to a lack of consensus on the correct terminology that should be used to address such individuals. The discrepancies in definitions can have important legal consequences, as evidenced by a recent New Zealand case, discussed below, that touched on the issue of whether a ‘climate change refugee’ could be considered a ‘refugee’ under the Geneva Convention Relating to the Status of Refugees of 1951.¹⁵⁰

There are only a few terms that have been used in the international community to try to capture the concept of climate change-induced displacement. However, each of them is insufficient to afford any type of legal protection to those migrants; thus, they are essentially in a legal status limbo until states can cooperate with one another in order to meet the diverse needs of climate change-displaced persons.

Currently, there is no legal definition of environmental migrants to which a framework of protection can be applied. In 1985, Essam El-Hinnawi, a researcher working for the United Nations Environmental Programme (UNEP), first coined the term, “environmental refugees” to classify those people who had “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.”¹⁵¹ More recently, David Barker, a former United Nations Development Programme official, defined “environmental refugees” as people “whose movement is caused by a combination of environmental and political [factors] and/or who are unable or unwilling to avail themselves of the protection of their own countries in dealing with the impacts of environmental disruptions.”¹⁵² Similarly, noted environmentalist Norman Myers characterized environmental refugees as “people who can no longer gain secure livelihood in their homelands because of drought, soil erosion, desertification, deforestation and other environmental problems, together with the associated problems of population pressures and profound poverty.”¹⁵³

However, the term ‘environmental refugee’ does little to provide such persons with legal status under the UNHCR’s definition of a ‘refugee,’ since they do not qualify as refugees under that definition. The 1951 Geneva Convention relating to the Status of Refugees as amended by the 1967 Protocol (“Refugee Convention”) defines a refugee as someone who,

owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership or 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.¹⁵⁴

Because international law specifically delineates who qualifies as a ‘refugee,’ states are legally obligated to uphold and abide by that definition. Consequently, there are a number of obstacles that make it highly unlikely that this definition will be broadened to encompass people displaced by the effects of climate change within the meaning of the Refugee Convention. There are three reasons why this is the case. First, refugee status only applies to those people who have crossed international borders.¹⁵⁵ Accordingly, internally displaced climate change migrants, often referred to as IDPs, do not meet this prerequisite. As previously discussed, migration, as a way of adapting to climate change, may be limited to those people who have sufficient resources to migrate; therefore, “internal migration is a far **477** more widespread phenomenon than external migration.”¹⁵⁶ The United Nations Department of Economics and Social Affairs reported that, as of 2005, there were 214 million international migrants, whereas there were 740 million internal migrants (these figures include all migrants, including environmentally displaced persons).¹⁵⁷ Although these numbers are ten years old, they still underscore the scale and significance of internal displacement.

The second obstacle caused by the Refugee Convention's definition of 'refugee' is that it may require an individual seeking refugee status to successfully characterize climate change as persecution.¹⁵⁸ This argument is unpersuasive since persecution involves particularly egregious violations of human rights.¹⁵⁹ One of the inherent problems with this persecution requirement is that it requires a claimant to identify a 'persecutor.'¹⁶⁰ In the context of climate change, a claimant could attempt to argue that a particular government, corporation, or the international community as a whole is responsible for the claimant's migrant status and is therefore the claimant's persecutor.¹⁶¹ A 2009 decision by the Australian Refugee Review Tribunal concluded that Kiribati applicants seeking refugee status were not refugees since the Tribunal did "not believe that the element of an attitude or motivation [could] be identified, such that the conduct feared [could] be properly considered prosecution for reasons of [the] Convention"¹⁶² The Court stated that,

[t]here is simply no basis for concluding that countries which can be said to have been historically high emitters of carbon dioxide or other greenhouse gases, have any element of motivation to have any impact on residents of low lying countries such as Kiribati, either for their race, religion, nationality, membership of any particular social group or political opinion.¹⁶³

This case highlights the hollow protection that the Refugee Convention affords to migrants of climate change.

