

Climate Migration and Human Security

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Executive Summary

The term environmental refugee was first introduced in the mid-1980s by an Egyptian scholar, Essam El-Hinnawi, in cooperation with the United Nations. Over the years, the definition has largely stayed the same, but note the prevailing classification is now climate migrant instead of climate refugee. The term migrant, as opposed to 'refugee', does not obligate any international assistance based on the 1951 United Nations Convention on Refugees. Thus, under current classifications, millions of displaced people will not fall under international protection. As the scale of this problem became better understood, states began fearing for their own security. To date, most action attempting to address climate migration have been undertaken on a national level. If unaddressed internationally, climate change could become the greatest source of human suffering in recorded history.

Climate change is a powerful force that should energize national, regional, and international policy. Yet, instead of meaningful proactive legislation we have seen moves of securitization. Across the Western world, nations are increasing funding for their borders (especially southern ones) and are adding ever more militarized features. Increased border security is in some ways a response to fears of north bound climate migrants, but is also part of a broader xenophobic trend. In this paper, I explore the nexus of security, climate migration, and conflict.

I have found that climate migration does catalyze conflict. However, not the type of conflict that should incite increased border spending. Based on historical migrations, conflict will occur between migrant groups themselves. Climate migration does not pose a real threat to national security. Those who will be forced to migrate inhabit countries that do not have the economic or technological capacity to mitigate the effects of a changing climate. These same residents do not have the financial capital needed to make long-distance migrations. Meaning those who experience the effects of climate change the most will be the least able to escape it. These trapped people will likely migrate regionally and suffer the most severely. It is also important to note that while the global South will be the main victims of climate change, they are only responsible for a fraction of total global emissions.

This is exemplified by my two case studies that explore regions that are especially vulnerable to the effects of a warming planet, The Middle East and North Africa (MENA), and Pacific Island Nations. In the Middle East, I outline how the Arab Spring protests and subsequent political fallout, are deeply rooted in a changing climate. Global climate variability caused lower than expected wheat production in 2010. In the MENA region, where most of their calories are imported, the rise in agricultural commodity prices caused massive food insecurity. Rising food prices combined with decades of political turmoil was enough to trigger massive protests in late 2010 and 2011. I outline how the Arab Spring spawned the Syrian Civil war and caused mass violence throughout the region. Then, I observed growing European populism and southern border militarization in response to the threat of Syrian refugees. The case study of the Arab Spring revealed how climate is intrinsically tied to economic, social, and political factors; this means that climate destabilization might force migration only when it is transitioned into a more tangible and localized burden.

My second case study examined one of the most vulnerable yet least prepared regions on earth: low-lying Pacific Island Nations. Many of these 21 developing Pacific Island countries will succumb to rising tides, and revert back to sand bars or even disappear. Regional and International cooperation is necessary in order to ensure the safety and dignity of these island inhabitants. I argue that it is within the international community's self-interest to take proactive action. Large-scale cooperative action will prevent unsafe irregular travel and will encourage mutually beneficial migration.

Due to the coarse nature of climate modeling, estimates on the number of climate migrants vary greatly. The most frequently cited statistic states that there will be 200 million displaced people by the year 2050. In order to mitigate this inevitable calamity, states must fundamentally shift their understanding of security. Climate migration is not a matter of state security. Climate migration is a matter of human security, and if unmitigated will cause immense anguish throughout the world.

PART I: CONTEXT

Climate Migration, Conflict, and Security

Climate change and widespread environmental destabilization represent our world's largest collective problem. The forces of climate change are already upon us. Generations will be defined by melting sea ice, drought, and more frequent natural disasters. While the direct impacts of climate change are understood, the secondary and tertiary implications of climate change are still uncertain. It is estimated that some 200 million people will be displaced by climate change by the year 2050 (Burrows 2016, 446). The largest migrations in human history are quickly approaching and governments across the world are responding inappropriately or not at all.

Public rhetoric surrounding climate change has been defined by denial and misinformation, but behind the scenes, wealthy nations are prepping for what they perceive as the inevitable conflict associated with climate migration. Despite little empirical evidence linking climate change with massive northbound migration, politicians have transformed migration into a security issue and encouraged undemocratic action on borders in North America and Europe. In order to more appropriately address the coming calamity, we must fundamentally shift our understanding of migration. Although climate migration is a security issue, it is not national security that is threatened. Instead it is human security. Proactive and wholistic policy approaches on the regional and international level are needed to maintain human safety and dignity throughout the migratory process.

Defining Climate Migrants

The term 'environmental refugee' was first introduced by Essam El-Hinnawi in 1985 as part of a document produced by the United Nations Environmental Programme. El-Hinnawi describes an environmental refugee as someone who has... "been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life..." (Bates 2002, 466) However since the term 'environmental refugee' was first created it has been at the center of a tumultuous academic debate. Many regard El-Hinnawi's definition to be incomplete because it fails to distinguish environmental refugees from other types of migrants, and does not define different types of environmental refugees (Bates 2002).

The terms migrant and refugee have distinctly different international implications. The 1951 United Nations Convention on Refugees, defines a refugee as someone who is forced to leave "...for reasons of race, religion, nationality, membership of a particular social group or political opinion." (Sumudu 2009, 617) The delineation between the terms migrant and refugee are important because they invoke different types of international responses. Some argue that the term 'refugee' only applies to those who have lost the protection of their state and thus receive extra protections from the international community. By using the term in an environmental context, we blur the boundary between state and international responsibility (Sumudu 2009, 620) and may even detract from the application of the term in other cases. For the remainder of this paper I will use the term climate migrant, while simultaneously recognizing that climate induced migration is rarely a choice.

The issue is further complicated when attempting to determine a causal link between migration and climate. It is widely understood that a network of push and pull factors determine migratory

habits (Bates 2002); (Piguet and Pecoud 2011); (Reuveny 2007, 658). These forces include economic decline, unemployment, political persecution, and a variety of other social factors. Climate change will act as a strong push factor in the migration decision making process, but rarely acts as the sole determinant of migration. Additionally, the climate is intrinsically tied to economic, social, and political factors; this means that climate destabilization might force migration only when it is transitioned into an economic burden, as exemplified by the 2011 Arab Spring.

In the case of the Arab Spring in 2011, anthropogenic-induced drought caused record high food prices throughout much of the Middle East and North Africa (Johnstone and Mazo 2011, 17). Bread riots in Egypt and Tunisia kicked off regional protests and while Climate change was not the root cause of the Arab Spring, it acted as a catalyst for an already politically destabilized region. The Arab Spring exemplifies the difficulty of defining such a nuanced phenomenon. By simply categorizing displaced people from nations disrupted by the Arab Spring as climate migrants, one necessarily discounts other economic, political, and social factors at play.

As the link between migration and climate becomes increasingly clear, so too is the need for classification. Presently, there is no legal classification or international framework governing climate migrants (Reviglio 2020). This legal vacuum must be addressed in order to facilitate adequate aid from the international community to mitigate conflict and suffering.

