REVISITING "REFUGEE" IN A CHANGING CLIMATE: HOW MIGRANTS IMPACTED BY CLIMATE CHANGE AND THE TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTE FIT INTO EXISTING REFUGEE POLICY

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I. INTRODUCTION

More than 10 percent of the world's population may lack secure, legal residence by the year 2050.¹ Projections of mass migration accompany increasingly dire predictions of climate change impacts.² Rising global temperatures, elevating ocean levels, and intensifying droughts are projected to displace more than one billion people in the next thirty years.³ While some countries offer immigration pathways to individuals fleeing natural disasters, none currently provide protections to those fleeing the effects of slow-onset climate change.⁴ Individuals displaced by slow-onset climate change are not recognized as refugees deserving of protection by the 1951 Refugee Convention ("Refugee Convention").⁵

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¹ Anya Howko-Johnson, *The Crisis of the Century: How the United States Can Protect Climate Migrants*, Council on Foreign Rels. (Aug. 26, 2022, 3:15 PM), https://www.cfr.org/blog/crisis-century-how-united-states-can-protect-climate-migrants.

² Alice Kaswan, Creating Home: Multilevel Governance Structures for Emerging Climate Migration, 93 Temp. L. Rev. 735, 736 (2021).

³ Howko-Johnson, *supra* note 1.

⁴ *Id.*; *see also Slow Onset Events*, UNITED NATIONS CLIMATE CHANGE, https://unfccc.int/wim-excom/areas-of-work/slow-onset-events (last visited Oct. 16, 2023) (describing slow-onset climate change as impacts associated with increasing temperatures, desertification, loss of biodiversity, land and forest degradation, and glacial retreat).

⁵ See generally U.N. Convention Relating to the Status of Refugees, art. 1, adopted July 28, 1951, 19 U.S.T. 6259, 189 U.N.T.S. 150 [hereinafter 1951 Refugee Convention].

Under the Refugee Convention, an individual must flee persecution on account of their "race, religion, nationality, membership of a particular social group[,] or political opinion" to qualify as a refugee.⁶ In order to set forth a cognizable social group claim, petitioners must demonstrate that "the group is (1) composed of members who share a common immutable characteristic, (2) defined with particularity, and (3) socially distinct within the society in question."

Coastal communities in developing countries, however, are most vulnerable to the impacts of slow-onset climate change and the transboundary movement of hazardous waste.8 Members of these communities belong to geographically concentrated social groups that lack the political and economic power to protect themselves from such environmental harm. This Comment therefore proposes that climate migrants of coastal communities impacted by both climate change and the transboundary movement of hazardous waste ("Impacted Coastal Communities") should qualify for asylum under existing US refugee law based on their persecution on account of their membership in a particular social group. Alternatively, because the transportation of "hazardous waste from developed to developing countries is [considered] environmental racism on an international scale,"9 this Comment proposes that members of Impacted Coastal Communities should qualify for asylum based on their persecution on account of their race.

This Comment begins in Part II by defining climate migration and who constitutes a "climate migrant." Part II then provides a brief overview of US and international refugee policy—beginning with the Refugee Convention and the codification of section 101(a)(42) of the Immigration and Nationality Act, through the Biden Administration's Report on the Impact of Climate Change on Migration of 2021 ("Report"). Finally, Part II discusses the burden of proof an individual must meet to be granted asylum. Part III highlights the need for existing US policy to encompass at least some climate migrants due to detrimental

⁶ *Id*.

⁷ M-E-V-G-, 26 I. & N. Dec. 227, 237 (B.I.A. 2014).

⁸ See 5 Facts on Climate Migrants, UNITED NATIONS UNIV.: INST. FOR ENV'T & HUM. SEC. (Nov. 26, 2015), https://ehs.unu.edu/news/news/5-facts-on-climate-migrants.html; Rozelia S. Park, An Examination of International Environmental Racism Through the Lens of Transboundary Movement of Hazardous Wastes, 5 IND. J. GLOB. LEGAL STUD. 659, 660 (1998).

⁹ Park, supra note 8, at 660.

projected climate change impacts on migration. Part IV argues that members of Impacted Coastal Communities who are displaced due to environmental harm suffered as a result of both slow-onset climate change and the transboundary movement of hazardous waste should qualify for asylum under current refugee policy. Part IV then analyzes the asylum claims of climate migrants of Impacted Coastal Communities through persecution on the basis of particular social group and race. Part V provides two potential alternative immigration remedies for climate migrants: temporary protected status and redefining "refugee." Part VI briefly concludes.

II. CLIMATE MIGRATION AND REFUGEE POLICY

Although current refugee policy does not explicitly encompass climate migrants as a whole, groups of individuals living in coastal communities of developing nations impacted by slow-onset climate change may fit into existing law. This Part (1) provides an overview of climate migration focusing on the impacts of slow-onset climate change; (2) briefly outlines the development of both US and international refugee policy; and (3) discusses the burden of proof that an individual must meet in order to be granted asylum.

A. Defining Climate Migration

Arising at the intersection of two contentious areas—climate change and migration—climate migration occurs as climatic conditions shift, impacting weather events, and inducing, at least partially, individuals to relocate. Despite increased attention on climate migration in international and domestic areas, "there is . . . little agreement on [the] universal definition . . . [of] 'climate migrant." For purposes of this Comment, the term "climate migrant" shall be defined as an individual who is pressured to migrate by climate stressors, 12 including "global warming, sea level rise, floods, droughts, ice melt, and extreme weather events." 13

Vulnerable populations are those most pressured to migrate, ¹⁴ as climate change hits the least developed countries and individuals

¹⁰ Eliza Pan, Reimagining the Climate Migration Paradigm: Bridging Conceptual Barriers to Climate Migration Responses, 50 ENV'T L. 1173, 1175 (2020).

¹¹ Hannah Tyler, *Who are "Climate Migrants"*?, BIPARTISAN POL'Y CTR. (Nov. 12, 2021), https://bipartisanpolicy.org/blog/who-are-climate-migrants.

¹² 5 Facts on Climate Migrants, supra note 8.

¹³ Pan, *supra* note 10, at 1175.

¹⁴ 5 Facts on Climate Migrants, supra note 8.

experiencing the greatest extent of poverty the hardest.¹⁵ Specifically, individuals living in communities with "low adaptive capacities, vulnerable geographies[,] and fragile ecosystems" are those most likely forced to migrate due to climate stressors.¹⁶ And often, the most vulnerable individuals are those without the capacity to independently leave their communities.¹⁷ Evidence demonstrates that climate change impacts the economically disadvantaged and individuals living in island states disproportionately and unfairly.¹⁸ Specifically, the economically disadvantaged are vulnerable due to their inability to "protect [themselves] against shifting weather patterns."¹⁹ While many environmentally induced migrants flee from rural areas and have livelihoods "depend[ing] on climate sensitive sectors, such as agriculture and fishing[,]" migration from urban areas may increase as sea levels rise and affect more densely populated coasts.²⁰

Migration is considered "one of the oldest coping strategies' in the face of life-threatening environmental crises." While historically, displacement resulted from environmental catalysts such as natural disasters, it "is increasingly triggered by slower-onset environmental degradation." Exact migration repercussions of climate change are therefore uncertain. In contrast with natural disasters, due to the multicausal nature of climate migration caused by slower-onset environmental degradation, it is often difficult for both migrants and courts to recognize climate change itself as the predominant driver of displacement.²⁴

¹⁵ Jessica Owley, *Climate-Induced Human Displacement and Conservation Lands*, 58 Hous. L. Rev. 665, 669 (2021).

¹⁶ 5 Facts on Climate Migrants, supra note 8.

¹⁷ *Id*.

¹⁸ Maxine Burkett, Behind the Veil: Climate Migration, Regime Shift, and a New Theory of Justice, 53 HARV. C.R.-C.L. L. REV. 445, 447 (2018).

¹⁹ Id. at 447–48.

²⁰ 5 Facts on Climate Migrants, supra note 8.

²¹ Breanne Compton, Comment, *The Rising Tide of Environmental Migrants: Our National Responsibilities*, 25 Colo. Nat. Res. Energy & Env't L. Rev. 357, 359 (2014) (quoting Mostafa Mahmud Naser, *Climate Change, Environmental Degradation, and Migration: A Complex Nexus*, 36 Wm. & Mary Env't L. & Pol'y Rev. 713, 717 (2012)).

 $^{^{22}}$ Id

²³ Howko-Johnson, *supra* note 1.

²⁴ *Id*.

It is challenging to estimate the number of individuals that have migrated due to environmental factors for two reasons.²⁵ First, as previously mentioned, it is difficult to untangle the many factors that may influence an individual's decision to migrate.²⁶ Communities impacted by slow-onset climate change are also often affected by conflict situations involving "political instability, low levels of economic development[,] and human rights abuses."²⁷ This creates difficulty in establishing a causal link between migration and climate stressors.²⁸ The environment may be one of many factors involved in an individual's decision to migrate.²⁹ Second, much of climate change-induced migration occurs domestically and often goes undocumented.³⁰

B. A Brief Overview of Refugee Policy

The Refugee Convention and its 1967 Protocol held by the United Nations High Commissioner for Refugees (UNHCR) defined the term "refugee," outlined the rights of refugees, and discussed legal obligations of nations to protect refugees.³¹ The definition of refugee under US law, as adopted by section 101(a)(42) of the Immigration and Nationality Act, is based on the Refugee Convention and 1967 Protocols, "to which the United States became a party in 1968."³² Congress enacted the Refugee Act of 1980 following the Vietnam War and the resettlement of Southeast Asian refugees throughout the United States.³³ In doing so, Congress committed the United States to conforming its "national refugee laws to . . . international . . . standards."³⁴ This codified the definition of "refugee" presented in

²⁵ 5 Facts on Climate Migrants, supra note 8.