The third problem with the Refugee Convention's definition is that, even if the applicant can prove that he or she was the victim of persecution, the Refugee Convention requires that "such persecution be *for reasons of* an individual's race, religion, nationality, political opinion, or membership of a particular social group."¹⁶⁴ Hypothetically, a group of people who have a common fear of being displaced by the effects of climate change could qualify as a "social group." However, superior courts around the world have refused to expand the term 'refugee' to include people searching for better living conditions or those forced to flee as a result of a natural disaster, even if the applicant's country was unable to provide assistance to *478 the applicant.¹⁶⁵ The Supreme Court of Canada, in a case involving the refugee status of an Irish National Liberation Army member who was seeking asylum in Canada, held that the international role in determining which individuals fall under the Refugee Convention's definition of a "refugee" was restricted by the definition itself.¹⁶⁶ The Canadian Court stated that,

[t]hese restricting mechanisms reflect the fact that the international community did not intend to offer a haven for all suffering individuals. The need for "persecution" in order to warrant international protection, for example, results in the exclusion of such pleas as those of economic migrants, i.e., individuals in search of better living conditions, and those of victims of natural disasters, even when the home state is unable to provide assistance.¹⁶⁷

A 2000 New Zealand case also underscores the limitation of international refugee protection. The New Zealand Refugee Status Appeals Authority (RSAA) determined that a group of Tuvaluan citizens seeking refugee status in New Zealand due to climate change-induced displacement from Tuvalu did not meet the Refugee Convention's standard. The RSAA decided that,

[t]his is not a case where the appellants can be said to be differentially at risk of harm amounting to persecution due to any one of [the UNCHR's five grounds for refugee status]. All Tuvalu citizens face the same environmental problems and economic difficulties living in Tuvalu. Rather, the appellants are unfortunate victims, like other Tuvaluan citizens, of the forces of nature leading to the erosion of coastland and the family property being partially submerged at high tide.¹⁶⁸

The Canadian and New Zealand cases demonstrate the uphill battle that climate change migrant claimants face in trying to prove that they qualify as refugees under international law.

Because of the above three limitations inherent in the Refugee Convention's definition of 'refugee,' critics of the term 'environmental refugees' argue that referring to climate change-induced migrants as 'refugees' is misleading and undermines the international legal system in place to protect important human rights precepts.¹⁶⁹ As such, the term 'environmental refugee' has been rejected by the United Nations and the IOM.¹⁷⁰ In addition, categorizing those who migrate for climate-related reasons does not capture the reality that people migrate due to numerous factors associated with climate change (i.e., unemployment, landlessness, urbanization, population pressures, and ethnic, social, and political conflicts). Instead, the United Nations has proposed the term 'environmentally displaced persons' (EDPs) as individuals "who are displaced from or who feel obligated to leave their usual place *479 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."¹⁷¹

However, this term is also problematic for policy makers and the legal community for three reasons. First, the word 'environmental' has been considered to be too broad by many scholars since it could encompass incidents not related to climate change, such as a nuclear disaster like the Fukushima Daiichi meltdown which destroyed the surrounding environment.¹⁷² Second, the term fails to recognize that people displaced from their lands due to climate change are forcibly moved rather than having voluntarily moved.¹⁷³ While the UNHCR has been wary of including the term 'refugee' in its definition of an EDP, 'refugee' better captures the idea of forced human displacements.¹⁷⁴ Furthermore, "it is precisely the use of the word refugee that raises public awareness of people who are displaced from their habitats because of environmental issues."¹⁷⁵ Lastly, because EDPs are not regarded as refugees, they do not enjoy the same legal rights that refugees enjoy under international law. The current debate on terminology, while important, prolongs the implementation of much-needed legal solutions that would afford such people protection and a legal road to asylum. The variety of proposed terms used by researchers and policy makers alike, "thwarts progress on the recognition of and legal protection for environmentally displaced persons."¹⁷⁶