Relationship between Climate Migration and Conflict

Climate change alone will not cause migration or migratory conflict (Burrows 2016, 451). Migratory conflict will likely play a more significant role in regions characterized by political, ethnic, and economic tensions. However, before we explore the causal links between migration and conflict, we must first ask who will be forced to migrate because of climate change?

Determinants of Migration

The first factor determining a people's propensity to migrate due to climate change is geographic location. There are four main features that determine a region's physical resilience to climate variability: access to arable land, forests, freshwater, and potential for increased natural disasters (Reuveny 2007, 660). Even today, when the full force of climate change is yet to be realized, many developing regions are already lagging behind in these four categories. For example, South America and Southeast Asia have the highest rates of deforestation, while nearly half the population of Sub-Saharan Africa lacks access to fresh water. Access to fresh water, forested areas, and arable land will decrease as climate change induced desertification, salinization, and drought increase. Furthermore, these very same areas are more likely to be affected by (un)natural disasters. Floods, droughts, and intense storms are all more likely to occur in Asia, South America, and Africa than in North America and Europe. Rapid onset natural phenomenon will lead to high rates of displacement, and resource scarcity which exacerbates conflict. (Piguet and Pecoud 2011, 7). However, it is not only the direct impacts of climate change that determine a people's propensity to migrate or engage in migratory conflict. It is also important to examine economic resilience as a determinant of migration.

Developed nations will have the economic and technological ability to preemptively mitigate the effects of climate change and thus decrease rates of out-migration. Economic resilience is determined by the scale and diversification of the national economy and by technological ability.

Wealthy countries are able to allocate aid and take preventative measures, while impoverished nations will be limited to reactive measures or none at all. The construction of a 30-kilometer sea dike meant to counter rising tides in the Netherlands represents the global north's ability to allocate funding and technology to mitigate climate change (Piguet and Pecoud 2011, 12). On the other hand, national economies predicated on agriculture and natural resource extraction are more likely to exhibit environmental migration and conflict. Resource based economies are characteristic of the developing global South. Based on a 2000 report conducted by FAOSTAT, the percentage of the workforce employed in the agricultural sector was 58% in Africa, 51% in Asia, and 24% in Central America compared to approximately 7% in Europe and North America (Reuveny 2007, 661). Furthermore, an undiversified economy, regardless of scale, will struggle to respond to industry disruptions. As irregular weather patterns hamper agricultural production of the global South they will be forced to make a decision: adapt or migrate.

Inhabitants of Southeast Asia, Sub-Saharan Africa, and Central America will be particularly vulnerable to the effects of climate change. However, their specific rates of climate induced migrations depend on a myriad of other factors including governmental and international response (McLeman et al. 2014). Because the majority of climate induced migrants will be from the global South, long-distant northbound migration is unlikely. Most climate induced migration will occur internationally or domestically because most migrants cannot afford to travel further. Because of their limited mobility, much of the conflict associated with climate migration will be contained to the global South. Despite this reality, many academics and policymakers continue to depict massive northbound waves of climate migrants as a threat to national security and stoke the fire of populist regimes. However, these claims have been made deterministically and by people who do not fully understand the complexities of climate migration (Trombetta 2014, 134). Regardless of where the conflict will take place it is important to better understand its sources.

Determinants of Conflict

Climate variability is a threat multiplier that exacerbates conflict in vulnerable groups. Conflict is likely to surface through scarcity and increased ethnic tensions (Burrows and Kinney 2016); (Reuveny 2007, 659). It is also important to note that ethnic and scarcity based conflict determinants do not occur in isolation. Scarcity and ethnic disputes often occur simultaneously and are compounded by a series of other situationally unique factors.

The term scarcity has broad implications in the field of climate migration. Scarcity of water, food, and arable land encourages both migration itself and conflict amongst migratory groups. Resource scarcity in developing nations regularly results in urban migration (McLeman et al. 2014). Rural to urban migration as a result of scarcity has proven to be closely linked with violent conflict as exemplified by the Syrian Civil War (Abel et al. 2019).

In Syria, water and food scarcity combined with poor governmental oversight in rural communities drove migrants into urban centers like Damascus and Aleppo. The growing urban populations led to infrastructural pressure, crowding, and mass unemployment that contributed to the political unrest. Scarcity alone certainly did not cause the ongoing atrocities of the Syrian civil war, but it did encourage them. The civil war itself has become a major source of international asylum seekers, none of whom are internationally recognized as climate migrants.

The events in Syria exemplify how scarcity can promote violent conflict and the convoluted nature in which climate change and migration intertwine with other socio-political factors.

Furthermore, the effects of scarcity have different demographic implications. Water scarcity in particular disproportionately impacts women (Chindarkar 2012). In developing nations women are generally responsible for household water collection and have to travel further for less water. This increased burden has led to health impacts and has even been linked to increased domestic abuse. On the other hand, arable land scarcity has been tied to long-term male migration (Chindarkar 2012, 5) Men, who are regularly employed in agriculture, are forced to migrate in order to find alternative livelihoods. Their job search generally takes them to urban centers where conflict is likely. The different drivers and demographic implications of scarcity reinforce the need for further research into how gendered issues cause different points of conflict amongst migratory groups.

The second major source of conflict amongst environmental refugees results from ethnic tension. Ethnic tensions may occur between different migratory groups or between migrants and host countries. Fears over the latter is the source of major international securitization and will be the focus of the next section. The stresses of migration promote in-group solidarity and reinforce an us vs. them mentality thus promoting conflict between environmental migrants who belong to different ethnic groups. In a meta analysis of 38 climate induced migrations, Rafel Reuveny (2007) found that religion and or ethnicity played a role in encouraging violence in 7 instances. However, in all seven cases the violence occurred between migratory groups and not between migrants and receiving countries.

Many scholars and policymakers have focused on ethnic conflict between climate migrants and receiving nations. As mentioned previously, the link between climate migration and conflict in the global north has been done deterministically (Trombetta 2014) and does not result from empirical research. Rather the West's obsession with border security is the result of the villainization of migrants and populist politics. The vast majority of conflict and migration will be contained to the global South, yet over the past 40 borders across the Western world have become increasingly securitized.

Climate Change as a Force of Securitization

Refugees and migrants were first framed as security issues at the end of the cold war (Hammerstead 2014). The collapse of the USSR led to colorful imagery depicting massive westward flows of migrants fleeing their former soviet states. Many politicians capitalized on fears of cultural invasion and discussed migration as a threat to both the physical well-being and cultural identity of their constituents. The events of September 11, 2001 renewed anti-immigration rhetoric and created a new boogeyman for the West. Since 9/11 the Western world has drastically changed its approach to border control. September 11th spurred the creation of new bureaucratic agencies and mechanisms of law that discourage the democratic process and encourage human rights violations at the border (Faist 2006).

