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Bound by Paris: States' Human Rights Obligations as an Impetus for Environmental Protection and Action Against Climate Change

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Bound by Paris: States’ Human Rights Obligations as an Impetus for Environmental Protection and Action Against Climate Change

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INTRODUCTION

Tangier Island, a tiny island in the Chesapeake Bay, is slowly disappearing underwater.¹ Roughly 460 people call the island home, and it is considered one of the most isolated communities in northeast United States.² Despite the fact that rising sea levels will make the island uninhabitable in fifty years, the islanders believe climate change is a hoax, arguing that the rising water is due to erosion and natural shrinkage.³ However, erosion and natural shrinkage fail to explain the rate at which Tangier is disappearing and does not explain the “ponding, the drowning

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1. Simon Worrall, *Tiny U.S. Island is Drowning. Residents Deny the Reason*, NAT’L GEOGRAPHIC (Sept. 7, 2018), <https://www.nationalgeographic.com/environment/2018/09/climate-change-rising-seas-tangier-island-chesapeake-book-talk/> [https://perma.cc/435K-J77J].

2. *Id.*

3. *Id.*

of marsh, [and] the widening of internal waterways,” all of which are “standard” by-products of climate change-induced sea level rise.⁴

Tangier Island is not the only community at risk due to the adverse effects of climate change. The residents of Isle de Jean Charles, a narrow strip of land located in Terrebonne Parish, Louisiana, are considered the first American “climate refugees.”⁵ In 2016, a \$48 million grant was allocated to Isle de Jean Charles to help the community relocate from their ancestral land, which forced them to leave behind their Biloxi-Chitimacha-Choctaw culture and heritage due to rising sea levels, stronger storms, and increased flooding.⁶ In fact, under the Obama Administration, the Department of Housing and Urban Development announced grants totaling \$1 billion in thirteen states to help communities adapt to the effects of climate change.⁷

In October 2017, the Environmental Protection Agency (EPA) released a report detailing the United States’ expected resilience to weather events and natural hazards, considering factors such as poverty, health, and governance when making the assessment.⁸ The EPA’s report mapped out how communities across the United States would cope with the effects of climate change, such as droughts, hurricanes, flooding, and wildfires.⁹ The effects will not be uniform across the country. For example, while certain communities in Alaska, such as Kodiak Island, are expected to fare well, those living in areas like the Appalachia, the Southeast, and Western Texas are expected to suffer worse effects of climate change than the rest of the country.¹⁰

Along with the impact of severe weather, the EPA report also measured how factors such as inequality, ethnicity, and infrastructure will

4. *Id.*

5. Coral Davenport & Campbell Robertson, *Carbon’s Casualties: Resettling the First American ‘Climate Refugees,’* N.Y. TIMES (May 2, 2016), <https://www.nytimes.com/2016/05/03/us/resettling-the-first-american-climate-refugees.html> [<https://perma.cc/P6AW-BXX2>].

6. *Id.*

7. *Id.*

8. J. Kevin Summers et al., *Development of a Climate Resilience Screening Index (CRSI): An Assessment of Resilience to Acute Meteorological Events and Selected Natural Hazards*, ENVTL. PROTECTION AGENCY, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100SSN6.txt> [<https://perma.cc/4TV7-VT3K>] (last visited July 7, 2019).

9. Sophie Yeo, *As Climate Change Intensifies, Here Are the Most—And Least—Resilient Counties in America*, PAC. STANDARD (Apr. 3, 2018), <https://psmag.com/environment/the-most-climate-resilient-counties-in-america> [<https://perma.cc/4E2H-XV25>].

10. *Id.*

affect a community's ability to recover from such events. The EPA found that a single county in Kentucky and the Southeastern states—Alabama, Florida, Georgia, and Mississippi—are most at risk to suffer the worst effects of climate change.¹¹ Louisiana is also particularly at risk.¹² According to a climate change study published in *Science*, not only will climate change worsen coastal damage, it will also lead to parishes losing between 5–20% of their annual income.¹³ It will also lead to a loss of half of all agricultural yield and will worsen pre-existing inequality in Louisiana at rates higher than that of the rest of the United States.¹⁴ Additionally, various United States government departments released the Fourth National Climate Assessment in 2018, stating that communities in the United States are already feeling the effects of climate change, and that the further damage to infrastructure, ecosystems, and social systems expected to occur will exacerbate the existing challenges vulnerable communities face, particularly for lower-income and marginalized peoples.¹⁵

The World Health Organization (WHO) estimates that nearly 150,000 people die annually from health-related effects of climate change around the world.¹⁶ The WHO also estimates that because of the increasing temperature across the planet, there will be nearly 38,000 additional deaths per year by 2030 and 100,000 additional deaths per year by 2050.¹⁷ There will be approximately 95,000 additional deaths of children under the age of five by 2030 caused by malnutrition related to climate change.¹⁸ In

11. *Id.* In general, greater losses are sustained in regions that are poorer on average, and climate change will exacerbate that pre-existing situation.

12. Mark Schleifstein, 'Gulf Coast Will Take a Massive Hit,' *Scientist in Climate Change Study Says*, TIMES-PICAYUNE (June 29, 2017), https://www.nola.com/environment/index.ssf/2017/06/climate_change_hit_on_gulf_coast.html [<https://perma.cc/JAJ3-3L2C>]; Solomon Hsiang et al., *Estimating Economic Damage from Climate Change in the United States*, 356 SCIENCE 6345 (June 30, 2017).

13. *Id.*

14. *Id.*

15. *Fourth National Climate Assessment: Volume II: Impacts, Risks, and Adaptation in the United States*, NAT'L CLIMATE ASSESSMENT, <https://nca.2018.globalchange.gov> [<https://perma.cc/2N6E-LRU8>] (last visited July 7, 2019).

16. Jonathan A. Patz et al., *Impact of Regional Climate Change on Human Health*, 438 NATURE 310, 312 (2005).

17. CTR. FOR INT'L ENVTL. LAW, STATES' HUMAN RIGHTS OBLIGATIONS IN THE CONTEXT OF CLIMATE CHANGE, <https://www.ciel.org/wp-content/uploads/2018/01/HRTBs-synthesis-report.pdf> [<https://perma.cc/D96J-FJPW>] (last visited July 7, 2019).

