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The Effect of Climate Change on Migration: An Argument for Providing Climate Migrants with Refugee Status

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THE EFFECT OF CLIMATE CHANGE ON MIGRATION: AN ARGUMENT FOR
PROVIDING CLIMATE MIGRANTS WITH REFUGEE STATUS

By

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Submitted in Partial Fulfillment
of the Requirements for
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Summary

Global temperatures are rising at an exponential rate and, as a result, millions are being displaced by natural disasters and socioeconomic turmoil exacerbated by environmental hardship. Currently, climate change does not qualify as an extenuating circumstance that would grant refugee status to those suffering. Yet, as I argue in this thesis, experiencing substantial hardship (e.g., losing their home) due to climate change should be justification for refugee status and the rights/protection that comes with it. As they are a major contributor to the greenhouse gas emissions causing climate change, the United States in particular has a moral obligation to provide aid for these migrants.

Introduction

The recurrent effects of global warming and climate change are indubitable, but, as with most issues, those who are not affected tend to be ignorant of the gravity of these effects. For many, though, the destruction caused by climate change cannot be disregarded. As shown in figure 1, 32.4 million people were displaced in the year 2012 due to natural disasters likely exacerbated by climate change. The brunt of these disasters that produced the most migrants occurred in coastal regions, such as Peru due to La Niña floods, Cuba due to Hurricane Sandy, and the Philippines due to earthquake, typhoon, and monsoon effects.¹

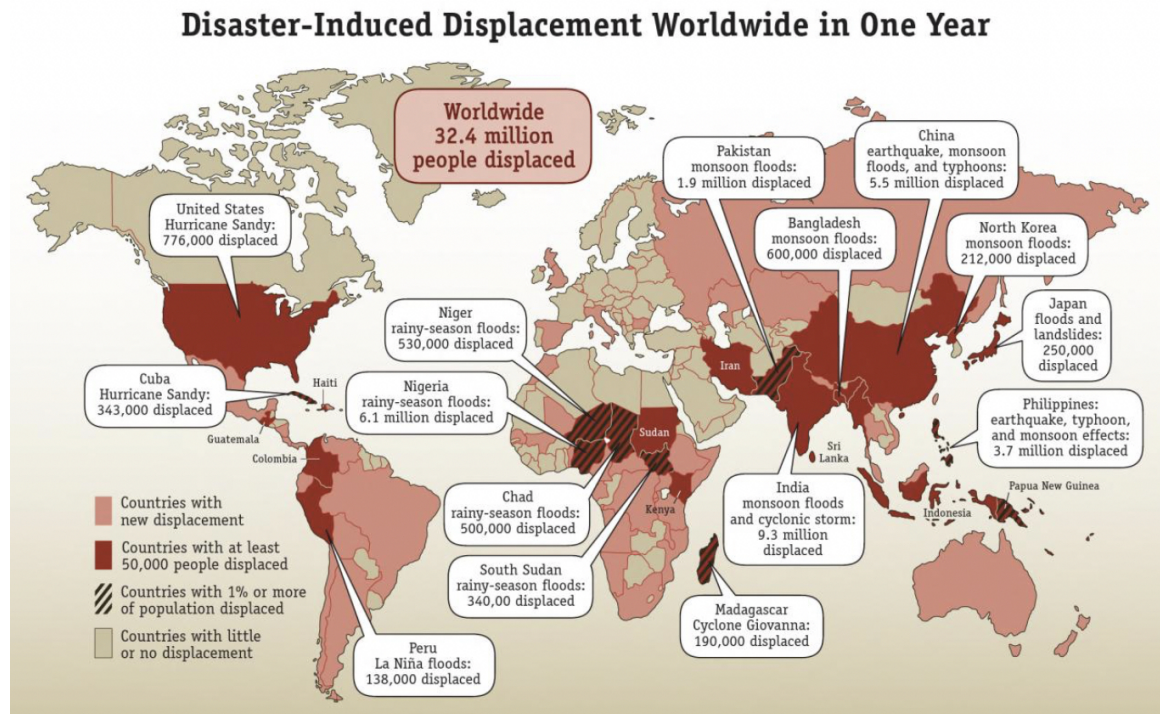


Figure 1. Map showing quantities of displacement due to natural disasters in 2012.