IV. IV. THE PRESENT LEGAL FRAMEWORK: THE EXTENT TO WHICH INTERNATIONAL AND REGIONAL STANDARDS PROTECT CLIMATE CHANGE-INDUCED MIGRANTS

As previously discussed, the effects of climate change will undoubtedly cause crossborder and international migration. When people begin to migrate across international borders, it is essential for the international legal community to cooperate and impart legal protection.¹⁷⁷ Thus, regardless of the reason for these cross-border movements, international law, idealistically, should govern the legal situation. International law is an attempt to fill the legal protection gap that migrants will suffer either because their home state can no longer provide adequate protection to its people (which will most likely be the case for developing nations that are already resource-strapped), or because their home state is the cause of such migration (which will likely occur from human rights violations). Under international legal principles, it is necessary to determine the reasons why people flee from their homes in order for a host country to allocate them certain rights. When natural disasters occur in a state, that state is primarily responsible for the protection of its own people.¹⁷⁸ However, there is ***480** currently no legal system in place to address the plight of climate change-induced migrants.¹⁷⁹ Most existing climate change law proposes mitigation and adaption techniques, but it fails to consider migration as a possible adaption strategy to the effects of climate change.¹⁸⁰ Moreover, current international law also overlooks the status of such displaced persons.¹⁸¹ Ironically, international law does furnish some legal protection to people who have been labeled as IDPs.¹⁸² The United Nations Guiding Principles on Internal Displacement (Guiding Principles) apply to any person or group of people,

who have been forced or obligated to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effect of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border.¹⁸³

The Guiding Principles also entitle IDPs "to receive protection and humanitarian assistance" from a state's national authorities.¹⁸⁴ While the goal of the Guiding Principles is lofty, in reality, they do little to afford climate change-induced migrants, both internal and external, with the broad legal protection they need. Under the Guiding Principles, protection is only accorded to those people who are displaced within their own state's borders. Thus, "[b]y its very nature, the protection of IDP rights is limited to national legislation operating under the auspices of international law."¹⁸⁵ In addition, the status of IDP has been criticized because the definition of an internally displaced person is merely descriptive and provides no real international legal protection.¹⁸⁶ The UNHCR has stated that because of its limited resources, it "does not have a general competence for internally displaced persons," and its intervention is far from automatic."¹⁸⁷ Essentially, the "[i]nternational protection of the IDP is unnecessary because the responsibility falls squarely on the shoulders of the nation the IDP is moving within."¹⁸⁸ The IDP definition is also uncertain and ambiguous since it is questionable whether certain climate change effects would be considered a 'natural disaster' for purposes of the Guiding Principles.¹⁸⁹ For example, while the changes in sea level and acidity certainly are natural and will have disastrous consequences, they may not trigger the illusory protections of the Guiding Principles since their impacts are not immediate, but instead occur over an extended period of time.¹⁹⁰ Thus, while the Guiding Principles provide a good start in addressing the problem ***481** of climate change-induced migration, their silence on cross-border and international migration, as well as their use of poorly defined terms, make them insufficient to address the many and serious consequences of climate change-induced migration.

In considering how international law is inadequate in responding to climate change-induced migration, it is important to

examine four international protective instruments that presently apply to such migration.¹⁹¹ First, as previously discussed, climate change-induced migrants do not qualify as refugees under the Refugee Convention.¹⁹² The UNHCR requires that a person be persecuted against in order to qualify as a refugee.¹⁹³ The UNHCR Handbook explains that persecution is a prerequisite to refugee status and that the Convention “automatically makes all other reasons for escape irrelevant to the definition ... and rules out such persons as victims of famine or natural disaster, unless they also have well-founded fears of persecution.”¹⁹⁴ Thus, the UNHCR has declined to extend protection to people displaced by climate change effects since “[e]nvironmental factors that cause movements across international borders are not grounds, *in and of themselves*, for the grant of refugee status.”¹⁹⁵