²⁶ *Id*.

²⁷ Id.

²⁸ Id.

²⁹ *Id*.

³⁰ Id.

³¹ See The 1951 Refugee Convention, UNITED NATIONS HIGH COMM'R FOR REFUGEES, https://www.unhcr.org/about-unhcr/who-we-are/1951-refugee-convention (last visited Oct. 16, 2023); 5 Facts on Climate Migrants, supra note 8 (quoting 1951 Refugee Convention, supra note 5, art. 1).

³² An Overview of U.S. Refugee Law and Policy, Am. IMMIGR. COUNCIL, https://www.americanimmigrationcouncil.org/research/overview-us-refugee-law-and-policy (Oct. 22, 2022).

³³ Id.

³⁴ Compton, *supra* note 21, at 359.

Article 1 of the Refugee Convention and provided the foundation for the US Refugee Admissions Program (USRAP).³⁵ A refugee is defined as:

[A]ny person . . . outside any country of such person's nationality or, in the case of a person having no nationality, is outside any country in which such person last habitually resided, . . . unable or unwilling to return to, and is unable or unwilling to avail [themselves] of the protection of, that country because of persecution or a well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion.³⁶

US immigration laws do not recognize those fleeing environmental harm as an individual group deserving of protection on the basis of that status alone.³⁷ As a result, environmental migrants "must be eligible for entry... based on another category of admission."³⁸

Historically, the United States has been a global leader in refugee resettlement.³⁹ The United States, previously, had offered refuge to more individuals than all other countries combined.⁴⁰ The Trump Administration drastically cut the number of refugees able to enter the United States and implemented new vetting procedures, creating extended waiting periods.⁴¹ The Presidential Determination of Refugee Admissions for Fiscal Year 2021, under the Trump Administration, was initially limited to 15,000 refugees justified by humanitarian concerns or otherwise in national interest. 42 Although President Biden raised that ceiling to 62,500 in May of 2021, a total of only 11,411 refugees were resettled in the United States in fiscal year 2021—the lowest amount in any year since the implementation of USRAP.43 Under the Biden Administration, the Presidential Determination of Refugee Admissions for Fiscal Year 2022 was set to

³⁵ An Overview of U.S. Refugee Law and Policy, supra note 32.

³⁶ 8 U.S.C. § 1101(a) (42); *see also* 8 U.S.C. § 1231(b) (3) (B) (i) (stating that refugees do not include individuals who "ordered, incited, assisted, or otherwise participated in the persecution of an individual").

³⁷ Compton, *supra* note 21, at 359.

 $^{^{38}}$ Id

³⁹ An Overview of U.S. Refugee Law and Policy, supra note 32.

⁴⁰ *Id*.

⁴¹ *Id*.

⁴² Presidential Determination No. 2021-02, 85 Fed. Reg. 7219 (Oct. 27, 2020); Nayla Rush, *FY 2021 Refugee Resettlement Roundup*, CTR. FOR IMMIGR. STUD. (Nov. 18, 2021), https://cis.org/Report/FY-2021-Refugee-Resettlement-Roundup.

⁴³ Rush, supra note 42.

admit up to 125,000 refugees. 44 But the United States only allowed approximately twenty-five thousand refugees into the country, using about 20 percent of the spots allocated. 45

Recognizing human displacement as a secondary effect of climate change, President Biden signed Executive Order 14013, "Rebuilding and Enhancing Programs to Resettle Refugees and Planning for the Impact of Climate Change on Migration," on February 9, 2021, through which he "directed the National Security Advisor to prepare a report on climate change and its impact on migration." The Report marked the United States' official recognition of the relationship "between climate change and migration." The Report acknowledges the increasing trend in climate change related displacement and the vitality of expanding access to protection for displaced individuals. It highlights that the United States must "strengthen the application of existing protection frameworks, adjust . . . protection mechanisms to better accommodate people fleeing the impacts of climate change, and evaluate the need for additional legal protections for those who have no alternative but to migrate."

The Report recommends the government assess the intersection of climate change and criteria for refugee status.⁵⁰ It notes that this may involve claims in which migrants are without viable internal relocation alternatives⁵¹ as well as claims in which migrants "experience the withholding or denial of relief from climate change impacts based on a shared protected characteristic."⁵² Finally, the Report highlights that "climate change may impact [a] state's willingness or ability to protect individuals fleeing persecution."⁵³

⁴⁴ Presidential Determination No. 2022-02, 86 Fed. Reg. 57527 (Oct. 8, 2021).

⁴⁵ Camilo Montoya-Galvez, *Biden Administration Falls 80% Short of 2022 Refugee Admissions Target*, CBS NEWS (Oct. 3, 2022, 2:52 PM), https://www.cbsnews.com/news/refugee-admissions-target-2022-biden-admissions-admissions-target-2022-biden-admissions-target-2022-biden-admissions-admissions-target-2022-biden-admissions-a

⁴⁶ The White House, Report on the Impact of Climate Change on Migration 4 (2021) [hereinafter Report on the Impact of Climate Change on Migration]; Exec Order No. 14013, 86 Fed. Reg. 8839 (Feb. 4, 2021).

⁴⁷ REPORT ON THE IMPACT OF CLIMATE CHANGE ON MIGRATION, *supra* note 46, at 4.

⁴⁸ *Id.* at 6.

⁴⁹ *Id*.

⁵⁰ *Id.* at 30.

⁵¹ *Id*.

⁵² Id.

⁵³ Report on the Impact of Climate Change on Migration, *supra* note 46, at 31.

Ultimately, the Report signals the United States' official recognition of climate change impacts on migration and refugee status under existing law.⁵⁴

The United Nations Human Rights Committee ("Committee") has stated that nations "may not deport individuals who face climate change-induced conditions that violate the right to life" in its first-ever ruling on a complaint drafted by an applicant seeking asylum from the impacts of climate change. 55 In 2015, Ioane Teitiota and his family were deported to their home country, Kiribati, after New Zealand denied Teitiota's application for asylum.⁵⁶ Thereafter, he filed a complaint with the Committee, arguing that "New Zealand had violated his right to life."57 Teitiota argued that Kiribati had become uninhabitable due to sea level rise—and that, as a result, "[v]iolent land disputes [often] occurred [as] habitable land . . . [became] increasingly scarce."58 Additionally, degradation in Kiribati created difficulty in subsistence farming, and Kiribati's water supply had become contaminated.⁵⁹ Although the Committee ultimately determined New Zealand had not violated Teitiota's rights in this specific case, expert Yuval Shany noted that the "ruling set[] forth new standards that [may] facilitate the success of future climate changerelated asylum claims."60 The Committee noted that both slow-onset processes and sudden-onset events prompt individuals to seek protection from climate change impacts, and that individuals seeking asylum need not "prove that they would face imminent harm if returned to their countries."61

⁵⁴ See id. at 17.

 $^{^{55}}$ Press Release, United Nations Human Rts. Off. of the High Comm'r, Historic UN Human Rights Case Opens Door to Climate Change Asylum Claims (Jan. 21, 2020) [hereinafter Press Release on UN Human Rights Case], https://www.ohchr.org/en/press-releases/2020/01/historic-un-human-rights-case-opens-door-climate-change-asylum-claims.

⁵⁶ *Id*.

⁵⁷ Id.

⁵⁸ *Id*.

⁵⁹ *Id*.

⁶⁰ Id.

⁶¹ Press Release on UN Human Rights Case, *supra* note 55.

C. Burden of Proof

An individual seeking asylum has the burden of proving that they meet the definition of refugee. An asylum seeker must provide evidence demonstrating that they have suffered persecution on account of a protected ground in the past or that they have a "well-founded fear of persecution" in their home country. Persecution may be defined as "the infliction of harm or suffering by the government, or persons the government is unwilling or unable to control, to overcome a characteristic of the victim." Petitioners "must meet two burdens in . . . establish[ing] a well-founded fear of persecution." First, that they subjectively fear persecution and that their fear of persecution is objectively reasonable. And second, that the persecution stems from an enumerated motive of 8 U.S.C. § 1101(a)(42), which includes persecution "on account of race, religion, nationality, membership in a particular social group, or political opinion."

"[T]o demonstrate a well-founded fear, petitioner[s] must present specific [and] detailed facts," demonstrating good reason to fear persecution. An individual's testimony is therefore critical to their asylum determination. In fact, an applicant's credible testimony "may be sufficient to sustain the burden of proof without corroboration."

⁶² See Sharif v. INS, 87 F.3d 932, 935 (7th Cir. 1996) ("To qualify for asylum, [an individual] must prove that she is a refugee.").

 $^{^{63}}$ Id. ("'Refugee' is defined as someone who is unwilling to return to her country because... she harbors a well-founded fear of persecution, on account of race, religion, nationality, political opinion, or membership in a defined social group." (citing 8 U.S.C. § 1101(a)(42))).

