

CLIMATE REPARATIONS: MORAL, HISTORICAL, AND
LEGAL JUSTIFICATIONS FOR UNITED STATES
REPARATIONS PAYMENTS TO FEMALE POPULATION
GROUPS IN DEVELOPING COUNTRIES

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I. INTRODUCTION

It is no longer a rogue thought, shrouded in possibility rather than reality, that the biggest threat to national and global security today is

one brought on by our own actions, complacency, and dismissals. This threat, of course, is that of climate change. For some, climate change presents a distant fear, at least temporally speaking: sitting in the confines of New York City today, I can comfortably claim that the sea-level rise which will inevitably jeopardize the security of this urban space is a threat that is very much in the future.¹ This temporally distant threat is an alarm that will toll for later generations only, and one I need not heed for the moment.

However, this feeling of security is a matter of the utmost privilege. It is a privilege I can “enjoy,” for lack of a better term, because I am a citizen, and a resident, of a country whose modern development has predated that of the current day. It is, in a way, a matter of luck. But by luck’s own terms, there must also be the unlucky.

This Note addresses the impacts of climate change, how those impacts came about, and who is most affected by them. I argue that climate change is a moral problem, not just a scientific or legal one. I further argue that climate change’s impacts are felt most severely among developing nations and cause harms that require a unique legal framework for redress. This Note argues that the proper legal framework to address climate change-related harms is a community-based reparations program, paid to female population groups. More specifically, I argue that the recipients of reparations ought to be women living in rural communities within the developing countries that are most affected by climate-related extreme weather events, as calculated by the Global Climate Risk Index of 2020: Myanmar, Haiti, the Philippines, Pakistan, Vietnam, Bangladesh, and Nepal.² This

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¹ See *Surging Seas: Mapping Choices*, CLIMATE CENT., <https://choices.climatecentral.org/index.html#13/40.7333/-74.0025?compare=scenarios&carbon-end-yr=2100&scenario-a=unchecked&scenario-b=extreme-cuts> (providing an interactive map displaying varying levels of sea level rise) (last visited Feb. 21, 2021); see also Rebecca Fishbein, *New Interactive Map Shows Climate Change Turning NYC Into Atlantis*, THE GOTHAMIST (Oct. 13, 2015), <https://gothamist.com/news/new-interactive-map-shows-climate-change-turning-nyc-into-atlantis> (discussing the Climate Central interactive map, explaining that the map “predicts that Lower Manhattan and large swaths of the boroughs will be underwater within the next couple of centuries if we don’t dramatically cut emissions worldwide”).

² David Eckstein, Vera Künzel, Laura Schäfer & Maik Winges, *Global Climate Risk Index 2020: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2018 and 1999 to 2018*, GERMANWATCH (Dec. 2019),

Note asserts that the women who live in these seven countries are simultaneously a group that disproportionately suffers climate change-related harms and are a group that, if equipped with the proper education, agency, and resources,³ is proven to be vital in the effort to promulgate successful community adaptation measures.

This Note proposes the United States as a candidate for such reparations payments, as it is historically one of the world's largest polluters and, therefore, has contributed significantly to harm to vulnerable communities. As will be further explained, the United States is the biggest contributor to carbon pollution by historical measures.⁴ The United States, while only home to approximately four percent of the global population, has contributed about one-third of the excess carbon dioxide heating the planet—more than all twenty-eight countries of the European Union combined.⁵ And while it is true that China is currently the world's largest emitter of greenhouse gases, China is responsible for less than a sixth of that excess.⁶ One must

https://germanwatch.org/sites/germanwatch.org/files/20-2-01e%20Global%20Climate%20Risk%20Index%202020_14.pdf.

³ A reparations program could provide communities with all three of these elements, and the importance of these elements is explained later on in this Note. To set the scene, however, consider Keston Perry's work in a paper commissioned by the United Nations Association of the United Kingdom, which proposes a Global Climate Stabilization Fund. The Fund is "aimed at providing macro-economic and rapid-response financial support to marginalized communities and developing-country populations who suffer from the compounded effects and ravages of colonialism, financial disaster and climate change." KESTON K. PERRY, REALIZING CLIMATE REPARATIONS: TOWARDS A GLOBAL CLIMATE STABILIZATION FUND AND RESILIENCE FUND PROGRAMME FOR LOSS AND DAMAGE IN MARGINALIZED AND FORMER COLONIZED SOCIETIES 16 (Mar. 2020), <https://www.researchgate.net/publication/340218479>. The Fund's objectives include establishing "educational and community-oriented solidarity systems," satisfying the educational element I refer to; establishing a "forum for relevant and ongoing discussions about the legacies and effects of colonialism, impoverishment and macroeconomic vulnerability that facilitate programmes to broaden economic diversification," relating to the "agency" element I refer to above; and providing "financial and relevant technical support for research and advocacy initiatives," along with "provid[ing] immediate budgetary and rapid response financial support utilizing effective channels that address loss and damage linked to climate breakdown," satisfying the necessary resources element I refer to above. *Id.* at 18.

⁴ Justin Gillis & Nadja Popovich, *The U.S. is the Biggest Carbon Polluter in History. It Just Walked Away from the Paris Climate Deal*, N.Y. TIMES (June 1, 2017), <https://www.nytimes.com/interactive/2017/06/01/climate/us-biggest-carbon-polluter-in-history-will-it-walk-away-from-the-paris-climate-deal.html>.

⁵ *Id.*

⁶ *Id.* Note that China is home to four times as many people as the United States. *Id.*

understand that carbon dioxide accumulates over time; what you put in does not come out.⁷ Thus, historic, i.e. cumulative, emissions are what matter. Accordingly, I argue that the United States ought to take some responsibility for the problem.

Part II of this Note will outline what the present “Climate Emergency” actually entails and how the United States has contributed to that climate crisis. Part III will detail how the climate crisis adversely affects women in developing countries, with a specific focus on the seven developing countries identified as having the greatest vulnerability to weather-related climate harms. It will also argue that women belonging to those identified communities are the best group to combat climate change’s negative impacts within their respective communities. Part IV will describe the unique legal issues posed by climate harms. It will also consider the current legal frameworks in place to address environmental harms. Part V will then explain what a reparations model can do that current legal frameworks fail to do. It will also outline the aspects of a successful climate reparations scheme. Finally, Part VI concludes.

II. THE STATE OF THE CLIMATE EMERGENCY TODAY

As the United Nations stated: “Climate change is the defining issue of our time.”⁸ And as the biggest collective-action problem living generations will ever face, it is important to understand its basic facts. To start with terminology: while some may use the term “global warming” instead of “climate change,” the two are not actually interchangeable. Global warming, that is, the rise in the global average temperature near the earth’s surface, is simply one of many aspects of climate change.⁹ Climate change, in turn, refers to the myriad ways in which average weather conditions vary; while, to some degree, weather conditions can be naturally variable, the long-term variations

⁷ John Rhys, *Cumulative Carbon Emissions and Climate Change: Has the Economics of Climate Policies Lost Contact with the Physics?*, OXFORD INST. FOR ENERGY STUD., 1 (July 2011), <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/07/EV-571.pdf> (stating that “Carbon dioxide (CO₂) emissions are essentially cumulative,” and that CO₂ has a “cumulative and irreversible nature”).

⁸ *Climate Change*, UNITED NATIONS, <https://www.un.org/en/global-issues/climate-change> (last visited Nov. 20, 2020).

⁹ Melissa Denchak, *Global Climate Change: What You Need to Know*, NAT’L RES. DEF. COUNCIL (Feb. 23, 2017), <https://www.nrdc.org/stories/global-climate-change-what-you-need-know>.

of weather patterns are what is meant when using the term “climate change.”¹⁰ Climate change manifests in more ways than one: for instance, droughts, floods, heatwaves, sea-level rise, and ice-cap melting are all manifestations of climate change.