Despite the Refugee Convention’s limitations, there are two situations in which international refugee law may offer protection to climate change-induced migrants.¹⁹⁶ In the first case, a claimant seeking refugee status may be able to argue that they have been persecuted against if a government knows about the vulnerability of a group to climate change effects but is unwilling to reduce those impacts.¹⁹⁷ An example of this situation could occur if a government precludes protection to certain groups of people, like minorities, in the wake of a natural disaster.¹⁹⁸ The second case in which a climate change-induced migrant may be offered protection as a refugee is through subsidiary legislation.¹⁹⁹ For instance, Finland and Sweden are currently the only two countries in the world that grant subsidiary refugee protection for environmental migrants who are “unable to return to [their] native country because of an environmental disaster.”²⁰⁰ However, the Swedish and Finnish climate change refugee asylum programs are the exceptions to the rule.²⁰¹

The second international protective instrument that could apply to climate change-induced migrants is the concept of a “stateless” person; that is, a person displaced by climate change may qualify as a stateless person under international law.²⁰² The 1954 Convention relating to the Status of Stateless Persons (CSSP), which prohibits the expulsion of stateless *482 persons except in cases involving national security or public order, defines a stateless person as one “who is not considered as a national by any State under the operation of its law.”²⁰³ Potentially, the laws of statelessness could apply to climate change-induced migrants if a state’s land is completely submerged or physically eroded, causing the forced displacement of its people and subsequent collapse of its government, and thus the state, including its territories, no longer exists.²⁰⁴ While it remains unclear exactly how the laws of statelessness would apply to climate change-induced migration, what is clear is that they do not provide a stateless person with an abundance of rights.²⁰⁵ In 1994, the United Nations General Assembly gave UNHCR a formal global mandate to prevent and reduce statelessness.²⁰⁶ However, the CSSP, which has only been signed by sixty-six states (out of 165 states worldwide), is a limited solution to the problem of climate change-induced migration because not all states have ratified it, few states have status determination procedures to classify someone as “stateless,” and it is unknown if the international community would even recognize that a state has ceased to exist. Thus, in reality, the CSSP “may have little practical benefit[.]”²⁰⁷ Two possible solutions to statelessness have been introduced by scholars: (1) other states could cede territory to the affected state for its continued existence and (2) the affected state could establish a union with another state, which would result in either (a) the creation of a new state through merger or (b) the absorption of the affected state into the other state.²⁰⁸ Although these options could allow stateless, displaced persons to enjoy a new nationality, they are

far from adequate as a means of addressing potential displacement ... [They are] reactive rather than proactive[, requiring] people to leave their homes and be present in the territory of a State party to the Convention in order to claim its benefits; and, in the absence of any status determination procedures for stateless persons, there is no clear means by which those benefits could be accessed.²⁰⁹

The third international protective instrument that could apply to climate change-induced migrants has to do with migrant workers. Currently, international law provides little protection for ‘migrant’ status. Similarly to the Guiding Principle’s lack of legal rights for externally displaced persons, the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families fails to afford any cross-border safeguards for migrants.²¹⁰ In addition, two other international instruments, the International Labour Organization conventions and the UNGA’s Declaration on the Human Rights of Individuals Who Are Not Nationals of the Country in Which They Live, only give recognized human rights to migrant workers.²¹¹ However, neither of these instruments has been widely ratified *483 by UN member states. Some states have adopted laws allowing for qualified, working-age people to be considered migrants (such as New Zealand’s Pacific Access Category, which admits seventy five Tuvaluan migrants each year so long as they have an “acceptable” offer of employment and speak English), but these national laws hardly address the larger issue of legal and human rights protections for all climate change-induced migrants.²¹²