As Islamophobia continues to run rampant throughout the Western world, the newest catalyst for securitization are fears over climate migrants. As we know, the real threats of climate migration are not threats to northern national security. The real dangers fall onto the shoulders of the migrant groups themselves. The tangible threats of climate migration alone cannot explain the

securitization process. To understand how and why states securitize, we have to first understand ‘security’ as a social construct. There are many different theoretical frameworks used to explain the construct of security, but for the sake of this paper I will focus on just three.

Securitization Frameworks

The Copenhagen school is one of two popular constructivist approaches used to explain security. The Copenhagen school explains moves of securitization through speech. By simply claiming an issue to be a security threat, one elevates it into emergency politics and thereby claims the right to use whatever means necessary (Trombetta 2014, 133). The psychological threat construction described by the Copenhagen school has been used by American politicians and elite to securitize migration since the end of the Cold War.

The second popular constructivist approach, the Paris school, agrees with the Copenhagen school that security is a potent political force. However, the Paris school finds that securitization is created through what is sometimes called everyday moves of securitization (Trombetta 2014, 133). These everyday moves can be sourced from a complex web of actors that work together to transform how an idea is perceived (Oels 2012, 198). Actions like surveillance and bureaucratic moves enhance public anxiety and reframe an issue as a threat to national security.

The third framework of securitization is the human security framework. The human security framework was popularized by climate migration scholars and unlike the Copenhagen and Paris schools’ views migration as a positive sum game (Oels 2012). The human security framework recognizes the potency of security, but sees it as a tool to “...diffuse security threats in proactive, inclusive and collaborative ways.” (Hammerstad 2014, 272) The human security framework ultimately wants to shift public understandings of security. In the west, security is commonly understood as national security. However, if we understand the term in the context of human security, we are able to depoliticize and empathize with migrant groups more effectively. The human security framework has been criticized for being a tool of activism and not grounded in academia. However, what this framework does offer is a recentering of climate migrant rights, a recentering that will become incredibly important as 200 million people will be displaced by the year 2050.

Impacts of Securitization on Migration

Regardless of the explanatory framework, there is no doubt that securitization of migration is underway. After the attacks on 9/11, governments began linking weak immigration with international terrorism through rhetoric. Hammerstad (2014, 269) describes this transition when she writes, “The amorphous but potent discourse of...the 1990’s, now became accompanied by alarmist speech acts depicting... asylum seekers and migrants as threats to national security.” As mentioned above, once an issue is securitized, it is often addressed outside the realm of ‘normal politics’ (Oels 2012, 191). Abnormal political measures like excessive executive orders and soft law, which is a form of non-binding law that is usually initiated by the executive branch, undermine the democratic process and elevate national security above human security. A blatant example of this is the Trump administration’s villainization of Latin American migrants. Trump’s anti-immigrant rhetoric is not new, yet it perfectly exemplifies the securitizing effects of speech acts and how those speech acts are translated into abuses of power and human rights violations. Not only have populist regimes hindered migrant rights but they have also reinforced

long standing stereotypes that reinforce domestic in-group solidarity. The effects of securitization are not contained to the Trump administration and have been at work for decades across the west. The soft law agreements between Italy and Libya possibly best exemplify the dangers of a constructing migration as a threat.

Soft law agreements between Italy and Libya represent a phenomenon of securitization called externalization. Soft law is sourced from the executive and circumvents the democratic process. In this case, Italy has entered into agreements with Libya in order to limit the number of migrants moving through north Africa onto Italian shores. Italy provides Libya with funding and training in exchange for enhanced border protection. By signing an agreement through soft law, the two countries create a 'legal blackhole.' (Martino 2020, 3) By having international agreements that do not have the stipulations or intricacies of hard law, migrant rights are being ignored. There is well documented evidence of long-term detentions without a trial, beatings, drug trafficking, and gross negligence (Martino 2003). To make matters worse, these soft laws are still in place because they were created and enacted outside of the public eye. These types of violations are characteristic of border securitization throughout the west.

However, I find that the moves to securitization are not evidence based. Climate change will marginally increase south to north migration, but climate migration and conflict will be largely contained to the global South. Despite this reality the forces of securitization remain very potent and have their own dangers irrespective of migrants or climate migrants. The two main schools of thought under the constructivist umbrella, the Copenhagen school and the Paris school, both see threat construction as a way to increase state authority. However, as many Western nations begin to favor populist regimes, securitization is becoming a tool used to strengthen nationalist identity, and disregards basic liberties and human rights of both migrants and citizens (Lorenzo 2014, 319). Securitization is not sustainable. Nationalism and ethnic based violence is rising in the west. However, that does not mean that the global North does not have a moral obligation and vested interest in addressing the effects of climate migration.

The industrialized global north is mostly responsible for the rising sea levels, drought, and general climate variability that will soon plague our earth. Instead of entering a fortified world, the industrialized north must take preemptive international action to address climate migration. International cooperation that encourages infrastructural and economic resilience and creates long-term stability throughout the global South is desperately needed (Hoffman 2016, 150).

Simple technological improvements can have major impacts on improving human security in the face of climate variability. Hoffman (2016, 151) argues that switching out the wood burning stoves that supply 70% of rural Africa's energy with cook stoves and solar lamps could have far reaching benefits. Not only would a transition away from wood burning stoves decrease emissions, it would reduce deforestation rates and thus control erosion and fresh water supply. All of these are factors that improve climate resilience and decrease the need to migrate. By addressing the root causes of climate migration, this policy acts in the collective interest of the world by promoting human security and global economic resilience.

Conclusion

Climate change is on its way, and so are the economic, political, and human security concerns that come along with it. At this point in time stopping all greenhouse gas emissions will not

alleviate the pain of climate change. Thus, policymakers must direct their attention to the inevitable fallout of climate change. The 200 million estimated climate migrants must become the center of the policy discussion. By dissociating migration and national security, the west can reframe its understanding of migration as a threat to those humans involved. The recentering of migrant rights will make room for meaningful change and promote policies that tackle the root of the issue. Furthermore, once this issue is disentangled from national security, the international community will take on a more active role. Regional and international actors must recognize climate migration as the pressing issue that it is. Academic cooperation is also needed to create a concrete classification of climate migration. Defining who is and is not protected under any given definition is a critical first step in mitigating the unavoidable pain and suffering associated with climate change.

PART II: CASE STUDY

Climate Migration and Securitization Resulting from the Arab Spring

The effects of climate change are already upon us and so are the economic, political, and human security concerns that accompany it. The reversal of climate change is nearly impossible at this time and policymakers have shifted their focus to mitigation rather than prevention. Rising tides, desertification, and increased frequency of natural disasters will plague the 21st century and an estimated 200 million people will be forcibly displaced by 2050 (Burrows 2016, 446). In order to reduce the conflict and casualties associated with climate migration, the global order must fundamentally shift its understanding of security. Reframing migration as a threat to human security, rather than national security, will create an effective international response to climate migration. However, based on recent climate migrations it is clear that states are doing the opposite. The global North is responding to climate migration with securitizing actions and rhetoric creating a hostile environment for forcibly displaced climate migrants.