⁶⁴ Al-Ghorbani v. Holder, 585 F.3d 980, 997 (6th Cir. 2009) (quoting Khalili v. Holder, 557 F.3d 429, 436 (6th Cir. 2009)); *see also* Tapiero de Orejuela v. Gonzales, 423 F.3d 666, 672 (7th Cir. 2005); Galina v. INS, 213 F.3d 955, 958 (7th Cir. 2000) (finding that to demonstrate persecution or a well-founded fear of persecution, applicants must show that the threatening conduct is by the government or that it is by private persons whom the government is unwilling or unable to control).

⁶⁵ Sharif, 87 F.3d at 935.

⁶⁶ *Id*.

⁶⁷ *Id*.

⁶⁸ 8 U.S.C. § 1101(a) (42).

⁶⁹ Sharif, 87 F.3d at 935.

⁷⁰ An Overview of the U.S. Refugee Law and Policy, supra note 32.

⁷¹ 8 C.F.R. § 1208.13(a) (2023).

A well-founded fear of persecution is established if:

- (A) The applicant has a fear of persecution in [their] country of nationality or, if stateless, in [their] country of last habitual residence, on account of race, religion, nationality, membership in a particular social group, or political opinion;
- (B) There is a reasonable possibility of suffering such persecution if [they] were to return to that country; and
- (C) [They are] unable or unwilling to return to, or avail [themselves] of the protection of, that country because of such fear.⁷²

Asylum laws require that the government consider an applicant's ability to relocate within their home country to avoid the harms feared.⁷³ Therefore, a well-founded fear of persecution is not established if the individual can avoid persecution "by relocating to another part of [their] country of nationality or, if stateless, another part of [their] country of last habitual residence," so long as it is reasonable under all circumstances to expect the individual to do so.⁷⁴

In determining the reasonableness of internal relocation, "adjudicators should consider the totality of the relevant circumstances regarding an applicant's prospects for relocation."⁷⁵ This includes the size of the country of last habitual residence or nationality and the geographic location of the persecution, as well as "the size, numerosity, and reach of the alleged persecutor."⁷⁶ Adjudicators may also consider an individual's "demonstrated ability to relocate to the United States in order to apply for asylum."⁷⁷ While not required, the establishment of past persecution creates a regulatory presumption of a "well-founded fear of [future] persecution."⁷⁸

While in the asylum context, mistreatment must rise above mere harassment to be considered persecution, a claim may be based on harm other than threats to life or freedom,⁷⁹ including "non-life-

⁷² *Id.* § 1208.13(b) (2) (A)–(C).

⁷³ Elizabeth Jacobs, Can Asylum Seekers Relocate to Safety Within Their Home Countries?, CTR. FOR IMMIGR. STUD. (July 29, 2022), https://cis.org/Jacobs/Can-Asylum-Seekers-Relocate-Safety-Within-Their-Home-Countries.

⁷⁴ 8 C.F.R. § 1208.13(b)(2)(ii).

⁷⁵ *Id.* § 1208.13(b)(3).

⁷⁶ *Id*.

⁷⁷ Id.

⁷⁸ *Id.* § 1208.13(b)(1).

⁷⁹ See Baka v. INS, 963 F.2d 1376, 1379 (10th Cir. 1992).

threatening violence and physical abuse."⁸⁰ To demonstrate: while persecution is often defined as the "infliction of suffering or harm upon those who differ on the basis of a protected statutory ground," harassment is regarded as action directed at a specific person or group that alarms, annoys, or causes substantial emotional distress without legitimate purpose.⁸¹ Ultimately, to establish persecution, a petitioner must demonstrate that: "(1) their experiences rise to the level of persecution; (2) the persecution was on account of one or more of the five protected grounds; and (3) the persecution was committed either by the government or by forces that the government was unable or unwilling to control."

III. THE NEED TO ADDRESS CLIMATE MIGRATION

This Part discusses figures of projected migration and describes the impacts of submersion and describination to demonstrate instances of slow-onset climate change-induced migration.

A. Projected Climate Migration

Climate change increases pressure for cross-border migration.⁸³ Many migrations occur in quick bursts, such as following a hurricane or wildfire, but many more will occur in "steady trickles as 'slow-onset' changes [including] disappearing water supplies, rising seas, or unsustainable heat take their toll." While domestic migrations continue to occur, many individuals will seek sustainable environments elsewhere, as certain regions become increasingly uninhabitable.⁸⁵

Although it is difficult to predict international climate-induced migration, significant displacement will occur in the next decade.⁸⁶ Rising temperatures melt ice caps and glaciers, causing flooding and rising sea levels⁸⁷ and prompting droughts and desertification.⁸⁸ Some

 $^{^{80}\,}$ See Beskovic v. Gonzales, 467 F.3d 223, 225 (2d Cir. 2006) (quoting Tian-Yong Chen v. INS, 359 F.3d 121, 128 (2d Cir. 2004)).

 $^{^{81}\,}$ $\it Id.$ at 225–26 (quoting Ivanishvili v. U.S. Dep't of Just., 433 F.3d 332, 341 (2d Cir. 2006)).

⁸² Gormley v. Ashcroft, 364 F.3d 1172, 1177 (9th Cir. 2004).

⁸³ See Kaswan, supra note 2, at 737.

⁸⁴ Id. at 736-37.

⁸⁵ Id. at 736.

⁸⁶ *Id.* at 742.

⁸⁷ Diane Boudreau et al., *Refugee*, NAT'L GEOGRAPHIC: EDUC. [hereinafter *Refugee*], https://education.nationalgeographic.org/resource/refugee (July 27, 2023).

⁸⁸ *Id*.

of these impacts, such as flooding and rising sea levels, make areas of land uninhabitable.⁸⁹ Others, such as droughts, make it difficult for individuals living and working in impacted regions to sufficiently support themselves.⁹⁰ Overall, climate change is predicted to displace between 150 and 200 million people by 2050.⁹¹

B. Current Examples of the Effects of Submersion and Desertification

The Pacific Islands demonstrate one of the clearest examples of migration prompted solely by climate change. ⁹² In the western Pacific, sea levels continue to rise at a rate of twelve millimeters per year and have submerged eight islands. ⁹³ Two additional islands are currently on the brink of submersion. ⁹⁴ In the next century, significant slow-onset climate change-induced migration will likely occur as a result of sea level rise—as globally, forty-eight islands are expected to be lost to submersion by 2100. ⁹⁵

The island nation of Maldives, for example, demonstrates the impacts of sea level rise on migration. At its highest elevation, Maldives rises only eight feet above sea level. Over 80 percent of Maldives is less than one meter above sea level, exposing its population to severe weather and storm surges. While over 25 percent of Maldives' economy is supported by tourism, fishing is the country's second-largest industry. For these reasons, both the nation's

⁸⁹ *Id*.

⁹⁰ *Id*.

⁹¹ Owley, *supra* note 15, at 668–69, 669 n.14.

 $^{^{92}}$ John Podesta, *The Climate Crisis, Migration, and Refugees*, Brookings Inst. (July 25, 2019), https://www.brookings.edu/research/the-climate-crisis-migration-and-refugees.

⁹³ *Id*.

⁹⁴ *Id*.

⁹⁵ See id.

⁹⁶ Refugee, supra note 87.

⁹⁷ Boudreau et al., *Environmental Refugee*, NAT'L GEOGRAPHIC: EDUC. [hereinafter *Environmental Refugee*],

https://education.national geographic.org/resource/environmental-refugee~(Feb.~27, 2023).

⁹⁸ Alasdair Pal & Devjyot Ghoshal, 'We Can't Wait': Maldives Desperate for Funds as Islands Risk Going Under, Reuters (Jan. 17, 2020, 4:23 AM), https://www.reuters.com/article/us-climate-change-maldives/we-cant-wait-maldives-desperate-for-funds-as-islands-risk-going-under-idUSKBN1ZG0XS.

⁹⁹ Environmental Refugee, supra note 97; Ghoshal & Pal, supra note 98.

environment and economy are at risk as sea levels rise. 100 In addition to the clear obstacles of living in a submerged nation, without income from the tourism or fishing industries, Maldivians will likely migrate to seek new employment. 101

In addition to submersion, desertification has devastating environmental impacts that induce migration. The Gobi Desert expands over 3,600 square kilometers annually. As a result, regional farmers and merchants migrate to urban areas in China as grasslands are overtaken by desert. Each year, Morocco, Tunisia, and Libya each lose more than [one thousand] square kilometers (386 square miles) of productive land . . . to desertification.

Communities near the Horn of Africa are particularly endangered by desertification, and "most rural residents in Somalia, Ethiopia, and Eritrea [partake] in subsistence agriculture." Through subsistence agriculture, farmers produce crops for their immediate communities but do not produce on the level of national or international markets. ¹⁰⁶ Because severe drought has hindered and, in some cases, prevented crop growth, "[t]housands of Somalis and Ethiopians[] threatened by starvation and poverty" have fled to Kenya. ¹⁰⁷

IV. INDIVIDUALS DISPLACED DUE TO ENVIRONMENTAL HARM SUFFERED AS A RESULT OF BOTH CLIMATE CHANGE AND THE TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTE SHOULD BE ENTITLED TO ASYLUM UNDER CURRENT REFUGEE POLICY

Coastal communities in developing nations are those most vulnerable to the impacts of climate change and the transboundary movement of hazardous waste. As a result, this Comment argues not for the expansion of current refugee law, but that certain groups of climate migrants are eligible for refugee status as a result of their membership in coastal social groups whose members lack the political and economic power to protect themselves from the effects of sea level

¹⁰⁰ Environmental Refugee, supra note 97.

