



**Overcoming Legal Barriers to Climate Change Solutions:
The Interrelated Roles of Activists, International
Organizations, Markets, and Central Banks**

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FOREWORD

With less than a decade to stem global average surface temperature rise and curb a veritable climate crisis, the need for an international legal regime that is responsive to climate change has never been of greater importance to the prosperity of current and future peoples worldwide. Global participation in and adherence to this regime are essential. In today's swiftly shifting and expanding landscape of legal actors, effective action requires a more "inclusive public international law that accepts diverse actors in addition to States and other sources of law, including individualized voluntary commitments," as recently put by international law professor Dr. Brown Weiss.¹ A full account of the climate change law actors in all areas of the world can only be contained in volumes of books; accordingly, this piece focuses on actors from select but diverse areas of the world. Specifically, this paper responds to this ever-growing complexity of international law by identifying and discussing the roles of four key actors in driving legal solutions to climate change: activists, international organizations, markets, and central banks. Within each subgroup, the paper examines international, transnational, and domestic legal authorities.

This investigation begins in Part I by exploring how climate activists from different communities are excluded from international approaches to climate change, but nevertheless leverage domestic and international law to bolster community-centered climate change solutions. This piece examines the work, or potential for work, of several types of climate activists: Indigenous peoples; climate migrants; peoples in occupied lands; religious minorities; and women of racial and sexual diversity.

¹ EDITH BROWN WEISS, ESTABLISHING NORMS IN A KALEIDOSCOPIIC WORLD 37 (2019).

This piece then moves to Part II to consider how legal instruments concluded under the auspices of international organizations, namely the United Nations, support or could respond to and support the climate activism of vulnerable communities, such as those discussed in Part I. It focuses on four distinct instruments: the U.N. Declaration on the Rights of Indigenous Peoples; the World Heritage Convention; U.N. measures on gender and climate change; and the Convention on the Rights of the Child.

In Part III, the piece turns to the significance of the world's largest capital markets on climate change. Specifically, Part III first provides a high-level analysis of climate disclosure internationally and then looks at the binding domestic disclosure law in the most important capital markets.

Part III's international analysis covers (1) a high-level comparative look at the climate disclosure regulations among significant securities regulators, (2) a survey of the climate disclosure standards, guidelines, and recommendations produced and discussed by international organizations other than the national securities regulators, and (3) a review of the international coordination, market forces, and the unusual kind of soft law at play in the push for more rigorous climate disclosure.

Then, Part III looks at the domestic climate disclosure law in the U.S., U.K., E.U., China, Japan, and Hong Kong. The U.S. section examines the S.E.C.'s existing disclosure requirements, which incorporate climate information when material, considers structural issues facing the effort to increase climate change reporting, and finally tackles substantive issues within the existing system. The U.K. section considers the country's multi-faceted adoption of the recommendation of one of the climate disclosure frameworks provided by international organizations and the 2017 UK-China Climate and Environmental Information Disclosure Pilot Program. The E.U. section

covers the incremental progress of the bloc toward mandatory climate disclosure from 2014 to present and also considers current proposals for future progress, including the European Green Deal and regulatory technical standards. The joint China and Japan section considers China's Guidelines for Establishing a Green Financial System, which included a plan to introduce a mandatory ESG disclosure framework for listed companies and bond issuers, and Japan's Guidance for Climate-related Financial Disclosure, which amounts to an adoption of the recommendation of one of the climate disclosure frameworks provided by international organizations. The Hong Kong section covers the Securities and Futures Commission's Principles of Responsible Ownership, the Hong Kong Stock Exchange's "comply or explain" regime and finally barriers to the implementation of those regimes.

Part IV examines the significance of the world's most influential central banks for climate change. Part IV covers the four most systemically significant central banks: the U.S. Federal Reserve, the European Central Bank, the Bank of England, and the Bank of Japan. The sections of Part IV on each of these central banks cover (1) the statutory authority of the central banks within their respective systems to determine legal bounds of their ability to act; (2) the banks' own position on climate change and their institutional posture; (3) the outer limits of what sort of climate action is possible, including limits on central bank action in terms of authority and willingness to act.

At each stage of the piece, it proposes potential solutions and paths forward toward more cooperative legal regimes for a climate change resilient future for all. These recommendations are summarized in a table in the closing thoughts.

Part I: CLIMATE ACTIVISTS

A. Overview of Grassroots Approaches to Climate Change Action

Climate change is not an equalizing phenomenon. Rather, it is a political issue—an issue of race, gender, geographic location, and socio-economic status—all of which must be considered when assessing the risks that climate change poses. Climate change affects marginalized communities disproportionately, and adaptation strategies depend on a population's position of wealth, power, and resources.

Yet the people most affected by climate change tend to be excluded from the policymaking process. The cleavage between who is affected by climate change and who is in a position of power to do anything about it creates a necessity for activism, ranging from institutional organizing to physical protests. Across continents, public outcry has helped marginalized communities translate the need for climate protection into legal frameworks and policy systems. This section of the paper will examine how marginalized communities are ignored despite the disproportionately adverse effects of environmental degradation they face, and how these communities advocate for environmental protections.

I. The Disproportionate Effect of Climate Change on Marginalized Communities

Causal links have been demonstrated between human activity and climate change, as well as between the proximity of such activity to climate-related public health problems.¹ In 1980s and 1990s New York City, sewage treatment and medical waste disposal plants as well as diesel bus depots tended to be relegated to low-income Black and Latino neighborhoods, like the South

¹ See Julie Sze, *Chapter 10: Gender, Asthma Politics, and Urban Environmental Justice Activism*, in *NEW PERSPECTIVES ON ENVIRONMENTAL JUSTICE: GENDER, SEXUALITY, AND ACTIVISM* 177–90 (Rachel Stein ed., 2004).

Bronx and Harlem, which experienced higher rates of childhood asthma than the rest of the city.² A lack of attention to the disproportionate rates of childhood asthma resulting in continuing plans for treatment plants, as well as a prior-held belief that asthma and related health concerns were related to home cleanliness (putting the onus on people in poverty and poor mothers, especially, for their children's health problems), resulted in protests of children in the street with their asthma inhalers.³ An organization trying to pressure Metropolitan Transit Authority buses to switch to natural gas ran an ad at bus shelters: "If you live Uptown, breathe at your own risk."⁴ Asthma attacks, which have a 32% higher prevalence among African-Americans than White Americans, are caused by a combination of genetic and environmental factors.⁵ The South Bronx was where 70% of the city's sludge was treated.⁶ Yet until the South Bronx Clean Air Coalition (SBCAC) and the West Harlem Environmental Action (WEACT) campaigned at local hearings and protested in the streets for years, the Bronx-Lebanon Waste Incinerator and the North River Sewage Treatment Plan were justified under the rationale that the causation between those particular projects and increased asthma rates in the surrounding communities was not sufficiently proven.⁷ To the organizers behind SBCAC and WEACT, this suggested a need for a wider adoption of the precautionary principle in response to environmental degradation: "when an activity raises threat of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."⁸

² *See id.* at 178.

³ *See id.* at 177, 178, 186.

⁴ *See id.* at 177.

⁵ *See id.* at 181.

⁶ *See id.* at 182.

⁷ *See id.* at 183.

⁸ *See id.* at 184.

It remains an uphill battle among several countries, including the United States, to value public health risk prevention and environmental health over potential profit in the name of development.⁹ Indigenous people globally, particularly in North America, live in the regions most impacted by climate change.¹⁰ However, they tend not to (1) have much role in causing this climate change, or (2) receive the spoils from the economic development for which their environment is degraded.¹¹ A common theme across environmental justice movements from Palestine to Guatemala is a lack of consent from marginalized peoples, indigenous and occupied, while their land is degraded for profit.¹² The related lack of natural resources, including water scarcity, and public health effects on these communities, from increased risk for asthma to premature births, culminates in a range of politicized protest movements demanding tangible climate change policy.¹³

II. A Range of Grassroots Approaches to Engaging with Climate Change at a Policy Level

A particularly visible form of these politicized protest movements is Indigenous-led blockades. From Canada to Peru, Indigenous people like the Secwépemc, the Sioux, and the Maya have participated in blockades preventing the construction and use of environmentally

⁹ See Kamaljit S. Bawa, Lian Pin Koh, Tien Ming Lee, Jianguo Liu, P.S. Ramakrishnan, Douglas W. Yu, Ya-Ping Zhang, & Peter H. Raven, *China, India, and the Environment*, SCIENCE, Mar. 19, 2010, at 1457.

¹⁰ See P.C. Canning, *I Could Turn You to Stone: Indigenous Blockades in an Age of Climate Change*, THE INT'L INDIGENOUS POLICY J. 1, 2 (2010).

¹¹ See Canning, *supra* note 10, at 2, 12; Amanda Rutherford, *How Non-Violent Resistance Effects Positive Change Toward Protecting Indigenous Rights and Environmental Integrity in Guatemala*, ARIZ. J. ENV'T L. & POLICY 1, 15-16 (2017).

¹² See Canning, *supra* note 10, at 12; Rutherford, *supra* note 11, at 15; Abeer al-Butmeh, Zayneb al-Shalafeh, Mahmoud Zwahre, & Eurig Scandrett, *Chapter 10: The environment as a site of struggle against settlercolonisation in Palestine*, in ENVIRONMENTAL JUSTICE, POPULAR STRUGGLE AND COMMUNITY DEVELOPMENT 153, 153 (Anne Harley & Eudrig Scandrett eds., 2019).

¹³ See Canning, *supra* note 10, at 7-8; Christopher Flavelle, *Climate Change Tied to Pregnancy Risks, Affecting Black Mothers Most*, N.Y. TIMES, June 18, 2020; Rutherford, *supra* note 11, at 16-17, 25; Sze, *supra* note 1, at 177-78.

degrading projects like coal mines and oil pipelines on historically Indigenous land.¹⁴ These protests of land degradation without consent from the populations on it are often met with state brutality, resulting in protestor injury and death even as the protests themselves remain nonviolent actions.¹⁵ The violence directed at protestors and the increasing number of blockade protests lends itself to a transnational visibility around politicized climate change struggles.

This is further reflected in other grassroots movements globally. A South African member of the Africa Youth Conference describes the need for youth-led and women-led pan-Africanism to combat industrial pollution of natural resources, which they describe as requiring representation to combat gender-specific and poverty-specific climate change, citing the global motif of manufacturing pollution being relegated to low-income areas.¹⁶ Also of transnational concern in the global south is access to environmental education, especially where language and technological barriers remain salient.¹⁷ The resulting need for and construction of institutions that promote community education has become a common grassroots way for marginalized populations to educate themselves on the particular environmental degradation they are facing, increasing the opportunity for strong popular environmental justice movements by the people most affected.¹⁸

A similar phenomenon occurred decades ago in Japan, where localized environmental problems due to rapid industrialization - ranging from mercury poisoning of infants to chemical pollution of water sources - resulted in widespread trauma that has informed subsequent

¹⁴ See Canning, *supra* note 10, at 7-8; Rutherford, *supra* note 11, at 15-16.

¹⁵ See Canning, *supra* note 10, at 8-9; Rutherford, *supra* note 11, at 15-16.

¹⁶ See Arthi Sanpath, *Africa Youth Environment Network Conference: Increasing Young Women Participation in Environmental Activism*, AGENDA: EMPOWERING WOMEN FOR GENDER EQUITY 134, 135-38 (2006).

¹⁷ See *id.* at 136.