Increasingly, scholars are recognizing the role of climate change in the Arab Spring. The revolutions and subsequent conflict in the Middle East and North Africa (MENA) have created millions of displaced people. Despite the Arab Spring protests being closely tied to climate change, no states or international organizations recognize these displaced people as climate migrants or climate refugees. People throughout MENA have suffered immensely from anthropogenic-induced droughts that have largely been created by the industrial practices of the global North. When citizens of MENA were forced to migrate, they were confronted with the forces of securitization. Populist rhetoric and Islamophobia have dominated the migration debate in Europe and pose a massive threat to the continued existence of the European Union. Through examination of the causal pathways linking climate and migration in the Arab Spring, we can better understand the inevitable climate migration and conflict associated with an increasingly hot, dangerous, and securitized world.

Arab Spring Background

Before we examine the relationship between climate change and the Arab Spring, we must first gain an understanding of the greater context in which the Arab Spring occurred. Climate change was not the sole determinant of the protests that swept through the Arab World in 2011. MENA states have major economic, political, and structural deficiencies that have oppressed its citizens since European decolonization of the mid 20th century. The authoritarian regimes of MENA are almost unanimously petrostates whose economy and government are one and the same. The term petrostates denotes a country with a single main export: oil. Due to this economic homogeneity, regional integration and development have been basically non-existent. Unencumbered by a vibrant private sector, the authoritarian regimes of MENA are free to consolidate economic power through corruption, clientelism, and oppression. These tendencies lead to vast wealth inequality and political dissatisfaction creating a region ripe for revolution.

The Arab Spring began in December of 2010 when a Tunisian fruit vendor, Muhamad Bouazizi, lit himself on fire in front of the Tunisian capital. Bouazizi's act of self-immolation captured the frustration and discontent felt throughout the MENA region (Femia et al. 2014). As Tunisian citizens revolted against their government, protests began to break out in Egypt, Yemen, Morocco, Libya and Syria. Heads of state were being kicked out of office and in some cases

executed, such was the case for former Libyan leader, Muammar Ghaddafi. From a Western perspective it appeared to be the long-awaited democratic reform of the region. However, due to a myriad of structural and political issues, Tunisia was the only country in MENA to successfully transition into a democracy in a post-Arab Spring world. Yet, much uncertainty remains regarding the longevity of Tunisia's democracy.

As heads of state were removed and democratic institutions struggled to take shape many countries were plunged into political instability. The lack of leadership created a power vacuum upon which Islamic extremist groups capitalized. The Arab Spring quickly turned into the Arab nightmare and created an environment of perpetual violence and resource scarcity. States' individual circumstances will be evaluated more closely in the coming pages, but the source of the Arab Spring is closely associated with the effects of anthropogenic-induced climate change.

Relationship Between Climate Change and the Arab Spring in North Africa

Following the initial outbreak of the Arab Spring, scholars began investigating the causes. The answers seemed obvious. The Arab spring was the result of poor policy, limited economic growth, and general citizen dissatisfaction. In short, it appeared that the same problems the region had always wrestled with finally proved to be enough to start a social—and at the time seemingly democratic—revolution. However, upon closer examination, it is clear that climate change played an imperative role even if it was independently an insufficient trigger (Johnstone 2011). Although drought had gripped much of MENA in that period it was not the local effects of climate change that led to the Arab Spring in North Africa. Rather, climate change helped spark the Arab Spring through what Troy Sternberg calls “hazard globalization” (Sternberg 2013).

The term “hazard globalization” in this case refers to North Africa's complete reliance on the international food supply. Egypt is the world's largest importer of wheat (Magdalena 2018). The dry climate does not permit it to grow enough produce for its 100 million citizens. This is characteristic of North Africa, as all of the top nine wheat importers are located in MENA. The inability to grow food has led to massive dependence on agriculture exporting countries like the U.S., Russia, Australia, and China. Furthermore, due to relatively low GDP and high transportation costs, food in North Africa is expensive. For example, Egyptians spend 38% of their income on food alone (Magdalena. 2018);(Sternberg 2013). compared to households in Europe and the United States which spend approximately 10%. North Africa's dependence on international agricultural products created vulnerability to price fluctuations in international commodity markets.

In 2010-2011, North Africa's domestic food insecurity and complete reliance on foreign producers came to a head. Unusually high rainfalls cut the Canadian wheat harvest by 25% and droughts in central Asia limited production from Russia, Ukraine, and Kazakhstan (Johnstone 2011). Central Asian droughts induced fires across Russia that further cut the harvest, resulting in a 30% decline year over year. Russia responded by imposing a state-wide wheat export ban, including wheat shipped to Egypt, which was the leading importer of Russian produced wheat. Furthermore, China, the world's largest producer and consumer of wheat purchased bulk quantities of wheat from international markets. Fears of total crop failure lead to fewer exports and higher rates of domestic wheat consumption in China, thus driving the price of wheat to all-time highs.

In early 2011, the price of wheat was almost 9.00 USD per bushel, representing a 120% increase from the year before. Additionally, the price of sugar skyrocketed to a 30 year high, due to natural disasters in Australia and South America (Johnstone and Mazo, 2011). North Africa felt the brunt of these price fluctuations, as many MENA citizens could no longer afford basic food staples. While the main grievances from the Arab Spring were beyond the scope of short-term food insecurity, the rising cost of food played an aggravating factor in starting the Arab Spring.

In Egypt and Tunisia, political protests and bread riots blurred together, as North African residents unanimously called for more government accountability. In Algeria, protests were a direct response to the rising cost of basic ingredients and were only quelled when the Algerian government agreed to subsidize basic food staples. The connection between food prices and Arab Spring protests becomes clearer when you examine the governments that successfully navigated the spring of 2011. Two countries that did not see any Arab Spring uprisings were the United Arab Emirates and Israel. Both of these countries have a higher GDP relative to the rest of the region and their citizens spend a lower percentage of their income on food. Ultimately, food insecurity in North Africa was caused by climate change and poor governmental foresight. In a region plagued by the same structural issues for 70 years, the added burden of climate change jump-started the protests in North Africa.

Relationship Between Climate Change and the Arab Spring in Syria

The root causes of the Syrian Civil war can be easily clouded by the international nature that the conflict has assumed. A convoluted web of politically and religiously motivated actors have shifted the war away from the original grievances of Syrian citizens. Regardless of the actors involved, the Syrian Civil War has been one of the single largest producers of migrants in decades. Upon closer examination, the roots of this brutal war are closely linked to climate change.

Climate played a significant role in the Syrian Civil War; however, there are major macro-economic and political triggers that first must be considered. Citizens of Syria, much like the rest of the Arab world, struggled with high levels of political dissatisfaction and massive ideological divides throughout the nation. Syria suffers from a low GDP with a stagnating growth rate, and despite the implementation of quasi-free market principles, it has struggled to grow economically. The Assad Regime in Syria continues to rely on corruption and oppression in order to concentrate power at the expense of the economic and personal liberties of its citizens. Protests against the Assad regime broke out in early January of 2011 in response to other Arab Spring protests and drought-induced scarcity (Femia et al. 2014).