The warming of the earth directly leads to the melting of glaciers and ice sheets,

1. Rebecca E. Hirsch, *Climate Migrants: On the Move in a Warming World* (Twenty-First Century Books, 2016), p. 7.

which causes global seas to warm and sea levels to rise, putting countless places at a heightened risk of flooding. Moreover, warming oceans increase the risk of severe tropical cyclones (also known as hurricanes or typhoons), since warm ocean water is required for these cyclones to form and maintain power. Flooding and tropical cyclones only begin the list of ways climate change forces people to migrate. Earth's climate has been changing, but this change has prehistorically been indiscernably slow. Experts believe that the increased warming of the earth in recent years is caused by greenhouse gas emissions, such as the emission of carbon dioxide, and these emissions are rising exponentially due to the burning of fossil fuels for various purposes (transportation, heat, electricity, etc.).

Out of a broad range of estimates, the International Organization for Migration foresees around 200 million people needing to migrate due to climate change by 2050. Thus, climate change is not just a matter of environmental destruction, but it is also a humanitarian and logistical crisis.² The humanitarian aspect of this crisis is furthered because developing countries and regions who have little resources or access to assistance are the ones most susceptible to climate change. Where will these people go?

Currently, climate change does not qualify as an extenuating circumstance that would grant refugee status to those suffering. Yet, as I will proceed to argue, experiencing substantial hardship (e.g., losing their home) due to climate change should be justification for refugee status and protection. Preventing climate migrants from

2. Kenneth R. Weiss, "Exile by Another Name," *Foreign Policy*, no. 210 (2015): p. 53, ISSN: 00157228.

receiving this status and protection is morally impermissible.

In this thesis, I will make this argument over three sections. First, I will analyze the causes of climate migration by looking at objective phenomena, such as rising sea levels that make coastal homes difficult to maintain, and also by considering less straightforward ones, such as political instability deriving from threats to resources which are rendered scarce due to climate change. Then, I will turn to debates on responsibility prevalent in climate ethics. Here, I will discuss three different arguments with special attention to how these arguments pertain to climate change. In the third and final section, I will employ these arguments to elucidate the role that the United States has in climate change and demonstrate how this role obliges the U.S. to receive climate migrants and grant them refugee status.

Causes of Climate Migration

Rising Sea Levels

First, a large contributor to displacement due to environmental change is rising sea levels. While global warming typically refers to the warming of the atmosphere, rising oceanic temperatures have consequences just as devastating to communities. By rough estimation, the upper 246 feet of oceans have warmed approximately 0.8°F from 1971 to 2010. Since warmer temperatures cause water to expand, this rise in oceanic temperatures will indubitably cause the sea levels to rise as well.³ By considering a doubling in carbon dioxide emissions over the next 50 years, it has been estimated that the average sea level will rise by 7 inches, but some locations factored

3. Edward Aguado and James E. Burt, *Understanding Weather and Climate*, 7th ed. (Pearson Education, Inc.), p. 508.

into this average will have a much higher increase in sea level, e.g. “the rise could be as much as 35 cm (14 in.) off the coast of Europe.”⁴ Additionally, the increase in global temperatures also causes a rise in sea levels by means of melting glaciers and ice sheets. The West Antarctic ice sheet has already begun to melt, and this alone could cause sea levels to increase by at least 16 feet in the coming centuries.⁵ Rising sea levels will clearly increase the risk of flooding in coastal regions, but there are further consequences of sea level rise as well, such as erosion and higher tsunamis.⁶

Drought

Next, warming temperatures directly correlate to an increase in drought frequency and severity. Most indices used for drought assess the balance (or lack thereof) between incoming moisture (precipitation and runoff) and outgoing moisture (evaporation and transpiration).⁷ While there is limited evidence showing that climate change has an effect on the incoming component (i.e., that climate change is linked to a lack of precipitation), warming temperatures certainly affect the outgoing component. Just as heat causes ice to melt, it also causes liquid water to evaporate. Water molecules contain energy that naturally cause them to vibrate, and evaporation is caused by them vibrating at a frequency high enough to break the hydrogen bonds linking them together. As heat is a form of energy, higher temperatures result in greater vibrational frequencies, so evaporation rates increase as temperatures increase. Thus, the

4. Aguado and Burt, *Understanding Weather and Climate*, p. 500.

5. Ibid.

6. Heather Lazrus, “Sea Change: Island Communities and Climate Change,” *Annual Review of Anthropology* 41 (2012): p. 288.

7. Michael E. Mann and Peter H. Gleick, “Climate Change and California Drought in the 21st Century,” *Proceedings of the National Academy of Sciences of the United States of America* 112, no. 13 (March 2015): p. 3858.

increase in temperatures caused by greenhouse gas emissions increases the outgoing moisture, which subsequently results in drought if there is not a comparable increase in incoming moisture, and the larger the gap between incoming and outgoing moisture, the greater the severity of the drought. Further, the frequency of droughts also increases alongside the evaporation rate: more precipitation is necessary to reach the moisture balance, so a lapse in precipitation that would have previously been minimal will result in a drought when the evaporation rate is faster.