18. *Id.*

addition to malnutrition, health-related issues, and mortality, climate change is also expected to increase the inequalities between wealthy and developing nations.¹⁹ Rich countries, which contribute the most emissions, are also the least affected by rising temperatures, causing poorer nations to “bear the brunt of changing local climates and the consequences that come with them.”²⁰

Compounding the problem climate change presents is that it is a far more urgent issue than the international community previously thought. The Intergovernmental Panel on Climate Change (IPCC) Special Report warns that a catastrophic 1.5 degree Celsius²¹ temperature increase is inevitable by 2030 unless immediate action is taken.²² In its report, the IPCC laid out the forthcoming impact of that increase. For one, the projected 2-degree Celsius (or, just a one degree increase from where the planet is at today) rise in temperature will cause widespread disasters, from flooded coastlines and intense droughts to the loss of entire industries.²³ The impact will include stronger storms, erratic weather, and the disruption of migration patterns.²⁴ The IPCC report warns that even if immediate and drastic cuts were to be made, it would only delay, not prevent, global warming.²⁵

In light of such a bleak reality, the people of Tangier Island’s denial of climate change is not so hard to believe, nor is the Obama Administration’s heavy investment in adaptation efforts. After all, hurricanes like Michael, Maria, and Katrina, which have had devastating consequences, indicate the pervasiveness and urgency of the threat of

19. *Study: Global Warming Hits Poorest Nations Hardest*, EARTH & SPACE SCI. NEWS (May 30, 2018), <https://eos.org/scientific-press/study-global-warming-hits-poorest-nations-hardest> [<https://perma.cc/TG9J-ALDQ>].

20. *Id.*

21. This is an increase of 2.7 degrees Fahrenheit.

22. Katherine J. Wu, *The World Was Just Issued 12-Year Ultimatum on Climate Change: Leading Climate Scientists Paint Dire Portrait of Years to Come if we Maintain Carbon-Emission Status Quo*, SMITHSONIAN (Oct. 8, 2018), <https://www.smithsonianmag.com/smart-news/world-was-just-issued-12-year-ultimatum-climate-change-180970489/> [<https://perma.cc/5GA9-8299>].

23. *Id.*

24. Stephen Leahy, *Climate Change Impacts Worse than Expected, Global Report Warns: The Intergovernmental Panel on Climate Change Says the World is Heading Towards Painful Problems Sooner than Expected, as Emissions Keep Rising*, NAT’L GEOGRAPHIC (Oct. 7, 2018), <https://www.nationalgeographic.com/environment/2018/10/ipcc-report-climate-change-impacts-forests-emissions/> [<https://perma.cc/A8RF-A7ZB>].

25. MYLES ALLEN ET AL., GLOBAL WARMING OF 1.5°C: SUMMARY FOR POLICYMAKERS, SPM-4, IPCC SR1.5 (Oct. 6, 2018).

climate change.²⁶ The hurricanes show not only that man-made climate change increases the occurrence of supercharged and destructive storms, but that mankind remains utterly unprepared to deal with the climate threats we face currently, let alone the ones projected to occur by 2040.²⁷

In response to the looming threat, the international community has taken a variety of steps to combat climate change, including the Paris Agreement in 2015.²⁸ The Paris Agreement built on the work of the United Nations Framework Convention on Climate Change (UNFCCC) to combat and adapt to the effects of climate change.²⁹ To date, 184 Parties out of the total 197 Parties to the Convention have ratified the Paris Agreement.³⁰ Thus, due to collective action, the Paris Agreement is reflective of the development of customary international law surrounding the human rights implications of the changing environment. Though the Paris Agreement itself is not binding, the customs formed from the provisions within the Agreement obligate the international community and individual States to commit to action against climate change through compliance with those provisions to delay the catastrophic consequences of a 2-degree temperature increase.

Part I of this Comment will address the current state of climate study and the historical and current response of the international community. Part II will explore the human rights question and why it matters that climate change is considered within the context of the human rights regime. Part III will discuss the formation of customary international law and why many provisions in the Paris Agreement either are already custom, or are well on their way to be, but only when viewed from a human rights perspective. Part IV will address what the custom entails for States and the international community, including those States not signatories of the Paris Agreement.

26. Kim Cobb, *Hurricanes like Michael Show why we Can't Ignore Climate Change*, WASH. POST (Oct. 14, 2018), https://www.washingtonpost.com/outlook/2018/10/14/hurricanes-like-michael-show-why-we-cant-ignore-climate-change/?utm_term=.a0d1c91553ac [<https://perma.cc/B9KL-8QGA>].

27. *Id.*

28. Paris Agreement to the United Nations Framework Convention on Climate Change, Apr. 22, 2016, T.I.A.S. No. 16-1104.

29. *What is the Paris Agreement*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (Oct. 22, 2018), <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement> [<https://perma.cc/DU7W-288Y>].

30. *Paris Agreement – Status of Ratification*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, <https://unfccc.int/process/the-paris-agreement/status-of-ratification> [<https://perma.cc/M43T-QN68>] (last visited July 7, 2019).

I. CLIMATE CHANGE AND THE MODERN ARMAGEDDON

Climate change occurs as a result of the accumulation of greenhouse gases in the atmosphere primarily caused by the combustion of fossil fuels.³¹ The consequences of climate change are severe. It can lead to extreme temperatures and rainfall that cause heat waves, floods, or droughts that have immediate and direct effects on mortality.³² It affects biodiversity and the ecosystem, which can damage the goods and services that humans rely on for their health.³³ It can also alter the distribution of diseases such as malaria or dengue, which increases the incidences of illness.³⁴ The most well-known effect of climate change is the rising sea level and the threat to coastal populations.³⁵

Neither the existence of climate change nor its threat to humanity are recent discoveries.³⁶ For example, in 1958 Charles Keeling discovered the first unequivocal proof that CO₂ concentrations in the atmosphere were rising.³⁷ In 1975, a U.S. scientist first used the term “global warming” in a scientific paper. Then in 1988, the Intergovernmental Panel on Climate Change was formed and released its first report in 1990, concluding temperatures had risen by 0.3–0.6 degrees Celsius.³⁸ The United Nations Framework Convention on Climate Change (UNFCCC) entered force in March of 1994, with nations party to the Convention pledging to reduce emissions to 1990 levels.³⁹ The IPCC released another report in 1995 suggesting humans were responsible for climate change, shifting to a 95% certainty of human fault by 2013.⁴⁰

In response to the looming threat of climate change, the 1997 Kyoto Protocol was ratified in 2005, but environmentalists, economists, and

31. Andy Haines et al., *Climate Change and Human Health: Impacts, Vulnerability and Public Health*, 120 J. ROYAL INST. PUB. HEALTH 585 (2006).