Anthropogenic-induced climate change began to affect Syria in 2006 when the Fertile Crescent, which lies in the heart of the Middle East, experienced what some called “the worst long-term drought and most severe set of crop failures since agricultural civilizations began in the Fertile Crescent many millennia ago” (Femia et al. 2014, 75). The Assad regime multiplied the effects of the drought by subsidizing water intensive practices like cotton farming and flood irrigation. These unsustainable practices led to the overexploitation of groundwater in the years preceding the drought (Kelley et al. 2015). When the groundwater dried up and the rain never came, Syria’s domestic agricultural production suffered. As the drought extended into 2011 some 800,000 Syrians had lost their livelihoods and two to three million were driven into extreme poverty (Mohtadi et al. 2015).

As 75% of all crops failed, Syrians had no choice but to abandon rural farming communities and migrate toward urban centers. Syrian city centers grew quickly from 2002 to 2010. In just eight years, the total urban population of Syria rose to 13.8 million representing a 50% increase (Kelley et al. 2015). It is also important to note that urban populations grew in part because of Iraqi refugees fleeing conflict resulting from the United States invasion of Iraq in 2003 (Kelley et al. 2015). As more people were driven into towns like Damascus and Aleppo scarcity and infrastructural pressure increased.

The mass rural exodus in Syria meant that impoverished communities were forced to compete for jobs and water, and thanks to poor public policy both were in short supply. As a result, economic inequality grew in urban centers and those who remained in rural areas continued to suffer. Unsurprisingly, protests broke out in early 2011 in Dara'a, a rural town that was heavily impacted by the region-wide drought and received very little assistance from the Assad Regime (Femia et al. 2014). Spurred by the wave of Arab Spring protests and agricultural insecurity protests quickly spread throughout the country. When the demonstrations in Dara'a were declared a riot, the Syrian National Army opened fire killing at least 25 and enraging the population which led to the founding of the Free Syrian Army, the leading rebel group in the fight against Assad.

As mentioned previously, the Syrian Civil War has devolved into dozens of different domestic and international groups acting in their own self-interest. The founding of the Islamic State of Iraq and Syria (ISIS) encouraged U.S. involvement from the Obama and Trump administrations. As ISIS rampaged through the country committing genocide upon non-believers many Syrians fled north. Much of the Middle East was still facing political turmoil and many entered Turkey with the ultimate goal of reaching the European Union.

Migration as a Constructed Threat to the Global North

The conflicts in Syria and North Africa led to distinctly different northbound migration patterns, yet solicited similar securitizing responses from the EU. The fear of migration resulting from the 2011 Arab Spring created a polarizing political atmosphere that lingers today. The perceived threat of migration revealed deep cracks in the European Union. States began acting independently and fending for their own self-interest without regard for the European Commission or other member states. The implementation of soft law and the rise of populism are direct results of the perceived threat of migration. In retrospect, the real security threat was created by Europe's inability to recognize the rights of these climate migrants and to act in their own collective self-interest.

North African Migration to Europe

As discussed in the context paper, the greatest migratory danger to the global North are not migrants themselves; rather, it is the securitizing patterns states display when they perceive migration as a threat. This theory is clearly represented when looking at the migrant flows and European response resulting from the 2011 Arab Spring in North Africa. Put simply, some irregular migration occurred in 2011 but many European states responded with flagrant overreaction.

Apart from the very first days of the North African Arab Spring, Europe did not receive an unusually high number of migrants or asylum seekers. However, that does not mean that a

significant number of people were not displaced. In Libya alone, 1.2 million people fled the country in the summer of 2011. Most of these migrants traveled into Tunisia or other African countries (Paoletti 2014). This migratory pattern represents a well understood phenomenon in the field of climate migration: those displaced in the global south tend to migrate regionally because of insufficient funds. Yet, despite this being a well-researched phenomenon, European countries reacted brazenly to the threat of migration.

Italy for example began signing a series of soft law agreements (Carrera et al. 2013). Soft law refers to international agreements made by the executive branch without the consent of the people or the legislative body. Soft law is inherently anti-democratic and concentrates power in a single decision-maker. Yet, this mechanism becomes popular when an issue is perceived as an immediate security threat. The Copenhagen school describes the securitization process through policymaker rhetoric. Rhetoric is a potent political tool used to develop threats. An example of this was seen when Italian parliamentarian Lorenzo Bodega claimed, “The worry felt by many Italians, who fear the arrival of potential terrorist fugitives or mere profiteers exploiting the confusion in order to land in Italy in the guise of refugees, is justified” (Paoletti 2014, 136). Through the psychological threat construction, politicians like Bodega justify the use of soft law. Italy signed soft law agreements with Egypt, Tunisia, and Libya quickly. As explained in the context paper, the soft law agreements between Italy and North African countries, specifically Libya, led to a host of humanitarian concerns. By funding a corrupt coast guard Italy directly contributed to drug smuggling and human right violations. Furthermore, those who fell under the jurisdiction of these international agreements had no legal recourse because the laws were created outside the scope of usual democratic processes.

Italian use of soft law was fundamentally against the democratic principles of the European Union and was used to the detriment of migrants despite a non-significant rise in migration. However, the fear that Italian politicians stoked was contagious. The issue of migration was transformed in the eyes of many Europeans: migration has been elevated to the level of emergency politics. A level that would threaten the continued existence of the European Union when the next perceived influx of migrants occurred.

Syrian Migration Crisis

Northbound Syrian migration was not a direct result of the Arab Spring. Syrian migration exemplifies how climate change can lead to migration after it has been transitioned into another push factor like the presence of war. Migration out of Syria drastically increased in 2015 at the height of the Syrian Civil War (Greenhill 2016). However, unlike the psychologically constructed “migration crisis” of 2011, the Syrian civil war created over 1,000,000 potentially European bound migrants. None of these 1,000,000 plus migrants fell under any sort of climate migrant/climate refugee status and European nations struggled to adapt.

The European response to the 2015 migration crisis was sporadic and inconsistent. Many member states prioritized their self-interest over commitment to the European Union (Geddes 2018). The influx of Syrian migrants created both regional and domestic tensions. The 2015 migration crisis became a divisive domestic issue and reawakened right-wing nationalist parties throughout Europe. As politicians felt pressure from their constituents, states with previously open borders began instituting internal border control (Greenhill 2016). In the Schengen area, a historically passport free section of Europe, six countries reinstated internal border controls

citing 'exceptional circumstances' (Greenhill 2016). Then, in 2016, European Union president Donald Tusk issued a stark warning when he claimed, this issue challenged the EU as a political project, and at this rate its demise would come sooner rather than later (Greenhill 2016, 318).

The EU lacked solidarity. States continued to securitize borders and a diverse range of responses threatened the cohesiveness of the Union. The need for collective action became increasingly clear. To address the influx of migrants, the European Union was forced to form an agreement with Turkey in March of 2016 (Geddes 2018). Turkey is geographically situated between Syria and the rest of Europe thus funneling migrants through its borders. When Turkey threatened to increase the number of migrants heading to Europe, the EU and its 28 diverging opinions were forced to make a deal with Turkey.