Fourth, international human rights law offers several avenues for the protection and recognition of climate change-induced migrants. Climate change will undoubtedly affect a number of fundamental human rights. For example, extreme weather events will impact people's right to life; increased food insecurity and hunger will impact people's right to adequate food and the right to be free from hunger; increased water scarcity will impact people's right to potable water; more adverse health risks will jeopardize people's right to the highest possible healthcare standards; and sea-level rise and flooding will encroach upon people's right to adequate housing.²¹³ Under international human rights law, a state is required to protect these fundamental rights of its citizens and any person residing within its jurisdiction.²¹⁴ Even though human rights law has been expanded beyond "refugee" status to encompass people who are "at risk of arbitrary deprivation of life, torture, or cruel, inhuman, or degrading treatment or punishment [,]" currently, "only a handful of human rights principles are ... recognized as giving rise to a protection obligation on the part of a receiving country."²¹⁵

Human rights violations can potentially defy the principle of non-refoulement.²¹⁶ Non-refoulement, which is prohibited under customary international legal practice, proscribes "countries from sending asylum seekers to any place where they have a well-founded fear of being persecuted for reasons of their race, religion, nationality, political opinion or membership of a particular social group."²¹⁷ Even though states are obligated to have procedures in place for categorizing refugees and guaranteeing their protection against refoulement, in all likelihood, climate change-induced migrants will not be successful in arguing that a host country's immigration policies denying them refuge amount to a breach of ***484** recognized human rights.²¹⁸ Unlike instances of torture or other inhumane treatment that would trigger a host country's undeniable non-refoulement obligations, the lack of state persecution by the home state places "protection from *refoulement* out of reach in all but the most exceptional cases."²¹⁹ Suffering which is not inflicted by the state, but rather brought on by climate change, will likely not be considered a violation that triggers required human rights protections by the host country.²²⁰ High courts around the world have "carefully circumscribed the meaning of 'inhuman or degrading treatment'" so that it cannot be used as a remedy for general poverty, unemployment, or lack of resources or medical care except in the most exceptional circumstances.²²¹ Even though nothing in existing precedent precludes climate change-induced suffering from being considered 'inhuman treatment,' international and domestic law remains undeveloped on this issue.²²² Moreover, in order to prevent a tidal wave of migrants, many domestic migration policies deny protections to large groups of migrants who are fleeing from general harm.²²³ The traditional approach for seeking asylum constrains the scope of international human rights law from including climate change-induced displacement.²²⁴ Under the traditional approach, refugees leave their home country in order to avoid the harm their country is inflicting on them.²²⁵ On the other hand, climate change-induced migrants are seeking the inverse: they are demanding "protection *in* industrialized States precisely because [those host states] are seen to have a responsibility to assist those who have suffered as a result of their emissions over time."²²⁶ While few cases have yet to address this particular issue, "there have been a small number of [related] cases in Australia and New Zealand where people from Tuvalu and Kiribati have sought to argue they should receive refugee protection from climate change impacts They have all failed."²²⁷

V. V. STATE LEGISLATIVE RESPONSES AND ASYLUM POLICIES

In addition to international law principles, some states have enacted their own legislation in order to bridge the international legal void.²²⁸ For example, in the United States, Temporary Protected Status (TPS) is granted to people "who are temporarily unable to safely return to their home country because of ongoing conflict, an environmental disaster, or other ***485** extraordinary and temporary conditions."²²⁹ However, the applicability of the TPS designation to climate change-induced migrants is limited for a variety of reasons. First, a country must officially request the designation of TPS for its nationals, and the U.S. Attorney General must grant it.²³⁰ Second, a person applying for TPS must be in the United States at the time of the designation, meaning that the person was in the United States both at the time of the disaster and at the time the requesting country made its TPS designation request.²³¹ Third, TPS designation is only temporary, with designations lasting between six and eighteen months.²³² Thus, TPS designees are not eligible to become permanent United States residents unless Congress authors a special act.²³³ The United States has extended TPS designations to a handful of countries facing natural disasters. For instance, the U.S. Attorney General granted Haiti TPS following the earthquake that struck the island nation in 2010.²³⁴ After Hurricane Mitch struck Honduras and Nicaragua in 1998, both countries were granted TPS.²³⁵ In 1997, the United States granted Montserrat, a British Colony in the eastern Caribbean, TPS following the eruption of the island's Soufrière Hills volcano. Montserrat's TPS designation was extended six times until 2005, when the grant ended because the situation in the country was no longer deemed "temporary."²³⁶