While it is true that natural occurrences like volcanic eruptions or naturally occurring greenhouse gas (“GHG”) concentrations contribute to climate change,¹¹ the scientific consensus is that human-generated GHG emissions are climate change’s leading cause.¹² Humans emit these GHGs through the burning of fossil fuels (e.g. coal, oil, and gas).¹³ These activities emit, among other GHGs, carbon dioxide into the atmosphere—and carbon dioxide is “the planet’s chief climate change contributor.”¹⁴

Among the effects of climate change is extreme weather, which results when the earth’s atmosphere heats up and, in turn, either retains or drops more water, “making wet areas wetter and dry areas drier.”¹⁵ What we term “natural” disasters, like floods, storms, droughts, and fires, are not as “natural” as the term makes them seem, given the human hand in creating them.¹⁶ One consequence of these extreme weather events is community displacement. It is suggested that “the likelihood of being displaced by a disaster is now sixty percent higher than it was four decades ago.”¹⁷

Another threat caused by climate change is the threat posed by rising seas. As the Arctic heats, its ice sheets melt into the oceans, causing sea-level rise that threatens to swallow coastal ecosystems and low-lying lands, including the city in which I live, New York.¹⁸ And that is not all: as global temperature rises, air pollution increases, putting our own respiratory health at risk.¹⁹ Further, with more climate change events occurring, wildlife is forced to adapt to changing habitats, or destruction of their habitats altogether, which increases the extinction risk of several of our most beloved creatures (one thinks of

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.*

¹⁹ *Id.*

the paradigmatic symbol of a polar bear, stranded at sea on an ice floe).²⁰

As the evidence unfolds before our eyes, it is all too apparent: climate change, in the words of the Intergovernmental Panel on Climate Change (“IPCC”), is “unequivocal.”²¹

A. *How the United States Has Contributed to the Climate Crisis*

Given the scientific consensus that humans are the lead drivers of climate change,²² one might ask: how do we apportion blame? While not starkly black and white, I argue that the answer lies in history. The notion of historic responsibility for climate change is written into the United Nations’ Framework Convention on Climate Change’s (“UNFCCC”) preamble. The preamble provides the following statement as a basis for the UNFCCC’s agreement: that “the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs”²³ Also found in the preamble is the following: “*Recalling also* that States have, in accordance with the Charter of the United Nations and the principles of international law . . . [,] the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”²⁴

This language in the preamble emphasizes the importance of understanding a country’s historical contributions to climate change. It also affirms the concept of international law’s no harm rule in the context of climate harms.²⁵ Because the United States is a signatory to

²⁰ *Id.*

²¹ Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report Summary for Policymakers. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, at 2 (2014).

²² Melissa Denchak, *Global Climate Change: What You Need to Know*, NAT’L RES. DEF. COUNCIL (Feb. 23, 2017), <https://www.nrdc.org/stories/global-climate-change-what-you-need-know>.

²³ U.N. Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc. 102-38, 1771 U.N.T.S. 107, <https://treaties.un.org/doc/Publication/UNTS/Volume%201771/v1771.pdf>.

²⁴ *Id.* at 2.

²⁵ “The no-harm rule is a widely recognized principle of customary international law whereby a State is duty-bound to prevent, reduce and control the risk of

the UNFCCC,²⁶ it is bound by the preamble, including, of course, the no-harm rule. I argue that this preamble provides justification for the claim that the United States has violated rules of international law, and provides grounds to examine the United States' historical contributions to climate change and what the consequences of those contributions ought to be.²⁷

The science behind climate change makes clear why history matters so much. Because CO² remains in the atmosphere once emitted and builds up over time, what matters most when it comes to measuring historical responsibility for climate change is not one nation's annual emissions, but rather a nation's cumulative historical emissions.²⁸ Using 1850 as the base year and measuring emissions through 2015, the United States is responsible for twenty-six percent of historical global emissions and ranks as the world's highest emitter.²⁹

environmental harm to other states." *Definition(s): No Harm Rule*, UNITED NATIONS, <https://globalpact.informea.org/glossary/no-harm-rule> (last visited Feb. 20, 2021). In accordance with the United Nations Charter and principles of international law, "States have . . . the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." *Id.*

²⁶ *United Nations Framework Convention on Climate Change*, UNITED NATIONS TREATY COLLECTION (May 9, 1992), https://treaties.un.org/Pages/ViewDetailsIII.aspx?src=IND&mtdsg_no=XXVII-7&chapter=27&Temp=mtdsg3&clang=_en (showing that the United States ratified the UNFCCC on October 15, 1992).

²⁷ Kevin A. Baumert, Timothy Herzog & Jonathan Pershing, *Navigating the Numbers: Greenhouse Gas Data and International Climate Policy*, WORLD RES. INST., 32 (2005), https://files.wri.org/s3fs-public/pdf/navigating_numbers.pdf ("The relevance of historical responsibility for climate change is noted in the Climate Convention and generally acknowledged to be an important factor in shaping response strategies that are widely acceptable. This concept has also become noteworthy since, in the run-up to the 1997 Kyoto Protocol negotiations, the Government of Brazil advanced a specific proposal that would have apportioned GHG emissions targets according to each (Annex I) country's historical responsibility for the global temperature increase. Although this proposal did not prevail, the topic has continued to be studied under the UNFCCC.").

²⁸ *Id.* at 31 ("[C]limate change results from the cumulative buildup of GHGs in the atmosphere over time, not emissions in any particular year. Accordingly, the cumulative sum of a country's historical emissions is one indicator that tries to capture the contribution a country has made to the climate change problem.").

²⁹ Jason Hickel, *Quantifying National Responsibility for Climate Breakdown: An Equality-based Attribution Approach for Carbon Dioxide Emissions in Excess of the Planetary Boundary*, 4 LANCET PLANET HEALTH e399, 400 (2020).

However, looking at historical emissions alone might not paint the clearest picture; it is also important to consider differences in a country's population size. Following this principle, one might consider analyzing a country's historical responsibility for climate change based on a "fair shares" approach—that is, national fair shares of a global carbon budget consistent with the planetary boundary of 350 parts per million ("ppm") atmospheric CO² concentration.³⁰ Such an approach is "rooted in the principle of equal per capita access to atmospheric commons."³¹ Once fair shares are calculated, they can be subtracted from a country's actual historical emissions.³² The subtraction value demonstrates the amount to which any given country has either overshot or undershot its "fair share."³³ The result is a showing of each country's share of responsibility for global emissions in excess of the planetary boundary of 350 ppm.³⁴ These numbers demonstrate a higher degree of climate responsibility on the part of the United States than previous studies have claimed.³⁵ It also offers, as the study itself purports, a "just framework for attributing national responsibility for excess emissions, and a guide for determining national liability for damages related to climate change, consistent with the principles of planetary boundaries and equal access to atmospheric commons."³⁶

I propose that this above model should be utilized to justify the United States as the most historically responsible contributor to climate change, and, as such, the United States ought to be the payer of climate reparations. In accord, the study's author suggests that the model "provide[s] guidance for determining just approaches to liability for damages related to climate change."³⁷ Further:

High-income countries must not only reduce emissions to zero more quickly than other countries, but they must also pay down their climate debts, which are here conceptualised

³⁰ *Id.* at e399.

³¹ *Id.*

³² *Id.* The cited study relies on data of territorial emissions from 1850 to 1969 and consumption-based emissions from 1970 to 2015.

³³ *Id.*

³⁴ *Id.* Following this methodology, it was found that the United States was responsible for forty percent of excess global CO² emissions; trailing behind, the European Union is responsible for twenty-nine percent excess of global CO² emissions. *Id.*

³⁵ Hickel, *supra* note 29, at e399.

³⁶ *Id.*

³⁷ *Id.* at e403.

with respect to the planetary boundary. It can be argued that damages sustained by undershooting countries as a result of global warming should be paid by overshooting countries in proportion to their responsibility.³⁸

Thus, the United States, as an “overshooting” country, ought to be held responsible for the amount of harm it has contributed and pay “undershooting” countries proportionately.