32. *Id.* at 586.

33. *Id.*

34. *Id.*

35. *Id.*

36. Richard Black, *A Brief History of Climate Change*, BBC (Sept. 20, 2013), <https://www.bbc.com/news/science-environment-15874560> [<https://perma.cc/XJG5-UZ4U>].

37. *Id.*

38. *Id.*

39. *What is United Nations Framework Convention on Climate Change?*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (July 19, 2019), <https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change> [<https://perma.cc/U6R8-CVK7>].

40. Black, *supra* note 36.

scientists have largely considered it ineffective.⁴¹ For example, major polluters like China and India are not required to reduce emissions under the Kyoto Protocol, and the attempt to curb the emissions of the developed world also failed as the United States refused to ratify the treaty.⁴² Though nations engaged under the Kyoto Protocol quickly, there was little individual concern over compliance once the treaty was ratified.⁴³ As a result, carbon dioxide, methane, and nitrous oxide emissions have risen steadily since 1997.⁴⁴

The Paris Agreement was formed out of the recognition of Kyoto's shortcomings.⁴⁵ In 2015, the UNFCCC negotiated an international system of "climate accountability" allowing countries to determine their own commitments to cutting emissions and relying on international pressure to incentivize nations into a "ratchet" of their commitments over time.⁴⁶ This system of "naming and shaming" nations was considered more palatable and workable than lofty aspirations that would eventually lead to noncompliance.⁴⁷

Yet, despite the threat of mortality, disease, and economic strife caused by climate change, the discussion of human rights in climate change law is limited.⁴⁸ This is not due to a lack of climate legislation. In fact, the number of climate change laws and policies in place around the world has doubled every five years since 1997, even in countries resistant to climate change concerns.⁴⁹ The relevance and importance of human rights in the context of climate change is no longer in question. There is a direct and overwhelming link between human and State actions that have led to climate change, and thus human rights law is a necessary consideration to analyze State culpability.⁵⁰

41. Steve Maich, *Kyoto Protocol's Shortcomings*, CAN. ENCYCLOPEDIA (Aug. 1, 2006), <https://www.thecanadianencyclopedia.ca/en/article/kyoto-protocols-shortcomings/> [https://perma.cc/ZK5L-9YKZ].

42. *Id.*

43. Jana von Stein, *The International Law and Politics of Climate Change: Ratification of the United Nations Framework Convention and the Kyoto Protocol*, 52 J. CONFLICT RESOL. 243, 262 (2008).

44. Robert Falkner, *The Paris Agreement and the New Logic of International Climate Politics*, 92 INT'L AFF. 1107, 1107 (2016).

45. *Id.*

46. *Id.*

47. *Id.*

48. Margaux J. Hall & David C. Weiss, *Avoiding Adaptation Apartheid: Climate Change Adaptation and Human Rights Law*, 37 YALE J. INT'L L. 309, 310 (2012).

49. Falkner, *supra* note 44, at 1112.

50. *Id.*

A sign of the increasing attention between climate change and human rights is that the Paris Agreement is the first climate or environmental agreement to reference human rights directly.⁵¹ The preamble acknowledges that climate change is a “common concern of mankind” and that parties should consider “human rights, the right to health, the rights of indigenous peoples . . . and the right to development” when acting on climate change.⁵² Though it is a step in the right direction, the acknowledgement of human rights in the Paris Agreement may not be enough to protect vulnerable communities.⁵³ Adding to the fears of vulnerable communities is the lack of enforcement and the United States and other nations’ threats to withdraw from the Paris Agreement.⁵⁴

In 2008, the Human Rights Council adopted its first resolution on human rights and climate change, requesting that the Office of the United Nations High Commissioner for Human Rights (OHCHR) conduct a study of the relationship.⁵⁵ The OHCHR report concluded that climate change threatens a wide range of human rights, including “the rights to life, health, food, water, adequate housing and self-determination.”⁵⁶ Though the report did not conclude that climate change necessarily violated human rights, it stressed that States had the obligation to take protective and preventative measures against climate change’s harmful effects.⁵⁷

II. INTERNATIONAL HUMAN RIGHTS LAW AND CLIMATE CHANGE

Generally, the intersection of human rights and climate change can be viewed in two ways. First, that climate change directly violates existing human rights such as the right to life and the right to food.⁵⁸ Second, that

51. John Knox (Special Rapporteur on Human Rights and the Environment), *Report on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, U.N. Doc. A/HRC/31/52 (Feb. 1, 2016) [hereinafter *Report*]. A Special Rapporteur is an expert appointed by the Human Rights Council to examine and report back on a human rights theme.

52. Paris Agreement preamble, Apr. 22, 2016, T.I.A.S. No. 16-1104.

53. *Report*, *supra* note 51.

54. Anders Corr, *Expect Climate Catastrophe: Paris Agreement Lacks Enforcement*, FORBES (Dec. 1, 2016), <https://www.forbes.com/sites/anderscorr/2016/12/01/expect-climate-catastrophe-paris-agreement-lacks-enforcement/#59d12e0a3313> [<https://perma.cc/6ZE4-NY23>].

55. *Report*, *supra* note 51.

56. *Id.*

57. *Id.*

58. Rebecca M. Bratspies, *Reasoning Up: Environmental Rights as Customary International Law*, in *THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT* 123 (John H. Knox & Ramin Pejan eds., 2018).

there is an independent right to a healthy environment.⁵⁹ The former method has its limitations as a wide range of human rights—including the right to life, health, adequate food, housing, and culture—cannot be protected and secured without an environment in which people can live.⁶⁰ In this way, “environmental protection is a precondition to the realization of human rights” and as such must be secured first.⁶¹

A. *The Human Rights Question*

Despite this fundamental intertwining of human rights and the protection of the environment, and the fact that most countries have recognized some type of right to a healthy environment or that a healthy environment is necessary to guarantee other human rights, the United Nations has not endorsed the concept.⁶² In many ways, this is not surprising. Although climate change, from the moment it emerged as an international issue, has been discussed as an environmental and economic issue,⁶³ the impact of climate change on mankind is unprecedented.⁶⁴ Beyond mortality, diseases, failing infrastructure, and worsening air quality, climate change is predicted to displace nearly 850 million people from their homes in this century.⁶⁵ Far from being merely an environmental or economic issue, climate change presents a “profoundly moral and human issue with major implications for social justice and international peace and security.”⁶⁶ This is what makes treating climate change as a human rights question fundamental.