¹⁰¹ See id.

¹⁰² *Id*.

¹⁰³ *Id*.

¹⁰⁴ *Id*.

¹⁰⁵ Id.

¹⁰⁶ Environmental Refugee, supra note 97.

¹⁰⁷ Id.

and the transboundary movement of hazardous waste. Alternatively, because the transportation of "hazardous waste from developed to developing countries is [considered] environmental racism on an international scale,"108 members of coastal communities in developing nations impacted severely by both the impacts of climate change and the dumping of hazardous waste should qualify for refugee status through persecution on the basis of race. While there may be concerns that recognizing climate-based harm as a ground for protection may "open the floodgates" and allow all climate migrants to be recognized as refugees, as demonstrated within this Part, only a small subset of those impacted by climate change would qualify as refugees under this proposal. Section A defines the transboundary movement of hazardous waste, discusses its impacts on developing countries, and highlights the need for a single practicable solution to It then provides three examples of hazardous waste import. developing regions impacted by both climate change and the transboundary movement of hazardous waste: Abidjan, Côte d'Ivoire; Koko, Nigeria; and the Horn of Africa, Somalia. Section B argues that individuals displaced by environmental harm suffered as a result of both climate change and the transboundary movement of hazardous waste should qualify for asylum through persecution on the basis of social group. Section C alternatively argues that these individuals should qualify for asylum through persecution on the basis of race.

A. Transboundary Movement of Hazardous Waste

Hazardous waste is that which is harmful or potentially harmful to the environment or human health. ¹⁰⁹ It may be in liquid, solid, gaseous, or sludge form—including discarded commercial products and by-products of manufacturing. ¹¹⁰ The transboundary movement of hazardous waste is defined as the shipping or transporting of waste "to or from other countries for treatment, disposal, or recycling." ¹¹¹ It is beneficial for countries to export waste to others with more developed technologies and higher capacities to manage those wastes. ¹¹² The US Environmental Protection Agency (EPA) therefore

¹⁰⁸ Park, supra note 8, at 660.

¹⁰⁹ Information About Transboundary Shipments of Hazardous Wastes, U.S. Env't Prot. Agency, https://www.epa.gov/hwgenerators/information-about-transboundary-shipments-hazardous-wastes (Aug. 4, 2023).

¹¹⁰ *Id*.

¹¹¹ *Id*.

¹¹² *Id*.

finds that the transboundary movement of hazardous waste "based on environmental and economic grounds with agreement between the exporting and receiving country" can help ensure waste is disposed of in an environmentally conscious manner. 113

Over six hundred million metric tons of hazardous waste was generated between 2000 and 2010 internationally.¹¹⁴ Most hazardous waste emanates from industrialized regions that then look to export the waste for economic reasons. 115 As a result of the high costs of waste disposal in regions with more stringent environmental regulations, wealthier nations choose to transport hazardous wastes to economically disadvantaged regions. 116 On the other side of these transactions, developing nations are lured into accepting hazardous waste due to low levels of economic power.¹¹⁷ Some regard economically disadvantaged countries as "ever-willing to accept the waste even with its detrimental side effects for human health and the environment."118 In less developed nations, transboundary waste dumping has not been met with the same justice as it has in further developed regions, and often, it does not receive attention until environmental issues and health concerns "surface en masse." 119 For example, economic status encourages waste dumping in West Africa, as "in some cases the fees for trade in hazardous wastes 'rivals the . . . nations' annual gross national product."120

All regions face challenges upon accepting hazardous waste regardless of sustainability awareness, but developing countries bear a heavier burden "given the lack of basic facilities to handle waste in [an] environmentally sound manner." From an outside perspective, it is clear that the health and environmental consequences of accepting hazardous waste likely outweigh the economic benefits. In developing nations, low disposal costs reflect weak regulations and

¹¹³ *Id*.

¹¹⁴ Kenneth I. Ajibo, Transboundary Hazardous Wastes and Environmental Justice: Implications for Economically Developing Countries, 18 Env't L. Rev. 267, 267 (2016), https://doi.org/10.1177/1461452916675538.

¹¹⁵ Id. at 267-68.

¹¹⁶ Id. at 268.

¹¹⁷ See id. at 280.

¹¹⁸ Id. at 268.

¹¹⁹ *Id.* at 272.

¹²⁰ Ajibo, *supra* note 114, at 280.

¹²¹ *Id.* at 271.

¹²² Id.

enforcement.¹²³ And in many nations, "there is [a] lack of political will and [visible] public opposition[] owing to inadequate information and access to justice concerning the inherent dangers involved in hazardous trade."¹²⁴ This practice has been termed "toxic colonialism," and use of the phrase has sought to bring international attention to the disproportionate risks placed on developing countries by industrialized nations.¹²⁵

Achieving universal practicable solutions for issues presented by the transboundary movement of hazardous waste is an ongoing effort.¹²⁶ Adopted in 1989, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal ("Basel Convention") provides a foundation for global protocols on transboundary waste. 127 But it has now been over thirty years since the Basel Convention first addressed issues associated with hazardous waste dumping.¹²⁸ Although instances of illegal dumping have declined, as electronic waste increases and isolated events of toxic waste dumping demonstrate, developing countries continue to face disproportionate risks persisting in light of current implementation efforts and global hazardous waste management policies. 129 indicates that global correctional methods introduced to correct conflicts surrounding the transboundary movement of hazardous waste are "ripe for reevaluation." ¹³⁰

Three examples of developing nations impacted both by climate change and the transboundary movement of hazardous waste are discussed below. These examples demonstrate not only the overlap of impacts but the vulnerability of Impacted Coastal Communities due to their lack of resources and capacity to independently protect against either issue. In many cases, lower-middle- and low-income regions

¹²³ Id. at 273.

¹²⁴ *Id*.

¹²⁵ Laura A. W. Pratt, Decreasing Dirty Dumping? A Reevaluation of Toxic Waste Colonialism and the Global Management of Transboundary Hazardous Waste, 35 Wm. & Mary Env't L. & Pol'y Rev. 581, 586 (2011).

¹²⁶ See Ajibo, supra note 114, at 273.

¹²⁷ Pratt, *supra* note 125, at 584–85.

¹²⁸ Id. at 592.

¹²⁹ Id. at 585.

¹³⁰ Id.

have the greatest exposure to climate change impacts, but "the readiness to improve resilience [in those regions] ranks very low."¹³¹

1. Abidjan, Côte d'Ivoire

Toxic waste dumping in Côte d'Ivoire demonstrates a persistent trend: "underdeveloped states are used as disposal sites for waste rejected by developed states." In 2006, a Dutch company known as Trafigura dumped more than five hundred tons of chemical waste in approximately twelve sites throughout the poorest areas of Abidjan, Côte d'Ivoire, 133 to avoid paying the greater disposal charges of European nations. 134 The "Côte d'Ivoire toxic waste dump" not only caused an emergency health crisis but also indicated the failures of international policy to regulate the dumping of hazardous waste. 135 The toxic material severely harmed human health—twelve people died from exposure to by-products, and over thirty thousand were injured. 136 Trafigura has paid \$198 million in cleanup costs and in compensation to injured citizens. 137

In 2018, the United Nations Environment Programme conducted an independent audit of the sites affected by the dumping.¹³⁸ Although the audit determined that the sites no longer showed direct contamination from the dumping event, it deemed continued monitoring of public health impacts necessary.¹³⁹ The contaminants studied included petroleum hydrocarbons, heavy metals, and sulfur compounds.¹⁴⁰ The audit also revealed the ongoing development of

¹³¹ E.M. Okon et al., Systematic Review of Climate Change Impact Research in Nigeria: Implication for Sustainable Development, 7 Heliyon 1, 1 (2021), https://doi.org/10.1016/j.heliyon.2021.e07941.

¹³² Pratt, *supra* note 125, at 586.

¹³³ Ajibo, *supra* note 114, at 271 & n.30; Pratt, *supra* note 125, at 583.

¹³⁴ Pratt, *supra* note 125, at 584.

¹³⁵ *Id*.

¹³⁶ *Id.* at 583.

¹³⁷ Id. at 584.

¹³⁸ Press Release, United Nations Environment Programme, UN Environment Releases Independent Audit of Sites Affected by Toxic Waste Dump in Côte d'Ivoire (Jan. 30, 2018), https://www.unep.org/news-and-stories/press-release/unenvironment-releases-independent-audit-sites-affected-toxic-waste.

¹³⁹ Id.

¹⁴⁰ *Id*.

environmental "hotspots" within Abidjan requiring further assessment.¹⁴¹

Côte d'Ivoire is highly susceptible to climate change risks, and its lack of preparation to avoid these risks makes it particularly vulnerable. A recent Côte d'Ivoire economic report suggests the country focus on sustainable development, natural capital, and climate change impact mitigation. Inconsistent rainfall, rising sea levels, and above average temperatures are already being realized—and without action, sea levels [may] rise up to 1.2 meters in the Greater Bassam and Abidjan areas. It as a result, the number of flooded areas will increase, leading to loss of life and human displacement. Infrastructure [will] also be impacted by the loss of dwellings, roads, schools, and health centers.