III. HOW WOMEN ARE DISPROPORTIONATELY AFFECTED BY CLIMATE CHANGE & HOW WOMEN ARE VITAL FOR COMMUNITY-ADAPTATION

A. *Women Are Climate Vulnerable*

While I argue that the United States is the most responsible for climate change-related harms historically, it remains to be established who is the most affected by those harms. It is true that climate change does not discriminate. Regardless of race, socioeconomic status, or geographic location, the effects of a changing climate will eventually, if they have not already, touch everyone’s lives in significant ways. However, climate change’s effects are not evenly distributed among global population groups. According to the IPCC’s Fifth Assessment, women are particularly vulnerable to some of climate change’s effects.³⁹ Put simply,

women often experience additional duties as laborers and caregivers as a result of extreme weather events and climate change, as well as responses (e.g., male outmigration), while facing more psychological and emotional distress, reduced food intake, adverse mental health outcomes due to displacement, and in some cases increasing incidences of domestic violence.⁴⁰

Women in developing nations would fall under the category of the “climate vulnerable,” as Maxine Burkett, a scholar and proponent of climate reparations, has called it.⁴¹ The term “climate vulnerable” “describes those communities or nation-states that have a particularly

³⁸ *Id.*

³⁹ Intergovernmental Panel on Climate Change, *Technical Summary*, 1 in CLIMATE CHANGE 2014 – IMPACTS, ADAPTATION AND VULNERABILITY: PART A: GLOBAL AND SECTORAL ASPECTS: WORKING GROUP II CONTRIBUTION TO THE IPCC FIFTH ASSESSMENT REPORT 50 (2014).

⁴⁰ *Id.*

⁴¹ Maxine Burkett, *Climate Reparations*, 10 MELB. J. INT’L L. 509, 513 (2009).

acute vulnerability to present and forecasted climatic changes.”⁴² Such vulnerability is not solely a result of gender, although discrimination based on gender has certainly been found to result in heightened vulnerability.⁴³ Other bases include discrimination based on class, ethnicity, age, and (dis)ability.⁴⁴

Burkett develops her own model of climate reparations and applies that model to a “discrete group of claimants,” namely, small island states (“SIDS”).⁴⁵ She outlines three categories of threats posed by climate change to SIDS: 1) the physical impacts that SIDS are suffering, such as sea-level rise; 2) a weak voice in the international arena to advocate for their needs; and 3) the “increasing inadequacy of adaptation measures to shield [SIDS] from the full brunt of climate change,” such as civil engineering measures, which will likely fail to meet a community’s needs, resulting in migration.⁴⁶

Burkett identifies the United States as “the single greatest historical emitter and one of the top two emitters today,” and as such, as a “viable subject of a climate reparations claim.”⁴⁷ Burkett explains that the United States, as a signatory to the UNFCCC, is expected to perform its treaty obligations in good faith and that “[i]t will be quite easy to provide substantial evidence of US failure to make even a reasonable effort to meet the objective of the UNFCCC—from its failure to sign the *Kyoto Protocol* to its intransigence on both the national and international scale to date.”⁴⁸ While Burkett advocates for reparations to be paid to SIDS, I advocate for reparations to be paid to female groups.

Similar to SIDS, female groups in developing countries face distinct threats: the labor and livelihood impacts, agency and voice impacts, and physical impacts such as increased risk of domestic violence.⁴⁹ It is important to understand these distinct threats to

⁴² *Id.*

⁴³ Intergovernmental Panel on Climate Change, *supra* note 38, at 50.

⁴⁴ *Id.*

⁴⁵ Burkett, *supra* note 40, at 537.

⁴⁶ *Id.* at 539.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ Balgis Osman-Elasha, *Women . . . In the Shadow of Climate Change*, UN CHRONICLE, <https://www.un.org/en/chronicle/article/womenin-shadow-climate-change> (last visited Jan. 17, 2020) (noting that women tend to have “limited access to and control of environmental goods and services; they have negligible participation in decision-making, and are not involved in the distribution of environment management benefits”; that women “represent a high percentage of

combat them. A reparations program would allow for a full acknowledgement of these threats created by climate change.

The UNFCCC's report on the differentiated impacts of climate change on women and men synthesizes information received in twenty-one submissions sent on behalf of participating countries.⁵⁰ The Report states that the

most frequently cited reasons for women's increased vulnerability to climate change impacts (including reduced resilience and adaptive capacity) when compared to men included discriminatory, patriarchal laws, norms, customs and institutions that resulted in women's exclusion from participating in decision-making and community processes; limited awareness of legal rights, including human rights; limited or no access to or control over resources and assets; unequal burden of unpaid domestic and care responsibilities; limited access to necessary sexual and reproductive health care (particularly in natural disaster situations); increased exposure to gender-based harassment and violence; and impoverishment, including when a male spouse migrates or otherwise leaves the household.⁵¹

The Report also highlighted several telling examples, including one presented in research by the Center for International Forestry Research ("CIFOR") in northern Mali.⁵² The research showed that "women's vulnerability was increased when men migrated for employment as prolonged drought impacted crop viability. This left the women to carry out men's work in addition to their already high

poor communities that are highly dependent on local natural resources for their livelihood, particularly in rural areas where they shoulder the major responsibility for household water supply and energy for cooking and heating, as well as for food security"; and that "it is widely known that during conflict," such as conflict brought about by climate change threats, "women face heightened domestic violence, sexual intimidation, human trafficking and rape").

⁵⁰ UNFCCC, *Differentiated Impacts of Climate Change on Women and Men; the Integration of Gender Considerations in Climate Policies, Plans and Actions; and Progress in Enhancing Gender Balance in National Climate Delegations*, Subsidiary Body for Implementation Fiftieth Session (June 12, 2019), at 4 [hereinafter *Differentiated Impacts of Climate Change on Women and Men*].

⁵¹ *Id.* at 7.

⁵² H. Djoudi & M. Brockhaus, *Is Adaptation to Climate Change Gender Neutral? Lessons from Communities Dependent on Livestock and Forests in Northern Mali*, 13(2) INT'L FORESTRY REV. 123 (2011).

workloads, but without men's rights to secure tenure or command over financial resources."⁵³

A further example of the unique labor-threats that women face is seen in the gendered roles in the bioeconomy, an economy which is being negatively impacted by climate change.⁵⁴ The harvesting and processing of biomass is predominantly performed by women,⁵⁵ and climate change is placing this labor and livelihood source for female groups at risk. For example, eighty percent of seaweed farmers in Zanzibar are women.⁵⁶ According to the Food and Agriculture Organization of the United Nations' ("FAO") submission, these women are

facing declines in the production of high-value seaweed as waters in the south of the island have become warmer due to climate change. Thus, the vulnerability of seaweed farmers is primarily attributable to their reliance on a natural resource that is declining because of climate change, and not because the farmers are women. However, the fact that predominantly rural and indigenous women, and not men, are reliant on climate-vulnerable biomass industries for their livelihoods potentially gives their vulnerability a gender, place-based and ethnic perspective.⁵⁷

Women additionally face physical threats. For example, consider research conducted in Uganda by the Mary Robinson Foundation for Climate Justice, which found:

As climate change reduces growing time and rainfall becomes scarce and unpredictable, tension arises over which crops to grow and prioritize. This tension can lead to conflict, including domestic violence, especially when rains are poor and yields are low. Moreover, when food is limited due to a poor harvest, women prioritize feeding their children and male spouses and reduce their own intake, to the detriment of their overall nutrition and health.⁵⁸

With this in mind, it is crucial not to forget that women, though particularly vulnerable, are also key players in addressing climate change. The UNFCCC Report on differentiated impacts states, "the

⁵³ *Differentiated Impacts of Climate Change on Women and Men*, *supra* note 49, at 7; Djoudi & Brockhaus, *supra* note 51, at 128.

⁵⁴ *Differentiated Impacts of Climate Change on Women and Men*, *supra* note 49, at 7.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

submissions also cited the vital contribution of women to addressing climate change, for example, because of their role as primary keepers of traditional knowledge in their communities.”⁵⁹ The Report also includes examples which give credence to the idea that a reparations program which provides women with resources can at least partly make up for the suffering that these women have faced due to anthropogenic influences. The examples also support providing community-building and stronger adaptive responses.