Severe drought has many detrimental consequences that significantly contribute to climate-induced displacement, but I will limit my discussion to two of these consequences. First, moisture is key to productive agriculture, so droughts often “cause widespread crop and livestock loss and contribute to food insecurity.”⁸ In 1988, severe droughts in the United States, China, and Canada caused a decline in grain production of nearly 5% , and a 1990 analysis predicted that world grain harvest may see a 10% reduction three times per decade throughout the 21st century. Developing countries appear to be at even greater risk, and a 1993 study suggests that these countries will see a 9-11% decline in grain production by the year 2060, which could grow the emfamished population by 640 million, bringing the total number of people suffering from starvation to 1 billion.⁹ In Kenya, the effects of droughts in 2000, 2005, and 2009 led the government to declare a drought disaster and ask for international

8. Ellis Mbaka Njoka, “Occurrence and Effects of Drought in Sub-Saharan Africa,” in *Natural and Human-Induced Hazards and Disasters in Africa*, ed. Genene Mulugeta and Thokozani Simelane (Africa Institute of South Africa, 2016), p. 122.

9. Norman Myers, “Environmental Refugees in a Globally Warmed World,” *BioScience* 43, no. 11 (December 1993): p. 757.

assistance.¹⁰ Second, drought also greatly increases the risk of wildfires, which often force migration. From 1984 to 2011, researchers found that the average annual frequency of large wildfires in the Rocky Mountains increased by 73%, which coincided with warming temperatures and the increasing severity of droughts.¹¹ In 2018, over 18,000 homes were burned by wildfires, so an increase in wildfires will subsequently cause an increase in migration as well.¹²

Hurricanes, Rainfall, and Flooding

Additionally, rising global temperatures correlate to more frequent and more severe hurricanes (i.e., tropical cyclones, typhoons), heavy rainfall, and flooding. Hurricane formation and progression requires warm water temperatures, and as global temperatures rise, there are more opportunities for hurricanes to form and escalate. Severe hurricanes destroy homes as well as places of employment, resulting in loss of habitat, livelihood, and financial security, and ultimately inducing forced displacement. In developed countries, migration due to hurricanes tends to be internal (i.e., migration to another place within the same country), but this is often not the case for developing countries. Underdeveloped and developing countries are significantly less prepared to adequately respond to disasters of this sort, largely due to lack of resources and government inadequacy. Developed countries such as the United States have the ability to recover from the economic blow of a hurricane, but the economies in underdeveloped countries often cannot. In the latter cases, external migration tends

10. Njoka, “Occurrence and Effects of Drought in Sub-Saharan Africa,” p. 123.

11. Jason Funk et al., *Rocky Mountain Forests at Risk: Confronting Climate-driven Impacts from Insects, Wildfires, Heat, and Drought*, technical report (Union of Concerned Scientists, 2014), p. 14.

12. National Interagency Coordination Center, *Wildland Fire Summary and Statistics Annual Report*, technical report (National Interagency Coordination Center, 2018), p. 7.

to be an attractive option. For example, Hurricane Mitch caused \$5 billion worth of damages in Honduras, the second poorest country in the Western Hemisphere with a gross domestic product of only \$7 billion.¹³ Due to government corruption and lack of funds, thousands fled in the aftermath—external migration increased by 40%—because there was no possibility of the country making a full recovery.¹⁴

Furthermore, warmer air is able to hold more moisture (water vapor) and hence produce heavier precipitation, which then leads to increased risk of flooding. In May, 2018, heavy rainfall caused the Patel Dam in Solai, Subukia Sub-County, Kenya to burst, consequently wiping out hundreds of homes and claiming 47 lives. On a broader scale, Kenyan flooding in early 2018 forcibly displaced over 225,000 people and claimed over 183 lives.¹⁵ Thus, the aforementioned chain of events is already wreaking havoc, with this example being just one of many.

Violence & Political Instability

I’ve described how existing political instability exacerbates the consequences of climate-induced disasters in the discussion of Honduras, but the reverse also holds: the effects of climate change (especially the ones discussed above) cause political and social turmoil and intensify existing conflicts. Severe droughts and floods caused by climate change are linked to decreases in food production that result in widespread food insecurity and loss of employment/income in agriculturally-dependent regions,

13. Jan McGirk, “Forgotten million still reeling from Hurricane Mitch,” *The Independent*, March 2000,

14. Nekeisha Spencer and Mikhail-Ann Urquhart, “Hurricane Strikes and Migration,” *Weather, Climate, and Society* 10, no. 3 (July 2018): p. 570.