The Ivorian economy depends significantly on agriculture and is therefore vulnerable to changes in climactic conditions. ¹⁴⁷ Côte d'Ivoire is currently the world's largest producer and exporter of cocoa—"account[ing] for roughly one-third of export earnings and over 10% of tax revenues." ¹⁴⁸ The cocoa industry is the main source of income for nearly five million people. ¹⁴⁹ In coming years, the industry will likely be impacted by climate change effects: rising temperatures may dry out soil, reducing fertility and forcing farmers to move their crops to elevated ground. ¹⁵⁰

¹⁴¹ *Id*.

 $^{^{142}}$ Understanding Côte d'Ivoire's Sustainable Development Issues in Five Charts, The World Bank (July 12, 2018), https://www.worldbank.org/en/country/cotedivoire/publication/cote-d-ivoire-economic-update-understanding-cote-d-ivoire-sustainable-development-issues-in-five-charts.

¹⁴³ *Id*.

¹⁴⁴ *Id*.

¹⁴⁵ Id.

¹⁴⁶ Id.

¹⁴⁷ *Id*.

¹⁴⁸ Understanding Côte d'Ivoire's Sustainable Development Issues in Five Charts, supra note 142.

¹⁴⁹ Id.

¹⁵⁰ Id.

2. Koko, Nigeria

In 1988, an Italian national illegally dumped two thousand containers of hazardous waste in Koko, Nigeria. This included "several thousand tons of polychlorinated biphenyls, [which are] highly toxic and radioactive wastes." Within a few months, the containers began leaking and causing headache, blindness, and even death. The land within a five hundred-meter radius of the site was declared unsafe, 154 and over five hundred residents were evacuated. The ground water remains contaminated today, 156 and residents of the Koko village continue to "remember this accident as 'drums of death.'" The Nigerian government in turn enacted legislation to prohibit the "carrying, depositing[,] and dumping of hazardous wastes on any land, territorial waters[,] and matters relating thereto." But the provision focused on criminal prosecution—not victims of the damage. 159

Nigeria is one of ten countries most exposed to the effects of climate change. 160 Nearly 6 percent of its land is likely to experience extreme weather events, and a significant portion of its population has migrated from rural to urban areas. 161 Environmental change in Nigeria has thus far included "drought, flood, irregular rainfall pattern, deforestation, desert encroachment, and housing problems." 162 Over 94 percent of Nigeria's agricultural sector is dominated by crop production, and as explained previously, climate change impacts are significant in this area. 163 Some parts of Nigeria have experienced a 20 percent decline in growing days. 164 Sea levels

Press Release, United Nations Environment Programme, Bamako Convention: Preventing Africa from Becoming a Dumping Ground for Toxic Waste (Jan. 30, 2018) [hereinafter Bamako Convention], https://www.unep.org/news-and-stories/press-release/bamako-convention-preventing-africa-becoming-dumping-ground-toxic.

¹⁵² Ajibo, *supra* note 114, at 271.

¹⁵³ Bamako Convention, *supra* note 151.

¹⁵⁴ Ajibo, *supra* note 114, at 271.

¹⁵⁵ Bamako Convention, *supra* note 151.

¹⁵⁶ Ajibo, *supra* note 114, at 271.

¹⁵⁷ Bamako Convention, *supra* note 151.

¹⁵⁸ Ajibo, *supra* note 114, at 279.

¹⁵⁹ *Id*.

Okon et al., supra note 131, at 1.

¹⁶¹ *Id*.

¹⁶² *Id.* (citations omitted).

¹⁶³ Id. at 2; see discussion supra Part II.

Okon et al., supra note 131, at 2.

are projected to rise nearly two meters by 2100 and may displace about 187 million people. ¹⁶⁵ In Nigeria, as many as fifty-three million people have already suffered forced displacement as a result of sea level rise. ¹⁶⁶

3. Horn of Africa, Somalia

Originally a form of retaliation against foreign entities for polluting Somalia's coasts, terrorism and piracy continue to plague the country today. 167 The Somali people lacked a central governmental authority for decades, and continuous toxic dumping has only exacerbated Somalia's disadvantaged sociopolitical state. 168 In return, industrialized nations have taken "advantage of Somalia's strife, and its waters," for decades. 169 In October 2012, Somalia announced the inauguration of a new legislative body and the adoption of a new constitution.¹⁷⁰ The new government announced its awareness of the risks climate change poses to the nation's development, peace, and security.¹⁷¹ The founding of the National Adaptation Programme of Actions ("NAPA") was declared the first step in "articulating and implementing a nationwide strategy" to address climate change throughout Somalia.¹⁷² With Somalia's economy dependent on natural resources, NAPA recognized the nation's high vulnerability and aimed to increase Somalia's resilience to climate change impacts.¹⁷³

As a result of the country's recent political history, there is limited research pertaining to the projected impacts of climate change in Somalia.¹⁷⁴ Generally, studies predict that the Horn of Africa will soon experience "more extreme and frequent droughts and floods."¹⁷⁵ Severe droughts and flooding already occur throughout the region

¹⁶⁵ *Id*.

¹⁶⁶ *Id*.

¹⁶⁷ Ajibo, *supra* note 114, at 272.

¹⁶⁸ *Id*.

¹⁶⁹ Id.

¹⁷⁰ U.N. Dev. Programme [UNDP], Fed. Republic of Somalia & Ministry of Nat'l Res., National Adaptation Programme of Action on Climate Change 10 (Apr. 2013) [hereinafter Programme of Action to Climate Change], https://unfccc.int/resource/docs/napa/som01.pdf.

¹⁷¹ *Id*.

¹⁷² *Id*.

¹⁷³ Id.

¹⁷⁴ Id.

¹⁷⁵ *Id*.

and often result in both starvation and the loss of human life and livestock.¹⁷⁶ Somalia's susceptibility to climate change impacts is likely "intensified by its high dependency on [a] natural resource base and low [h]uman [d]evelopment [i]ndicators."¹⁷⁷

B. Persecution on the Basis of Social Group

Refugees may be persecuted on account of their membership in a particular social group. Of the five protected grounds, "social group" reads as the most broad, ¹⁷⁸ and generally scholars contend that the "provision[] *should* be interpreted broadly." A "social group," however, must "exist independently of the persecution at issue." Without a requirement of independence, any group fearing persecution for a common reason may claim "an accompanying right to refugee status." ¹⁸¹

A particular social group implies "a collection of people closely affiliated with each other, who are actuated by some common impulse or interest." It may be regarded as people of "similar background, habits[,] or social status," with involuntary or voluntary membership to the group. The existence of a voluntary associational relationship among members imparts a common characteristic fundamental to the members' individual identities. Social groups face threats when the government views their "political outlook, antecedents[,] or economic

¹⁷⁶ Programme of Action to Climate Change, supra note 170, at 10.

¹⁷⁷ Id.

¹⁷⁸ Jessica B. Cooper, Note, Environmental Refugees: Meeting the Requirements of the Refugee Definition, 6 N.Y.U. Env't L.J. 480, 521 (1998).

¹⁷⁹ Maryellen Fullerton, A Comparative Look at Refugee Status Based on Persecution Due to Membership in a Particular Social Group, 26 CORNELL INT'L L.J. 505, 523 (1993) (emphasis added).

¹⁸⁰ Cooper, *supra* note 178, at 522.

¹⁸¹ Id.

¹⁸² Daniel Compton, Asylum for Persecuted Social Groups: A Closed Door Left Slightly Ajar, 62 WASH. L. REV. 913, 920 (1987) (quoting Sanchez-Trujillo v. INS, 801 F.2d 1571, 1576 (9th Cir. 1986)).

¹⁸³ U.N. High Comm'r for Refugees, Handbook on Procedures and Criteria for Determining Refugee Status and Guidelines on International Protection Under the 1951 Convention and the 1967 Protocol Relating to the Status of Refugees, at 24, U.N. Doc. HCP/1P/4/ENG/REV.4 (2019) [hereinafter Handbook], https://www.unhcr.org/sites/default/files/legacy-pdf/5ddfcdc47.pdf.

¹⁸⁴ Compton, *supra* note 182, at 920.

activity" or their "very existence" itself as "an obstacle to the [g] overnment's policies." ¹⁸⁵

A petitioner's claim to persecution "based on 'membership in a particular social group' must establish that the [designated] group is (1) composed of members who share a common immutable characteristic, (2) defined with particularity, and (3) socially distinct within the society in question." The recognition of a particular social group is determined not "by the perception of the persecutor" but "by the perception of the society in question." Courts must additionally consider the availability of government protection, the possibility of relocation, and whether the persecution extends nationwide. 188

A characteristic is immutable if "members of a particular social group would suffer significant harm" if required to give up that characteristic of group affiliation—either due to virtual impossibility in doing so or because the affiliation is fundamental to the members' consciences or identities. While the persecution itself, if by the government, may cause society to distinguish the group at issue, the immutable characteristic of the group must exist independent of the persecution. Persecution specific to a remote region of a nation may require inquiry into a specific subset of the nation's society, as broader society may be unaware of a particular group. Only when the perception of a given society is considered, is the "'membership in a particular social group' ground of persecution . . . equivalent to . . . other enumerated grounds of persecution."