International law primarily works through an “inter-state” system, or in other words, with consensual agreements between nations.⁶⁷ However, the human rights regime is unique because it allows individuals to petition against their State in an international forum.⁶⁸ When it comes to climate change, where it is often individuals who are harmed by devastating

59. *Id.*

60. Rebecca Bratspies, *Do We Need A Right to a Healthy Environment?*, 13 SANTA CLARA J. INT’L L. 31, 51 (2015).

61. *Id.* at 52.

62. John H. Knox & Ramin Pejman, *Introduction*, in *THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT 2* (John H. Knox & Ramin Pejman eds., 2018).

63. SUMUDU ATAPATTU, *HUMAN RIGHTS APPROACHES TO CLIMATE CHANGE: CHALLENGES AND OPPORTUNITIES* 5 (2016).

64. *Id.*

65. *Id.*

66. *Id.*

67. *Id.* at 40.

68. *Id.*

storms such as Hurricanes Maria or Michael, or are suffering through malnutrition, disease, and inequality, it is vital that individuals are afforded the opportunity to petition their State for not fulfilling its duties and obligations.⁶⁹ Though the human rights question can be framed as violating specific existing rights within specific human rights bodies, such as the Universal Declaration of Human Rights (UNHR),⁷⁰ the most important inquiry is if climate change is considered to violate human rights at all. This is vital since only with the international recognition that States have a human rights obligation toward their “right holders,” or citizens, can individuals or other States hold human rights violators liable for neglecting their duties and obtain a remedy.⁷¹

However, though the specific right in question is not an important inquiry, where that right comes from is paramount. For example, in the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment, Principle 1 stated that mankind has certain rights, including living in an “environment of quality that permits a life of dignity and well-being.”⁷² Similar language is found in the Paris Agreement’s preamble, asking parties to “consider” human rights in the context of climate change.⁷³ However, despite the near universal participation in the Stockholm Declaration and the Paris Agreement, there is no binding human rights body recognizing the human rights implications of climate change.⁷⁴ Yet, human rights norms relating to the environment have been established and developed over time—in fact, despite the absence of a standalone right, United Nations treaty bodies, “regional tribunals, special rapporteurs, and other human rights mechanisms” have applied human rights law to climate change and other environmental issues quite often.⁷⁵ Thus, rather than a question of treaty law, the human rights implications of climate change are a matter of customary international law.

69. *Id.* at 41.

70. Knox & Pejan, *supra* note 62.

71. ATAPATTU, *supra* note 63, at 41.

72. Sam Adelman & Mary Robinson, *Rethinking Human Rights: The Impact of Climate Change on the Dominant Discourse*, in HUMAN RIGHTS AND CLIMATE CHANGE 164 (Stephen Humphreys ed., 2009).

73. Paris Agreement preamble, *supra* note 52.

74. Knox & Pejan, *supra* note 62.

75. *Id.*

B. Problems and Complexities with Climate Change as a Human Rights Issue

Using human rights to deal with environmental issues is not a perfect fit. In 2005, a human rights argument was applied to climate change for the first time in a petition filed at the Inter-American Commission on Human Rights (IACHR) by the Inuit people of the United States and Canada against the United States.⁷⁶ The IACHR dismissed the Inuit people's petition finding that there was insufficient evidence, but the petition raised awareness about the human rights concerns of climate change and was an impetus for the United Nations to act.⁷⁷ The Special Rapporteur for the Office of the United Nations High Commissioner on Human Rights agreed with the IACHR that it was too difficult, bordering on impossible, to determine the causal link between emissions from a particular country to a specific effect, meaning that climate change did not amount to a human rights violation.⁷⁸

Applying human rights to climate change is problematic for a variety of reasons. First, there are inadequacies in lawmaking and enforcement.⁷⁹ Second, litigation often cannot provide the relief sought as such cases pose questions of appropriate deference to legislative and administrative decisions as well as questions of admitting and evaluating scientific evidence.⁸⁰ Of particular note is the difficulty of proving causation; though the infringement of a protected right is beyond debate, it is impossible to identify a perpetrator and establish a causal link as the international community at large has participated in the accumulation of greenhouse gases.⁸¹

Current scientific research, however, concludes that there is a causal link between emissions and specific effects of climate change.⁸² For example, in order to maintain healthy populations, the biosphere's life-

76. Sumudu Atapattu, *The Right to a Healthy Environment and Climate Change*, in *THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT* 256 (John H. Knox & Ramin Pejan eds., 2018).

77. *Id.*

78. *Report*, *supra* note 51.

79. Dinah Shelton, *Complexities and Uncertainties in Matters of Human Rights and the Environment: Identifying the Judicial Role*, in *THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT* 97 (John H. Knox & Ramin Pejan eds., 2018).

80. *Id.*

81. Atapattu, *supra* note 76, at 257.

82. CARBON DISCLOSURE PROJECT, *THE CARBON MAJORS DATABASE: CDP CARBON MAJORS REPORT* (2017), <https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf?1499691240> [<https://perma.cc/4W8M-C KGN>] (last visited July 7, 2019).

supporting system must remain stable and functioning.⁸³ The climate is a vital part of the biosphere's life-supporting system and even small effects can ripple up through trophic chains and cause massive harm.⁸⁴ Further, increasing temperatures have already led to species' extinction around the globe, decreased water availability, diminished growing and maintenance of crops, increased morbidity from heatwaves, and intensified damage from floods and storms.⁸⁵ As temperatures increase further, this will likely lead to mass extinction, loss of nearly a third of global wetlands, scarcity of food, and a substantial burden on health services.⁸⁶ Studies have also shown the causal link between climate change and infectious disease.⁸⁷ The survival rates for infectious agents such as protozoa, bacteria, and viruses depend on temperature fluctuations, and it has been noted that there are close associations between high disease rates and increasing temperatures.⁸⁸ In addition, increasing temperatures caused by climate change directly influenced nearly one-third of the salmonella outbreaks across Europe.⁸⁹

On the other hand, tracking the emitters responsible for specific effects is, as of yet, out of reach. The CDP (formerly known as the Carbon Disclosure Project), a non-profit charity that runs a disclosure system for investors and governments to manage their environmental impact, released a report in 2017 finding that only 100 companies around the world caused about 70% of all greenhouse gas emissions since 1988.⁹⁰ The top twenty-five emitters on the list accounted for nearly 50% of emissions around the

83. A.J. McMichael, *Global Climate Change and Health: An Old Story Writ Large*, in RISKS AND RESPONSES, <http://www.who.int/globalchange/publications/climatechangechap1.pdf> [<https://perma.cc/8ZWP-H8N6>] (last visited July 7, 2019).