15. Marina Puzyreva and Dimple Roy, *Adaptive and Inclusive Watershed Management: Water and Climate Change*, technical report (International Institute for Sustainable Development, 2018), p. 27.

both of which provoke competition for resources.

By evaluating the regional historical response to temperature changes, a 2009 study found that the projected temperature increase by 2030 will coincide with a 54% increased in armed conflict incidence in sub-Saharan Africa. African countries largely depend on agriculture for economic stability and employment (it accounts for over 50% of the gross domestic product and up to 90% of employment in most of these countries), so threats to their agricultural yields typically equate to threats to their livelihoods.¹⁶ When individual livelihoods are threatened, political unrest typically ensues and is followed by violent conflict. This phenomenon is ghastly common throughout sub-Saharan Africa and the resulting conflict often trigger the production of refugees, as seen in Somalia (over 750,000 refugees produced since the 1990s), South Sudan (over 2.2 million refugees and asylum seekers produced since 2013), and the Democratic Republic of the Congo (over 962,000 refugees produced between 2017-2019).¹⁷

A similar chain of events occurred in Syria that culminated in civil war in 2011. Leading up to the beginning of the war, they were facing the worst drought in their country's history: "Intensified by climate change, the drought caused severe crop failures which led to a mass migration of people from rural to urban areas."¹⁸ This

16. Marshall B. Burke et al., "Warming Increases the Risk of Civil War in Africa," in *Proceedings of the National Academy of Sciences*, ed. Robert W. Kates, vol. 106, 49 (2009), p. 20670.

17. "Somalia Refugee Crisis Explained," *USA for UNHCR: The UN Refugee Agency* (blog), January 7, 2020, <https://www.unrefugees.org/news/somalia-refugee-crisis-explained/>; "South Sudan Emergency," *USA for UNHCR: The UN Refugee Agency* (blog), July 31, 2020, <https://www.unhcr.org/en-us/dr-congo-emergency.html>; Tatiana Almeida, "The Most Urgent Refugee Crises Around the World," *World Vision* (blog), April 6, 2022, <https://www.worldvision.ca/stories/refugees/refugee-crises-around-the-world>.

18. Jaia Clingham-David, *How Climate Change Contributes to Political Instability*, Available at <https://www.onegreenplanet.org/environment/how-climate-change-contributes-to-political->

mass migration fostered growing discontent and the urban aspect provided those who were dissatisfied with the leadership of President Bashar al-Assad with the ability to convene, effectively resulting in the social uprising that transformed into the full-fledged civil war.¹⁹ This civil war has yet to come to an end, and as a result, over 6.7 million Syrians have sought refuge outside of their home country.²⁰

Responsibility for Responding to Climate Change

There are two potential responses to climate change: *mitigation* and *adaptation*. While it is too late to reverse climate change, mitigation refers to methods of decreasing greenhouse gas emissions and, hence, slowing global warming. On the other hand, adaptation (in a broad sense) refers to strategies of coping with the effects of climate change.²¹ Due to global temperatures rising at an exponential rate, adaptation has become the natural response. Adaptation must be approached on a global level, and thus, it must take into account migration caused by climate change. In order to determine who has obligations to these migrants, we must determine who should bear the burden of climate change response. I will evaluate three methods for determining this and assess how they pertain to climate migration.

Contribution to the Problem

First, the Polluter Pays Principle (PPP), as implemented by the Organisation for Economic Co-operation and Development Council in 1974, holds that the polluter

instability/.

19. Clingham-David, *How Climate Change Contributes to Political Instability*.

20. Omer Karasapan, "Sharing the Burden of the Global Refugee Crisis," *Brookings Institution* (blog), January 27, 2020, <https://www.brookings.edu/blog/future-development/2020/01/27/sharing-the-burden-of-the-global-refugee-crisis/>.