With the EU crumbling under its own weight, Turkey held all of the bargaining chips. Turkey agreed to limit the travel of unchecked migrants and act as a temporary holding zone for many fleeing the Syrian Civil War. In exchange, the EU was forced to compromise politically, economically, and morally. Politically speaking, they agreed to revitalize the conversation regarding Turkey's admittance to the European Union. Economically, the deal offered over six billion euros to the Turkish government to fund refugee camps. Morally, the EU was forced to recognize Turkey as a safe country for migrants/refugees despite mounting human rights violations (Greenhill 2016). It is the third compromise that epitomizes the international dangers of climate migration.

Although, there was a significant increase in irregular migration in 2015, the real danger was not to the states. As mentioned previously, the danger came from the security-centric response of individual countries and the EU. Except for Germany, which had its own economic motives for accepting migrants, most member states acted rashly jumping into action based on domestic political pressures stoked by ant-Muslim and anti-migrant rhetoric. Individual soft law agreements, as well as the EU-Turkey deal, challenge the values of European society. The European Union which has long prided itself on promoting human rights failed to uphold that value. Both on an individual and supranational level, Europe fell victim to fear and the illusion of migration as a challenge to state security rather than a challenge to human security. Since the migration crisis stemming from the Arab Spring, the EU has been playing the game of policy whack-a-mole (Geddes 2018). The European Union, and many of its member states, have opted for short-term solutions to long-term problems. Short term solutions, like international soft law agreements, are founded on nationalistic sentiment and create humanitarian emergencies.

Conclusion

The Arab Spring and the Syrian Civil War are undeniably linked to climate change. Climate change alone did not start the Arab Spring or Syrian revolution. Although, when contextualized in the broader set of causal factors, it is clear it played an imperative role. The cases of Syria and North Africa clarify the importance of informed and responsible international reaction to climate change and climate migration. The Western world must develop a more comprehensive migration agenda. Policies that prioritize proactive measures instead of reactive ones. Furthermore, the West must take concrete steps to address the growing issue of immigrant racism. The securitization of the European Union in 2011 and 2015 revealed the potency of migration, especially when sourced from the global south. Anti-migrant and Islamophobic speech fueled right wing parties across Europe and pressured politicians into undemocratic

action. The actual number of migrants entering Europe was irrelevant to the political atmosphere. The fundamental issue is the way in which the threat of migration is interpreted. Climate migration, or any migration for that matter, is an issue of human security and not state security. The danger is to the migrant groups themselves, not the welfare of the state in which they seek to enter. The villainization of migrant groups is not unique to Europe but will become an increasingly problematic issue as migration increases with the effects of climate change.

PART III: CASE STUDY

Climate Migration, Mitigation, and Human Security in Pacific Island Nations

The destructive power of climate change has long been understood. Economic, political, and social disruptions resulting from climate-related disasters are an all but certain eventuality. However, as the effects of climate change accelerate, some nations could become uninhabitable or even disappear altogether. The South Pacific is one of the most vulnerable regions in the world to rising global temperatures. Low-lying Pacific Island nations will be the first to face the full force of climate change. As sea levels rise, coasts erode, and cyclones increase in severity and regularity many Pacific Island nations will revert to nothing more than a sandbar, and then eventually nothing at all.

For the sake of this paper, Pacific Island nations will be defined as the 21 developing Island nations of the South Pacific.¹ Notably, New Zealand and Australia have been left out due to their high rates of economic capital and non-coastal territory. Although a diverse range of cultures exist throughout the region, I use the term Pacific Island nations in order to broadly address the relatively similar challenges they will experience as a result of climate change. Of the 2.3 million residents currently living along the coastlines of Pacific Island countries, one estimate suggests that 1.75 million of them could become stateless refugees by 2050 (Ash et al. 2016). The international community is ill-prepared to accommodate climate migrants from the Pacific. Despite over 30 years passing since the Intergovernmental Panel on Climate Change first announced that the “gravest effects of climate change may be those on human migration,” little political advancement has been seen. Without significant regional or global support, Pacific Island countries increasingly must rely on their own climate mitigation efforts. While Pacific Island countries represent a fraction of total global emissions, they will likely be the first casualties in a generations-long battle with a warming planet.

The forces of climate change are already being felt by Pacific Island nations, as 21% more people were killed in weather-related disasters between 1985-2005 compared to the previous 20 years (Locke, 2009). Despite more frequent and deadly natural disasters, decreasing health, and encroaching seas there has not been an observable increase in off-island migration. Instead, most Pacific Islanders have been forced to migrate within their region or state. Large portions of the population are moving into urban areas that are ecologically and economically unable to support the growing number of residents. Urban density on many islands has led to major human security concerns such as a sharp rise in the spread of communicable diseases. It is in the self-interest of the international community to offer proactive assistance. However, before we examine the human security concerns associated with migration in the Pacific we must examine the ecological and economic variables tied to intra-island and intra-regional migration.

Ecological and Economic Conditions of Vulnerability

As expressed in the previous two papers, migration is determined through a network of push and pull factors (Bates 2002); (Piguet and Pecoud 2011); (Reuveny 2007, 658). Climate change is a

¹ American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna

strong push factor in the migration decision-making process but is seldom the sole determinant of migration. The climate is intrinsically tied to economic and political factors, and may only cause migration when it has been transitioned into a political or economic burden. Therefore, when examining climate migration, we must take into account the wider network of push and pull factors. By reviewing the economic, ecological, and political conditions of Pacific Island countries we achieve a more holistic understanding of the drivers of migration.

Decreasing Freshwater

Most media representations of climate change in the Pacific depict ‘sinking’ islands. Although sea level rise poses a real threat to coastal communities, many other climate-related problems will have to be dealt with before Pacific Islands are swallowed by the tides. The most pressing issue facing Pacific Island countries is limited access to fresh water. Due to climate change, rainfall in the Pacific is expected to increase, but so too is seasonal variation (Connell, 2015). This means even more rain in the rainy season and less rain in the dry season. High volume floods and long periods of drought will considerably decrease the habitability of low-lying atoll nations like Tuvalu and Kiribati.

Low-lying Pacific Island countries rely on a thin table of freshwater (Campbell, 2010). These thin water tables are replenished by regular rainfall that seeps through the ground and into the aquifers below. However, when more rainfall occurs in shorter periods of time, the rainfall will not seep into the water table but will instead run off into the ocean and contribute to already high rates of erosion and flooding. Intense water runoff and general flooding are closely associated with contamination of other freshwater resources (Hadwen et. al, 2015). As freshwater availability declines, and saltwater encroaches pressure will be placed on fragile island ecosystems and agriculture.