84. *Id.* at 1–2. For example, increasing temperatures have led to melting sea ice in the Arctic region, which has made survival for walrus and seal pups difficult. Because of the lack of seal pups, whales have begun feeding on sea otters. Fewer sea otters feeding on sea urchins has led to expanded urchin populations, which consume the kelp breeding grounds for fish. The scarcity of fish further exacerbates the declining walrus and seal populations. Thus, overall, there is less food available to the Yupik Eskimos in the Arctic who rely on these species for survival.

85. Anthony Costello et al., *Managing the Health Effects of Climate Change*, 373 LANCET 1693, 1700 (2009).

86. *Id.*

87. Jonathan A. Patz et al., *Impact of Regional Climate Change on Human Health*, 438 NATURE 310, 311 (Nov. 2005).

88. *Id.* For example, the increasing malaria incidence in Kenya and Ethiopia coincides with rising temperatures between 1968 and 1993, even when controlling for other variables such as drug resistance and population migration.

89. *Id.*

90. CARBON DISCLOSURE PROJECT, *supra* note 82.

world, which included corporate and state-run fossil fuel entities such as ExxonMobil, Shell, BP, Saudi Aramco, National Iranian Oil, and CNPC (PetroChina).⁹¹ However, those emissions attributed to these 100 companies as a whole cannot be traced back to them individually.

The Special Rapporteur, John Knox, acknowledged in his report that as “scientific knowledge improves and the effects of climate change become larger and more immediate, tracing causal connections between particular contributions and resulting harms becomes less difficult.”⁹² As of yet, it is impossible to trace a specific emission from one of those 100 companies that produces over half of all emissions in the world to a specific harm, meaning that currently those entities cannot be held accountable for human rights violations. However, the States in which these entities operate are still under an obligation to act⁹³ and their failure to do so constitutes a human rights violation. This is due to the fact that the international community already recognizes climate change as a human rights violation under customary international law.

III. THE CUSTOM QUESTION: PARIS ITSELF IS NOT CUSTOM BUT PROVISIONS WITHIN IT ARE

The effects of climate change have been and will continue to be disastrous. Legal and scientific research have found that it is “beyond debate” that the adverse effects of climate change will severely threaten a wide range of human rights, including the rights to “life, health, food, and housing.”⁹⁴ The need to address the severe adverse human rights effects of climate change and potentially even prevent the worst of them is great, yet until recently there was no legally binding international agreement which recognized the intersection between human rights and climate change.⁹⁵ Although the Paris Agreement specifically makes mention of respecting and promoting respective obligations on human rights, it steers clear of stating definitively that climate change is a human rights violation; it calls on States to “consider” their obligations rather than “fulfill” them as the original draft of the Paris Agreement and other human rights treaties have required.⁹⁶

91. *Id.*

92. *Report, supra* note 51.

93. *Id.*

94. Lavanya Rajamani, *Human Rights in the Climate Change Regime: From Rio to Paris and Beyond*, in *THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT* 236 (John H. Knox & Ramin Pejan eds., 2018).

95. *Id.* at 237.

96. Atapattu, *supra* note 76, at 258.

Despite this dilution and softening of language in the Paris Agreement's preamble, there is ample evidence to suggest that States already recognize contributing to climate change is a human rights violation and have taken steps to fulfill their human rights obligations. For example, though there is no mention of a right to a healthy environment in the Universal Declaration of Human Rights (UDHR), the International Covenant on Economic, Social and Cultural Rights (ICESCR), or the International Covenant on Civil and Political Rights (ICCPR), the United Nations General Assembly endorsed the Stockholm Declaration in 1972, providing the first soft law recognition for the international right to a healthy environment.⁹⁷ In fact, since the Stockholm Declaration, there has been a flurry of international treaty-making involving environmental obligations, such as the Law of Sea Convention, the Convention on Biological Diversity, and the UN Framework Convention on Climate Change (UNFCCC), which have near-universal membership and create obligations on States toward the environment.⁹⁸ Unfortunately, despite this, the state of the environment continues to deteriorate and the threat of climate change continues to loom.⁹⁹

Traditionally, to be considered international customary law, a rule must satisfy two elements, state practice and *opinio juris*, or the behavior of the state and its acceptance of that behavior as a legal obligation, respectively.¹⁰⁰ In other words, custom consists of empirical observation of interstate behavior and subjective analysis of a State's belief about the practice.¹⁰¹ To establish that a rule has risen to customary international law requires two separate inquiries: first, if "international actors have consistently followed a rule" and second, whether those actors have "observe[d] that rule out of a sense of legal obligation."¹⁰² There is no need for conformity in practice nor does it necessarily need to be widespread and uniform.¹⁰³ Thus, barring persistent and clear objections to a rule, custom is established and binding because it has been generally accepted

97. Louis J. Kotzé, *In Search of a Right to a Healthy Environment in International Law*, in *THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT* 139 (John H. Knox & Ramin Pejman eds., 2018). Soft laws are not binding in nature but do have legal significance.

98. Bratspies, *supra* note 58, at 122.

99. *Id.*

100. Daniel Bodansky, *Customary (and Not So Customary) International Environmental Law*, 3 *IND. J. GLOBAL LEGAL STUD.* 105, 109 (1995).

101. Bratspies, *supra* note 58, at 125.

102. *Id.*

103. *Id.* at 126.

as a rule of conduct.¹⁰⁴ In fact, the emergence and practice of customary law is commonplace.¹⁰⁵

Customary international law, especially in the environmental field, is not without its criticism. For one, there are many solid norms of international environmental law, but some do not give rise to customary law.¹⁰⁶ In addition, it is not always custom to which States turn. For example, the response to each environmental danger has been to create a new treaty, from negotiating the depletion of the ozone layer to the loss of biological diversity.¹⁰⁷ The effectiveness of these treaties is an open question, and the results they obtain compared to soft law norms is not understood.¹⁰⁸ This trend of placing importance on treaties to manage environmental issues suggests a smaller role for customary international environmental law.¹⁰⁹ For example, there is an international treaty involving the prohibition of trans-frontier damage, yet this had already been developed under customary international law.¹¹⁰

Custom has also been criticized as a poor use of time because customary law cannot advocate or prescribe new norms.¹¹¹ In addition, mere observation may be misleading—customary norms depend both on the observed State action and on the “acceptance of these regularities as law by states.”¹¹² Another criticism is that custom is ineffective and inaccurate. For example, one of the most firmly established norms of customary international environmental law is the duty to prevent transboundary harm, but pollutants are always travelling across most international borders and in very few cases have states taken pains to reduce the flow of those pollutants.¹¹³ In addition, when trying to determine if something has risen to customary behavior, the focus tends to be not on how states behave, but how they speak to one another.¹¹⁴ However, these criticisms fail to take much into account.