21. John R. Campbell, "Climate-Change Migration in the Pacific," *The Contemporary Pacific* 26, no. 1 (2014): p. 4.

should bear the costs of preventing and managing pollution, and these costs should be reflected in the prices of goods/services that cause pollution.²² However, Henry Shue points out that this implementation of the PPP is entirely ‘forward-thinking,’ as it only pertains to future costs of pollution.²³ Nonetheless, the underlying basis of this principle is a useful, commonly-held belief: when one causes a problem, it is their responsibility to resolve it. For example, the one who makes a mess is the one that ought to clean it up. This notion is also the foundation of many laws and policies, e.g., the one responsible for causing a car accident is the one who receives a ticket and pays for the damages (either by insurance or not). If the responsible party does not pay for the damages, the other party is left suffering and having to bear the burden themselves, subsequently “creating an expanding inequality.” In this case, it would be justified to demand that the offending party shoulder burdens of equal or greater weight. Shue utilizes this reasoning to formulate his first principle of equity:

When a party has in the past taken an unfair advantage of others by imposing costs upon them without their consent, those who have been unilaterally put at a disadvantage are entitled to demand that in the future the offending party shoulder burdens that are unequal at least to the extent of the unfair advantage previously taken, in order to restore equality.²⁴

Since climate change is attributed to greenhouse gas emissions, this principle translates to mean that those contributing to greenhouse gas emissions should foot the bill for climate change response. This is sensible in theory, but application of this becomes difficult when considering that everyone contributes to greenhouse gas emis-

22. OECD, *Recommendation of the Council on the Implementation of the Polluter-Pays Principle*, OECD/LEGAL/0132, p. 4.

23. Henry Shue, “Global Environment and International Inequality,” in *Climate Ethics: Essential Readings*, ed. Stephen M. Gardiner et al. (Oxford University Press, 2010), p. 103.

24. Ibid.

sions. Even if one did believe that each individual should bear the burden of their personal emissions, it is not practical nor possible to determine the exact amount of emissions attributed to each individual. Simon Caney shows that this difficulty can be resolved by determining who the driving agents of emissions actually are: individuals, countries, corporations, or international institutions? I argue, in accordance with Caney, that countries are ultimately responsible for GHG emissions, despite individual contributions. International institutions cannot be the driving agents because they are created by countries and do not have their own autonomy, so countries would still be the driving agents by this account. Similarly, individuals and corporations cannot be the driving agents either because their actions (such as their emissions) are restricted to what is permitted by their governing country.²⁵ Thus, countries are the driving agents in question.

Greater Ability to Pay

Next, another method for determining who should bear the burden of climate change response, also from Henry Shue, is the ‘greater ability to pay’ principle. This principle is founded on a well-known requirement of fairness, and Shue states it as follows:

Among a number of parties, all of whom are bound to contribute to some common endeavor, the parties who have the most resources normally should contribute the most to the endeavor.²⁶

This principle is most commonly applied in relation to taxation rates. In these cases, the principle holds that those with greater ability to pay should pay more in taxes.

25. Simon Caney, “Cosmopolitan Justice, Responsibility, and Global Climate Change,” in *Climate Ethics: Essential Readings*, ed. Stephen M. Gardiner et al. (Oxford University Press, 2010), p. 127.

26. Shue, “Global Environment and International Inequality,” p. 105.

In the United States, this holds both relatively and absolutely: not only does greater income correlate to paying more in taxes, it also correlates to paying a larger percentage of that income in taxes. The percentages are determined based on income brackets. For example, someone who makes \$9,950/year or less in taxable income will pay 10% of this income in taxes, someone who makes between \$9,950-\$40,525 in taxable income will pay 10% of the first \$9,950 and 12% of the remaining income in taxes, someone who makes between \$40,525-\$86,375 will pay 10% of the first \$9,950, 12% of the subsequent income up to \$40,525, and 22% of the remaining taxable income above \$40,525, etc.²⁷ Hence, not only are those with greater incomes paying more money, they are also paying a larger percentage of their income in taxes. This is because income becomes increasingly superfluous as one advances through the income brackets, i.e., the gap between one's actual income and what is needed to survive continues to get larger as income increases, so those with larger incomes have a greater ability to pay.

If we consider Shue's first principle of equity at face value, it would appear that all countries are required to contribute to the mitigation of and adaptation to climate change, since all countries and individuals contribute to greenhouse gas emissions. While this interpretation may hold, requiring every country to contribute the same amount would not result in 'equity,' as contributions will impact developing and underdeveloped countries far more than developed countries like the United States. To exemplify this, consider the taxation example again, but with respect to two

27. Ellen Chang and Kemberley Washington, "2021-2022 Tax Brackets and Federal Income Tax Rates," *Forbes Advisor*, March 2022.

individuals. Suppose one individual has an annual taxable income of \$15,000, and the other individual has an annual taxable income of \$150,000. Further suppose that it takes a bare minimum of \$13,000 per year to survive where they live. If there is a flat taxation rate of one-third, the first individual would pay \$5,000 and the second would pay \$50,000. This may seem fair on the surface since the second individual clearly contributed far more due to their much larger income. However, the first individual would be left with \$10,000—below the bare minimum amount required for survival—and the second individual would be left with \$100,000, a more than adequate amount for comfortable living.²⁸ These results portray the appeal of the ‘greater ability to pay’ principle, and hence why it has been implemented in United States tax law.