The impacts of changing rain patterns will be felt by island ecosystems and agricultural production alike. Both the quality and quantity of food produced domestically will decline as a result of decreasing freshwater accessibility. This is especially concerning when considering the already high rates of food insecurity many residents experience. Pacific Island countries have notoriously poor physical health. The ten countries with the highest obesity rates (in the world) are all located in the South Pacific, led by the small island nation of Nauru where 62% of the adult population is obese. These grave statistics are a result of decreasing rates of domestic food production, a pattern that climate change is poised to exaggerate.

Traditionally, Pacific Island nations have grown a diverse range of products and therefore not all crops were affected by the same specific climatic variables. However, in an attempt to gain footing in the international market, many nations have turned to monocropping. By specializing in one or two crops, such as coffee or sugar cane, island nations have become less climate-resilient due to an overall decrease in biodiversity. Another consequence of monocropping is that many countries have to import more and more food from international markets. In the past ten years, the region has experienced a decline in per capita food production, and an increase in per capita food imports (Barnett, 2010). As observed in the case study of the Arab Spring, overreliance on international agricultural commodities also increases a state’s vulnerability to climate change.

Oceanic Health

Coral reefs are considered the most vulnerable ecosystem to every degree of change (Klint et. al, 2012). Fragile coral reef ecosystems are a vital part of many Pacific Island cultures and economies. Coral reefs are directly tied to two major economic contributors: fisheries and tourism. Unsurprisingly, fisheries are a major economic contributor for Pacific Island nations given their ocean to land ratio of 300:1 (Barnett, 2009). Fish are not only an important source of protein for many locals they are also a leading export in many Pacific Island nations. In 2001, the final market value of tuna caught in the Pacific region was more than six billion dollars. Fishing accounts for 13% of total GDP in the Solomon Islands and accounts for 95% of total exports (Barnett, 2009). Although relatively few scholars have attempted to quantify the effects of climate change on fisheries of Pacific Island nations, the result is almost certainly a negative one. As temperatures increase and coral reefs die off, fish populations will likely dwindle and the migratory patterns of those who remain will be altered. Decreased fish populations mean fewer calories and fewer jobs in the region. Furthermore, the traditional knowledge that allows many Pacific Islanders to be such efficient fishermen will become outdated in face of a changing climate. Oceanic biodiversity has been the cornerstone of the rich culture of many Pacific Island nations but is also vitally important to another major source of revenue: tourism.

Tourism

Pacific Island countries are predisposed to suffer from climate change because of their geographical location, but they are also ill-equipped to respond. Pacific Island nations are economically diverse. Yet, most islands face high rates of poverty and food insecurity because of increasingly dense urban centers. As more and more people move away from rural coastal areas towards urban centers like Koror, Palau, health and transportation infrastructure becomes strained. Unemployment rates are high throughout the region and many are forced off the island in search of work. As previously mentioned agricultural, and fishery production is expected to decline in the coming decades, thus Pacific Island nations must seek more economically resilient means of production or adapt those that already exist.

Tourism is a growing sector in Pacific Island economies; it represents approximately 20% of the region's total GDP and creates 15% of the region's employment (Klint et. al, 2012). However, climate change is a direct challenge to the tourism industry. The vibrant forests and aquatic biodiversity that attract tourists from across the globe will succumb to coral bleaching and flood-induced erosion. Furthermore, more severe weather patterns will make many tourists fear for their safety and discourage travel in general. On top of all the direct climatic impacts on tourism, the international need to lower greenhouse gas levels will increase the cost of long-distance travel at some point in the future. With these factors in mind it is unsurprising to hear that the World Bank estimates the island of Kiribati's GDP will decrease anywhere from 17-34% by 2050 if adaptation does not occur (Allgood et. al, 2017). The need for governmental action is clear. Local and regional authorities must work together to develop plans to strengthen local climate defenses and economic resilience. However, many Pacific Island nations suffer from high rates of political apathy (Klint et. al, 2012). To date, only minimal action has been taken and the region is no better equipped to address these concerns than they were ten years ago. Without the means or the will to take action, some are looking for alternative means of climate mitigation.

Forms of Adaptation

Increasingly scholars are recognizing migration as a form of mitigation. Although the concept sounds counterintuitive, many Pacific Islanders are leaving their homeland in search of work abroad to provide remittances to their families and local communities. Because of the diverse nature of these remittances, it is unclear how much money is being sent back to Pacific Islands from labor migrants. Despite little quantitative research, the benefits can be clearly articulated. Voluntary labor migration and the subsequent remittances act as a form of climate adaptation because it decreases island population, increases the quantity and diversity of income, and finally labor migration can result in the transfer of skills between the migrants and host countries.

Tuvalu, Tonga, Samoa and Vanuatu are places where migration is working successfully as a climate adaptation strategy (Campbell, 2016). These countries have entered into visa arrangements with neighboring countries like New Zealand, which has agreed to take 75 Tuvaluans a year (Constable, 2017). Tuvalu has minimal population growth on average, despite high fertility rates (Campbell, 2016). This limited population growth is largely due to international labor migration and has created a more climate resilient island. On the other hand, the Island of Kiribati has an annual population growth rate of 1.55% and suffers from severe overcrowding (Allgood et. al, 2017). On Beito Island, the most densely populated island in Kiribati, the population density is higher than in Hong Kong, China. Urban crowding in Pacific Island communities is closely linked to increases in communicable disease, coastal erosion, and unemployment. Later pages will further describe the security concerns associated with urban crowding. However, it is first important to examine another source of foreign economic stimulus: international aid.

To meet the costs of mitigation and eventually migration, international financial support of Pacific Island nations is necessary. Pacific Island nations have higher climate adaptation costs per capita than anywhere else in the world, and they do not have the human or financial capital needed to make the necessary changes. Pacific Island nations receive 700 million USD on average every year for climate change adaptation projects (Betzold, 2016). On a regional level this evens out to about \$75 per person. However, despite most Pacific Island nations facing relatively similar climate challenges, aid is spread out unevenly. For example, the island state of Niue received on average \$14,020 in adaptation aid per capita from 2010 to 2014 (Betzold, 2016). This provides stark contrast to the \$38 per capita received by Papua New Guinea. Although Papua New Guinea does have the largest population in the Pacific, they still face many of the same concerns as a small atoll nation like Niue. Beyond uneven distribution the effectiveness of international aid is stifled by broader demographic and categorical issues.

During the 2009 Copenhagen Summit, industrialized countries collectively pledged 100 billion USD per year in climate adaptation aid by 2020. Because tracking specific donations is extremely difficult and no collective monitoring system exists it is likely that global adaptation aid is far below the stated target goal. Donating states self-report the quantity and determine what is defined as adaptation, which has undoubtedly led to the overstating and misuse of funds. The term 'adaptation' has been applied broadly. The aid that does make it to Pacific Island nations is often only tangentially related to climate adaptation. Additionally, the aid provided is generally concentrated in urban centers and amongst already wealthy citizens. It is unclear how much aid actually reaches the most vulnerable demographics such as women, children, and rural populations.