¹⁸ See Sanpath, *supra* note 16, at 136; Rutherford, *supra* note 11, at 18; Sze, *supra* note 1.

transnational movements, in part due to the same pollutant entities beginning to cause environmental degradation at a global stage due to expansion and in part due to the common governmental refrain: development came at a price and, without evidence of pure causation, development could not be hindered.¹⁹ The globalization of exploitation meant that victims were no longer limited to local sphere or injustice, and this inherently political nexus led to a framework for global ecological justice campaigns, bolstered by the ability to participate and communicate via global environmentally-focused collaborations, such as the United Nations Conference on the Human Environment.²⁰

III. Conducive and Obstructive Legal Frameworks to Addressing Climate Change for Marginalized Communities

Though global awareness of climate change has increased and there are increased international platforms to discuss and collaborate on combating climate change, both domestic and international legal tools have been mixed in their effectiveness.

In India, envisioned as a federalist socialist democracy in the Constitution of 1950, there was little to no talk of land rights - and by extension, environmental authority - except to relegate it to states.²¹ Consequently, as Indian states developed and fractured differently, there was little to no historical policy for any concerted environmental efforts, especially as India entered an era of rapid industrialization in the late twentieth century.²² Not until civil society had been strengthened in the 1970s and the federal government consolidated power during the 1975-77 Emergency did public interest litigation around the environment and conservation begin.²³ With

¹⁹ See Simon Avenell, *Japanese Activists, the Environment, and Border-Crossing Movements in Asia*, J. TERRITORIAL & MAR. STUD. 111, 118-19 (2015)

²⁰ See *id.* at 122.

²¹ See K. Sivaramkrishnan, *Environment, Law, and Democracy in India*, J. ASIAN STUD. 905, 906 (2011).

²² See *id.* at 912-13.

²³ See *id.* at 910-912.

advances in civil society, local and regional NGOs, came legal mobilization in the courts and consequent judicial activism.²⁴ The Forest Conservation Act of 1980 gained teeth via centralized enforcement and led to further litigation like the *Godavarman* case, establishing continuous mandamus by the Supreme Court of India for environmental conservation.²⁵ The pivotal Dehradun mining case marked a change in Indian common law, and the Court stated that a healthy environment was pivotal to life and liberty for Indian citizens.²⁶ On the heels of such litigation came the Forest Rights Act, articulating explicit land rights for Scheduled Tribes across India.²⁷ The development of conservation policy in India demonstrated a struggle between state rights in a diverse country of several marginalized groups and effective environmental legal protections and policy at a national level.²⁸

Despite the development of national conservation efforts in the last fifty years, India struggles with balancing rapid industrial development and economic reliance on it with environmental protection.²⁹ Though India and China have signed several agreements — and have much to offer each other in terms of India’s energy efficiency and China’s national conservation projects — in recent years to jointly pursue environmental conservation, little has come of these cooperative agreements.³⁰ This is in part due to both countries having geographic disputes over the Himalayas region, which contains unique natural resources that both countries hope to utilize with increased hydropower projects but is already experiencing extreme deforestation and water shortages due to increased development.³¹ International collaboration is

²⁴ *See id.* at 910.

²⁵ *See id.* at 910-911.

²⁶ *See id.* at 913.

²⁷ *See id.* at 907.

²⁸ *See id.* at 906.

²⁹ *See Bawa et al., supra* note 9.

³⁰ *See id.*

³¹ *See id.*

hindered in the Himalayas by the multiple claims to the region, rather than multi-state interests better serving in protecting the region.³²

Additionally, geographic disputes hurt environmental efforts in other ways. In Israel, for example, many of the government's recent environmental pushes, such as EcoPeace's Jordan River Project have been resisted by the Palestinians most affected by environmental degradation.³³ The reason for this is Israeli-backed government conservation projects - some of which call for people outside of Israel to come and contribute on what is already perceived as occupied land - are viewed as efforts to 'normalise' occupation to Palestinians, whose many environmental struggles in Gaza and the West Bank - lack of access to natural resources, including marine resources; chemical pollution; water shortages - are directly linked to a lack of consent or land rights given to them by the Israeli government.³⁴ Until Palestinians have full legal rights to their land and resources in explicitly occupied area, conservation efforts that continue to exclude them are an extension of settler colonialism and will not receive the support of the marginalized people who experience the effects of climate change most severely.³⁵

Further global case studies emphasize the disproportionate effects of climate change on marginalized peoples and their lands. Grassroots movements, both localized and international in nature and influence demonstrate, have employed a number of methods. These communities also face a number of challenges to their organizing, and legal frameworks can present both obstacles and opportunities to combating climate change.

³² *See id.*

³³ *See al-Butmeh et al., supra note 12 at 163.*

³⁴ *See id.*

³⁵ *See id.* at 166.

B. Climate Migrants

1. Background

Migration is often misperceived as the failure to adapt to a changing environment. It is, however, one of the main coping and survival mechanisms that is available to those affected by environmental degradation and climate change.¹ Climate change is bringing both gradual, pervasive environmental change and sudden natural disasters; both of which are influencing the nature and extent of human migrations. There are currently 64 million forced migrants in the world fleeing wars, hunger, persecution and a growing force: climate change. U.N. forecasts estimate that there could be anywhere between twenty-five million and one billion environmental migrants by 2050.² Understanding the climate change-migration nexus will prove instrumental in addressing the current climate emergency.

The year 2020 has brought unprecedented impact from climate change. For example, Baghdad hit 125.2 degrees on July 28, 2020, surpassing its previous record of 123.8 degrees — which was set five years ago — and topping 120 degrees for four days in a row.³ Sitting in one of the fastest warming parts of the globe, the city offers a troubling snapshot of the future that climate change might one day bring other parts of the world.⁴

¹ Francesco Bassetti, *Environmental Migrants: Up to 1 Billion by 2050*, FORESIGHT (May 22, 2019), <https://www.climateforesight.eu/migrations-inequalities/environmental-migrants-up-to-1-billion-by-2050/>.

² *Id.*

³ Louisa Loveluck & Chris Mooney, *Baghdad's record heat offers glimpse of world's climate change future*, WASH. POST (Aug. 12, 2020), <https://www.washingtonpost.com/world/2020/08/12/baghdad-iraq-heat-climate-change/?arc404=true>.

⁴ *Id.*

As climate change continues to increase the likelihood and intensity of environmental disasters and degradation, more and more people will be forced to leave their homes. The factors that drive migration are inextricably linked, and environmental phenomena will only exacerbate economic and social instability. Policies need to work to address climate change, mitigate its impacts, and provide protections to those affected.⁵ The world can now expect that with every degree of temperature increase, roughly a billion people will be pushed outside the zone in which humans have lived for thousands of years.⁶

Throughout human history, migration and climate have always been connected, but in the modern era, the impacts of the man-made climate crisis are likely to extensively change the patterns of human settlement.⁷ The 2019 *Atlas of Environmental Migration*, which provides examples of environmental migration dating as far back as 45,000 years ago, shows that environmental changes and natural disasters have played a role in how the population is distributed on the planet throughout history.⁸ Until the appearance of the figure of the “environmental refugee” in 1985,⁹ migration studies excluded environmental aspects—although migration driven by environmental factors has historically been a consistent phenomenon and played an important role in the first scientific migration theories.¹⁰

⁵ E.g., Jayla Lundstrom, *Climate Change, Migration, and Conflict in Northwest Africa* 3, CTR. FOR AM. PROGRESS (Dec. 3, 2012, 9:04 AM), <https://www.americanprogress.org/issues/immigration/news/2019/12/03/478014/climate-change-altering-migration-patterns-regionally-globally/>.

⁶ Abrahm Lustgarten, *The Great Climate Migration*, N.Y. TIMES MAG. (July 23, 2020), <https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html>.

⁷ *Migration and the climate crisis: the UN's search for solutions*, U.N. NEWS (July 31, 2019), <https://news.un.org/en/story/2019/07/1043551>.

⁸ See DINA IONESCO, DARIA MOKHNACHEVA & FRANÇOIS GEMENNE, *THE ATLAS OF ENVIRONMENTAL MIGRATION* 17 (Routledge 1st ed. 2016).

⁹ ESSAM EL-HINNAWI, *ENVIRONMENTAL REFUGEES* 1 (1985).

¹⁰ Silja Klepp, *Climate Change and Migration*, OXFORD RSCH ENCYC. 1, 7 (2017).

In 1990, the Intergovernmental Panel on Climate Change (IPCC) noted that the greatest single impact of climate change could be on human migration—with millions of people displaced by shoreline erosion, coastal flooding and agricultural disruption.¹¹ In the mid-1990s, it was widely reported that up to 25 million people had been forced from their homes and off their land by a range of serious environmental pressures including pollution, land degradation, droughts and natural disasters.¹² At the time it was declared that “environmental refugees” exceeded all documented refugees from war and political persecution put together.¹³

Without cross-sector collaboration between domestic government actors, international organizations, and climate activists, the migrant crisis will continue unabated. IOM Director General William Lacy Swing charged “[a]s long as you look on migration as a problem, as something to solve, you’re not going to get anywhere. You have to look at it as a human reality that’s as old as humankind. It’s mankind’s oldest poverty reduction strategy. As citizens, we have to find a way to manage it.”¹⁴

2. Environmental Migration

While no internationally accepted definition for persons on the move due to environmental reasons exists to date, environmental migrants are generally understood to be people who are forced to leave their home region due to sudden or long-term changes to their local environment which compromise their livelihood, such as droughts, desertification, sea level

¹¹ AROMAR REVI, ET. AL., FIFTH ASSESSMENT REPORT (WGII AR5) CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY 15 (Intergovernmental Panel on Climate Change 2018).

¹² MIGRATION AND CLIMATE CHANGE No. 31 at 11 (International Organization for Migration 2008).

¹³ *Id.*

¹⁴ Press Release, Quote of the Day, International Organization for Migration (2016) (on file with author).

rise, and disruption of seasonal weather patterns.¹⁵ Climate refugees may choose to flee to or migrate to another country, or they may migrate internally within their own country.¹⁶

Despite contention in formulating a uniform definition of environmental migration, such a concept has become increasingly more acute as global climate change has had observable effects on the environment. Whether people displaced by climate change are labeled as “climate migrants” or “climate refugees” will directly correlate to obligations under international law.

The use of the word “refugee” to describe those fleeing from environmental pressures is not strictly accurate under international law. Strictly speaking, categorization as a refugee is reliant on crossing an internationally recognized border, and climate migration is mainly internal.¹⁷ Moreover, migration is multicausal, and it is likely that the most vulnerable people would not be able to prove climate and environmental factors as the sole reason migration is necessary, which could be required if climate change and environmental disasters are incorporated into existing agreements.¹⁸ The United Nations’ 1951 Convention and 1967 Protocol relating to the status of refugees state that “a refugee is a person who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country”.¹⁹ However, the United Nations Refugee Agency has admitted “[w]here the courts adopt an unduly

¹⁵ See CAMILLO BOANO, ROGER ZETTER & TIM MORRIS, ENVIRONMENTALLY DISPLACED PEOPLE: UNDERSTANDING THE LINKAGES BETWEEN ENVIRONMENTAL CHANGE, LIVELIHOODS AND FORCED MIGRATION 6 (2007).

¹⁶ See *id.* at 7.

¹⁷ Dina Ionesco, *Let’s Talk About Climate Migrants, Not Climate Refugees*, U.N. NEWS (June 6, 2019), <https://www.un.org/sustainabledevelopment/blog/2019/06/lets-talk-about-climate-migrants-not-climate-refugees/>.