For instance, in Vietnam, a joint project between the Viet Nam Women’s Union and UN Women advocated for the leadership of women in disaster management and risk reduction.⁶⁰ As a result of these efforts, “UN Women reported that capacity-building on gender equality and disaster risk management through the project had a multiplier effect as the trained women subsequently supported disaster response in their communities.”⁶¹ Similarly, the International Centre for Climate Change and Development reported that in Bangladesh, a “gradual shift had been observed in the perceived role of women in disaster management and recovery,” transforming women “from victims to vital actors in restoring their households and communities during and after disasters.”⁶²

There are countless more examples of the benefits of providing women agency in climate policy and action discussions.⁶³ An advocacy tool developed by the Coalition of Women Leaders for the Environment and Sustainable Development in the Provinces of Equateur and Mao-Ndombe in the Democratic Republic of the Congo has, for instance, “reportedly transformed the country’s patriarchal framework, strengthening the role and decision-making power of women in the forest management policies for climate action.”⁶⁴ This empowerment of women had real consequences for the country’s climate response. “Women’s active participation in forest governance is reported to have been an essential element in halting deforestation

⁵⁹ *Id.*

⁶⁰ *Id.* at 9.

⁶¹ *Id.*

⁶² *Id.*

⁶³ For a general discussion on women as agents of change in the climate change context, see Press Release, Economic and Social Council, Women Must Participate in all Aspects of Climate Change Debate, in Particular Decision-Making on Adaptation, Mitigation, Say Speakers in Women’s Commission, U.N. Press Release WOM/1669 (Feb. 28, 2009), <https://www.un.org/press/en/2008/wom1669.doc.htm>.

⁶⁴ *Differentiated Impacts of Climate Change on Women and Men*, *supra* note 49, at 13.

in the provinces,” says the UNFCCC.⁶⁵ These examples of promoting women’s voices in the climate change response area show just how beneficial that transformation can be to a country or community’s adaptive capacity. This is exactly why a reparations program should focus on empowering women—empower women, transform the community.

B. *The Global Climate Risk Index of 2020*

As demonstrated above, women throughout the globe face disproportionate climate-related risks when compared to men. To evaluate that risk, this Note relies on the Climate Risk Index (“CRI”) as calculated by Germanwatch.⁶⁶

The CRI analyzes to what extent countries and regions have been affected by climate-related weather events, such as storms, floods, and heatwaves.⁶⁷ The CRI 2020 analyses took into account the most recent data available, which is data from 1999 to 2018.⁶⁸ As Germanwatch itself explains, it is important to note that the CRI is not a comprehensive climate vulnerability scoring, as, among other things, it does not take into account “slow onset processes” like rising sea-levels, glacier melting, or more acidic and warmer seas, and is based only on past data and not meant to be a projection for future climate vulnerability.⁶⁹ Notwithstanding those shortcomings, the CRI quantifies the impacts of extreme weather events in terms of both the number of fatalities and the related economic losses of those events.⁷⁰ It also provides a useful scoring index when having to make tough political and policy decisions such as the one presented in this Note.

According to Germanwatch’s CRI 2020, the ten most affected countries and territories from 1999 to 2018, in order of most affected based on annual averages, are: Puerto Rico, Myanmar, Haiti, Philippines, Pakistan, Vietnam, Bangladesh, Thailand, Nepal, and Dominica.⁷¹ Among those ten, seven are developing countries in the low income or lower-middle income country group (Myanmar, Haiti, Philippines, Pakistan, Vietnam, Bangladesh, and Nepal), two are

⁶⁵ *Id.* at 14.

⁶⁶ Eckstein, Künzel, Schäfer & Winges, *supra* note 2.

⁶⁷ *Id.* at 1.

⁶⁸ *Id.*

⁶⁹ *Id.* at 3.

⁷⁰ *Id.* at 5.

⁷¹ *Id.* at 9.

classified as upper-middle income (Thailand and Dominica), and one, Puerto Rico, is considered an advanced economy generating high income.⁷²

I propose that the candidates for a reparation claim ought to be women in the seven developing countries with the greatest vulnerability as represented by the CRI. As Germanwatch states:

Particularly in relative terms, poorer developing countries are hit much harder. These results emphasize the particular vulnerability of poor countries to climatic risks, despite the fact that the absolute monetary losses are much higher in richer countries. Loss of life, personal hardship, and existential threats are also much more widespread in low-income countries.⁷³

Accordingly, given the pragmatic consideration that not everyone can be paid recompense all at once, I propose that the populations most hurt by climate change-related harms, as formulated above, ought to be prioritized.

IV. LEGAL FRAMEWORKS

A. *The Uniqueness of Environmental Harms*

The very fact that climate change, and environmental injuries more generally, poses distinct characteristics uncommon to many legally actionable wrongs makes environmental injuries particularly difficult to address in the common legal fora. These characteristics, stated by Richard Lazarus,⁷⁴ are as follows.

First, environmental harms tend to be dynamic in that the harm increases over time, and therefore, “legal regimes that are inherently cautious and slow to react do not readily lend themselves to the quick action often necessary in the ecological context.”⁷⁵ Second, environmental injuries are often physically distant injuries, meaning that the “costs of control are imposed in one area and the benefits are enjoyed in a very different area,” creating a “distributional mismatch”

⁷² *Id.* at 4.

⁷³ *Id.* at 10.

⁷⁴ Richard Lazarus is the Howard and Katherine Aibel Professor of Law at Harvard University. His scholarship is primarily focused in the areas of environmental and natural resources law. *Faculty Directory—Richard J. Lazarus*, HARV. L. SCH., <https://hls.harvard.edu/faculty/directory/10509/Lazarus> (last visited Sept. 10, 2021).

⁷⁵ Richard J. Lazarus, *Restoring What’s Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. REV. 703, 745 (2000).

which “renders the adoption, implementation, and enforcement of the necessary transboundary legal rules very difficult.”⁷⁶ Third, environmental injuries are temporally distant injuries, creating a similar “distributional mismatch,” as above, where the “benefits to be enjoyed [from implementing environmental controls] generally inure only to future generations lacking any representation in current lawmaking fora.”⁷⁷ Fourth, there is great uncertainty involved in environmental injuries, stemming from “the sheer complexity of the natural environment,” which “undermines our ability to apprehend, after the fact, what precisely caused certain environmental impacts.”⁷⁸ Fifth, “ecological injuries are rarely the product of a single action at an isolated moment in time.”⁷⁹ And sixth, “[m]any ecological injuries resulting from environmental degradation are not readily susceptible to monetary valuation and have a distinctively nonhuman character,” thus that there is “simply no readily available market analogue.”⁸⁰

These characteristics of environmental injury are exactly what a) make them harms unlike those common to other legal injuries, and b) make them harms that, therefore, require a wholly new understanding of how a legal system can potentially address and compensate for those harms. This all calls for a new system of redress. That system of redress finds its place in the form of reparations—a scheme which may not be perfect to address all six enumerated characteristics above, but which does a better job than the existing frameworks in place.

B. Moral Justifications for Appointing the United States as Reparations Payer

Those who balk at the United States as a candidate for paying reparations may argue that there is no way to clearly tie the harm done by historically excessive GHG emissions by the United States to the harms that women today are facing. Daniel Farber, the Sho Sato Professor of Law at the University of California, Berkley, and Faculty Director at Berkley’s Center for Law, Energy, and the Environment,⁸¹

⁷⁶ *Id.* at 746.

⁷⁷ *Id.* at 746–47.

⁷⁸ *Id.* at 747.

⁷⁹ *Id.*

⁸⁰ *Id.* at 748.

⁸¹ *Faculty Profiles—Daniel Farber*, BERKELEY L., <https://www.law.berkeley.edu/our-faculty/faculty-profiles/daniel-farber> (last visited Sept. 10, 2021).

explains the issue as follows: “In a classic tort situation—say an automobile accident—the victim and injurer are clearly identified, and we can guarantee that compensation will flow only from the culpable party to the injured one.”⁸² The match is clear, so we are comfortable holding this party responsible for the harm caused. But with environmental injuries, that clear match often does not exist. Because the match does not exist, the question becomes whether we should require this same level of precision in the climate context.