The requirement of "particularity" imposes outer limits on a given social group, 193 and relates to boundaries of a given society. 194 A

¹⁸⁵ Handbook, *supra* note 183, at 24.

¹⁸⁶ M-E-V-G-, 26 I. & N. Dec. 227, 237 (B.I.A. 2014).

¹⁸⁷ *Id.* at 242.

 $^{^{188}\,}$ 8 U.S.C. § 1101(a) (42); Gambashidze v. Ashcroft, 381 F.3d 187, 192–94 (3d Cir. 2004); Abdille v. Ashcroft, 242 F.3d 477, 496 (3rd. Cir. 2005); C-A-L-, 21 I. & N. Dec. 754, 757–58 (B.I.A. 1997).

¹⁸⁹ *M-E-V-G-*, 26 I. & N. Dec. at 237–38.

¹⁹⁰ Id. at 237-43.

 $^{^{191}}$ See Kasinga, 21 I. & N. Dec. 357, 366 (B.I.A. 1996), https://doi.org/10.1080/0260293960210406; Henriquez-Rivas v. Holder, 707 F.3d 1081, 1089 (9th Cir. 2013).

¹⁹² *M-E-V-G-*, 26 I. & N. Dec. at 243.

 $^{^{193}}$ Castellano-Chacon v. INS, 341 F.3d 533, 549 (6th Cir. 2003); Sanchez-Trujillo v. INS, 801 F.2d 1571, 1576 (9th Cir. 1986).

¹⁹⁴ *M-E-V-G-*, 26 I. & N. Dec. at 238.

particular social group is defined by characteristics providing a benchmark as to who falls within that group. The terms used to identify and describe the group must be commonly accepted within the specified society. ¹⁹⁶

The "social distinction" requirement considers the significant contrast between those sharing a common immutable characteristic and other individuals within a society. This means that members of the social group will generally perceive and understand their affiliation within the grouping, as will other members of a particular society. Many courts find that literal visibility is not required. In some cases, "an immutable characteristic may be visible to the naked eye," but the term "social visibility" does not refer solely to outwardly observable characteristics. One of the social visibility is not refer solely to outwardly observable characteristics.

While there is considerable overlap between the "particularity" and "social distinction" requirements, some courts find that each requirement emphasizes a different characteristic of a particular social group. ²⁰¹ While "particularity" mainly addresses outer limits through definition, this inquiry occurs in the context of a given society in which the claim arises. ²⁰² Societal considerations significantly impact whether a particular group consists of a collection of individuals with appropriately defined boundaries, or in other words, is sufficiently "particular." ²⁰³ Additionally, "societal considerations influence whether [individuals] of a given society . . . perceive a proposed group as sufficiently separate" or socially distinct. ²⁰⁴

Members of Impacted Coastal Communities should be eligible for asylum due to their persecution based on membership in a particular social group. Some scholars previously argued that groups of environmental migrants are persecuted for their membership in a social group "composed of persons who lack the political power to protect their . . . environment," and "[i]t is on account of their political

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<sup>195</sup> A-M-E- & J-G-U-, 24 I. & N. Dec. 69, 76 (B.I.A. 2007).
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¹⁹⁶ *M-E-V-G-*, 26 I. & N. Dec. at 239.

¹⁹⁷ Id. at 238.

¹⁹⁸ *Id*.

¹⁹⁹ Umaña-Ramos v. Holder, 724 F.3d 667, 672 (6th Cir. 2013).

²⁰⁰ *M-E-V-G-*, 26 I. & N. Dec. at 238.

²⁰¹ Id. at 240-41.

²⁰² *Id.* at 241; see also S-E-G-, 24 I. & N. Dec. 579, 584 (B.I.A. 2008).

²⁰³ *M-E-V-G-*, 26 I. & N. Dec. at 241.

 $^{^{204}}$ Id.

disempowerment that these [individuals] become victims of environmental degradation."²⁰⁵ In turn, members of Impacted Coastal Communities should argue not only that they are groups of persons who lack the political power to protect their environment but that they are also geographically concentrated persons lacking the economic power to protect themselves from the effects of both the transboundary movement of hazardous waste and slow-onset climate change.

An Impacted Coastal Community exists independently from the persecution in question:²⁰⁶ a group of people lacking economic and political power living in a coastal area of a developing nation impacted by the effects of the transboundary movement of hazardous waste and climate change. An Impacted Coastal Community may also be regarded as consisting of people of "similar background, habits, or social status[,]"²⁰⁷ with the same living environment, habits of everyday life, and social status of low economic and political power. Additionally, at this time, "special circumstances"²⁰⁸ exist to warrant granting individuals of an Impacted Coastal Community asylum. As recognized by the Report, US refugee policy must shift to address the migration of individuals induced by climate change.²⁰⁹

An applicant must demonstrate that they have suffered persecution on account of their membership in an Impacted Coastal Community in the past or that they have a "well-founded fear" of persecution in their home country. Because environmental regulations often remain unenforced in developing nations, "hazardous waste disposal contracts that promise large amounts of foreign currency are hard [for developing nations] to refuse." Developing countries are susceptible to fraudulent dumping transactions through which they accept improperly classified

²⁰⁵ Cooper, *supra* note 178, at 522.

 $^{^{206}}$ See id. (stating that a "social group" must exist independently of the persecution).

²⁰⁷ Handbook, *supra* note 183, at 24.

²⁰⁸ *Id.* (noting that while mere membership in a particular social group alone does not normally substantiate a claim to refugee status, there may be "special circumstances" under which membership alone is a sufficient ground).

²⁰⁹ REPORT ON THE IMPACT OF CLIMATE CHANGE ON MIGRATION, *supra* note 46, at 4.

 $^{^{210}}$ See Handbook, supra note 183, at 171 (describing the elements of a well-founded fear of persecution).

²¹¹ Pratt, *supra* note 125, at 591.

hazardous waste.²¹² But, even if developing countries are fully informed of the environmental and health risks associated with the specified waste, they are often unable to "ascertain all costs of disposal, including the long-term effects or damage to the environment."²¹³ Long-term costs are dismissed for short-term gain.²¹⁴

In these contexts, the government directly acts, through contracting with developed nations, to inflict harm upon Impacted Coastal Communities for economic gain. Individuals of Impacted Coastal Communities can present specific, detailed facts, demonstrating good reason to fear future persecution. These facts may include the environmental and health effects that result from exposure to toxic dumping. For example, in Côte d'Ivoire, individuals can point to the severe harms to human health in their direct geographic area—twelve people died and over thirty thousand were injured due to by-product exposure. A fear evidenced not only by personal testament but also by statistics signifying devastating environmental and human life impacts, should be considered well-founded and objectively reasonable.

To be considered persecution, mistreatment must rise above mere harassment.²¹⁷ Persecution may be defined as "the infliction of harm or suffering by the government, or persons the government is unwilling or unable to control, to overcome a characteristic of the victim."²¹⁸ Although a claim may be based on harm other than threats to life or freedom, including "non-life-threatening violence and physical abuse,"²¹⁹ in the case of an Impacted Coastal Community, it is clear that exposure to toxic chemicals goes beyond physical abuse and is a threat to life and freedom.

²¹² Id.

²¹³ Id.

²¹⁴ *Id*.

²¹⁵ See Sharif v. INS, 87 F.3d 932, 935 (7th Cir. 1996) ("[A] petitioner must present specific, detailed facts showing a good reason to fear that [they] will be singled out for persecution." (quoting Zulbeari v. INS, 963 F.2d 999, 1000 (7th Cir. 1992))).

²¹⁶ Pratt, *supra* note 125, at 583.

²¹⁷ Beskovic v. Gonzales, 467 F.3d 223, 225 (2d Cir. 2006).

 $^{^{218}\,}$ Khalili v. Holder, 557 F.3d 429, 436 (6th Cir. 2009); see also Tapiero de Orejuela v. Gonzales, 423 F.3d 666, 672 (7th Cir. 2005); Galina v. INS, 213 F.3d 955, 958 (7th Cir. 2000).

²¹⁹ *Beskovic*, 467 F.3d at 225 (quoting Tian-Yong Chen v. INS, 359 F.3d 121, 128 (2d Cir. 2004)).

As to the nexus component, an applicant must demonstrate that they have suffered persecution on account of their membership in an Impacted Coastal Community.²²⁰ The government of an applicant's home country has purposely contracted with a developed nation and intentionally allowed that nation to dump hazardous waste on their shores for economic gain.²²¹ The government of their home country has therefore intentionally harmed individuals on account of their membership in Impacted Coastal Communities due to their lack of economic and political power to oppose such contracting. In many developing countries, "there is [a] lack of political will and public opposition[]"222 to toxic waste dumping due to the low levels of economic and political power of Impacted Coastal Communities. Although developing countries may be fully informed of the environmental and health risks associated with specified waste, ²²³ costs to Impacted Coastal Communities are often overlooked for short-term economic gain.

One might argue that members of Impacted Coastal Communities may not qualify for refugee status because a well-founded fear of persecution is not established if the individual can "avoid persecution by relocating to another part of [their] country of nationality or, if stateless, another part of the applicant's country of last habitual residence" so long as under all circumstances it is reasonable to expect the individual to do so.²²⁴ But this likely does not apply to members of Impacted Coastal Communities for two reasons. First:

In cases in which the persecutor is a government or is government-sponsored, it shall be presumed that internal relocation would not be reasonable, unless the Department of Homeland Security establishes by a preponderance of the evidence that, under all the circumstances, it would be reasonable for the applicant to relocate. ²²⁵

Because the persecutor in the case of an Impacted Coastal Community is the government, it is presumed that internal relocation would not be reasonable. In determining the reasonableness of internal relocation, "adjudicators should consider the totality of the relevant

²²⁰ See 8 U.S.C. § 1101(a) (42).