¹⁸ See *id.*

¹⁹ CONVENTION AND PROTOCOL RELATING TO THE STATUS OF REFUGEES 3 (United Nations High Commissioner for Refugees 2010).

restrictive interpretation of the provisions of those instruments, this serves as a serious impediment to their full and proper implementation[;]the ambiguous phraseology of certain provisions of the Convention itself allows considerable latitude for restrictive interpretation.”²⁰

Neither a multilateral strategy nor a legal framework exist to account for climate change as a driver of migration. As gradually worsening climate patterns and, even more so, severe weather events, prompt an increase in human mobility, people who choose to move will do so with little legal protection. The current system of international law is not equipped to protect climate migrants, as there are no legally binding agreements obliging countries to support climate migrants.²¹

The signatories to the 2015 Paris Agreement on climate change requested that the Warsaw International Mechanism (WIM) for Loss and Damage Associated with Climate Change develop recommendations for addressing people displaced by climate change.²² Similarly, The 2018 Global Compact for Safe, Orderly, and Regular Migration called on countries to make plans to prevent the need for climate-caused relocation and support those forced to relocate.²³ The Compact contains a section on measures to address environmental and climate challenges, which marks the first time that a comprehensive vision has been laid out, showing how States can handle - now and in the future – the impacts of climate change, disasters, and environmental degradation on international migration.²⁴ However, these agreements are neither legally binding nor sufficiently developed to support climate migrants—particularly migrants from South Asia,

²⁰ *Implementation of the 1951 Convention and the 1967 Protocol Relating to the Status of Refugees*, U.N. HIGH COMM’N FOR REFUGEES (July 7, 1989).

²¹ JOHN PODESTA, *THE CLIMATE CRISIS, MIGRATION, AND REFUGEES* 4 (Brookings 2019).

²² U.N. HUMAN RTS. COUNCIL, *THE SLOW ONSET EFFECTS OF CLIMATE CHANGE AND HUMAN RIGHTS PROTECTION FOR CROSS-BORDER MIGRANTS* 10 (2018).

²³ See PODESTA, *supra* note 21, at 3.

²⁴ *Migration and the climate crisis: the UN’s search for solutions*, U.N. NEWS (July 31, 2019), <https://news.un.org/en/story/2019/07/1043551>.

Central America, Northwest Africa, and the Horn of Africa.²⁵ The United States refused to join 164 other countries in signing the global migration treaty, the first such agreement to recognize climate as a cause of future displacement.²⁶ But, the Department of Defense’s recognized climate change as a “threat multiplier,” with the potential to exacerbate current challenges in its 2010 Quadrennial Defense Review.²⁷

While climate migrants who flee unbearable conditions resemble refugees, the legal protections afforded to refugees do not extend to them. In 2019, there were almost 20.4 million officially designated refugees under the protection of the United Nations High Commission for Refugees (UNHCR)—however, there is an additional group of 21.5 million people who flee their homes as a result of sudden onset weather hazards every year.²⁸ The UNHCR has thus far refused to grant these people refugee status, instead designating them as “environmental migrants.”²⁹ Currently, the global nationalist, anti-immigrant, and xenophobic atmosphere would most likely lead to limiting refugee protections rather than expanding them.³⁰ In nondemocratic countries, governments tend to be especially restrictive toward human and immigrant rights.³¹ Yet even in liberal democracies in which immigration profoundly shaped the national development, like the United States or Australia (still the primary countries to which people migrate), immigrant and asylum rights have deteriorated over recent years.³²

²⁵ PODESTA, *supra* note 21, at 3.

²⁶ Abrahm Lustgarten, *The Great Climate Migration*, N.Y. TIMES MAG. (July 23, 2020), <https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html>.

²⁷ U.S. DEP’T OF DEFENSE, QUADRENNIAL DEFENSE REVIEW REPORT 84–89 (2010), <https://history.defense.gov/Portals/70/Documents/quadrennial/QDR2010.pdf?ver=2014-08-24-144223-573>.

²⁸ PODESTA, *supra* note 21.

²⁹ *Id.*

³⁰ *Id.*

³¹ LARS RENSMANN & JENNIFER MILLER, XENOPHOBIA AND ANTI-IMMIGRANT POLITICS 17 (2010), https://oxfordre.com/internationalstudies/view/10.1093/acrefore/9780190846626.001.0001/acrefore-9780190846626-e-368?__prclt=hS1Go6B3.

³² *Id.*

But for lack of an adequate definition under international law such migrants are almost invisible in the international system: no institution is responsible for collecting data on their numbers, let alone providing them with basic services.³³ Unable to prove political persecution in their country of origin, they fall through the cracks in asylum law. The International Organization for Migration (IOM) proposes “[e]nvironmental migrants are persons or groups of persons, who, for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions, are obliged to leave their habitual homes, or chose to do so, either temporarily or permanently, and who move either within their country or abroad.”³⁴

Often, diverse factors such as population growth, poverty, governance, human security and conflict all interact with the climate change aspect, so it is hard to estimate how many environmental migrants there are globally. According to the Internal Displacement Monitoring Centre, 17.2 million people had to leave their homes in 2019, because of disasters that negatively affected their lives.³⁵ Slow changes in the environment, such as ocean acidification, desertification and coastal erosion, are also directly impacting people’s livelihoods and their capacity to survive in their places of origin.³⁶ Forecasts by the U.N. International Organization for Migration posit that there could be between 25 million to 1 billion environmental migrants by 2050, moving either within their countries or across borders, on a permanent or temporary basis.³⁷ Environmental migrants numbering 200 million globally is the most widely cited estimate, which represents a ten-fold increase over today’s entire

³³ INT’L ORG. FOR MIGRATION, MIGRATION AND CLIMATE CHANGE No. 31 at 15 (2008).

³⁴ INT’L ORG. FOR MIGRATION, GLOSSARY ON MIGRATION 5 (2d ed. 2011).

³⁵ INT’L DISPLACEMENT MONITORING CENTRE, GLOBAL REPORT ON INTERNAL DISPLACEMENT 2019 (2019), <https://www.internal-displacement.org/global-report/grid2019/>.

³⁶ *See id.*

³⁷ Bassetti, *supra* note 1.

documented refugee and internally displaced populations and equates to one in every 45 persons in 2050 displaced by climate change.³⁸ The 2050 prediction exceeds the current global migrant population of about 192 million people, or 3 percent of the world's population, currently living outside their place of birth.³⁹

Climate change is emerging as both a direct and an indirect driver of migration that exacerbates existing vulnerabilities. Whether in terms of limited access to clean water, food scarcity, agricultural degradation, or violent conflict, climate change will intensify challenges and be a significant push factor in human migration patterns. According to the Environmental Justice Foundation, climate change “is the unpredictable ingredient that, when added to existing social, economic, and political tensions, has the potential to ignite violence and conflict with disastrous consequences.”⁴⁰ Therefore, understanding the connection between climate change and migration is necessary especially as climate change predictions for the 21st century indicate that even more people are expected to be on the move as weather-related disasters such as extreme precipitations and temperatures become more frequent and intense.⁴¹ Although there has always been a core interdependency between human migrations and climate, the phenomenon of global warming, and the extreme weather, rising sea levels and instability that it brings, has compounded the relationship.⁴²

³⁸ MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 11.

³⁹ GLOSSARY ON MIGRATION, *supra* note 34.

⁴⁰ Matthew Taylor, *Climate change 'will create world's biggest refugee crisis,'* GUARDIAN (Nov. 2, 2017, 2:01 PM), <https://www.theguardian.com/environment/2017/nov/02/climate-change-will-create-worlds-biggest-refugee-crisis>.

⁴¹ See AROMAR REVI, ET. AL. FIFTH ASSESSMENT REPORT (WGII AR5) CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY 71 (Intergovernmental Panel on Climate Change 2018).

⁴² See Bassetti, *supra* note 1.

3. Climate Change

For most of human history, people have clustered in the “human climate niche,” regions where the mean annual temperature is between fifty-two and fifty-nine degrees.⁴³ Predicting future flows of climate migrants is complex; stymied by a lack of baseline data, distorted by population growth and reliant on the evolution of climate change as well as the quantity of future emissions.⁴⁴ An international team of climatologists, anthropologists, and ecologists attempted to examine temperature conditions and human migration. According to a 2020 study in the *Proceedings of the National Academy of Sciences*, the planet could see a greater temperature increase in the next 50 years than it did in the last 6,000 years combined.⁴⁵ As the planet warms, the regions that offer the climate niche will shift dramatically toward the poles in the next half century.⁴⁶ By 2070, the kind of extremely hot zones, like in the Sahara, that now cover less than one percent of the earth’s land surface could cover nearly a fifth of the land, potentially placing one of every three people alive outside the climate niche where humans have thrived for thousands of years.⁴⁷ Humans will have to adapt to living in a significantly different climate, or a mass migration will occur at a scale unprecedented in human history.

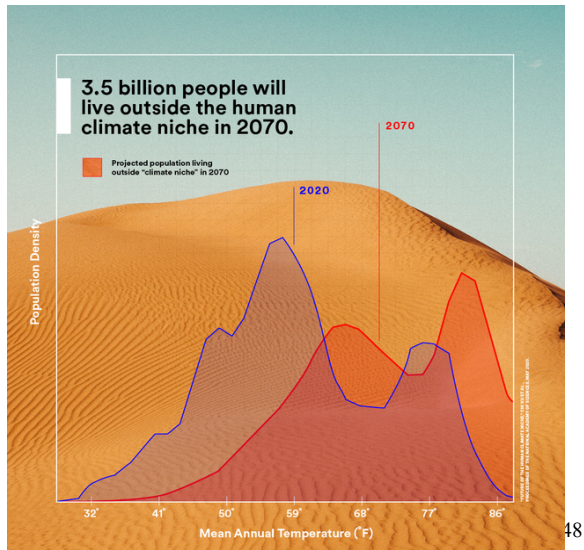
⁴³ Chi Xu et al., *Future of the human climate niche*, PROC. OF THE NAT’L ACAD. OF SCI. (May 4, 2020), <https://doi.org/10.1073/pnas.1910114117>.

⁴⁴ MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 10.

⁴⁵ Chi Xu et al., *supra* note 43.

⁴⁶ *Id.*

⁴⁷ *Id.*



Today, there are seventy million refugees worldwide, and finding suitable homes for them has caused monumental political strife and human rights issues.⁴⁹ Without action to curb climate change, 3.5 million people, a third of the world’s future population, would have to migrate.⁵⁰ The impacts of climate change are global in scope and unprecedented in scale. Migration will rise every year regardless of climate, but that the amount of migration increases substantially as the climate changes. At the current rate, migrants driven primarily by climate would make up as much as 5 percent of the total by 2050.⁵¹

By 2099 the world is expected to be on average between 1.8°C (35.24°F) and 4°C (39.2°F) hotter than it is now.⁵² As a result, the proportion of land in constant drought is expected to increase from two percent to ten percent by 2050.⁵³ Additionally, the proportion of

⁴⁸ Brian Palmer, *By 2070, More Than 3 Billion People May Live Outside the “Human Climate Niche,”* NAT. RES. DEF. COUNCIL (May 14, 2020), <https://www.nrdc.org/stories/2070-more-3-billion-people-may-live-outside-human-climate-niche>.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ Abrahm Lustgarten, *The Great Climate Migration*, N.Y. TIMES MAG. (July 23, 2020), <https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html>.

⁵² See MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 16.