In the context of this thesis, the gross national income of many countries is already sitting well below the amount necessary for survival (as shown by countries suffering from famine, lack of healthcare, lack of shelter, etc.). However, while the contribution to global greenhouse gas emissions by these countries is minuscule, they do contribute on some level. By the ‘greater ability to pay’ principle, though, they would not be required to contribute to mitigation/adaptation measures anywhere close to the extent required of developed countries. Developed countries, such as the United States, China, and the EU, should contribute the most to the mitigation of and adaptation to climate change because they have the most resources and greatest ability to contribute.

28. This example is derived from Shue’s example on p. 106 (see Footnote 17); I just added the context of taxation.

Fairness and Living a Decent Human Life

The final principle I will consider in relation to climate justice, and the principle that corresponds most to the issue of climate migration, is Shue's third principle of equity, which focuses on each individual right to living a decent human life. He states this principle as:

When some people have less than enough for a decent human life, other people have far more than enough, and the total resources available are so great that everyone could have at least enough without preventing some people from still retaining considerably more than others have, it is unfair not to guarantee everyone at least an adequate minimum.²⁹

Here, we can consider one to be living a 'decent human life' when they have at least a bit more than what is necessary for mere physical survival, as a life with just those necessities is not distinctly human.³⁰ This principle holds because when the listed conditions are satisfied, i.e., the resources available could be distributed without drastically reducing the advantage of those who are 'best-off,' the existing magnitude of inequality is wholly unnecessary. I claim that disregarding this principle is morally reprehensible; one who disregards it is acting purely out of selfishness and greed. Peter Singer takes a similar stance: "If it is in our power to prevent something bad from happening, without thereby sacrificing anything else morally significant, we ought, morally, to do it."³¹ If one's well-being and flourishing would not be hindered by ensuring that everyone has enough to live a decent human life, their failure to do so could only derive from vice.

29. Shue, "Global Environment and International Inequality," p. 108.

30. Ibid.

31. Peter Singer, "Famine, Affluence, and Morality," *Philosophy & Public Affairs* 1, no. 3 (Spring 1972): p. 235.

To live a life at all, much less a decent human life, one must have somewhere to live. As previously shown, climate change is causing millions to lose their homes and livelihoods, which consequently prevents them from being able to live a decent human life. However, also as previously shown, this is not occurring in all regions of the world, but rather an overwhelming percentage is occurring in underdeveloped countries and regions. The developed countries, on the other hand, have plentiful resources for living a decent human life, including homes. Due to this abundance, these countries could provide everyone with the adequate minimum of resources without sacrificing their own advantages, and by this principle, it would be unfair not to.

Obligation of the United States

While the strict definition of refugees set out at the 1951 Refugee Convention does not apply to climate migrants, the conference itself expressed “the hope that the Convention relating to the Status of Refugees will have value as an example exceeding its contractual scope and that all nations will be guided by it in granting so far as possible to persons in their territory as refugees and who would not be covered by the terms of the Convention, the treatment for which it provides.”³² While the United States has historically limited their refugee intake to those who qualify under the strict definition, they can and should further expand the scope so that the protections enumerated at the convention apply to environmental migrants.

The task of applying Shue’s first principle of equity (as it pertains to climate change) to the United States is not incredibly strenuous. Approximately 75% of

32. Convention Relating to the Status of Refugees, July 25, 1951, 189 U.N.T.S. 150, at Rec. E.

the global greenhouse gas emissions can be traced to the G20 (collaboration of the world's largest economies: the EU and 19 countries, including the United States, China, and Russia). Hence, these countries are the driving agents of climate change, and similarly, they are the ones benefitting from GHG emissions. Nonetheless, they are not the ones suffering most from the effects. By Shue's first principle, the United States is one of the major countries responsible for shouldering the costs of climate change effects because they have been imposing these effects on non-consenting developing/underdeveloped countries and regions for their own benefit.

On December 12, 2015, the notable Paris Agreement was adopted at the twenty-first UN Climate Change Conference, and it entered into force on November 4, 2016. All of the countries that make up the G20 have signed this agreement, with the United States signing on April 22, 2016. The agreement provides guidelines for effective response to climate change, with the central focus of limiting the global temperature increase to well below 2°C above pre-industrial levels and striving to limit the increase to 1.5°C above pre-industrial levels, as this will “significantly reduce the risks and impacts of climate change.”³³ The Climate Change Performance Index (CCPI) evaluates the climate change mitigation efforts of 60 countries and the EU in comparison to their obligations under the Paris Agreement by focusing on four categories: greenhouse gas emissions, renewable energy, energy use, and climate policy.³⁴

To meet the goals of the Paris Agreement, signing parties “aim to reach global

33. Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, 16 T.I.A.S. 1104, at art. 2.