²²¹ See Pratt, supra note 125, at 591.

²²² Ajibo, *supra* note 114, at 273.

²²³ Pratt, *supra* note 125, at 591.

²²⁴ 8 C.F.R. § 1208.13(b) (2) (ii).

²²⁵ *Id.* § 1208.13(b)(3)(ii).

circumstances."²²⁶ As mentioned, this includes the size of the country of last habitual residence or nationality and the geographic location of the persecution, as well as "the size, numerosity, and reach of the alleged persecutor."²²⁷ In this case, it would be unreasonable for an applicant to relocate due to their economic status as well as the widespread impacts of both climate change and toxic waste dumping on their developing nation of origin as a whole, even outside of the Impacted Coastal Community.

Additionally, members of an Impacted Coastal Community may suffer significant harm if required to give up their characteristic of group affiliation due to the virtual impossibility in doing so. Their membership in an Impacted Coastal Community is deeply entwined with their identity, livelihood, customs, and way of life. It would likely be practically difficult—if not nearly impossible—for members of Impacted Coastal Communities to leave their homes due to their low socioeconomic and political status. Their residence in a coastal area of a developing country coupled with their low levels of both political and economic power exist independently of their persecution.

As to "particularity," in some cases, an outer limit may be easily and naturally found due to the geographic nature of an Impacted Coastal Community. Other characteristics may provide benchmarks as to who falls within an Impacted Coastal Community, including socioeconomic and political status; ways of life; or customs in cases in which a particular indigenous, ethnic, or racial group inhabits the coastal area of a developing nation and is impacted both by climate change and toxic waste dumping.

An Impacted Coastal Community is "socially distinct" and perceived as separate from other members of a particular society. Professional Professional

²²⁶ *Id.* § 1208.13(b)(3).

²²⁷ Id.

²²⁸ See discussion supra Part IV.B.

C. Persecution on the Basis of Race

Alternatively, members of particular Impacted Communities may qualify for refugee status through persecution on the basis of race. Race is understood "to include all kinds of ethnic groups that are referred to as 'races' in common usage."229 Race may entail membership of a group of common descent within a broader population forming a minority.²³⁰ Race-based discrimination receives worldwide condemnation, recognized as a striking violation of human It therefore frequently amounts to persecution.²³² Persecution occurs if, "as a result of racial discrimination," an individual's human dignity is affected as to be "incompatible with the most elementary and inalienable human rights, or where the disregard of racial barriers is subject to serious consequences."233 typically membership in a specific racial group alone is insufficient to claim refugee status, there are circumstances under which solely belonging to a racial group is a sufficient basis upon which to fear persecution.²³⁴

In the United States, the environmental justice movement arose through the mobilization of individuals, "primarily people of color, [seeking] to address the inequity of environmental protection in their communities."²³⁵ The 1960s Civil Rights Movement illuminated public health dangers for individuals, families, and communities. Since then, studies have demonstrated that both domestically and internationally there is a link "between . . . race, socio-economic status[,] and the location of hazardous waste facilities."²³⁷ Through research on environmental racism, it has been found "virtually impossible" that chance alone dictates the disproportionate distribution of hazardous waste facilities in minority communities

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<sup>229</sup> Handbook, supra note 183, at 23.
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²³⁰ Id.

²³¹ Id.

²³² Id.

²³³ Id.

²³⁴ Id.

 $^{^{235}}$ Environmental Justice Timeline, U.S. Env't Prot. Agency, https://www.epa.gov/environmentaljustice/environmental-justice-timeline#:~:text=The%20environmental%20justice%20movement%20was,environmental%20protection%20in%20their%20communities (June 27, 2023).

²³⁶ Id.

²³⁷ Ajibo, *supra* note 114, at 270.

throughout the United States.²³⁸ Therefore, race-related factors likely influence the placement of these facilities by industry and government actors.²³⁹ "These underlying factors include: (1) availability of cheap land; (2) lack of opposition to the siting of the facility due to lack of political resources and clout; (3) . . . lack of mobility resulting from poverty and housing discrimination; and (4) poverty."²⁴⁰

Comparably, the international equivalent of the disproportionate distribution of hazardous waste facilities in the United States is the transport of hazardous waste to developing nations.²⁴¹ situations, disadvantaged communities bear an unequal burden of industrialization and do not receive proportional advantages.²⁴² International environmental racism claims arise implementation policies that disproportionately of underrepresented communities, regardless of the corporation or government actors' conscious intent to enhance or create subordination.²⁴³ Accordingly, when hazardous waste is transported from developed to developing nations, it is considered "environmental racism on an international scale."244

It is important to acknowledge that some doubt the connection between waste dumping and racism—as developed and developing countries are now both importers and exporters of hazardous waste.²⁴⁵ While in some contexts this may be true, as previously discussed, developing nations that agree to take on hazardous waste typically have insufficient enforcement mechanisms and inadequate liability schemes.²⁴⁶ Additionally, some find that developed nations are willing to use developing nations "not because of cost [alone] but because of race and poverty."²⁴⁷

Corporations follow the "path of least resistance" and export their waste to countries with lower disposal costs and less stringent

²³⁸ Park, *supra* note 8, at 661–62.

²³⁹ Id. at 662.

²⁴⁰ *Id.* (alteration in original).

²⁴¹ Ajibo, *supra* note 114, at 270.

²⁴² *Id.* at 269.

²⁴³ Park, *supra* note 8, at 659.

²⁴⁴ *Id.* at 660.

²⁴⁵ Ajibo, *supra* note 114, at 270–71.

²⁴⁶ Park, supra note 8, at 660; see discussion supra Part IV.

²⁴⁷ Park, supra note 8, at 660.

environmental regulations.²⁴⁸ By exporting, corporations also avoid processes necessary to cut use of harmful chemicals "at home."²⁴⁹ While some may view developing nations as adequately compensated for receiving the waste of developed nations, developed nations are aware that the "lack of disposal technology and environmental enforcement measures present[s] a great danger to the" environment and health of people in developing countries.²⁵⁰

A member of an Impacted Coastal Community applying for refugee status in some circumstances should be able to demonstrate past persecution or fear of persecution on the basis of race. Again, persecution may be defined as "the infliction of harm or suffering by the government, or persons the government is unwilling or unable to control, to overcome a characteristic of the victim."²⁵¹ In the context of transboundary hazardous waste, harm is inflicted by private entities—corporations exporting hazardous waste—that government of the developing nation is unwilling or unable to control. Private entities choose to dispose of hazardous waste in developing countries, aware that those countries lack sufficient disposal mechanisms²⁵² and that the health and environmental consequences outweigh the economic benefits of receiving the waste.²⁵³ Private entities therefore participate in persecution. And just as the transportation of hazardous waste from developed to developing nations is considered "environmental racism on an international scale,"254 individuals can likely seek asylum on the basis of race.

Governments that willingly contract with private entities to receive hazardous waste are unwilling to control "the infliction of harm or suffering"²⁵⁵ upon their citizens that results. But even if developing countries are fully informed of the risks associated with the specified waste, they are often unable "to ascertain all costs of disposal, including

²⁴⁸ Id. at 667.

²⁴⁹ Id.

²⁵⁰ Id. at 670.

 $^{^{251}\,}$ Al-Ghorbani v. Holder, 585 F.3d 980, 997 (6th Cir. 2009); see also Tapiero de Orejuela v. Gonzales, 423 F.3d 666, 672 (7th Cir. 2005); Galina v. INS, 213 F.3d 955, 958 (7th Cir. 2000).

²⁵² Park, supra note 8, at 670.

²⁵³ Ajibo, *supra* note 114, at 271.

²⁵⁴ Park, *supra* note 8, at 660.

²⁵⁵ See Al-Ghorbani, 585 F.3d at 997; Tapiero de Orejuela, 423 F.3d at 672; Galina, 213 F.3d at 958.

the long-term effects or damage to the environment"²⁵⁶ and are therefore unable to control "the infliction of harm or suffering"²⁵⁷ by private entities upon their citizens. Ultimately, a member of an Impacted Coastal Community may be able to demonstrate that their experiences rise to the level of persecution by a private entity, that persecution was on account of their race and a result of environmental racism on an international scale, and that their government is unable or unwilling to control the "the infliction of harm or suffering" by private entities transporting hazardous waste.

V. ALTERNATIVE IMMIGRATION REMEDIES

In addition to recognizing that groups of climate migrants may be considered members of a particular social group and therefore eligible for asylum, organizations have noted potential alternative immigration remedies. This Part discusses two possible alternative remedies for climate migrants: temporary protected status and redefining "refugee."

A. Temporary Protected Status

The Secretary of Homeland Security may choose to designate a foreign country as eligible for temporary protected status (TPS) due to conditions that temporarily prevent that country's nationals from returning safely, or due to circumstances through which the country may be unable to adequately handle the return of those individuals. ²⁵⁹ Under TPS, an individual "cannot be detained by the [Department of Homeland Security] on the basis of [their] immigration status." ²⁶⁰ Throughout a designated period, TPS beneficiaries "[a]re not removable from the United States," "[c]an obtain an employment authorization document (EAD)," and "[m]ay be granted travel

²⁵⁶ Pratt, *supra* note 125, at 591.