⁵³ *Id.*

land suffering extreme drought is predicted to increase from 1 percent to 30 percent by the end of the 21st century.⁵⁴

Rainfall patterns will change as the hydrological cycle becomes more intense, causing more frequent extreme weather events such as droughts, storms, and floods.⁵⁵ The number of people flooded per year is expected to increase by between ten and 25 million per year by the 2050s and between 40 and 140 million per year by 2100s.⁵⁶ Large delta systems are at particular risk of flooding.⁵⁷

Global average sea level is projected to rise between eight cm and thirteen cm by 2030, between 17 cm and 29 cm by 2050, and between 35 cm and 82 cm by 2100.⁵⁸ Wetland loss could be as high as 25 percent by the 2050s and 42 percent by the 2100s, which could result in land loss of 1.79 M km² (6.91 m²), including critical regions of food production, and displacement of up to 187 million people globally.⁵⁹

Some fish stocks will migrate towards the poles and colder waters and may deplete as surface water run-off and higher sea temperatures lead to more frequent hazardous algal blooms and coral bleaching.⁶⁰ Compounding this, climate change is predicted to worsen a variety of health problems leading to more widespread malnutrition and diarrheal diseases and altered distribution of some vectors of disease transmission such as the malarial mosquito.⁶¹

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ See Chi Xu et al, *supra* note 43.

⁶⁰ See *Climate Change and Harmful Algal Blooms*, ENV'T PROT. AGENCY (Dec. 17, 2019), <https://www.epa.gov/nutrientpollution/climate-change-and-harmful-algal-blooms>.

⁶¹ See *Climate Change and Vector-Borne Diseases*, NAT'L CTR FOR ATMOSPHERIC RES., <https://scied.ucar.edu/longcontent/climate-change-and-vector-borne-disease>.

Currently, a little more than half of the planet’s population lives in urban areas, but by the middle of the century, 67 percent will.⁶² In just a decade, four out of every ten urban residents — two billion people around the world — will live in slums.⁶³ The International Committee of the Red Cross warns that 96 percent of future urban growth will happen in some of the world’s most fragile cities, which already face a heightened risk of conflict and have governments that are least capable of dealing with increased urbanization.⁶⁴ Some cities will be unable to sustain the influx.

In summary, on current trends, the “carrying capacity” of large parts of the world will be compromised by climate change, amplifying the migration crisis. Although there are few instances of climate change as the sole factor in migration, climate change is widely recognized as a contributing and exacerbating factor in migration and in conflict. Forced migration hinders development in at least four ways; by increasing pressure on urban infrastructure and services, by undermining economic growth, by increasing the risk of conflict and by leading to worse health, educational and social indicators among migrants themselves.⁶⁵ Climate change is a threat multiplier; it contributes to economic and political instability and also worsens the effects.⁶⁶ It propels sudden-onset disasters like floods and storms and slow-onset disasters like drought and desertification; those disasters contribute to failed crops, famine and overcrowded urban centers; those crises inflame political unrest and worsen the impacts of war, which leads to even more displacement.⁶⁷

⁶² See POVERTY AND SHARED PROSPERITY 2016 at 7, WORLD BANK GRP. (2016).

⁶³ See *id.*

⁶⁴ See *War in cities: what is at stake?*, INTERNATIONAL COMMITTEE OF THE RED CROSS (Apr. 2, 2017), <https://www.icrc.org/en/document/war-cities-what-stake-0>.

⁶⁵ See MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 17.

⁶⁶ *Id.* at 10.

⁶⁷ See Lustgarten, *supra* note 51.

The meteorological impact of climate change can be divided into two distinct drivers of migration: “climate processes” such as sea-level rise, salinization of agricultural land, desertification and growing water scarcity, and “climate events” such as flooding, storms and glacial lake outburst floods.⁶⁸ But non-climate drivers, such as government policy, population growth and community-level resilience to natural disaster, contribute to the degree of vulnerability people experience.⁶⁹ In 2017, 68.5 million people were forcibly displaced, more than at any point in human history.⁷⁰ While it is difficult to estimate, approximately one-third of the displaced population or 22.5 million to 24 million people were forced to move by “sudden onset” climate events.⁷¹ While the remaining two-thirds of displacements are the results of other non-climate humanitarian crises, climate change is contributing to climate processes, and environmental deterioration will exacerbate many humanitarian crises and may lead to more people being on the move.⁷² The United Nations and others warn that in the worst case, the governments of the nations most affected by climate change could topple as whole regions devolve into war.⁷³ The scope and scale of human migration due to climate change will test the limits of national and global governance as well as international cooperation.

4. Case Studies

Climate change is not equally felt across the globe, and neither are its longer-term consequences. The ability to migrate is a function of mobility and financial and social resources. In other words, the people most vulnerable to climate change are not necessarily the ones most

⁶⁸ *See id.*

⁶⁹ *See* MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 3, at 9.

⁷⁰ JOHN PODESTA, THE CLIMATE CRISIS, MIGRATION, AND REFUGEES 2 (2019).

⁷¹ *See id.*

⁷² *See id.*

⁷³ Lustgarten, *supra* note 51.

likely to migrate.⁷⁴ With climate change increasing the frequency and severity of slow-onset disasters and environmental degradation, the compounded consequences will result in long-term, mass migration spanning national borders. Decisions to migrate due to slow-onset disasters are influenced by preexisting socio-economic, demographic, and political factors. Marginalized communities are the most vulnerable and the least equipped to adapt to the changing environment or leave.⁷⁵

Climate change, and the use of migration as a coping mechanism, will have specific gendered impacts,⁷⁶ given that there is a “strong relationship between poverty and vulnerability to environmental change, and the stark fact that women, as a group, are poorer and less powerful than men.”⁷⁷ As a key organizing principle of society, gender is central to any discussion of the causes and consequences of international migration, including the process of decision-making involved and the mechanisms leading to migration.⁷⁸ The fragile resource base of some *de facto* female-headed units may be compounded by low reserves of labor or the inability to mobilize labor on account of social taboos regarding women’s access to machinery and participation in certain agricultural tasks.⁷⁹ Male outmigration can exacerbate the poverty of rural women.⁸⁰ For, example in both Bangladesh and Pakistan, even with male outmigration, “women may not be able to take major decisions over household production or livelihoods in the home village itself without first obtaining permission from their absent partners or his natal kin.”⁸¹ It is important to

⁷⁴ See MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 9.

⁷⁵ See THE SLOW ONSET EFFECTS OF CLIMATE CHANGE AND HUMAN RIGHTS PROTECTION FOR CROSS-BORDER MIGRANTS 17 (Office of the United Nations High Commissioner for Human Rights 2018).

⁷⁶ For a discussion of the gendered impacts of climate change that focuses on women of color and women in the LGBTQI+ community, see Part I.V.

⁷⁷ See MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 34.

⁷⁸ WOMEN AND INTERNATIONAL MIGRATION 27 (UN).

⁷⁹ See MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 34.

⁸⁰ *Id.*

⁸¹ See *id.*

understand the causes and consequences of international migration from a gender perspective because hierarchical social relations related to gender shape the migration experiences of migrants, whether male or female.⁸²

The long-term and growing body of evidence on migration and mobility shows that migration is in large part related to the broader global economic, social, political and technological transformations that are affecting a wide range of high-priority policy issues.⁸³ The number of international migrants is estimated to be almost 272 million globally, which is 3.5% of the world's population.⁸⁴ The World Bank has put forward projections for internal climate migration amounting to 143 million people by 2050 in three regions of the world (Sub-Saharan Africa, South Asia and Latin America), if no climate action is taken.⁸⁵ That many people on the move could easily lead to massive political and economic strife and significantly stall development in those regions.

Africa

Africa is facing rising sea levels, drought, and desertification. These conditions will only add to the already substantial number of seasonal migrants and put added strain on the country of origin, as well as on destination countries and the routes migrants travel.⁸⁶ According to a 2020 study in the *Proceedings of the National Academy of Sciences*, at current trends, much of Africa would be climatically challenging for human survival by 2050.⁸⁷ Without major action to mitigate climate change, a third of the world's population could live in a climate similar to the

⁸² WOMEN AND INTERNATIONAL MIGRATION, *supra* note 78.

⁸³ INT'L ORG. FOR MIGRATION, WORLD MIGRATION REPORT 2020 1 (2020).

⁸⁴ *See id.* at 2.

⁸⁵ GROUNDSWELL - PREPARING FOR INTERNAL CLIMATE MIGRATION (World Bank Group 2018).

⁸⁶ PODESTA, *supra* note 70, at 3.

⁸⁷ *See* Chi Xu et al., *supra* note 43.

Sahara in just 50 years.⁸⁸ That would be 3.5 billion people living in a scorching hot landscape with a mean average temperature in the mid-80s.⁸⁹

Migration in Africa involves large numbers of migrants moving both within and from the region.⁹⁰ Climate change directly impacts migration, poverty and war, demonstrating that environmental degradation has societal, geo-strategic and economic impacts.⁹¹ There is a direct causal link between climate change, land degradation, and climate migrants in Africa.⁹² Climate change has already had visible effects on the arid landscape. Less rain would have particularly serious impacts for sub-Saharan African agriculture with estimates that yields from rain-fed agriculture fell by up to 50 percent between 2008 and 2020, leading to increased malnutrition.⁹³

Chad

Boundless insecurity has weakened a region already impacted by environmental degradation. Lake Chad, a vital resource for Cameroon, Chad, Niger and Nigeria, has shrunk by more than 90 percent since 1963.⁹⁴ Lake Chad Basin faces multiple interconnected challenges: poverty, terrorism, organized crime, and climate change among them.⁹⁵

⁸⁸ *See id.*

⁸⁹ Brian Palmer, *By 2070, More Than 3 Billion People May Live Outside the “Human Climate Niche,”* NAT. RES. DEF. COUNCIL (May 14, 2020), <https://www.nrdc.org/stories/2070-more-3-billion-people-may-live-outside-human-climate-niche>.

⁹⁰ WORLD MIGRATION REPORT, 54 *supra* note 83, at 54.

⁹¹ *See* Grammenos Mastrojeni, *The right climate to migrate*, TEDXMILANO, https://www.ted.com/talks/grammenos_mastrojeni_the_right_climate_to_migrate.

⁹² *See id.*

⁹³ *See* MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 16.

⁹⁴ *See* Lustgarten, *supra* note 51.

⁹⁵ Press Release, Boko Haram Violence Blamed for Massive Insecurity, Forced Displacement, as Security Council Considers Situation in Lake Chad Basin, United Nations (July 27, 2016) (on file with author).

The ecological catastrophe is a compounding factor in the Boko Haram insurgency crisis, which has led to the displacement of 3.5 million people.⁹⁶

Ethiopia

The World Bank has raised concerns about the influx of people into East African cities like Addis Ababa, in Ethiopia, where the population has doubled since 2000 and is expected to nearly double again by 2035.⁹⁷ In the second half of the century, many of the people who fled there will be forced to move again, leaving that city as local agriculture around it dries up.⁹⁸

Mozambique

On March 14, 2019, Tropical Cyclone Idai struck the southeast coast of Mozambique.⁹⁹ The U.N. High Commissioner for Refugees reported that 1.85 million people needed assistance. Mozambique struggled to house 146,000 internally displaced people in 155 temporary sites.¹⁰⁰ The cyclone and subsequent flooding damaged 100,000 homes, destroyed 1 million acres of crops, and demolished \$1 billion worth of infrastructure.¹⁰¹

Sahel

In the African Sahel, the ecoclimatic and biogeographic zone of transition in Africa between the Sahara to the north and the Sudanian savanna to the south,

⁹⁶ See Lustgarten, *supra* note 51.

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ PODESTA, *supra* note 70, at 1.