34. Jan Burck et al., *Climate Change Performance Index 2022: Results* (Germanwatch, NewClimate Institute & Climate Action Network, November 2021), p. 6.

peaking of greenhouse gas emissions as soon as possible...and to undertake rapid reductions thereafter in accordance with best available science.”³⁵ Figure 2 shows each country’s performance (according to the CCPI) in the greenhouse gas emissions category. High ratings are given to countries who have taken effective measures to lower their greenhouse gas emissions, while very low ratings are given to countries who have made little to no progress toward this goal. No countries received a ‘very high’ rating, as no countries have limited their GHG emissions enough to be in line with the Paris Agreement.

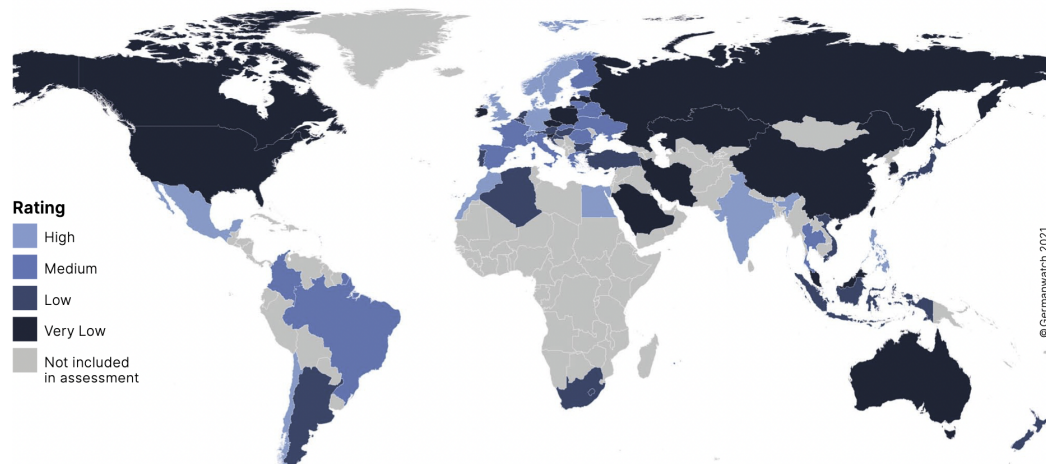


Figure 2. Map showing performance in lowering greenhouse gas emissions by country.

As shown in the above map, the United States received a rating of ‘very low,’ meaning the U.S. GHG emissions are far from being in line with capping global temperature increase at 1.5°C above pre-industrial levels. Next, the following map shows the overall performance in climate protection and mitigation with respect to greenhouse gas emissions, renewable energy, energy use, and climate policy.

35. Paris Agreement, 16 T.I.A.S. 1104, *supra* note 33, at art. 4.

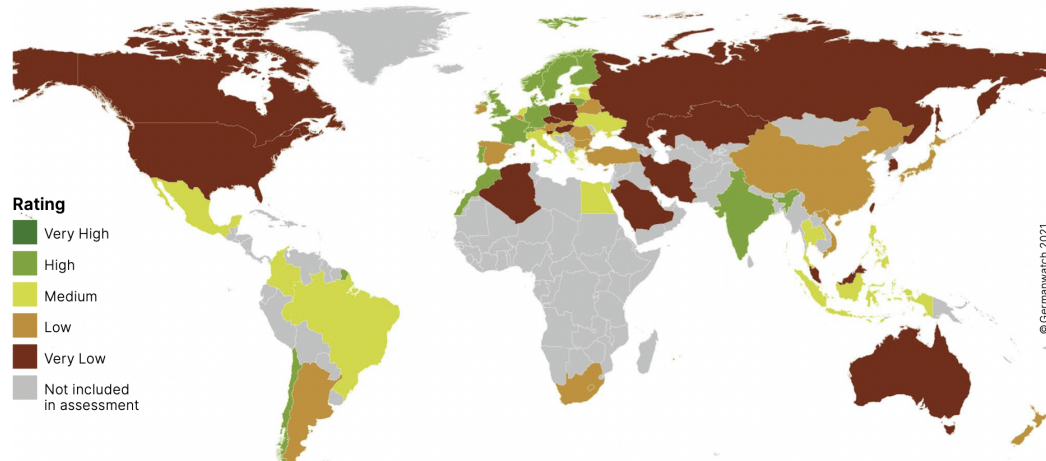


Figure 3. Map showing overall performance by the Climate Change Performance Index.