This is a moral question for Farber, who argues that the United States has a moral duty to pay for the environmental harms it has caused.⁸³ For Farber, the answer to the precision-matching standard is simply no: “We live in a much more complex world where harms lack the simplicity of automobile collisions. If we demand a high level of precision to establish a moral claim, we also render morality irrelevant to the most serious harms created by modern society.”⁸⁴

Farber then considers the question of the “extent of responsibility for causing climate change,”⁸⁵ and why it is that American taxpayers today ought to contribute to reparations for victims they have never met, nor likely ever will meet. America, and therefore Americans, have contributed to climate change through excessive emissions and their failure to address the known negative consequences of these actions.⁸⁶ The short-term benefits enjoyed by many Americans by ignoring climate change include: cheap gasoline and low mileage standards; permission to drive sport utility vehicles (“SUVs”) and other vehicles which contribute greatly to GHG emissions; and electrical power from cheap coal rather than from more expensive renewables.⁸⁷ Also, American corporations, of which Americans own stock in, have all profited from ignoring climate issues.⁸⁸

Farber notes a perhaps greater responsibility: the United States government “has stood virtually alone among industrialized countries in opposing serious action on climate change,” and, yet, in a

⁸² Daniel A. Farber, *The Case for Climate Compensation: Justice for Climate Change Victims in a Complex World*, 2008 UTAH L. REV. 377, 397 (2008).

⁸³ *Id.* at 380.

⁸⁴ *Id.* at 397.

⁸⁵ *Id.*

⁸⁶ Farber also points out that by at least 1990, when the United States joined the International Convention on Climate Change, it could no longer be argued that the United States was not aware of the negative impacts of CO² emissions, because the Convention marked international acknowledgment of the problem. *Id.* at 388 n.69.

⁸⁷ *Id.* at 398.

⁸⁸ *Id.*

democracy, “voters must bear some of the responsibility for the actions of their governments.”⁸⁹ While it might be objected that plenty of voters have played their part in trying to elect officials with more environmentally-conscious platforms, or that plenty of Americans have led individually eco-conscious lives, it is possible, Farber notes, to account for this disparity. For example, if a reparations program were to be funded via taxation, the “tax system itself provides some degree of tailoring.”⁹⁰ “Because more affluent taxpayers pay larger income taxes, the burden falls most heavily on individuals who are most likely to have had high levels of energy consumption or to have benefited from owning stock in corporations that were themselves responsible for high energy use.”⁹¹

C. *The United States’ Treaty Obligations*

The necessity of a new regime to address climate harms becomes even more apparent once one considers the United States’ current commitments to address climate change, and how it has indisputably fallen short of those commitments. Additionally, notwithstanding those supposed commitments, there are general principles of international and human rights law that set the stage for climate reparations.

Turning first to the United States’ treaty obligations: the UNFCCC was agreed upon at the 1992 Rio Earth Summit.⁹² Per the agreement, developed countries committed to return emissions to their 1990 levels by 2000; the United States signed and ratified the Convention.⁹³ In 1995, a review of the previous commitments took place, and the parties to the UNFCCC agreed to consider additional actions, including the strengthening of the previous commitments and adoption of another protocol or legal instrument—this became known as the Berlin Mandate, and led to the negotiation of the Kyoto Protocol.⁹⁴ In 1997, the third session of the Conference of Parties to the UNFCCC (“COP3”) in Kyoto adopted the Kyoto Protocol, which

⁸⁹ *Id.*

⁹⁰ *Id.* at 399.

⁹¹ *Id.*

⁹² Demand Climate Justice, *A Brief History of the United States and the UN Climate Change Negotiations*, WORLD AT 1°C (June 2, 2017), <https://worldat1c.org/a-brief-history-of-the-united-states-and-the-un-climate-change-negotiations-bf7525d4ef13>.

⁹³ *Id.*

⁹⁴ *Id.*

committed developed countries to reduce emissions below 1990 levels by 5.2% between 2008 and 2012; the United States weakened the Protocol by “downgrading a ‘clean development’ compliance fund and advocating carbon market ‘flexibility mechanisms,’ which subsequently fail[ed].”⁹⁵ In 1997, despite President Clinton having signed the Kyoto Protocol, the United States Senate declined to ratify it.⁹⁶ In 2001, President George W. Bush withdrew the United States’ signature to the Kyoto Protocol.⁹⁷ In 2007, COP3 adopted the Bali Action Plan, and mandated negotiation of an agreed outcome to be adopted in 2009 at the Copenhagen Conference; the United States opposed the Bali Action Plan, but subsequently reconsidered when Papua New Guinea demanded that the United States either leads or “gets out of the way.”⁹⁸ In 2011, following the United States’ lead, Canada withdrew from the Kyoto Protocol, and in 2012, Japan, New Zealand, and Russia declined to submit commitments for the Protocol’s second period.⁹⁹

In 2015, the Paris Conference concluded the Paris Agreement, which, though widely viewed as a diplomatic success, actually “gutt[ed] the climate regime for wealthy industrialized countries, in favor of a weak international agreement that lacks binding mitigation targets, includes weak rules on adaptation, finance, technology, and capacity building, and require[d] the United States to undertake no climate legislation”—which is exactly what enabled President Obama to sign it via executive order.¹⁰⁰ In 2017, President Trump announced withdrawal from the Paris Agreement.¹⁰¹ While President Biden has since re-entered the United States in the Paris Agreement,¹⁰² the Paris Agreement does not legally bind the nation to its commitments—hence why it was so easy for Trump to exit the Agreement via executive order. That is, the “Nationally Determined Contributions,” which represent a given nation’s mitigation goals, are not legally

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Biden Signs ‘Existential’ Executive Orders on Climate and Environment*, BBC NEWS (Jan. 27, 2021), <https://www.bbc.com/news/world-us-canada-55829189>.

binding obligations.¹⁰³ At present, then, the United States' climate obligations are lacking, if not wholly absent. Therefore, if one is to propose action on the part of the United States, it might be more aptly done by relying on general principles of international law, rather than on the current existing international treaties that the United States is hardly obligated by.

As an introduction to said principles of international law, consider a 2008 Report for the World Wildlife Fund-United Kingdom ("WWF-UK"), in which authors Roda Verheyen and Peter Roderick identify three categories of climate damage for regulatory purposes: damage that can be *avoided*, damage that has been *unavoided*, and damage that is *avoidable*.¹⁰⁴

Verheyen and Roderick note that the UNFCCC and the Kyoto Protocol, regardless of the United States' lack of commitments under them, are nonetheless inadequate in and of themselves to supply sufficient adaptation funding to address theoretically avoidable damage.¹⁰⁵ The current frameworks, even estimating optimistically, only provide finance in the range of millions of dollars per year, while what is truly needed to adequately generate funding for adaptation is in the realm of over fifty billion dollars per year.¹⁰⁶ Compounding the "inadequacy of adaptation funding under the Convention and Protocol" is the fact that this regime has no "regulatory response to unavoidable and unavoidsable damage."¹⁰⁷ In short, the current frameworks are woefully inadequate to address the problem. Thus, Verheyen and Roderick developed a scheme based on international

¹⁰³ *Paris Climate Agreement Q&A*, CTR. FOR CLIMATE & ENERGY SOL., <https://www.c2es.org/content/paris-climate-agreement-qa> (last visited Feb. 20, 2021).

¹⁰⁴ RODA VERHEYEN & PETER RODERICK, WWF-UK, BEYOND ADAPTATION: THE LEGAL DUTY TO PAY COMPENSATION FOR CLIMATE CHANGE DAMAGE 11 (2008), http://assets.wwf.org.uk/downloads/beyond_adaptation_lowres.pdf. Under the "avoided" category is damage that has been prevented through mitigation and/or adaptation measures. The "unavoided" damage consists of "avoidable damage and loss not avoided," i.e. "[w]here the avoidance of further damage was possible through adequate mitigation and/or adaptation, but where adaptation measures were not implemented due to financial or technical constraints." *Id.* And in the "unavoidable" category rests "[d]amage that could not be avoided through mitigation and/or adaptation measures; e.g. coral bleaching, sea level rise, [and] damage due to extreme events where no adaptation efforts would have helped prevent the physical damage." *Id.*

¹⁰⁵ *Id.* at 12.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at 13.

law principles, which I will draw from and take further. I argue that these international law principles offer support for a climate reparations model, but that they alone are inadequate to address the issue; thus, reparations are presented as a solution.