¹⁰⁰ *See id.*

¹⁰¹ *Id.*

millions of rural people have been streaming toward the coasts and the cities amid drought and widespread crop failures.¹⁰² In the nine countries stretching across the continent from Mauritania to Sudan, extraordinary population growth and steep environmental decline are on a collision course.¹⁰³ Past droughts have resulted in more than 100,000 deaths.¹⁰⁴ The region — with more than 150 million people and growing — is also threatened by rapid desertification, even more severe water shortages, and deforestation.¹⁰⁵ In 2020, researchers at the United Nations estimate that some 65 percent of farmable lands have already been degraded.¹⁰⁶

Syria

In 2007, eastern Syria — along with Turkey, northern Iraq and western Iran — entered a three-year drought, the region’s worst in modern times.¹⁰⁷ According to a 2020 study in the *Proceedings of the National Academy of Sciences*, the severe drought was two to three times more likely because of the increasing aridity in the region.¹⁰⁸ In Syria, water scarcity, crop failures and livestock deaths drove an estimated 1.5 million people to the cities from rural areas.¹⁰⁹ Food prices soared, contributing to economic and social tensions and leaving Syrians dangerously vulnerable to the subsequent war.¹¹⁰ Drawing one of

¹⁰² Lustgarten, *supra* note 51.

¹⁰³ *See id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *See id.*

¹⁰⁷ Henry Fountain, *Researchers Link Syrian Conflict to a Drought Made Worse by Climate Change*, N.Y. TIMES (Mar. 2, 2015), <https://www.nytimes.com/2015/03/03/science/earth/study-links-syria-conflict-to-drought-caused-by-climate-change.html>.

¹⁰⁸ *See* Chi Xu et al., *supra* note 43.

¹⁰⁹ Fountain, *supra* note 107.

¹¹⁰ *Id.*

the strongest links yet between global warming and human conflict, researchers said Monday that an extreme drought in Syria between 2006 and 2009 was most likely due to climate change, and that the drought was a factor in the violent uprising that began there in 2011.¹¹¹ Even before the war, Drought helped push many Syrians into cities before the war, worsening tensions and leading to rising discontent; crop losses led to unemployment that stoked Arab Spring uprisings in Egypt and Libya.¹¹² The security community also highlights the connection between climate change and terrorism—for instance, the decline of agricultural and pastoral livelihoods has been linked to the effectiveness of financial recruiting strategies by al-Qaida.¹¹³

Significant migration corridors within and from Africa exist, many of which are related to geographic proximity and historical ties, as well as displacement factors.¹¹⁴ Environmental change and disasters in Africa are prevalent and increasing, influencing human movement and displacement. There is a growing fear that Africa’s transition into a post-climate-change civilization “leads to a constant outpouring of people.”¹¹⁵

Asia

In Asia, increasing temperatures, sea level rise, more frequent cyclones, flooding of river systems fed by melting glaciers, and other extreme weather events are exacerbating current internal and international migration patterns.¹¹⁶ Additionally, rapid economic growth and

¹¹¹ *Id.*

¹¹² See Caitlin E. Werrell, Francesco Femia & Anne-Marie Slaughter, *The Arab Spring and Climate Change*, CTR. FOR AM. PROGRESS (Feb. 28, 2013, 8:57 AM), <https://www.americanprogress.org/issues/security/reports/2013/02/28/54579/the-arab-spring-and-climate-change/>.

¹¹³ PODESTA, *supra* note 70, at 3.

¹¹⁴ WORLD MIGRATION REPORT, *supra* note 83, at 58.

¹¹⁵ Lustgarten, *supra* note 51.

¹¹⁶ See PODESTA, *supra* note 70.

urbanization are accelerating and magnifying the impact and drivers of climate change—the demand for energy is expected to grow 66 percent by 2040.¹¹⁷

The World Bank projects that the South Asian region, where nearly one-fourth of the global population lives, will soon have the highest prevalence of food insecurity in the world.¹¹⁸

Crop yields in Central and South Asia could fall by 30 percent by the middle of the 21st century.¹¹⁹ While some 8.5 million people have fled already — resettling mostly in the Persian Gulf — 17 million to 36 million more people may soon be uprooted.¹²⁰

Compounding this, many of the expanding urban areas are located in low-lying coastal areas, already threatened by sea level rise.¹²¹ In December 2006, there were widespread reports of the first submergence of an inhabited island due to climate change.¹²² Researchers reported that Lohachara island in the Hooghly river delta, once home to 10,000 people, and which had first started flooding 20 years ago, had finally been entirely submerged.¹²³ One of a number of vanishing islands in the delta, the loss of the islands and other coastal land in the delta has left thousands of people homeless.¹²⁴ Numerically and geographically, South and East Asia are particularly vulnerable to large-scale forced migration because sea level rise will have a disproportionate effect on their large populations living in low-lying areas.¹²⁵ Six of Asia's ten megacities are located on the coast (Jakarta, Shanghai, Tokyo, Manila, Bangkok and

¹¹⁷ *Id.*

¹¹⁸ *See Lustgarten, supra note 51.*

¹¹⁹ JEMMA GORNALL ET AL., IMPLICATIONS OF CLIMATE CHANGE FOR AGRICULTURAL PRODUCTIVITY IN THE EARLY TWENTY-FIRST CENTURY (2010), National Institute of Health 10.1098.

¹²⁰ *See Lustgarten, supra note 51.*

¹²¹ *See PODESTA, supra note 70.*

¹²² MIGRATION AND CLIMATE CHANGE No. 31, *supra note 33*, at 26.

¹²³ *Id.*

¹²⁴ *Id.* at 24.

¹²⁵ *See Climate Change Danger to South Asia's Economy*, UNITED NATIONS CLIMATE CHANGE (Aug. 19, 2014), <https://unfccc.int/news/climate-change-danger-to-south-asias-economy>.

Mumbai).¹²⁶ China, meanwhile, has 41 percent of its population, 60 percent of its wealth and 70 percent of its megacities in coastal areas.¹²⁷

The confluence of these factors leads the World Bank to predict that the collective South Asian economy (Bangladesh, Bhutan, India, the Maldives, Nepal, and Sri Lanka) will lose 1.8 percent of its annual GDP due to climate change by 2050.¹²⁸ In Southeast Asia, where increasingly unpredictable monsoon rainfall and drought have made farming more difficult, more than eight million people have moved toward the Middle East, Europe and North America since 2010.¹²⁹

China

The country's deserts have expanded by 21,000 square miles since 1975, crowding out cropland and producing devastating sandstorms.¹³⁰ The government has resettled hundreds of thousands of climate migrants — many of them religious or ethnic minorities — from across the affected areas of northern China.¹³¹

India

India, currently home to one in every six people on earth, could become 100 times more prone to heat waves in the next 50 years.¹³² By 2100,

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *See* GROUNDSWELL - PREPARING FOR INTERNAL CLIMATE MIGRATION (World Bank Group 2018).

¹²⁹ Lustgarten, *supra* note 51.

¹³⁰ *Id.*

¹³¹ *Id.*

¹³² *See* ETHAN D COFFEL ET AL., TEMPERATURE AND HUMIDITY BASED PROJECTIONS OF A RAPID RISE IN GLOBAL HEAT STRESS EXPOSURE DURING THE 21ST CENTURY (2018), *Environ. Res. Lett.* 13 014001.

temperatures could rise to the point that just going outside for a few hours in some places, including parts of India and Eastern China, “will result in death even for the fittest of humans.”¹³³

Philippines

Many climate models predict that warming oceans will make typhoons and tropical storms more intense, raising their destructive potential.¹³⁴ Since 2013, nearly 15 million people have been displaced by typhoons and storms in the Philippines.¹³⁵ The deadliest of them, Typhoon Haiyan, killed more than 7,000 people.¹³⁶ The Global Climate Risk Index 2015 listed the Philippines as the number one most affected country by climate change, using 2013 data.¹³⁷

Europe

European Union

In the European Union (EU), where the stresses and strains associated with processing large numbers of migrants have already reached crisis proportions, experts predict that the annual stream of those seeking safety within its borders will triple by the end of the century due to climate-related migration.¹³⁸

If global warming gas emissions continue at the present pace, the number of

¹³³ Eun-Soon Im, Jeremy S. Pal & Elfatih A. B. Eltahir, *Deadly heat waves projected in the densely populated agricultural regions of South Asia*, 3 SCI. ADVANCES 160, 160 (2017).

¹³⁴ *E.g.*, *How is Climate Change Affecting the Philippines?*, CLIMATE REALITY PROJECT (Jan. 19, 2019, 10:02 AM), <https://www.climaterealityproject.org/blog/how-climate-change-affecting-philippines>.

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ *See* S. KREFT ET AL., GERMANWATCH GLOBAL CLIMATE RISK INDEX 2015 (Birgit Kolboske et al., eds. 10th ed. 2015).

¹³⁸ Jeff Turrentine, *Climate Change Is Already Driving Mass Migration Around the Globe*, NAT. RES. DEF. COUNCIL (Jan. 25, 2019), <https://www.nrdc.org/onearth/climate-change-already-driving-mass-migration-around-globe>.

asylum-seekers to Europe could increase by nearly 200 percent.¹³⁹ The research links higher temperatures in agricultural regions with the flood of people seeking asylum in the European Union.¹⁴⁰ If current temperature trends continue, the EU can expect an additional 600,000 or more refugees begging to enter each year — nearly twice as many as those who currently seek asylum.¹⁴¹

Brexit was arguably a ripple effect of the influx of about two million migrants brought to Europe by the wars that followed.¹⁴² As the mechanisms of climate migration have come into sharper focus — food scarcity, water scarcity and heat — the latent potential for large-scale movement comes to seem astronomically larger.¹⁴³

North America

Mexico

In Mexico, the World Bank estimates, as many as 1.7 million people may migrate away from the hottest and driest regions.¹⁴⁴ One in six Mexicans rely on farming for their livelihood, and close to half the population lives in poverty.¹⁴⁵ With climate change, water availability per capita could decrease by as much as 88 percent in places, and crop yields in coastal regions may drop by a third.¹⁴⁶ Fluctuating temperatures and unpredictable rainfall throughout the Northern

¹³⁹ Anouch Missirian & Wolfram Schlenker, *Asylum applications respond to temperature fluctuations*, 358 SCI. 1610, 1612 (2017).

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 1613.

¹⁴² *See* Lustgarten, *supra* note 51.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *See* Chi Xu, *supra* note 43.

¹⁴⁶ *Id.*

Triangle have destroyed crops and livelihoods, making food insecurity increasingly acute and driving migration.¹⁴⁷ One of the first applications of econometric modeling to the climate-migration problem found that Mexican migration to the United States pulsed upward during periods of drought and projected that by 2080, climate change there could drive 6.7 million more people toward the Southern U.S. border.¹⁴⁸

United States

If governments take modest action to reduce climate emissions, about 680,000 climate migrants might move from Central America and Mexico to the United States between 2020 and 2050.¹⁴⁹ If emissions continue unabated, leading to more extreme warming, that number jumps to more than a million people. In the most extreme climate scenarios, more than 30 million migrants would head toward the U.S. border over the course of the next 30 years.¹⁵⁰

Louisiana

Louisiana is approximately 2,000 square miles smaller today than at its modern maximum of less than a century ago.¹⁵¹ Since 1955, the Isle de Jean Charles, a small island 80 miles

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ See Lustgarten, *supra* note 51.