Theoretically, there is nothing that would prevent TPS from being granted to climate change-induced migrants. However,

“TPS is not meant to be a mechanism to respond to an unfolding crisis in which people seek admission from outside the [United States].”²³⁷ Moreover, because the effects of climate change are often slow to manifest themselves, it is unlikely that TPS designation would offer any protection to climate change-induced migrants. Additionally, because TPS designation is only available to foreign nationals who reside in the United States at the time of the disaster, as opposed to those who are fleeing from a disaster, TPS offers no protection to such migrants.

The European Union also has frameworks in place that might be relevant to climate change-induced migrants. The EU Temporary Protection Directive was implemented in order to handle mass influxes of displaced people due to conflict, violence, or general violations of human rights.²³⁸ As stated above, Finland and Sweden have included environmental migrants within their immigration policies by recognizing and offering asylum to people who have had to flee their home state due to natural disasters.²³⁹ However, other Member EU States have failed to implement similar policies. Both Belgium and Spain indicated their reluctance to follow Sweden’s and Finland’s approaches, stating that “such situations were not mentioned in any international legal instrument on refugees.”²⁴⁰ Thus, there appears to be little support ***486** or even discourse about extending the Temporary Protective Directive to cover climate change-induced migrants.

VI. VI. NEW ZEALAND JURISPRUDENCE AND ITS INTERNATIONAL IMPLICATIONS

New Zealand is often cited as a legal trendsetter for extending rights to climate change-induced migrants and responding to the impacts of climate change in the South Pacific area. It plays a key role by providing both financial and technological help to a number of low-lying states in the region. Indeed, in 2013, New Zealand announced a \$5 million clean water program, in addition to the \$40 million it had invested during the previous three years, to improve the water security of five low-lying South Pacific countries, including Tuvalu, Tokelau, Kiribati, the Cook Islands, and the Republic of the Marshall Islands.²⁴¹ This program supports those countries by maintaining and improving fresh water collection facilities and training people in water management.²⁴² While New Zealand clearly supports local adaptation measures within the borders of its neighboring South Pacific islands, whether it is willing to open its own borders to the people displaced by the effects of climate change remains less clear.²⁴³ Recent case law and a press release from the New Zealand Foreign Ministry of Foreign Affairs & Trade indicate that while New Zealand permits a limited number of people from certain South Pacific countries to apply for temporary visas to live and work within its borders, the government has yet to actively engage in passing an express policy or law that would accept significant numbers of climate change-induced migrants.²⁴⁴

A 2014 lawsuit sheds some light on how New Zealand might view its obligation to citizens of other South Pacific countries who seek asylum in New Zealand due to climate change.²⁴⁵ This case involved a humanitarian appeal made by a Tuvaluan husband and wife, arguing that they should not be deported from New Zealand to Tuvalu.²⁴⁶ The husband and wife, along with their two children, had been living legally in New Zealand since 2007, but subsequently lost their legal status in 2009.²⁴⁷ When the family was unable to obtain work visas, they applied for refugee and protected persons status.²⁴⁸ Their application was at first dismissed; however, on appeal, the New Zealand Immigration and Protection Tribunal ***487** (NZIPT) concluded that residence visas should be granted to the family.²⁴⁹ The main issue for the NZIPT was whether the claimants (1) qualified as ‘refugees’ within the meaning of the Refugee Convention, (2) qualified as protected persons by evidencing “substantial grounds for believing that [they] would be in danger of being subjected to arbitrary deprivation of life or cruel treatment if deported from New Zealand[.]” or (3) demonstrated that “exceptional circumstances of a humanitarian nature [existed, making] it unjust or unduly harsh for the appellant[s] to be deported from New Zealand.”²⁵⁰ The family claimed that if they were deported from New Zealand to Tuvalu, their family of four would be separated from the husband’s family living in New Zealand.²⁵¹ The appellants also claimed that they “would be deprived of their ability to have ‘a safe and fulfilling life’ if forced back to Tuvalu because of the effects of climate change.”²⁵²