International aid and remittances have been significant contributors to economic resilience to climate change. To date, little off-island climate migration has occurred (excluding migration as a form of adaptation). However, there are distinct intra-island migratory patterns that are indicative of a changing climate. Urban centers throughout the region are being flooded with people. People that cannot find adequate shelter, healthcare, or employment face a major crisis of security.

Intra-Island Migration

Historically, intra-island migration could be credited to economic pull factors. In past decades, employment opportunities have resulted in a steady migratory flow into urban centers. Rural to urban migration allowed for continuous economic development that was largely able to employ and accommodate the growing population. However, climate change related push factors are aggravating the already high rate of rural to urban migration (Locke, 2009). In Kiribati, where the population growth rate in urban areas is three percent per year, there appears to be a correlation between the migration influxes and potable water and coral bleaching on outer islands (Locke, 2009).

In Koror, the largest urban center in Palau, buildings are regularly exposed to coastal flooding. However, sea level rise is not the reason for increased incidents of flooding. Instead, 94% of these flooding incidents were a result of urban sprawl (Mason et. al, 2020). Population growth as a result of high rates of intra-island migration has encouraged development in Koror. The city only has a population of 11,444, but has limited development space. To accommodate increased development, Koror has been building closer and closer to the shore, destroying mangrove forests and infilling reefs. These developments are directly exposed to storm surges and decrease the overall climate resilience of the island. Mangrove forests are a strong natural defense against rising tides, and coral reefs, as previously discussed, have long-term ecological and economic benefits to the island.

Rapid and irresponsible urbanization has consequences beyond the destruction of natural climate defenses. Densely populated areas have experienced an increase in the spread of many climate-sensitive health risks. In the Pacific, a confluence of climate, socio-economic, and demographic risk factors has led to the rise of communicable diseases. Kiribati, Tuvalu, and the Marshall Islands all suffer from some of the highest rates of tuberculosis in the world (McIver et. al, 2015). In order to understand why tuberculosis, or TB, is prevalent on Island nations we must contextualize the disease in a broader spectrum of climate related factors.

TB's rate of communication and mortality are compounded in populations experiencing overcrowding, poverty, or pre-existing health conditions. As previously mentioned these island states have severely overcrowded urban areas due to climatic push factors, with high rates of TB transmission. Another consequence of overcrowding is that many residents are unemployed and live under the poverty line. National GDP and rates of communicable diseases are closely linked. The correlation is made clear when observing the relatively wealthy island nations of New Caledonia and the Commonwealth of Northern Mariana Islands which have successfully eliminated TB from their nations (McIver et. al, 2015). Another major contributor to the spread of TB is food insecurity and its associated health concerns. Climate change and globalization have encouraged high rates of food insecurity throughout the Pacific and subsequently caused an

epidemic of diabetes. Seven of the top ten highest diabetes-prevalent countries are Pacific Island nations, with the Marshall Islands ranking third, and Kiribati in fourth (McIver et. al, 2015).

Over the past 20 years living conditions in Pacific Island nations have been stagnant or decreasing due to climate change. Island states lack the human capital, funding, and international support necessary to mitigate the symptoms of a warming planet. It is becoming increasingly clear that off-island migration is inescapable. However, despite some sporadic commitments from regional and international players we lack any significant strides to ensure what the former president of Kiribati has called, “migration with dignity” (Remling, 2020).

International Response

The estimated 1.75 million projected climate migrants from the Pacific could be easily accommodated if resettled throughout the world. In fact, 1.75 million people would not pose an extraordinary burden if resettled in a single industrialized nation. Although the international community must prioritize the security and dignity of these soon-to-be climate migrants, they represent far more than just themselves. Because of the coarse nature of climate modeling, projections for the number of climate refugees range from 50 million to one billion by 2050. Climate migrants from the Pacific are a guinea pig of sorts, and may set the precedent for climate migration law and international response for the millions to come. As of now, no nation wants to become the world’s destination for climate migrants.

Currently, off-island migratory schemes in the Pacific have no consideration for the impacts of climate change. Agreements like the Compact of Free Association (CFA) between the US and the Marshall Islands and the Pacific Access Category (PAC) in New Zealand allow for labor migration only. These migration schemes are highly restrictive in terms of who qualifies for migration and who can afford it. The PAC grants 75 Tuvaluans residency in New Zealand annually. However, to be eligible you must be between 18 and 45 years old, pass an English exam, have an existing job offer, and meet an income requirement (Constable, 2017). Although the CFA between the US and the Marshall Islands is less restricted than the PAC, the journey from the remote Marshall Islands to the US is expensive and inherently restricts migration of the most vulnerable people. Although off-island labor migration has clear benefits, some argue that agreements like the CFA and PAC actually result in less resilient island communities. By restricting migration to the wealthiest residents, these international migratory agreements are creating a vicious cycle that allows only the wealthiest, highest educated, and most politically connected people the opportunity for migration (Constable, 2017).

Historically, migration schemes that have directly taken climate change into consideration have failed to gain traction. In 2006 and 2007, parties in the Australian parliament proposed climate migration bills that attempted to make a new type of visa that formally recognized climate refugees (Ash et al. 2016). Unfortunately, the bills failed both in 2006 and 2007 in part due to the bill’s inability to adequately define the term ‘climate refugee.’ On the international level, climate summits have failed to outline any meaningful legal frameworks. One of the clearest attempts made by the international community has been through the Nansen Initiative. The Initiative was started by Norway and Switzerland and focuses on filling some of the many legal gaps climate migrants will face. However, the Nansen Initiative was formed outside the scope of the UN, and has not gained support from other countries. Few scholars and media outlets have written extensively about the initiative and it has struggled to fulfill its stated goal (Constable, 2017).

The Nansen Initiative is not unique. The global order is failing as a collective unit, and states are unwilling to grant refuge to climate migrants for fear that expectations will be placed upon them in the future.

Conclusion

Climate change is the greatest collective problem our world has ever faced. Although the aforementioned 21 Pacific Island nations create a fraction of global greenhouse gas emissions they will be the first casualties in a decades-long war. Many Pacific Islanders will become stateless refugees in the near future. These vulnerable migrants will lack protection from their now submerged homelands. There is an apparent possibility for mass casualties if these homeless migrants do not receive assistance from regional and international actors. Yet as of 2021, no meaningful climate migration framework exists and substantial uncertainty remains in regards to the fate of Pacific Island migrants.

In 1988, at the first intergovernmental panel on climate change it was clear that human migrants would suffer from climate change. However, no substantial action has been taken. Although the international community's response to climate migration is somewhat unsurprising when considering the lackluster response to climate change itself. I find that it is within the international community's self-interest to ensure the planned and secure migration of Pacific Islanders. Due to the region's limited human and financial capital it does not have the means for long-term mitigation. Most Pacific Islands are experiencing urban crowding, extreme weather, and climate-related health issues to some extent. These factors will drive off-island migration steadily until an unknown threshold where the remaining islanders will no longer have the economic means to support themselves. Without international assistance or a comprehensive framework that ensures so-called migration with dignity, these people will be forced to migrate at irregular intervals and through illegal means.

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