¹⁵⁰ *Id.*

¹⁵¹ Brian Palmer, *Who Should Pay to Restore the Louisiana Coastline?*, NAT. RES. DEF. COUNCIL (Aug. 26, 2015), <https://www.nrdc.org/onearth/who-should-pay-restore-louisiana-coastline>.

southwest of New Orleans, has shrunk by 98 percent.¹⁵² At a mere quarter mile across by two miles long, the isle continues to slip into the Gulf of Mexico.¹⁵³ The state’s climate forecast predicts sea levels rising between 1.41 and 2.72 feet by 2067, which would place more than 1.2 million people at risk of coastal flooding.¹⁵⁴ The frequency and severity of hurricanes and extreme rainfall are also expected to increase.¹⁵⁵ In August 2016, a staggering 20 inches of rain poured over southern Louisiana, inundating more than 109,000 homes and disrupting 20 percent of businesses across the state.¹⁵⁶ At the community’s peak, 300 families, most of which belong to the Isle de Jean Charles (IDJC) Biloxi-Chitimacha-Choctaw tribe, called Isle de Jean Charles home, but only about 26 remain.¹⁵⁷ Erosion fueled by a mix of climate change and land subsidence accelerated by the fossil fuel industry is forcing them out once more.¹⁵⁸

¹⁵² See Robynne Boyd, *The People of the Isle de Jean Charles Are Louisiana’s First Climate Refugees—but They Won’t Be the Last*, NAT. RES. DEF. COUNCIL (Sep. 23, 2019), <https://www.nrdc.org/stories/people-isle-jean-charles-are-louisianas-first-climate-refugees-they-wont-be-last>.

¹⁵³ *See id.*

¹⁵⁴ *See id.*

¹⁵⁵ *See id.*

¹⁵⁶ *See id.*

¹⁵⁷ *See id.*

¹⁵⁸ *Id.*

Texas

Temperatures already top 90 degrees in Texas for three months of the year, and by the end of the century it will be that hot one of every two days.¹⁵⁹ The heat will drive deaths that soon outpace those from car crashes or opioid overdoses.¹⁶⁰ Cooling costs — already a third of some residents' budgets — will get pricier, and warming will drive down economic output by 8 percent.¹⁶¹

Sarichef Island

Shishmaref village lies on Sarichef Island just north of the Bering strait.¹⁶² A combination of melting permafrost and sea-shore erosion at a rate of up to 3.3 meters (10.8 feet) a year have forced the inhabitants to relocate their village several kilometers or miles to the south.¹⁶³ It is thought that climate change has directly exacerbated the sea-erosion by thinning the sea ice which used to reduce the force of local tides and erosive currents.¹⁶⁴

Central America

¹⁵⁹ Lustgarten, *supra* note 51.

¹⁶⁰ *See id.*

¹⁶¹ *See id.*

¹⁶² *See* MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 30.

¹⁶³ *See id.*

¹⁶⁴ *Id.*

The fluctuation between droughts and sudden storm patterns in Central America is expected to become more frequent as the planet warms.¹⁶⁵ Average temperatures in Central America have increased by 0.5°C (32.9°F) since 1950 with estimates of another 1°C to 2°C (33.8°F to 35.8°F) temperature increase before 2050.¹⁶⁶ Furthermore, the number of storms, floods, and droughts in the region continues to rise, which means rainfall will decrease just as prolonged droughts increase.¹⁶⁷

El Salvador

El Salvador is home to 6.4 million people and is the smallest and most densely populated country in Central America.¹⁶⁸ At current climate change rates, El Salvador is projected to lose 10 percent to 28 percent of its coastline before the end of the century.¹⁶⁹ By midcentury, the U.N. estimates that the country will be 86 percent urban.¹⁷⁰ Much of the growth will be concentrated in the country's slum-like suburbs, where people live in thousands of ramshackle structures with scarce resources.¹⁷¹ The capital and most populous city of San Salvador, where reports unemployment, crime, and poverty are increasing, provides a microcosm

¹⁶⁵ See Adriana Abdenur, *Climate Migration Hotspots in Mexico and Central America*, IGARAPÉ INST. (Jan. 24, 2019), <https://igarape.org.br/en/climate-migration-hotspots-in-mexico-and-central-america/>.

¹⁶⁶ *Central America Regional Climate Change Project*, U.S. AGENCY FOR INT'L DEV., https://www.usaid.gov/sites/default/files/documents/1862/Fact_Sheet-Central_America_Regional_Climate_Change_Project.pdf.

¹⁶⁷ See Abdenur, *supra* note 165.

¹⁶⁸ See *The World Bank in El Salvador*, WORLD BANK GRP.

<https://www.worldbank.org/en/country/elsalvador/overview> (last updated Apr. 1, 2020).

¹⁶⁹ Lauren Markham, *How climate change is pushing Central American migrants to the US*, GUARDIAN (Apr. 6, 2019, 6:00 PM), <https://www.theguardian.com/commentisfree/2019/apr/06/us-mexico-immigration-climate-change-migration>.

¹⁷⁰ Lustgarten, *supra* note 51.

¹⁷¹ See *id.*

of the effects of slums in the region.¹⁷² As society weakens, the gangs — whose members outnumber the police in parts of El Salvador by an estimated three to one — extort and recruit, making San Salvador’s murder rate one of the highest in the world.¹⁷³

Guatemala

Many semiarid parts of Guatemala will soon be more like a desert. Rainfall is expected to decrease by 60 percent in some parts of the country, and the amount of water replenishing streams and keeping soil moist will drop by as much as 83 percent.¹⁷⁴ Researchers project that by 2070, yields of some staple crops in Alta Verapaz, a department in the north central part of Guatemala, will decline by nearly a third.¹⁷⁵

Oceania

Small island states around the world, such as the Bahamas, Kiribati, the Maldives and the Marshall Islands) are particularly vulnerable to sea level rise because in many cases, much of their land is less than three or four meters (approximately ten feet) above present sea level.¹⁷⁶ By 2080, flood risk for people living in small island states will be 200 times greater than if there had been no global warming.¹⁷⁷

Carteret Islands and Torres Islands

¹⁷² Jason Motlagh, *Inside El Salvador’s battle with violence, poverty, and U.S. policy*, NAT’L GEO. (Mar. 2019), <https://www.nationalgeographic.com/magazine/2019/03/el-salvador-violence-poverty-united-states-policy-migrants/>; *see also* Lustgarten, *supra* note 51.

¹⁷³ *See The World Bank in El Salvador*, *supra* note 168.

¹⁷⁴ *See* Lustgarten, *supra* note 51.

¹⁷⁵ *Id.*

¹⁷⁶ *See* MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 31.

¹⁷⁷ *See id.*

In 2005, the government of Bougainville Island, an autonomous region in Papua New Guinea, officially declared the evacuation of the 1,000 residents of the Carteret Islands, a group of six small and low-lying coral atolls administered by Papua New Guinea.¹⁷⁸ Storm-related erosion and salt water intrusion rendered the population almost entirely dependent on outside aid.¹⁷⁹ In many parts of the world climate change threatens to destroy, contaminate or dry up water supplies.¹⁸⁰ In areas where sea levels rise, children's lives are at risk as the quantity and quality of their water they drink is under threat, as are food crops.¹⁸¹ When sea-levels rise salt water can infiltrate water supplies and cause irreversible damage, making the water undrinkable.¹⁸² A second group of about a hundred residents of Lateu, on the island of Tegua on Vanuatu, were relocated farther inland, again following storm-damage, erosion and salt damage to their original village.¹⁸³

In both cases, the declaration of their status as “the first climate change refugees” was timed to coincide with the United Nations Climate Convention meeting in November 2005.¹⁸⁴ Climate change is both a narrative and material phenomenon. Therefore, understanding climate change requires broad conceptualizations that incorporate multiple voices and recognize the agency of vulnerable populations.¹⁸⁵

¹⁷⁸ See Simon Nazar, *The Last Islanders: rising sea levels in Papua New Guinea*, UNITED NATIONS INT'L CHILD. EMERGENCY FUND (Mar. 22, 2017), <https://blogs.unicef.org/east-asia-pacific/the-last-islanders/>.

¹⁷⁹ E.g., John Connell, *The Carteret Islands: precedents of the Greenhouse effect*, 75 GEO. 152, 152 (1990).

¹⁸⁰ Nazar, *supra* note 178.

¹⁸¹ *Id.*

¹⁸² *Id.*

¹⁸³ MIGRATION AND CLIMATE CHANGE No. 31, *supra* note 33, at 26.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

Pacific Islands

To date, there are only a few cases where climate change is the sole factor prompting migration.¹⁸⁶ The clearest examples are in the Pacific Islands. The sea level is rising at a rate of 12 millimeters (0.03 feet) per year in the western Pacific and has already submerged eight islands.¹⁸⁷ Two more are on the brink of disappearing, prompting a wave of migration to larger countries.¹⁸⁸ Islands in the Federated States of Micronesia have drastically reduced in size, washed down to an uninhabitable state, had their fresh water contaminated by the inflow of seawater, and disappeared in the past decade.¹⁸⁹

By 2100, it is estimated that 48 islands overall will be lost to the rising ocean.¹⁹⁰ In 2015, the Teitiota family applied for refugee status in New Zealand, fleeing the disappearing island nation of Kiribati.¹⁹¹ Mr. Teitiota claimed that he was entitled to be recognized as a refugee “on the basis of changes to his environment in Kiribati caused by sea-level-rise associated with climate change.”¹⁹² Their case, the first request for refuge explicitly attributed climate change, made it to the High Court of New Zealand but was ultimately

¹⁸⁶ *E.g.*, PODESTA, *supra* note 70, at 2.

¹⁸⁷ *See id.*

¹⁸⁸ P.D. Nunn, A. Kohler & R. Kumar, *Identifying and Assessing Evidence for Recent Shoreline Change Attributable To Uncommonly Rapid Sea-Level Rise in Pohnpei, Federated State of Micronesia, Northwest Pacific Ocean*, 21 J. OF COAST CONSERVATION 719, 719 (2017).

¹⁸⁹ *Id.*

¹⁹⁰ PODESTA, *supra* note 70.

¹⁹¹ See Kelly Buchanan, *New Zealand: "Climate Change Refugee" Case Overview*, L. LIBR. OF CONG. (July 2015), <https://www.loc.gov/law/help/climate-change-refugee/new-zealand-climate-change-refugee-case.pdf>.

¹⁹² *Id.*

dismissed.¹⁹³ The High Court judge noted that “there are many decisions rejecting claims by people . . . on the grounds that the harm feared (environmental problems in low-lying countries attributable to climate change) does not amount to persecution.”¹⁹⁴ Despite the Pacific Islands’ extreme vulnerability, the relatively small population of 2.3 million people spread across 11 countries and remote location of the Pacific Islands means that they garner little international action¹⁹⁵.

South America

Brazil

As glacial melting reduces freshwater reserves for the Andean plain, tensions are growing between locals and the mining and agribusiness operations that consume much of what remains.¹⁹⁶ Researchers predict that this resource conflict will drive more migrants to the Amazon Basin where many have already turned to informal mining and coca cultivation, fueling the rise of criminal syndicates.¹⁹⁷

Conclusion

There is no one single solution to respond to the challenge of environmental migration, but there are many solutions that tackle different aspects of this complex equation. Nothing meaningful can ever be achieved without the strong involvement of civil society actors and the communities themselves who very often know what is best for them and their ways of life.¹⁹⁸

¹⁹³ *See id.*

¹⁹⁴ *Id.*

¹⁹⁵ *See* PODESTA, *supra* note 70, at 2–3.

¹⁹⁶ Lustgarten, *supra* note 51.

¹⁹⁷ *Id.*

¹⁹⁸ WILLIAM J. DUIKER, *CONTEMPORARY WORLD HISTORY* 406 (Cengage 7th ed. 2020).