D. International Law's No-Harm Rule

Verheyen and Roderick begin with the no-harm rule: “[a] widely-recognised rule of customary international law . . . which essentially holds that no State must harm another.”¹⁰⁸ The no-harm rule “is applicable to all activities that contribute to a particular risk and does not require a State to be capable of preventing the damage altogether. The rule is a pure duty of conduct, and no intent to cause harm is needed.”¹⁰⁹ The no-harm rule is formulated in the Third Restatement of United States Foreign Relations as such:

A State is obligated to take such measures as may be necessary, to the extent practicable under the circumstances, to ensure that activities within its jurisdiction or control: conform to generally accepted international rules and standards for the prevention, reduction, and control of injury to the environment of another State or of areas beyond the limits of national jurisdiction; and are conducted so as not to cause significant injury to the environment of another State or of areas beyond the limits of national jurisdiction.¹¹⁰

Verheyen and Roderick apply the no-harm rule in the context of climate responsibility by arguing that a

State’s failure to comply with the no-harm rule is an internationally wrongful act that gives rise to an obligation to pay compensation. A State’s breach of obligations not to cause damage, to prevent harm, or to minimize sufficiently the risk of harm occurring, would constitute an internationally wrongful act which entails the international responsibility of that State.¹¹¹

In sum, three key elements are required for complying with the no-harm rule: (1) an opportunity to act; (2) foreseeability of harm; and (3) proportionality of measures taken to prevent harm or minimize risk.¹¹²

¹⁰⁸ *Id.* at 15.

¹⁰⁹ *Id.* at 16.

¹¹⁰ *Id.*; RESTATEMENT (THIRD) OF FOREIGN REL. § 601 (AM. L. INST. 1987).

¹¹¹ VERHEYEN & RODERICK, *supra* note 101.

¹¹² *Id.* at 18.

Verheyen and Roderick apply these elements to developed countries generally, without calling to the fore the United States; however, the following elements are clearly applicable to the United States. Developed States have broken the no-harm rule's standard of care in that they:

- (i) Have had an opportunity to act to reduce the risk of transboundary pollution by reducing their emissions of GHGs.
- (ii) Have known of the effect of increasing atmospheric concentration of CO₂ on the Earth's heat balance and the consequent risk of damage
- (iii) Have failed to take proportionate measures to reduce their excess emissions.¹¹³

The authors then go on to provide the factual support necessary to make the above contention that developed states have broken the no-harm rule's duty of care; namely that the opportunity to act has long existed, the states should have foreseen the damage, and that proportionate measures in the face of climate risk were not taken.¹¹⁴ Furthermore, it is asserted that causation can be legally established at the state level.¹¹⁵ For instance,

[a] State suffering impacts as a result of temperature increases, now or in the future, would not have major difficulty in demonstrating, as a matter of law, that GHG emissions from developed countries have significantly contributed to those impacts. Similarly, a State arguing that it faces increasing risk from extreme weather events would be able to support such a claim in an appropriate tribunal, in seeking assistance from a respondent State or States for the protection of its assets.¹¹⁶

What is most relevant here is that, notwithstanding any international treaty obligations, the United States has a legal duty—based on the accepted principle of the no-harm rule—to act in such a way as to not knowingly or foreseeably harm another State. And the fact that the United States has broken this duty of care is assumed in this Note. The affirmative duty that follows from this, I argue, is

¹¹³ *Id.*

¹¹⁴ *Id.* at 18–21.

¹¹⁵ *Id.* at 22.

¹¹⁶ *Id.* at 23.

payment of climate reparations for the harm that was foreseen and knowingly imputed onto international states. This proposal is not unfounded—even Verheyen and Roderick, despite not going as far as suggesting reparations, argue that the breaking of the no-harm rule has legal consequences that ultimately require compensation.¹¹⁷ Turning back to the categories of damage,¹¹⁸ they assert that “[a]voidable and unavoidable climate change damage fall within the ambit of legal consequences of a breach of the no-harm rule. A State found in breach of the rule would, as a priority, have to act to prevent further damage.”¹¹⁹ They note that acting to prevent further loss and damage constitutes compensation in regard to both avoidable and unavoidable damage.¹²⁰ Reparations would provide a mode of compensation, but, moreover, they would also act to heal the moral harm inflicted upon vulnerable groups.

V. DEFINITION, GOAL AND FORM OF REPARATIONS IN THE CLIMATE CHANGE CONTEXT

A. *Reparations Precedents*

Having established: (1) the United States’ historical and moral responsibility for climate change related harms, (2) that women in the population groups from the seven identified countries are most vulnerable to those harms, and (3) the inadequacy of current legal frameworks to address those harms, I turn to what I believe to be the most appropriate form of recompense: reparations.

As a precursor to my discussion of climate reparations, this Note first considers precedent for reparations generally. One key area other than climate change in which reparations finds application is in the context of slavery and racial discrimination. Farber stated that the argument for slavery reparations is, at its heart, a “simple one”: “We recognize today that slavery was one of the great crimes of history, followed by a long and shameful legacy of legalized discrimination. These wrongs have never been fully acknowledged—not even in the form of an explicit apology—nor has recompense been made.”¹²¹

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 22.

¹¹⁹ *Id.* at 24.

¹²⁰ *Id.*

¹²¹ Daniel A. Farber, *Basic Compensation for Victims of Climate Change*, 155 U. PENN. L. REV. 1605, 1632 (2007).

Thus, to correct for this failure, one asserts a reparation claim. While Farber acknowledges that slavery reparations have not garnered heavy political support, he notes that reparations—for slavery, or even for climate change harms—are not without precedent. For instance, Farber summarizes:

Florida paid survivors of the 1923 Rosewood Massacre \$150,000 each and made substantial payments to the descendants of other victims. The United States paid roughly \$800 million to Native Americans for wrongfully seized land as early as 1946, and, in 1998, the United States paid \$1.65 billion to Japanese Americans wrongfully interned during World War II. The federal government also paid \$9 million to African Americans who were denied treatment for syphilis as part of the infamous Tuskegee experiments.¹²²

These precedents help to provide at least some support for the viability of a climate reparations claim, and they help to demonstrate that reparations—while often criticized by politicians¹²³—are possible.¹²⁴

B. Reparations Can Address Climate Change as a Moral Problem

It is important to reiterate that the current legal frameworks in place are inadequate to address the moral problem posed by climate change; grave injustice has knowingly been done to a sector of the population at the hands of an affluent nation and this harm must be accounted for. As Maxine Burkett summarizes:

Even if legal avenues provide more than piecemeal approaches and remedies, they certainly will not get to the moral challenges that a reparations effort can address, both

¹²² *Id.* at 1633 (footnotes omitted).

¹²³ United States Senator Mitch McConnell, for instance, criticized the possibility of slavery reparations, claiming that “none of us currently living are responsible” for slavery. Madeline Holcombe, *California Passes a First-of-its-kind Law to Consider Reparations for Slavery*, CNN (Oct. 1, 2020), <https://www.cnn.com/2020/10/01/us/california-bill-slavery-reparations-trnd/index.html>.

¹²⁴ While these precedents arguably do not provide significant support for reparations to be made on an international scale since the enumerated examples were all reparation payments paid by the United States to people within its own borders, they nonetheless are a start. Limiting ourselves to “perfect matches” to justify climate action seems an unnecessary burden and delay given the rate at which climate change is occurring.

in process and content. Threats of lawsuits, for example, will not lead to a remedy that is forward-looking and holistic. Further, even if an arbiter finds in favour of the climate vulnerable, and compensation is actually paid, the developed world need not meaningfully confront the suffering of the climate vulnerable, nor understand how its current systems have produced such an uneven state of affairs.¹²⁵

As Burkett explains, “[r]eparation, broadly defined, describes programs that are justified by past harms and are also designed to assess and correct the harm and improve the lives of the victims into the future.”¹²⁶ Reparations are both backward- and forward-looking, and often “seek to identify and compensate for an exact past harm,” while also incorporating “forward-looking relief,” which “recognises that past harm has current and continuing effect and, rather than an exact calculation of monetary payment based on those current harms, reparations seek compensation to improve lives into the future.”¹²⁷

It is essential to emphasize again that climate change is a moral challenge just as much as it is a scientific or technological challenge, though we often speak of it solely in scientific terms.¹²⁸ Climate scholar Dale Jamieson asserts that the very nature of environmental harms pushes back against our traditional concept of morality, as it

¹²⁵ Burkett, *supra* note 40, at 521 (footnote omitted).