First, international customary law is an important source of human rights law, upending traditional notions of State sovereignty by allowing international scrutiny of State actions, ensuring that it is within the scope

104. *Id.*

105. Bodansky, *supra* note 100, at 110.

106. *Id.* at 105.

107. *Id.* at 106.

108. *Id.*

109. *Id.*

110. *Id.* at 106–07.

111. *Id.* at 109.

112. *Id.*

113. *Id.* at 111.

114. *Id.* at 115.

of customary behavior.¹¹⁵ Second, though custom cannot advocate or prescribe new norms, what is considered custom will adapt, allowing “the scope of issues considered to be of international concern to evolve with changing circumstances.”¹¹⁶ Third, by analyzing State behavior through a “bottom up” approach, there is no problem of focusing on what States say to one another. Instead, the focus is on whether States have imposed obligations on themselves to work on climate change’s impact through domestic laws or policies.¹¹⁷ By focusing on a State’s regulation within its borders, the assessment of whether a rule has risen to custom is more accurate and more effective.¹¹⁸

Though the Paris Agreement itself has not risen to customary international law, several of the provisions within the Agreement have. Under Article 4, states are to “aim to reach global peaking of greenhouse gas emissions” and “achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases.”¹¹⁹ This is reflective of custom that has already developed. Over twenty countries have reduced their greenhouse gas emissions since 2000 by at least 10%. Even the United States—which has pulled out of the Paris Agreement itself—has reduced its emissions by 18%.¹²⁰ Because states have sustained the practice of reducing emissions and did so in order to “diminish the severity”¹²¹ of the effects of climate change and its impacts on their citizens, this indicates that Article 4 is an expression of customary international law.

Yet, Article 4 is not the only provision within the Paris Agreement that has risen to custom. Article 5, which asks parties to conserve and enhance sinks and reservoirs of greenhouse gases, including forests,¹²² is put into practice by nations such as Brazil, Ecuador, Malaysia, and Columbia, as well as the United States, China, and India, through curbing deforestation, increasing efficiency in crop and livestock production, and increasing

115. Bratspies, *supra* note 58, at 127.

116. *Id.*

117. *Id.*

118. *Id.* at 128.

119. Paris Agreement art. 4, Apr. 22, 2016, 16 U.S.T. 1104.

120. *U.S Leads in Greenhouse Gas Reductions, but Some States Are Falling Behind*, ENVTL & ENERGY STUDY INST. (Mar. 27, 2018), <https://www.eesi.org/articles/view/u.s.-leads-in-greenhouse-gas-reductions-but-some-states-are-falling-behind> [<https://perma.cc/FD5T-QNQM>].

121. *Id.*

122. Paris Agreement art. 5, Apr. 22, 2016, 16 U.S.T. 1104.

sequestration.¹²³ Article 8 of the Agreement recognizes the importance of minimizing and addressing “loss and damage associated with the adverse effects of climate change.”¹²⁴ Even developing nations prioritize this by investing in drought-tolerant seeds for agriculture, protecting freshwater and damage to water infrastructure from storm surges, and increasing the number of healthcare providers to reduce the incidence of water and vector-borne diseases.¹²⁵

Further evidence of specific provisions within the Paris Agreement rising to custom are found in more highly developed countries, which are less vulnerable to the effects of climate change. France, for example, has recently decided to cease issuing oil and gas exploration licenses.¹²⁶ In addition, three-quarters of France’s electricity comes from nuclear sources, most of which is domestically generated. France has also pledged to push towards the use of zero-emissions vehicles and boost the use of renewables.¹²⁷

Likewise, the emission rates in the United Kingdom were 43% less in 2017 than they were in 1990.¹²⁸ Through wind farms, electric vehicles, and fundamental changes in the use of the power infrastructure, the United Kingdom is on track to reduce emissions by 80% of 1990 levels by 2050.¹²⁹ In Germany, renewable sources accounted for more than 36% of the domestic power consumption. Though their dip in greenhouse gas emissions was modest at best, Germany has increasingly sought wind power and has decreased its hard coal power production.¹³⁰

123. *Forests Provide a Critical Short-Term Solution to Climate Change*, UNITED NATIONS ENV’T PROGRAMME (June 22, 2018), <https://www.unenvironment.org/news-and-stories/story/forests-provide-critical-short-term-solution-climate-change> [<https://perma.cc/RG87-D9RA>].

124. Paris Agreement art. 8, Apr. 22, 2016, 16 U.S.T. 1104.

125. Jo-Ellen Parry & Anika Terton, *How Are Vulnerable Countries Adapting to Climate Change*, INT’L INST. FOR SUSTAINABLE DEV. (2018), <https://www.iisd.org/faq/adapting-to-climate-change/> [<https://perma.cc/4JNL-AG26>].

126. Charlotte Edmond, *France is Now Leading the Way in the Battle Against Climate Change*, WORLD ECON. FORUM (July 5, 2017), <https://www.weforum.org/agenda/2017/07/france-banning-oil-gas-exploration/> [<https://perma.cc/6BU8-L2P3>].

127. *Id.*

128. *How the UK is Progressing*, COMM. ON CLIMATE CHANGE, <https://www.theccc.org.uk/tackling-climate-change/reducing-carbon-emissions/how-the-uk-is-progressing/> [<https://perma.cc/Q2A4-7TR3>] (last visited July 7, 2019).

129. *Id.*

130. Kerstine Appunn & Julian Wettengel, *Germany’s Greenhouse Gas Emissions and Climate Targets*, CLEAN ENERGY WIRE (June 6, 2019), <https://www.cleanenergywire.org/factsheets/germanys-greenhouse-gas-emission-s-and-climate-targets> [<https://perma.cc/VP2B-ZCQT>].