With enhanced knowledge of how environmental factors affect migration, and how they also interact with other migration drivers, such as demographic, political and economic conditions, there is more incentive to act urgently, be prepared and respond.¹⁹⁹

While there are no legally binding international regimes that protect climate migrants, there are voluntary compacts that could be used to support them.²⁰⁰ Most notably, 193 countries adopted the 2030 Sustainable Development Goals (SDGs), which address both migration and climate change.²⁰¹ Several of the 169 targets established by the SDGs lay out general goals that could be used to protect climate migrants.²⁰² SDG 13 on climate action outlines several targets that address the climate crisis: 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries; 13.2: Integrate climate change measures into national policies, strategies, and planning; and 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.²⁰³ To meet these goals, extensive bilateral and multilateral development assistance will be needed. The U.S. must create a strategic approach to focus development assistance and multilateral organizations on those targets—particularly to create resilient societies that can keep people in their communities.²⁰⁴ Although the SDGs do not explicitly link climate change and migration, SDG target 10.7 calls for signatories to “facilitate orderly, safe, and responsible migration of people, including through implementation of planned and well-managed policies.”²⁰⁵

¹⁹⁹ See *Migration and the climate crisis: the UN’s search for solutions*, U.N. NEWS (July 31, 2019), <https://news.un.org/en/story/2019/07/1043551>.

²⁰⁰ E.g., PODESTA, *supra* note 70, at 4.

²⁰¹ *Id.*

²⁰² *Id.*

²⁰³ *Id.*

²⁰⁴ *Id.*

²⁰⁵ *Id.* at 4–5.

The scale and scope of climate change demand dynamic and comprehensive solutions. The international community must address climate stress on vulnerable populations specifically, rather than redirecting efforts of existing programs that operate on the periphery of the growing crisis. Research is needed to determine the best way to improve the migratory process itself—be it increasing migration monitors, providing safer modes of transport, and consolidating and expanding destination country integration resources.²⁰⁶

Dedicating greater resources to mitigate climate migration is also part of an effective solution. Creating a single dedicated fund to curbing the migration impact of climate change would allow countries to streamline and refine their support strategies, address the effects of climate change directly, and rebuild their reputation abroad.²⁰⁷ The fund should try to emulate and partner with the United Kingdom’s Department for International Development (DFID), Germany’s Society for International Cooperation (GIZ), and Japan’s International Cooperation Agency (JICA). Cooperation with the development agencies of the international community can mobilize massive resources at the scale required to confront the global climate crisis.²⁰⁸ A variety of medium-term investments (five to 10 years) could create more resilience to the effects of climate change.²⁰⁹ For example, the climate change factors that push migration in Northwest Africa could—at least in part—be addressed by supporting irrigation infrastructure, providing food supplies, fostering regional water cooperation, and supporting livelihood security.²¹⁰

²⁰⁶ *Id.* at 5.

²⁰⁷ *See id.*

²⁰⁸ *See id.*

²⁰⁹ *See id.*

²¹⁰ Michael Werz & Laura Conley, *Climate Change, Migration, and Conflict in Northwest Africa* 3, CTR. FOR AM. PROGRESS (Apr. 18, 2012, 9:00 AM), <https://www.americanprogress.org/issues/security/reports/2012/04/18/11439/climate-change-migration-and-conflict-in-northwest-africa/>.

The intersection of climate change and migration requires new, nimble, and comprehensive solutions to the multidimensional challenges it creates. Multilateral institutions, development agencies, and international law must do far more to thoroughly examine the challenges of climate change.

5. Sunken Rights

INTRODUCTION

Bangkok. Mumbai. Shanghai. Alexandria. Basra. The entire country of Vietnam. These are all places — many of them major international economic and cultural hubs — that in thirty years will be underwater at high tide, according to a 2019 study.¹ Subsidence and submergence, both scientific terms for the sinking of land, threatens to upend the livelihoods of millions around the world in the future, but populations in low-lying islands in the Gulf of Mexico and Oceania are already feeling the effects. In the state of Louisiana in the United States, a football field’s worth of land, or about 2,000 square miles, sinks into the Gulf Coast every hour,² and in 2020, amid the deadly coronavirus pandemic, the Isle de Saint Charles commenced the first government-funded relocation program of climate refugees in America.³

But long before 2020, two island countries, Kiribati and Vanuatu, had already become closely acquainted with the loss of a home, a community, and a nation to the sea. This section contributes to our understanding of climate refugees and international human rights by identifying the phenomenon of increased longing for local identity — exemplified through a community’s refusal to leave their geography — that comes with the loss of a homeland to subsidence in three very different contexts: Kiribati, Vanuatu, and the Isle de Saint Charles in the United States. It will show how relocation models

¹ Denise Lu & Christopher Flavelle, *Rising Seas Will Erase More Cities by 2050, New Research Shows*, N.Y. Times (Oct. 29, 2019), <https://www.nytimes.com/interactive/2019/10/29/climate/coastal-cities-underwater.html> (last accessed Feb. 27, 2021); Scott A. Kulp & Benjamin H. Strauss, *New elevation data triple estimates of global vulnerability to sea-level rise and coastal flooding*, 10 NATURE COMM’NS 4844 (2019), available at <https://www.nature.com/articles/s41467-019-12808-z>.

² Brian Palmer, *Who Should Pay to Restore the Louisiana Coastline?*, NATURAL RESOURCES DEFENSE COUNCIL (Aug. 26, 2015), <https://www.nrdc.org/onearth/who-should-pay-restore-louisiana-coastline> (last accessed Feb. 27, 2021); Jaap H. Nienhuis et al, *A New Subsidence Map for Coastal Louisiana*, 27 GEOLOGICAL SOC’Y OF AM. TODAY 58 (2017).

³ Tristan Baurick, *Deadline set for residents of vanishing Isle de Jean Charles to apply for relocation*, NOLA.com (Jan. 17, 2020, 9:15 AM), https://www.nola.com/news/environment/article_bcad8766-3897-11ea-aa1a-afd169d0be02.html; Julie Dermansky, *Louisiana Breaks Ground on Isle de Jean Charles Resettlement Project Amid Pandemic*, DESMOG BLOG (May 22, 2020, 10:38 PM), <https://www.desmogblog.com/2020/05/22/isle-de-jean-charles-tribe-louisiana-resettlement-construction>.

have failed to take into consideration a nation's or community's shared history and a sense of belonging as part of the rights preservation framework.

SINKING LAND AND INTERNATIONAL LAW

Simply stated, subsidence is “a gradual settling or sudden sinking of the Earth's surface due to removal or displacement of subsurface earth materials.”⁴ In large continental land masses, subsidence can occur because of underground mining, drainage of organic soils or even thawing permafrost.⁵ But rising sea levels, especially in low-lying island nations, can be a significant contributing factor in the onset of sinking land through *submergence*;⁶ a mere high tide can bring disastrous effects on a community, its economy, and its way of life.⁷ This was the experience of inhabitants of the Carteret Islands in 2009, famously remembered as the world's “first climate refugees” after they were forced to relocate to Bougainville, Papua New Guinea.⁸ Whether the sinking of land occurs through subsidence or submergence is largely irrelevant to this Essay, as both phenomena implicate the larger international legal conundrum of deterritorialization.

The 1933 Montevideo Convention, widely regarded as the landmark document defining contemporary statehood, requires that states possess a permanent population, a defined territory, government, and capacity to enter into relations with other states.⁹ Textually, it follows that the physical disappearance of territory would entail the disappearance of the state, and indeed, state extinction seems to be the prevailing view among legal scholars.¹⁰ Clearly, however, the drafters of the Convention nearly

⁴ U.S. Geological Service, *Land Subsidence*, https://www.usgs.gov/mission-areas/water-resources/science/land-subsidence?qt-science_center_objects=0#qt-science_center_objects.

⁵ *Id.* Submergence refers to “the process or state of being submerged in or covered with a depth of water.” *Submergence*, Oxford English Dictionary (3rd ed. 2012).

⁶ Ryan Jarvis, *Sinking Nations and Climate Change Adaptation Strategies*, 9 SEATTLE J. FOR SOC. JUST. 447, 447 (2010).

⁷ Peter Reuell, *And now, land may be sinking*, THE HARVARD GAZETTE (Feb. 19, 2019), <https://news.harvard.edu/gazette/story/2019/02/study-of-sea-level-rise-finds-land-sinking-along-east-coast/> (last visited Feb. 27, 2021).

⁸ Adam Morton, *First climate refugees start move to new island home*, SYDNEY MORNING HERALD (July 29, 2009, 12:00 AM), <https://www.smh.com.au/national/first-climate-refugees-start-move-to-new-island-home-20090728-e06x.html>.

⁹ Montevideo Convention on the Rights and Duties of States art. 1, Dec. 26, 1933.

¹⁰ Emma Allen, *Climate Change and Disappearing Island States: Pursuing Remedial Territory*, BRILL OPEN LAW 1, 4 (2018), <https://brill.com/view/journals/bol/aop/article-10.1163-23527072->

one hundred years ago did not envision this kind of phenomenon, and if a country were to completely sink under the sea, the socially constructed reality of the state would outlast its territorial permanence. States have already begun to pursue some territorial replacement strategies, which include the building of artificial islands, the appropriation of unclaimed land, and cooperation with third states through merger or cession.¹¹ While emphasizing the need for large-scale, concerted mitigation reforms, local leaders have had to face the realities of the climate emergency in their respective countries. The three cases that follow constitute examples of cession, all of which have generated different reactions among local communities and activists.

KIRIBATI: THE LAND PURCHASE DILEMMA

Kiribati (pronounced KEE-ree-bas) is a string of thirty-three coral atolls of about 110,000 people necklacing the central Pacific Ocean and one of its least developed countries.¹² Only twenty-five percent of the Kiribati population is employed, and the annual income per capita is about \$2,800 a year.¹³ The island is projected to be completely underwater by 2050, and many have already emigrated internally to the capital, Tarawa, which now has a higher population density than Tokyo.¹⁴ Kiribati's low-lying geography makes this solution untenable in the long term.¹⁵

In 2014, the government of Anote Tong promoted the purchase of nearly 6,000 acres of government-owned land in Fiji, about 1,242 miles away from Kiribati.¹⁶ The plan was for Kiribatis to relocate there progressively as their homeland inched further into the Pacific Ocean, under a government

00101008/article-10.1163-23527072-00101008/article-10.1163-23527072-00101008.xml?language=en#FN000009; see also, e.g., *Derek Wong, Sovereignty sunk? The position of 'sinking states' at international law*, 14 MELBOURNE J. INT'L LAW 346, 346 (2013).

¹¹ See Allen, *supra* note 10, at 5–11.

¹² Kiribati, *World Factbook* (CIA).

¹³ Rana Balesh, *Submerging Islands: Tuvalu and Kiribati as Case Studies Illustrating the Need for a Climate Refugee Treaty*, 5 ENVTL. & EARTH L. J. 78, 89 (2015).

¹⁴ Davina Wadley, *Kiribati – Climate change and inequity*, REFUGEES INTERNATIONAL (June 4, 2013), <https://www.refugeesinternational.org/reports/2013/6/4/kiribati-climate-change-and-inequity>.