¹²⁶ *Id.* at 522.

¹²⁷ *Id.* at 523; Burkett defines the specific term of climate reparations as: the effort to assess the harm caused by the past emissions of the major polluters and to improve the lives of the climate vulnerable through direct programs, policies and/or mechanisms for significant resource transfers, to assure the ability of the climate vulnerable to contemplate a better livelihood in light of future climate challenges.

Id.

¹²⁸ Dale Jamieson, *The Moral and Political Challenges of Climate Change*, in *CREATING CLIMATE FOR CHANGE: COMMUNICATING CLIMATE CHANGE AND FACILITATING SOCIAL CHANGE* 475, 481 (Susanne C. Moser & Lisa Dilling eds., 2007) (explaining that “[t]he language of morality is the language of care, empathy, responsibility, and duty. This language has been largely absent from discussions of climate change. Instead the language of science, economics, and technological development has been dominant”). It is perhaps also appropriate to note the role of politics in our understanding of climate change risk: according to the IPCC, the way in which climate science knowledge is interpreted in the United States is most heavily influenced by “political affiliation and the influence of corporations,” whereas in non-United States studies, “changed weather” and “socio-altruistic values” were “the most important drivers of public attitude.” Kim Cobb et al., *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* 1-29 (V. Masson-Delmotte et al. eds., Aug. 2021) (IPCC, in press).

does not reflect the “paradigm moral problem,” which is one in which “both the individuals and the harm are identifiable; and the individuals and the harm are closely related in time and space.”¹²⁹ Yet given that “[c]limate change is not a matter of a clearly identifiable individual acting intentionally so as to inflict an identifiable harm on another identifiable individual, closely related in time and space,” it is hard to see climate change as a moral problem.¹³⁰

The failure to conceive of climate change as a moral problem has consequences; this conceptualization “does not motivate us to act with the urgency characteristic of our responses to moral challenges.”¹³¹ Climate reparations will serve the purpose of focusing us on the moral aspects of environmental harm and enable us to view climate change as a moral problem. Moreover, tackling problems like climate change requires a “sense of ownership and identification with the outcomes that our actions produce. It is this sense of ownership and identification that allows us to overcome the alienation from the collective consequences of our actions.”¹³² Again, a reparations program would accomplish these goals.

C. *Form of Reparations in International Law*

International law recognizes three forms of reparations.¹³³ The first is restitution, which re-establishes the situation that existed before the wrongful act was committed.¹³⁴ However, this form is not appropriate for climate harms since the impacts of climate change constitute unavoided and unavoidable harms,¹³⁵ and at least when it comes to unavoidable harms, there is no going back to fix what has already been done. The second kind of reparation is compensation (monetary or otherwise).¹³⁶ Lastly, the third kind is satisfaction, which “describes remedies other than restitution or compensation, and encompasses the aspects of repair—such as apology, truth-telling and non-repetition.”¹³⁷ Maxine Burkett astutely points out that this third

¹²⁹ *Id.* at 475.

¹³⁰ *Id.* at 476–77.

¹³¹ *Id.*

¹³² *Id.* at 479.

¹³³ Burkett, *supra* note 40 at 531.

¹³⁴ *Id.*

¹³⁵ See VERHEYEN & RODERICK, *supra* note 101, at 24.

¹³⁶ Burkett, *supra* note 40, at 531.

¹³⁷ *Id.*

form—satisfaction—is of significant value in the climate change context.¹³⁸ However, one need not pick just one form of reparation; depending on the context, the appropriate form of reparation can take on characteristics of all three kinds. But, Burkett notes, “to the extent one form [of reparation] is dispensed with or unavailable—as restitution is [in the climate context]—the other methods become correspondingly more important.”¹³⁹

D. A Successful Reparations Scheme

Three elements are necessary for a successful reparations scheme: 1) an apology, 2) a monetary or other award that gives actual or symbolic weight to that apology, and 3) a commitment by the perpetrator not to repeat the offending act.¹⁴⁰

The first element is an apology in which the developed world “*fully accepts* the responsibility of its excess emissions.”¹⁴¹ It is an opportunity for the developed world to acknowledge its part in violating the no-harm principle. And it is a time to build faith and community between the victim and the perpetrator; it is an act borne from morality, equity, and decency.

Next in the scheme is an award that gives symbolic or actual weight to the apology. This is the compensation that must be paid out. This compensation could come in the form of funding adaptation measures in vulnerable communities; or it could come in the form of lump sum money transfers. This element acknowledges that harm has a price.¹⁴² Compensation measures might include “aid in improving the scientific capabilities and research capacity for the climate vulnerable, [or] developing and diversifying economies and building durable infrastructure”¹⁴³ But what cannot be repeated enough is the crucial emphasis on the fact that whichever adaptive strategies or compensation is funded or paid, the reparations must come in the form of whatever the nation or claimant pursuing the claim wishes it to.¹⁴⁴

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ Burkett, *supra* note 40, at 526.

¹⁴¹ *Id.*

¹⁴² *Id.* at 532.

¹⁴³ *Id.* at 532–33.

¹⁴⁴ *Id.* at 533.

It is the nation or claimant pursuing the claim—not the nation paying it up (here, the United States)—that ultimately calls the shots.¹⁴⁵

The fact that it is the claimant, not the payer, who ought to decide the form of reparations is a tenet of community-based adaptation. As Burkett notes,

[t]he developing nations pursuing the reparations claim would ultimately decide the collection and combination of adaptive strategies pursued [I]t will be critical that the climate vulnerable have a primary role in designing their future ability to adapt. The tenets of community-based adaptation—that is, initiatives aimed at helping villages most at risk to launch projects with the money going to them rather than trickling down through global and national funds—will be paramount.¹⁴⁶

A law or agreement adopted to develop reparations proposals does not have to prescribe a specific form of reparations or specify how the payer should determine who would qualify for compensation.¹⁴⁷ The law or agreement can leave room for negotiation and place those who are to receive reparations in the center of those negotiations. The importance of giving vulnerable individuals agency in the decision is one of the reasons reparations are attractive. If developed in this suggested way, reparations avoid yet another common harm to the climate vulnerable: their lack of meaningful

¹⁴⁵ Two arguments provide ground for this claim. The first argument is that, generally, people know what's best for themselves, and that the United States, e.g., has no place being a paternalistic director of what these communities need. Second, much of this paper argues that women are powerful agents of change in their communities and need to have a voice in negotiations. The concept that the United States could dictate to these women how to spend the money directly undercuts the agency of women decision-makers. That being said, it would likely be appropriate to appoint some type of monitor (preferably a woman from the affected community) to ensure that funds were being used in good faith and being allocated to their best uses.

¹⁴⁶ Burkett, *supra* note 40, at 533.

¹⁴⁷ Taryn Luna, *California Task Force Will Consider Paying Reparations for Slavery*, L.A. TIMES (Sept. 30, 2020), <https://www.latimes.com/california/story/2020-09-30/california-task-force-reparations-slavery-gavin-newsom-shirley-weber> (noting that Assembly Bill 3121, dealing with slavery reparations, which California lawmakers approved, “does not prescribe a form of reparations or dictate how the state should determine who would qualify for compensation,” but rather, leaves those decisions up to a task force that was created by the law).

participation in international negotiations. That is to say, normally, it is the world's highest emitters who set the agenda.¹⁴⁸

The final element of a successful reparations scheme is the promise of non-repetition. This promise is null if developed nations do not aggressively pursue mitigation; adaptation is not enough. Without mitigation, repetition of the harms previously-caused will undoubtedly occur. Mitigation in this context means decreasing carbon emissions; and lest we lose the forest for the trees, Burkett notes that “[t]he means for achieving this [decrease in emissions is] somewhat irrelevant, as long as that goal is pursued, again, aggressively and in good faith.”¹⁴⁹ However, it is abundantly clear that certain things must be ceased if the promise of non-repetition is to have any substance to it. Burkett illustrates that, for example, the United States “still manufactures cars, refines oil and produces pharmaceuticals (among other things) that are carbon-intensive. It cannot continue to do so in a carbon-intensive manner if it is truly committed to a reparations effort.”¹⁵⁰

This Note advocates for a “corrective justice” reparations scheme (as opposed to a pathway based on tort litigation for loss and damage).¹⁵¹ Under this scheme, the government of the seven countries,¹⁵² each acting on behalf of and in close communication with their affected female population groups, would engage the United States in international negotiations.¹⁵³ These negotiations would operate under the acceptance that the United States has a moral responsibility to make financial recompense to these harmed communities.¹⁵⁴ To execute reparations, one mechanism could be an

¹⁴⁸ Burkett, *supra* note 40, at 527.