The NZIPT ultimately rejected the family’s claims based on refugee or protected persons status. However, the court determined that it would not be against public policy to grant the family residence visas due to “exceptional humanitarian grounds.”²⁵³ In making this finding, the court stated

[a]s for the climate change issue relied on so heavily, while the Tribunal accepts that exposure to the impacts of natural disasters can, in general terms, be a humanitarian circumstance, nevertheless, the evidence in appeals such as this must establish not simply the existence of a matter of broad humanitarian concern, but that there are exceptional circumstances of a humanitarian nature such that it would be unjust or unduly harsh to deport *the particular appellant* from New Zealand.²⁵⁴

Even though the NZIPT did not decide this case on climate change grounds, the case is still important because the Tribunal “accepted in principle that environmental degradation, whether associated with climate change or not, may in certain circumstances, trigger a State’s protection obligations under the Refugee Convention or human rights law.”²⁵⁵ The case also calls attention to the fact that existing international legal frameworks and policies are inadequate to address climate change and its attendant, complex migration issues. Consequently, it is imperative that states cooperate with one another and begin to create and adopt a comprehensive legal regime that will provide protection to persons displaced as a result of climate change.

VII. VII. CONCLUSION: POSSIBLE SOLUTIONS

Although the international community is beginning to recognize that climate change is one of the biggest factors affecting human displacement, useful legal frameworks to address climate change-induced migration have yet to be established and implemented. As discussed *488 in this paper, there are a host of difficulties that policy makers face when working to create a complete legal framework that addresses the needs and concerns of climate change-induced refugees. First, climate change’s effects are often slow to manifest themselves, and rather than immediately displacing people, “environmental effects ... make it difficult or impossible for people to sustain their livelihoods.”²⁵⁶ Rising seas, flooding, desertification, and severe weather events, all of which are linked to climate change, create inhospitable environments from which people may be compelled to leave. In turn, the forced migration of those people can quickly lead to other, dire consequences. The security, economic, political, and social interests of both the home and host states will be implicated and could be severely compromised, as evidenced by the recent turmoil in Syria. Further adding to the complexity of the climate change migration issue is the fact that data on the exact numbers of climate change-induced migrants, particularly from developing nations, is flawed. Because it is “difficult to desegregate the role of climate change from other economic, political, and social factors which also contribute to triggering migration[,]” it has been hard for researchers to agree on an approximation of the numbers of people who have been displaced by climate change.²⁵⁷ Consequently, scholars and policy makers have “an inadequate basis for formulating policies.”²⁵⁸ Disagreement on the proper term for ‘climate change-induced migrants’ has also added to the lack of comprehensive laws and policies.²⁵⁹ In addition, because the decision to migrate is an individual choice, most often made at the household level, researchers have been unable to measure such an unknowable variable.²⁶⁰ Lastly, states have remained reluctant to open their borders to migrants or to earnestly participate in diplomatic efforts to resolve the complex issues surrounding climate change-induced migration. Many states, wishing to preserve their national identity and security, react by removing themselves from the international stage. However, these states fail to realize that their inaction could, in the long-run, make them more vulnerable to economic, political, and social instability.

Despite the aforementioned difficulties, consensus is steadily growing within the international legal community that climate change will intensify human displacement. The time is therefore ripe for an international legal framework addressing the concerns of climate change-induced migrants to be developed and adopted in order to provide a long-term solution for the protection of affected persons’ human rights.²⁶¹ Because of the complexity and multi-causality of climate change-induced migration, an umbrella agreement, requiring cooperation at state, regional, and international levels, is the best approach for tackling climate change migration.