Unsurprisingly, the United States received a ‘very low’ rating for their overall performance in climate change response. Thus, rather than reducing the risks and impacts of climate change, the U.S. is further exacerbating them by continuing to increase energy usage and failing to reduce their emissions, utilize renewable energy, or implement effective climate policy. As it pertains to the principle, rather than shouldering the costs that have ensued from their contribution to GHG emissions, they are continuing to take advantage of the suffering countries/regions through this flagrant passivity. Consequently, the effects of climate change will further intensify, and with that, rates of forced displacement will continue to climb.

Their failure to shoulder the costs of mitigation has resulted in the United States having a greater burden to bear than they originally had, as it is too late to reverse the effects on the countries whose people are being forcibly displaced: receiving migrants who have been displaced by climate change effects is a necessary step toward restoring equality. While the countries feeling the most impact were underdeveloped before the effects of climate change began, these effects negate any progress/development being

made and cause these countries to be trapped in their undeveloped state. Hence, the United States (by way of their GHG emissions) is perpetuating the disadvantage of underdeveloped countries without their consent. It may seem that Shue's first principle of equity implies that equality would be restored by the U.S. receiving climate migrants, since that would provide them with the homes that they had lost. I argue that this is not the case—the cost to the U.S. of simply allowing these migrants entry into the U.S. is in no way comparable to the costs that their GHG emissions and lack of climate action imposed on the individuals being displaced.

In order to fully restore equality (in this sense), the United States must additionally provide the migrants they are receiving with refugee status/protection. Forcible displacement cannot be reduced to merely the loss of a home; it also tends to result in financial insecurity, fear, and a decrease in overall well-being. Refugee status, as established at the 1951 Refugee Convention, provides migrants with various rights, including the right to engage in wage-earning employment (Article 17), the right to treatment equal to that of nationals with regard to rationing in times of scarcity (Article 20), the right to housing (Article 21), and the right to treatment equal to that of nationals with regard to elementary education (Article 22).³⁶ Since the U.S. partially caused these migrants to lose many of these rights, they can only begin to restore equality by providing migrants with refugee status and the rights that come with it.

Similarly, applying the 'greater ability to pay' principle to the United States in

36. Refugee Convention, 189 U.N.T.S. 150, *supra* note 32.

relation to climate change is not a difficult task either. In fact, the correlation is clear: the United States has far more resources than the countries producing climate migrants, so they should contribute more to climate change adaptation. Moreover, contribution to climate change mitigation and adaptation will not have an impact on the United States nearly as significant as the impact on developing/underdeveloped countries would be. As displacement is already occurring, adaptation must involve addressing the needs of those displaced. Then, as the U.S. has a greater ability to pay, they have an obligation to address the aforementioned needs, which can only be done adequately by applying refugee protocol.

Lastly, Shue's third principle of equity provides clear evidence of the moral obligation of the United States to accept climate migrants and grant them refugee status. Climate change effects are preventing millions in underdeveloped countries from living decent human lives by destroying their homes, triggering food insecurity and resource scarcity, and escalating political instability. On the other hand, the United States has plentiful resources for far more than just their population to live decent human lives. These resources are plentiful to the extent that they could provide a great deal of those whom are forcibly displaced by climate change effects with (at the very least) the minimum amount necessary to live a decent human life—and failure to do so is indisputably unfair.

Access to shelter, education, employment, and adequate food/water are all essential to living a decent human life. The United States is able to provide a vast number of migrants with these resources by accepting these migrants into the country and

granting them refugee status, as the rights and protection given to refugees covers these bases and more.

Conclusion

Throughout this thesis, I have argued that the United States has an obligation to accept climate migrants and grant them refugee status in order to ensure their rights are protected. Since the U.S. holds far more responsibility for causing climate change than the countries suffering the effects and has significantly more resources to contribute to mitigation and adaptation efforts, widely-accepted principles of fairness support the claim that they have this obligation. Furthermore, the actions of the U.S. that have advanced climate change have simultaneously put underdeveloped/developing countries at an even further disadvantage and hindered the ability of their constituents to live a decent human life. As the U.S. has enough resources to provide those displaced by climate change effects with the opportunity to live decent human lives without concurrently relinquishing their own advantages, they have an obligation to do so.

With the effects of climate change rapidly increasing in frequency and severity, it is progressively becoming more urgent that the United States take action to satisfy their obligation. As long as they fail to do so, they are perpetuating and exacerbating the disadvantages they have caused.

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