Worldwide, nearly seventy constitutions recognize an obligation to protect the environment as state policy. While a few of those constitutions specifically address water and land, other constitutions use a broad definition of environment.¹³¹ The constitutions of countries such as Cape Verde, Jamaica, Laos, South Africa, South Sudan, and Sudan explicitly protect ecologically-based perceptions of the environment, while Kenya, Ecuador, Bolivia, and India have constitutions and provisions that protect the right to a healthy environment and lean towards anthropocentrism.¹³²

In 2015, the United States implemented the Clean Power Plan, stating definitively that there is a “moral obligation to future generations to leave them a planet that is not polluted and damaged.”¹³³ The Plan instituted changes that included minimizing greenhouse gas emissions, doubling the use of wind, solar, and geothermal energy, and reducing the use of oil.¹³⁴ The Environmental Protection Agency (EPA) also committed to developing “common-sense regulatory initiatives,” including vehicle emission standards, incentives for electric cars, evaluating policy options, and advancing research.¹³⁵

However, there has since been a federal shift of policy that has completely undone these efforts.¹³⁶ After the 2016 election and the appointment of a former coal lobbyist¹³⁷ as the Administrator of the EPA, the “priorities” of the agency have shifted, claiming that the concerns about

131. Erin Daly & James R. May, *Learning from Constitutional Environmental Rights*, in *THE HUMAN RIGHT TO A HEALTHY ENVIRONMENT* 44 (John H. Knox & Ramin Pejan eds., 2018).

132. *Id.* at 51–52.

133. WHITE HOUSE ARCHIVES, PRESIDENT’S CLIMATE ACTION PLAN (2013), <https://obamawhitehouse.archives.gov/sites/default/files/image/president27sclimateactionplan.pdf> [<https://perma.cc/TSN8-NEU5>] (last visited July 7, 2019).

134. *Id.*

135. *What the EPA is Doing About Climate Change*, ENVTL. PROTECTION AGENCY (Jan. 19, 2017), https://19january2017snapshot.epa.gov/climatechange/what-epa-doing-about-climate-change_.htm [<https://perma.cc/RC8V-FUWC>].

136. Juliet Eilperin, Brady Dennis & Chris Mooney, *Trump Administration Sees a 7-degree Rise in Global Temperatures by 2100*, WASH. POST (Sept. 28, 2018), https://www.washingtonpost.com/national/health-science/trump-administration-sees-a-7-degree-rise-in-global-temperatures-by-2100/2018/09/27/b9c6fada-bb45-11e8-bdc0-90f81cc58c5d_story.html?noredirect=on&utm_term=.41cd328b388b [<https://perma.cc/253M-7JV6>].

137. Rebecca Hersher & Colin Dwyer, *Get to Know Andrew Wheeler, Ex-Coal Lobbyist With Inside Track to Lead EPA*, NPR (July 6, 2018), <https://www.npr.org/2018/07/06/626525274/get-to-know-andrew-wheeler-ex-coal-lobbyist-with-inside-track-to-lead-epa> [<https://perma.cc/NJK4-NU53>].

climate change were “overblown.”¹³⁸ In fact, since the departure of the Obama Administration, climate change information has been removed from the EPA website and can only be accessed using a “Web Snapshot.”¹³⁹ In addition, though the United States had been steadily decreasing its greenhouse gas emissions since 1990, it has begun to rise again since 2017, increasing by as much as 2.5% in 2018.¹⁴⁰ The EPA also plans to implement its SAFE (Safer Affordable Fuel-Efficient) Vehicles Rule, which will roll back vehicle emission standards for vehicles beginning in 2021.¹⁴¹ This is projected to lead to an additional 872 million metric tons of carbon dioxide emissions compared to the Obama Administration standards.¹⁴²

However, despite this bleak federal shift, individual states and cities have enacted their own climate change policies. For example, California is the leading solar market in the country, ranking first in solar capacity and fourth in wind energy.¹⁴³ In 2015, California passed a renewable portfolio standard which requires utilities to generate half of their 2030 sales from renewable sources.¹⁴⁴ In addition, governors from nearly half of US states formed the United States Climate Alliance, committing to “reducing greenhouse gas emissions consistent with the goals of the Paris Agreement.”¹⁴⁵ Given these pledges, the UN Secretary-General was

138. Amy Gunia, *EPA Chief Says Climate Change is Not His Top Priority*, TIME (Apr. 12, 2019), <https://time.com/5569214/epa-chief-andrew-wheeler-climate-change/> [<https://perma.cc/ADR2-F5ML>].

139. *January 19, 2017 Snapshot*, ENVTL. PROTECTION AGENCY (Jan. 19, 2017), <https://19january2017snapshot.epa.gov/climatechange/snapshot-help.html> [<https://perma.cc/NZ56-2QE9>].

140. Trevor Houser et al., *Final US Emissions Estimates for 2018*, RHODIUM GROUP (May 31, 2019), <https://rhg.com/research/final-us-emissions-estimates-for-2018/> [<https://perma.cc/4E2V-QTBL>].

141. *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks*, FED. REG. (Aug. 24, 2018), <https://www.federalregister.gov/documents/2018/08/24/2018-16820/the-safer-affordable-fuel-efficient-safe-vehicles-rule-for-model-years-2021-2026-passenger-cars-and> [<https://perma.cc/3GZZ-5K88>].

142. Alex Guillen et al., *Fact Check: Trump’s Environmental Rhetoric Versus His Record*, POLITICO (July 8, 2019), <https://www.politico.com/story/2019/07/08/fact-check-trumps-environmental-claims-1573352> [<https://perma.cc/4S9V-GVR2>].

143. *State-by-State*, CLIMATE NEXUS, <https://climatenexus.org/climate-change-us/state-impacts/#california> [<https://perma.cc/2FSW-HE83>] (last visited July 7, 2019).

144. *Id.*

145. *States United for Climate Action*, U.S. CLIMATE ALLIANCE, <https://www.usclimatealliance.org> (last visited Nov. 14, 2019). These states include California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Massachusetts,

optimistic that the United States would honor its commitment to the Paris Agreement despite a lack of current federal support.¹⁴⁶

The widespread action on the part of individual States around the world to mitigate the effects of climate change and recognize the right to a healthy environment indicates the development of customary international law. Though the aspirational statements of international policy, such as those in the Stockholm Declaration or the Paris Agreement, do not form legally binding customary law, individual countries passing laws and recognizing their legal obligations to act against climate change does become binding custom.¹⁴⁷ Many of those norms and policies are found within the Paris Agreement itself. Through collective action over decades and the recognition of climate change as a significant threat to human rights, customary international law recognizing climate change as a human rights violation was well under way. In other words, the Paris Agreement is reflective of the development of custom and did not itself establish custom.