This paper proposes that the following concepts and guidelines be the cornerstone of any state, regional, or international climate change migration policies or agreements: (1) the development of recognized international standards, terms, and definitions, (2) the creation of binding principles, practices, and institutional frameworks, (3) the promotion of international cooperation and the recognition of an ongoing obligation to protect the human rights of *489 EDPs, (4) the establishment of international oversight and judicial review for issues involving EDPs, (5) the implementation of regional operations in order to (a) foster adaptation alternatives to prevent displacement,²⁶² (b) subsidize sustainable rural and urban development to curtail environmental displacement,²⁶³ (c) help EDPs relocate with safety and dignity, when necessary,²⁶⁴ (d) provide assistance to EDPs who are permanently transitioning into a new host country,²⁶⁵ and (e) develop and support strategies to reduce the risk of environmental disasters and related conflicts while reinforcing humanitarian responses,²⁶⁶ (6) the participation of states in aiding EDPs, in preserving the human rights of EDPs, and in regulating the domestic causes of climate change-induced migration, and (7) the encouragement of nongovernmental organizations’ participation in EDP relief efforts.

The above framework is intentionally slim on detail so as to be applicable in all types of situations involving environmental disasters, including any in which climate change is the principal factor. It will be up to international and national diplomats,

lawmakers, scholars, and scientists to provide the specific nuts and bolts of agreements, conventions, treaties, and resolutions. However, in filling in the practical details in the above framework, policy makers need to be mindful of the fact that any legal framework will require cooperation at a state level in order for EDPs to receive necessary and timely assistance. In addition, any adopted policies should recognize “[s]tates’ burden-sharing obligations to each other, and their responsibility to the international community as a whole.”²⁶⁷

This Paper has attempted to show that the domino effects of climate change will be among the key causes of human displacement. While the global community will confront various obstacles in reaching an effective legal framework, procrastination and a lack of political will cannot be afforded since climate change-induced migration is now a reality, affecting the lives of millions of people. Because human rights are at the crux of climate change displacement, any legal framework cannot have a ‘one-size fits all’ approach. To be effective, international, regional, and national “policy responses to climate-related movement must not operate in a vacuum.”²⁶⁸ In order for international response strategies to be relevant and useful, they should be regional or local and “attuned to and complement policies relating to development, housing, family planning, and the ‘carrying capacity’ of particular environments.”²⁶⁹ Any effective interventions will necessitate long-term dialogues between multiple actors, including international, regional, and national governmental and nongovernmental actors, to ensure that any proposed plans encompass all facets of climate change-related migration. As discussed in this Paper, human rights law is inadequate to handle the multi-causality of EDPs, and “[a]ccordingly, there must be a vertical dialogue between the *490 different levels of policymaking, as well as a horizontal level across the different spheres of policymaking, so that responses are cross-cutting, complementary, and holistic.”²⁷⁰

While international law can aspire to resolve climate change displacement issues and promote pre-emptive relocation efforts, it does not contain all of the answers for addressing such matters.²⁷¹ Current discussions on international human rights law have been framed “in a broad, ethical sense, rather than in a technical, legal sense, such that ‘the assertion of universal human rights is not, at base, a legal assertion at all.’”²⁷² Notwithstanding those limitations, international law still furnishes states with important direction and protocols for state conduct.²⁷³ Furthermore, international law’s recognition and affirmation of human rights for both individuals and communities “provide important, normative parameters to guide and shape legal and policy development in a human rights-centric manner.”²⁷⁴ Once policy makers acknowledge that human rights must be the cornerstone of any solution to the climate change-induced migration dilemma, international and state actors can begin to work together to establish effective solutions that provide adequate protections for all environmentally displaced persons.

Footnotes

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