²⁵⁷ See Al-Ghorbani, 585 F.3d at 997; Tapiero de Orejuela, 423 F.3d at 672; Galina, 213 F.3d at 958.

 $^{^{258}}$ See Erol Yayboke et al., Ctr. for Strategic & Int'l Stud., A New Framework for U.S. Leadership on Climate Migration 9 (2020), https://csis-website-prod.s3.amazonaws.com/s3fs-

public/publication/201022_Yayboke_ClimateMigration_Brief_0.pdf?VersionId=tBH C69WmhvKtC06C9UavcjFL45vwLh57.

 $^{^{259}}$ Temporary Protected Status, U.S. CITIZENSHIP & IMMIGR. SERVS. https://www.uscis.gov/humanitarian/temporary-protected-status (Nov. 10, 2023). 260 $\,$ Id.

authorization."²⁶¹ Although the expiration of TPS does not lead to permanent resident status, TPS beneficiaries may apply for nonimmigrant status, "file[] for adjustment of status," and seek out other immigration protections or benefits.²⁶²

"TPS is [typically] granted to [those] already in the United States, . . . unable to return to their [home] countries due to ongoing conflict, environmental disasters, or . . . [other] temporary conditions."²⁶³ Since the program's inception, immigrants from twenty-two countries have received the benefit of TPS.²⁶⁴ The status has been extended to a significant number of those countries due to sudden-onset climate change, or environmental disasters, including earthquakes and hurricanes.²⁶⁵ Expanding the program to include those displaced due to climate change may "potentially prevent buildups at the border," such as those following Hurricanes Eta and Iota and the devastation of parts of Central America.²⁶⁶ The Biden Administration has also signaled that the criteria of TPS may potentially be expanded to accommodate foreign nationals facing the impacts of climate change-related events in their home countries.²⁶⁷

While some argue that "Congress should create a [modified] version of TPS . . . for [individuals] temporarily displaced by [slow-onset] climate change,"²⁶⁸ others find that TPS would be best expanded through executive order—"add[ing] slow-onset climate change as a qualification."²⁶⁹ Due to both the polarization of immigration issues and the immediate nature of climate migration, executive order is likely the strongest option, as it would avoid debate within Congress and "ensure that climate migrants are provided some protections sooner rather than later."²⁷⁰

²⁶¹ Id.

²⁶² Id.

 $^{^{263}}$ Yayboke et al., supra note 258, at 8.

²⁶⁴ *Id.* at 10.

²⁶⁵ See id.

²⁶⁶ María Paula Rubiano A. & Adam Mahoney, *Disappointing': The US's First Climate Migration Report Falls Flat*, Grist (Oct. 25, 2021), https://grist.org/climate/disappointing-the-uss-first-climate-migration-report-falls-flat.

²⁶⁷ REPORT ON THE IMPACT OF CLIMATE CHANGE ON MIGRATION, *supra* note 46, at 18.

²⁶⁸ YAYBOKE ET AL., *supra* note 258, at 10.

²⁶⁹ Howko-Johnson, *supra* note 1.

 $^{^{270}}$ Id.

But even upon potential expansion, there are additional barriers within the TPS framework that may make it difficult for individuals fleeing slow-onset climate change to receive protection. Currently, TPS protects only those who arrive prior to the date of designation, making it unlikely to include many fleeing from slow-onset climate change-induced events. In order to be the most effective, modified TPS must be made available for those not presently residing in the United States. Additionally, the TPS statute . . . requires that a foreign government officially request TPS designation in cases of environmental disaster. Individuals with home countries lacking sufficient . . . will or capacity to request [designation] will therefore be ineligible for TPS benefits. Finally, even if extended, due to its *temporary* nature, TPS would not provide permanent solutions for those unable to return to their home countries.

B. Redefining "Refugee"

As climate change displaces more people, the international community may be compelled to redefine "refugee" to include those displaced by climate change. Some argue that because the "Refugee Convention's definition of 'refugee' has been applied to deny" climate migrants legal protection, its definition must be superseded or expanded on an international scale. Legal scholars have therefore proposed amending the Refugee Convention to encompass individuals displaced by climate change. Some suggest a revised definition explicitly including environmental refugees, defined as "individual[s]... forced to leave their country of nationality, whether temporarily or permanently, primarily because of an environmental

 $^{^{271}}$ See Report on the Impact of Climate Change on Migration, supra note 46, at 19.

YAYBOKE ET AL., supra note 258, at 10.

 $^{^{273}}$ See Report on the Impact of Climate Change on Migration, supra note 46, at 19.

²⁷⁴ *Id*.

²⁷⁵ *Id*.

²⁷⁶ Podesta, *supra* note 92.

²⁷⁷ Sreyas Adiraju, *What Is a "Refugee"? Expanding the UN Refugee Convention in the Face of Climate Change*, Colum. Undergraduate L. Rev. (Feb. 7, 2022), https://www.culawreview.org/journal/what-is-a-refugee-expanding-the-un-refugee-convention-in-the-face-of-climate-change.

²⁷⁸ See Carmen G. Gonzalez, Climate Justice and Climate Displacement: Evaluating the Emerging Legal and Policy Responses, 36 Wis. Int'l L.J. 366, 381 (2019).

disruption, whether natural or manmade, that renders [them] incapable of securing basic human needs."²⁷⁹

A variety of proposals exist with differing approaches on how best to expand the definition of "refugee," but "no [single] clear path forward has emerged."²⁸⁰ Although under the Refugee Convention nations can submit proposed revisions, Article 45 does not put forth a comprehensive procedure detailing how to do so.²⁸¹ As a result, no nation has proposed the amendment of Article 1(A)(2) to include migrants displaced by climate change.²⁸² A potentially stronger approach may be "creating a constellation of smaller, regional agreements under an international umbrella."²⁸³ This may include leveraging regional organizations, such as "the African Union or the Association for Southeast Nations[,] to [introduce] mechanisms" designed to address the climate crisis.²⁸⁴

In the current political climate, debating the Refugee Convention's definition of "refugee" may threaten protections overall. International human rights organizations identify additional drawbacks to such an approach. For one, "[i]f the UNHCR [were to] broaden 'refugee' to support a . . . new category," there may not be sufficient necessary funding. Second, renegotiating the existing refugee treaty would likely take decades. As a result, political opportunists who view the current Refugee Convention as too generous may use extensive renegotiation to dilute current definitions. Ses

Developments in international policy further suggest that existing refugee policy is better suited to address climate migration, rather than

²⁷⁹ Brittan J. Bush, *Redefining Environmental Refugees*, 27 Geo. Immigr. L.J. 553, 572 (2013) (quoting Essam El-Hinnawi, Environmental Refugees 4 (1985)).

²⁸⁰ Adiraju, *supra* note 277.

²⁸¹ *Id.* (citing Angela Williams, *Turning the Tide: Recognizing Climate Change Refugees in International Law*, 30 LAW & POL'Y 502 (2008), https://doi.org/10.1111/j.1467-9930.2008.00290.x).

²⁸² Id.

²⁸³ Id.

²⁸⁴ Id.

²⁸⁵ Tyler, *supra* note 11.

²⁸⁶ W.H., Why Climate Migrants Do Not Have Refugee Status, THE ECONOMIST (Mar. 6, 2018), https://www.economist.com/the-economist-explains/2018/03/06/why-climate-migrants-do-not-have-refugee-status.

²⁸⁷ Id.

²⁸⁸ Id.

attempting to redefine "refugee." The Global Compact for Migration and the Global Compact on Refugees, two United Nations global agreements of 2018, both discuss climate migration.²⁸⁹ While the Global Compact for Migration outlines a detailed objective "to better map, understand, predict[,] and address migration movements, such as those that may result from sudden-onset and slow-onset natural disasters, the adverse effects of climate change, [and] environmental degradation," the Global Compact on Refugees mentions climate as only one of many factors that may drive migration—stopping much shorter than the Global Compact for Migration in its discussion of climate change.²⁹⁰ Through this, participating nations seem to suggest two things. First, that individuals displaced by climate change should be considered "climate migrants" rather than "climate refugees." And second, that while developments in the study of climate migration are warranted, expansion of existing international refugee policy is improper or unnecessary to address climate migration.

VI. CONCLUSION

Coastal communities in developing nations are those most vulnerable to the impacts of both slow-onset climate change and the transboundary movement of hazardous waste. As a result, certain groups of climate migrants should be eligible for refugee status due to their concentrated membership in coastal social groups whose members lack the political and economic power to protect themselves from the effects of climate change and the transboundary movement of hazardous waste. Alternatively, members of Impacted Coastal Communities may qualify for refugee status through persecution on the basis of race.

 $^{^{289}}$ Tim McDonnell, *The Refugees the World Barely Pays Attention To*, NPR (June 20, 2018, 11:25 AM), https://www.npr.org/sections/goatsandsoda/2018/06/20/621782275/the-refugees-that-the-world-barely-pays-attention-to.

 $^{^{290}\,}$ Id.; G.A. Res. 73/195, Global Compact for Safe, Orderly and Regular Migration, at 10 (Jan. 11, 2019).