IV. TO DO OR NOT TO DO: STATE OBLIGATIONS UNDER THE CUSTOMARY PROVISIONS OF THE PARIS AGREEMENT

Because provisions found within the Paris Agreement have risen to customary international law, that custom “lays down obligations which States are bound to respect.”¹⁴⁸ This obligation includes refraining from “interfering with or curtailing the enjoyment of human rights.”¹⁴⁹ States must also act to protect individuals and groups from human rights abuses.¹⁵⁰ Determining what exactly those obligations entail, however, can be difficult, including what it means when a State does not perform its obligations.

Michigan, Minnesota, Montana, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Puerto Rico, Rhode Island, Vermont, Virginia, Washington, and Wisconsin.

146. Emma Lescavalier, *How American Cities & States are Fighting Climate Change Globally*, THECONVERSATION.COM (Dec. 5, 2017, 6:45 PM), <http://theconversation.com/how-american-cities-and-states-are-fighting-climate-change-globally-88460> [<https://perma.cc/8L5F-UBZX>].

147. Bratspies, *supra* note 58, at 132.

148. UNITED NATIONS HUMAN RIGHTS: OFFICE OF THE HIGH COMM’R, INTERNATIONAL HUMAN RIGHTS LAW, <https://www.ohchr.org/EN/ProfessionalInterest/Pages/InternationalLaw.aspx> [<https://perma.cc/9QAE-58WY>] (last visited July 7, 2019).

149. *Id.*

150. *Id.*

In light of the Inter-Governmental Panel on Climate Change's (IPCC) report and the catastrophic consequences it warns about, State responsibilities toward individuals and groups have increased as the challenges facing the international community are numerous and complicated. For example, the IPCC report urges action to prevent the widespread loss of biodiversity, flooding, drought, disease, and damage from weather, including "ecosystem restoration and avoided degradation and deforestation, biodiversity management, sustainable aquaculture, and local knowledge and indigenous knowledge."¹⁵¹ In addition, to delay and possibly reverse some of the effects of climate change before the potentially catastrophic temperature increase currently projected for 2040, emissions must decline by 45% from 2010 levels by 2030.¹⁵²

There are also certain novel ways for States to meet their human rights obligations. For example, as science progresses, it develops new methods to protect the climate. One such method is removing carbon dioxide from the atmosphere. The United States Congress has recently passed the 45Q tax rule, which provides a \$50 tax credit for every ton of carbon dioxide captured and stored.¹⁵³ This sequestration plan provides the credit for "qualified carbon dioxide" or carbon dioxide captured from industrial sources which otherwise would be released into the atmosphere.¹⁵⁴ Of course, carbon capture is a fairly controversial path. It is incredibly expensive and the "cheap" methods to remove carbon dioxide from the atmosphere are incredibly expensive themselves (methods like coastal engineering and planting trees).¹⁵⁵ Carbon dioxide removal also concerns scientists because of the unintended consequences toward the ecosystem, the effectiveness of sequestration, and the creation of an incentive to cease their mitigation efforts by nations that see the technology as a license to continue polluting.¹⁵⁶

Actions that every nation can take immediately to reduce emissions are far simpler. States can invest more fully in renewable energy, transforming the energy infrastructure such that there is no more dependence on coal and

151. ALLEN ET AL., *supra* note 25, at 15.

152. *Id.*

153. *Internal Revenue Bulletin: 2017-2022*, INTERNAL REVENUE SERV. (May 30, 2017), https://www.irs.gov/irb/2017-22_IRB [<https://perma.cc/3QYN-VMZW>].

154. *Id.*

155. Matt McGrath, *Climate Change: Five Cheap Ways to Remove CO₂ from the Atmosphere*, BBC (Oct. 25, 2018), <https://www.bbc.com/news/science-environment-45967215> [<https://perma.cc/AAT8-N5C8>].

156. Umair Irfan, *Will Carbon Capture and Storage Ever Work?*, SCI. AM. (May 25, 2017), <https://www.scientificamerican.com/article/will-carbon-capture-and-storage-ever-work/> [<https://perma.cc/29CE-JNUY>].

other fossil fuels.¹⁵⁷ States can also introduce regulations which mandate increased fuel efficiency in cars, place limits on the amount of carbon that polluters can release into the atmosphere, and reduce deforestation.¹⁵⁸ These are all solutions already implemented around the world, but they require further collective action and more investment to create a tangible difference.

If States do not meet these obligations that are binding upon them due to the emergence of customary international law, they may face questions of international responsibility, or more likely, international liability. In the former, a State would be responsible for an internationally wrongful act when the conduct or omission is attributable to the State and constitutes a breach of international obligations.¹⁵⁹ This is a difficult fit as most emissions are not attributable to the State itself (unless the entities, like an oil company, are controlled by the State) and actions of third parties may not necessarily constitute a breach of international obligations even if the State failed to regulate. In the latter, however, there would be international liability even when there is no conduct that is prohibited by international law, but causes significant transboundary harm.¹⁶⁰ Thus, under an international liability regime, States would operate under the obligation to take all appropriate measures to prevent “significant transboundary harm or at any event to minimize the risk thereof.”¹⁶¹

CONCLUSION

Climate change presents an imminent and potentially catastrophic risk to people worldwide. Increasing temperatures, stronger storms, rising sea levels, and the spread of disease all impact human rights and these effects of climate change will disproportionately impact low income peoples, marginalized communities, and those in the developing world in areas as far-reaching as infrastructure, medicine, and agriculture. The international community and individual states within the United States have taken a variety of steps in the past several decades to mitigate the effects of climate change and address the human rights concerns arising from it, including

157. *Global Warming Solutions: Reduce Emissions*, UNION OF CONCERNED SCIENTISTS, <https://www.ucsusa.org/our-work/global-warming/solutions/global-warming-solutions-reduce-emissions#.W-n3Gy-ZN-U> [<https://perma.cc/LQM8-FAEF>] (last visited July 7, 2019).

158. *Id.*

159. Articles on the Responsibility of States for Internationally Wrongful Acts, *G.A. Res. 56/83*, annex, U.N. Doc. A/RES/56/83, art. 2 (Dec. 12, 2001).

160. Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, U.N. Doc. A/56/10, art. 1 (2008).

161. *Id.*

protecting peoples' right to a healthy environment. These actions, coupled with the international community's sense of moral obligation to combat climate change and the lack of a persistent objector, give rise to customary international law, recognizing that climate change directly implicates human rights. Because this right is part of customary international law, it is binding on all States and thus, regardless of a State's status with the Paris Agreement, inaction towards climate change is a human rights violation.

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