¹⁴⁹ *Id.*

¹⁵⁰ *Id.* at 534.

¹⁵¹ A tort litigation model would require the affected communities to sue the United States or sue major fossil fuel companies for damages. Mimi Sheller, *The Case for Climate Reparations*, MOTHER JONES (Nov. 28, 2020), <https://www.motherjones.com/environment/2020/11/the-case-for-climate-reparations/>. Litigation could come in the form of class action lawsuits filed in various jurisdictions, and women whose communities and lives have been harmed by GHG emissions could seek reparations. *Id.* The UNFCCC's Warsaw International Mechanism for Loss and Damage provides opportunities for loss and damage finance. *Id.*

¹⁵² See *supra* Part III(b) and accompanying text (identifying Myanmar, Haiti, the Philippines, Pakistan, Vietnam, Bangladesh, and Nepal as the seven countries most affected by climate-related extreme weather events).

¹⁵³ *Id.*

¹⁵⁴ *Id.*

international compensation commission to receive claims from these seven countries that have suffered harm and incurred adaptation expenses. The United Nations Claims Commission (“UNCC”) is such a model.¹⁵⁵ Another mechanism could be the Green Climate Fund (“GCF”), an element of the Paris Agreement, which has the extra appeal of being already operational.¹⁵⁶

E. Proposal

This Note has argued for reparations to be paid to women in the aforementioned seven identified countries: Myanmar, Haiti, the Philippines, Pakistan, Vietnam, Bangladesh, and Nepal. I will apply Burkett’s framework, laid out above, to illustrate how that reparations scheme might unfold.

Apology. First required is an acknowledgment on behalf of the United States that it, as a country, is causing serious harm, both historically and presently, to women in developing nations. Negotiation representatives for the United States ought to educate themselves on the details of each community belonging to the seven identified nations that are bringing a claim and know the specific harms that each community has suffered. The United States should

¹⁵⁵ *Id.* The UNCC was created after the first Iraq War to handle claims against Iraq for war-related damages. *Id.*

¹⁵⁶ The Green Climate Fund is an element of the Paris Agreement. Its objective is “to promote a paradigm shift in developing countries towards low-emission, climate-resilient development pathways. GCF supports the implementation and ambition cycle of Nationally Determined Contributions by mobilizing the necessary resources and building an investment environment that can help developing countries identify, design, and implement transformational climate interventions.” *Achieving the Paris Agreement: How GCF Raises Climate Ambition and Empowers Action*, GREEN CLIMATE FUND (Oct. 1, 2019), <https://www.greenclimate.fund/document/achieving-paris-agreement-how-gcf-raises-climate-ambition-and-empowers-action>.

Essentially, the fund helps developing nations implement necessary adaptation measures. Notably, the United States, under President Obama, delivered \$1 billion (out of a total \$3 billion pledge) to the fund when it became a signatory to the Paris Agreement. Trump rescinded on delivering the remaining \$2 billion of the \$3 billion total pledge. Nurith Aizenman, *A Little-Known Climate Fund is Suddenly in the Spotlight*, NPR (June 9, 2017), <https://www.npr.org/sections/goatsandsoda/2017/06/09/532106567/a-little-known-climate-fund-is-suddenly-in-the-spotlight>. The global stage is waiting, and expecting, President Biden (who has reentered the United States into the Paris Agreement) to make good on the remaining \$2 billion. Valerie Volcovici, *Biden Announces Return to Global Climate Accord, New Curbs on U.S. Oil Industry*, REUTERS (Jan. 20, 2021), <https://www.reuters.com/article/usa-biden-climate-idINKBN29P12S>.

directly apologize for its role in causing or exacerbating each of those harms.

Compensation. To be emphasized again is the importance of centralizing the claimant's voice in crafting appropriate compensation measures. Therefore, I shall merely hypothesize as to potential compensation measures; these measures should be revised, or completely rethought, per the claimant's preference.

One possible form of compensation is to support educational programs already established in certain communities—ones both lead and operated by women and designed for the advancement of women. Another possibility would be to fund disaster risk reduction, insurance, and adaptation measures so that these women are able to remain and thrive in their communities.¹⁵⁷

Promise of Non-repetition/mitigation Efforts. Finally, there must be action taken at the domestic level to mitigate the harmful effects of the changing climate. This means that not only compensation, but also a radical change in behavior among the United States polity, is required to provide adequate reparations to women in developing countries. President Biden must undo the Trump Administration's rollback of over one hundred environmental rules¹⁵⁸ and put the United States on a path toward the goal of net-zero emissions by 2050, both of which he plans to do.¹⁵⁹

VI. CONCLUSION

Climate change is, in large part, a product of overly greedy, willfully blind, selfish action. Much of that action took place in the United States. Today, many of the consequences of those actions are not being felt at home; they manifest, with all attendant suffering, abroad.¹⁶⁰ This suffering is disproportionately felt by women in

¹⁵⁷ Sheller, *supra* note 147.

¹⁵⁸ Nadja Popovich, Livia Albeck-Ripka & Kendra Pierre-Louis, *The Trump Administration Rolled Back More Than 100 Environmental Rules. Here's the Full List.*, N.Y. TIMES (last updated Jan. 20, 2021), <https://www.nytimes.com/interactive/2020/climate/trump-environment-rollbacks-list.html>.

¹⁵⁹ Volcovici, *supra* note 153.

¹⁶⁰ I do not mean to imply that climate change is not being felt in the United States. To the contrary, climate harms pervade domestically. One might think of the catastrophic toll caused by the recent Dixie Fire in Northern California, where thousands of people are under evacuation orders, and where 500,000 acres have already been consumed—a number bound to increase given the fire is, as of August 9, 2021, only twenty-one percent contained. Bill Chapel, *The Dixie Fire is the*

developing countries. At the same time, women are powerful agents of change and community adaptation and should be recognized as such. The United States has a moral obligation above all else to recompense these women for the harms they have suffered, and the harms they are sure to still undergo, as a result of its carbon-emitting activity. The United States, as a signatory to the UNFCCC, also has a responsibility under international law's no-harm rule—a rule it has undoubtedly violated. While reparations are often scorned politically and looked upon as too complicated or costly, now is not the time to balk at a solution to a problem that this country created. It is true that reparations are a hard choice politically. They pose administrability issues and a host of public concerns. But, as Burkett points out, we have gotten ourselves to a point where we only have tough decisions to make.¹⁶¹ We have left ourselves no easy option. Why make the tough choice? Well, we might as well make the right one.

Second Largest in California History and is Only 21% Contained, NPR (Aug. 9, 2021, 12:48 PM ET), <https://www.npr.org/2021/08/09/1026078606/dixie-fire-california-only-21-percent-contained>. It is not my intention to ignore or belittle the very real and serious climate harms being suffered domestically in the United States. Reparations claims on behalf of the seven identified countries in this Note do not have to take away from domestic funding and action on climate change. Mitigation efforts at home will have an impact on climate-related events abroad—but they will most certainly also have an impact on climate-related events domestically as well. For general information on billion-dollar weather and climate disasters that have taken place in the United States, see NAT'L CTR. FOR ENV'T INFO., *Billion-Dollar Weather and Climate Disasters*, <https://www.ncdc.noaa.gov/billions/> (last visited Nov. 24, 2021).

¹⁶¹ America Adapts Climate Change Podcast, *The Moral Case for Climate Reparations + Climate Justice with Maxine Burkett*, AMERICA ADAPTS, at 44:00 (Aug. 9, 2020), <https://www.americaadapts.org/episodes/the-moral-case-for-climate-reparations-climate-justice-with-dr-maxine-burkett>.