¹⁵ *Id.*

¹⁶ Laurence Caramel, *Besieged by the rising tides of climate change, Kiribati buys land in Fiji*, GUARDIAN (July 1, 2014, 08:00 PM), <https://www.theguardian.com/environment/2014/jul/01/kiribati-climate-change-fiji-vanua-levu>.

initiative called “migration with dignity.”¹⁷ In the first phase of this policy, Kiribati would send an initial wave of expatriates to forge communities in receiving countries, such as Australia, New Zealand, and Fiji, who could then receive future migrants in those communities and also send remittances home.¹⁸ In the second phase, those remaining in the island would receive education and skills training to match the requisite levels of qualifications for jobs in more developed nations so these Kiribatians could eventually emigrate there.¹⁹ The intent is to “provide opportunities to migrate abroad ‘with dignity’ and build on existing cross-border labour arrangements.”²⁰ The president of Fiji in 2014 hailed the \$6.6 million purchase, saying that “the people of Kiribati will have a home if their country is submerged by the rising sea level as a result of climate change.”²¹ A cross-border relocation — if it ever materializes — would test the limits of the rights accorded by citizenship and how to grapple with the social reality of climate refugees.

In 2016, just as Donald Trump was rising to the United States presidency, the opposition party to Tong captured the presidency of Kiribati, and ever since, the government of Taneti Maamau has discontinued the “migration with dignity” initiative, echoing a common belief that only divine will would sink the island.²² Even still, Maamau acknowledges that climate change is wreaking havoc on the archipelago.²³ Beginning in 2020, the Maamau administration is subsidizing return migration to the outer islands for agricultural work.²⁴ Relocating back to the outer banks poses significant risks for the

¹⁷ *Id.*

¹⁸ Karen E. McNamara, *Cross-border migration with dignity in Kiribati*, 49 FORCED MIGRATION REV. ONLINE 62, 62 (2015), <https://www.fmreview.org/climatechange-disasters/mcnamara#:~:text=The%20'migration%20with%20dignity'%20policy,the%20individual%20or%20household%20level.>

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Kiribati buys a piece of Fiji*, REPUBLIC OF KIRIBATI (May 30, 2014), <http://www.climate.gov.ki/2014/05/30/kiribati-buys-a-piece-of-fiji/>.

²² Mike Ives, *A Remote Pacific Nation, Threatened by Rising Sea Levels*, N.Y. TIMES (July 2, 2016), <https://www.nytimes.com/2016/07/03/world/asia/climate-change-kiribati.html>.

²³ Ben Walker, *An Island Nation Turns Away from Climate Migration, Despite Rising Seas*, INSIDE CLIMATE NEWS (Nov. 20, 2017), <https://insideclimatenews.org/news/20112017/kiribati-climate-change-refugees-migration-pacific-islands-sea-level-rise-coconuts-tourism>.

²⁴ *Id.*

indigenous i-Kiribati population. A Kiribati government report shows that rising tides and land erosion are contributing to smaller and less fructiferous coconut trees, and the possibilities of escape diminish by the day in the more isolated islands.²⁵

TUVALU: DENOUNCING NEO-COLONIALISM

“Tuvalu is sinking” has become the catch-phrase of local citizens and activists in the Pacific archipelago that bears that name, the world’s fourth-smallest country located between Hawaii and Australia.²⁶ Its population is only about 11,000, concentrated mostly in the atoll of Fongafale, which owing to the effects of climate change now only stretches 20 meters from one shore to the other.²⁷ The soil has become porous and salty, turning once-ubiquitous staples necessary to eke out a basic existence like taro, cassava, and fish almost extinct.²⁸ A 2014 study from the International Labor Organization found that high-density urban atolls like Tuvalu are set to become uninhabitable within the next 50 to 100 years.²⁹ In the meantime, the islanders have been trying to figure out how to survive.

When Tuvalu’s current prime minister, Kausea Natano, was born, Tuvalu was not yet an independent nation — that’s how freshly etched the history of colonization is in the minds of Tuvalu’s people.³⁰ For eighty years, British imperial officials exploited Tuvaluan labor for horticulture, fishing, phosphate mining, and cutting copra for export.³¹ Upon secession from the British Empire, “very great pressure was exerted by Britain to make that prospect as unappetising as possible,” including by cutting off Tuvaluans’ access to royalties from phosphate they had mined themselves and barring them from British citizenship.³² But fishing, as in imperial times, remains one of Tuvalu’s most significant and successful industries — despite its small land area, Tuvalu’s exclusive economic zone encompasses

²⁵ *Id.*

²⁶ Eleanor Ainge Roy, *'One day we'll disappear': Tuvalu's sinking islands*, GUARDIAN (May 16, 2019, 4:51 PM), <https://www.theguardian.com/global-development/2019/may/16/one-day-disappear-tuvalu-sinking-islands-rising-seas-climate-change>.

²⁷ Tuvalu, *World Factbook* (CIA).

²⁸ *Id.*

²⁹ *See* Roy, *supra* note 26.

³⁰ Tuvalu gained independence from Britain in 1978. *See* Michael Goldsmith, *The Colonial and Postcolonial Roots of Ethnonationalism in Tuvalu*, 121 J. OF POLYNESIAN SOC’Y 129, 129 (2012).

³¹ *Id.* at 136.

³² *Id.* at 136, 138.

900,000 square kilometers of ocean.³³ In 2019, former Australian Prime Minister Kevin Rudd proposed an arrangement to Tuvalu (and other low-lying Pacific Islands such as Kiribati and Nauru): the four islands would enter into a “formal constitutional condominium” that would make Australia responsible for those economic zones, including Tuvalu’s “precious fisheries reserves,” in exchange for Australian citizenship and relocation over time.³⁴ But given Tuvalu’s recent experience of colonialism, it came as no surprise that the prime minister at the time, Enele Sopoaga, responded to Rudd’s proposal posted online by saying, “The days of that type of imperial thinking are over.”³⁵ Still, the World Bank and Australia’s leading foreign affairs think tank have both endorsed similar proposals as the only viable solutions.³⁶

Tuvaluan activists have a different perspective on what should be done to save their own country: Instead of giving up on Tuvalu, they want world leaders to commit to abating their own nations’ exponential harm to the environment so the island — disproportionately affected by climate change — has a shot at survival. In August of 2019, local activists made their voices heard at the Pacific Islands Forum, a convening of eighteen Pacific countries including major economies like Australia and New Zealand³⁷ held in Tuvalu, where world leaders adopted a recommendation advocated by locals and United Nations Secretary-General Antonio Guterres to ban construction of new coal fired power plants and coal

³³ MINISTRY OF NAT. RES. OF GOV’T OF TUVALU, *Tuvalu Fisheries*, <https://www.tuvalufisheries.tv/> (last visited Feb. 27, 2021).

³⁴ Kevin Rudd, *The Complacent Country*, KEVIN RUDD BLOG (Feb. 4, 2019), <https://kevinrudd.com/2019/02/04/the-complacent-country/> (last visited Feb. 27, 2021).

³⁵ Anthony Stewart, *Tuvalu PM slams Kevin Rudd's proposal to offer Australian citizenship for Pacific resources as neo-colonialism*, ABC NEWS (Feb. 17, 2021, 02:21 PM), <https://www.abc.net.au/news/2019-02-18/tuvalu-pm-slams-kevin-rudd-suggestion-as-neo-colonialism/10820176>.

³⁶ Ben Doherty & Eleanor Ainge Roy, *World Bank: let climate-threatened Pacific islanders migrate to Australia or NZ*, GUARDIAN (May 8, 2017, 12:04 AM), <https://www.theguardian.com/environment/2017/may/08/australia-and-nz-should-allow-open-migration-for-pacific-islanders-threatened-by-climate-says-report>. See also Ben Doherty, *Australia should create ‘Pacific visa’ to reduce impact of climate change and disaster on islanders*, GUARDIAN (Oct. 21, 2020, 12:30 PM), <https://www.theguardian.com/world/2020/oct/21/australia-should-create-pacific-visa-to-reduce-impact-of-climate-change-and-disaster-on-islanders>; Bruce Hill, *Sovereignty for citizenship might help the Pacific*, LOWY INST. (Feb. 28, 2019, 06:00 AM), <https://www.lowyinstitute.org/the-interpret/sovereignty-citizenship-help-pacific>.

³⁷ *Who We Are*, THE PACIFIC ISLANDS FORUM, <https://www.forumsec.org/who-we-are-pacific-islands-forum/> (last visited Feb. 27, 2021).

mines and rapidly phase out their use of coal in the power sector.³⁸ Given scientific predictions that Tuvalu will be the first country to be completely submerged under the sea,³⁹ locals have united behind the message that to save the world, those in power have to save Tuvalu.⁴⁰ Sopoaga, the former prime minister, put it this way: If Tuvalu sinks, others will follow; but if Tuvalu stays afloat, none others will follow — “unless we save Tuvalu, we cannot save the world,” he said in an interview with *The Guardian*.⁴¹

Others have brought attention to the disparate toll the climate emergency takes on women. Milikini Failautusi, a thirty-year-old activist from Tuvalu, had to leave her atoll to escape the high tides and relocate to Funafuti, where she found an opportunity to give voice to the women that had not yet been able to relocate.⁴² According to U.N. figures, 80 percent of those displaced by climate change are women,⁴³ and women predominate in industries especially affected by rising seas such as agriculture, livestock, and fishing.⁴⁴ As a coordinator on the Tuvalu National Youth Council and a member of the Pacific Young Women Leadership Alliance, she has raised awareness about how Tuvaluan culture impacts this climate gender gap, explaining that while she is deeply reverent of her culture, women are often expected to take care of food and family affairs, pushing them into the very industries that are roiled by climate change.⁴⁵ Women, she says, need to have more predominant leadership roles in developing global solutions to combat climate change.⁴⁶

³⁸ Joshua Cooper, *We Must Save Tuvalu to Save the World: Pacific Islands Forum Focuses on Climate Justice and Human Rights*, CULTURAL SURVIVAL Q. MAG. (Dec. 2019), <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/we-must-save-tuvalu-save-world-pacific-islands-forum> (last accessed Feb. 27, 2021).

³⁹ Kate Lyons, *'Save us, save the world': Pacific climate warriors taking the fight to the UN*, GUARDIAN (Sept. 20, 2019, 07:30 PM), <https://www.theguardian.com/global-development/2019/sep/21/save-us-save-the-world-pacific-climate-warriors-taking-the-fight-to-the-un>.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² Patricia Scotland, *Women shouldering the burden of climate crisis need action, not speeches*, GUARDIAN (Mar. 13, 2020, 03:00 PM), <https://www.theguardian.com/global-development/2020/mar/13/women-shouldering-the-burden-of-climate-crisis-need-action-not-speeches>.

⁴³ UNITED NATIONS DEVELOPMENT PROGRAMME, OVERVIEW OF LINKAGES BETWEEN GENDER AND CLIMATE CHANGE 5 (2016).

⁴⁴ See *Tuvalu Fisheries*, *supra* note 33.

⁴⁵ Pacific Community, *Milikini Failautusi*, SOCIAL DEVELOPMENT PROGRAMME, <https://www.spc.int/sdp/70-inspiring-pacific-women/milikini-failautusi> (last visited Feb. 27, 2021).

⁴⁶ *Id.*

Her advocacy seems to be having a major impact. One month after the Pacific Islands Forum, Lilipeti Suiti Faavae became the first Tuvaluan activist to represent her country at the Youth Climate Summit at the United Nations.⁴⁷ The 17-year-old was selected after she impressed Guterres upon his visit to Tuvalu with her stance and perspective on climate change, prompting Guterres to invite her delegation to New York.⁴⁸ She joined Norway's Greta Thunberg in calling for a drastic reduction in carbon emissions and a comprehensive world solution to address the effects of climate change.⁴⁹ The advocacy of young activists like Suiti Faavae has helped world leaders see that piecemeal solutions to climate change such as relocating an entire population fall short of preserving the livelihoods of those least privileged.

THE UNITED STATES: UPROOTING INDIGENEITY

With a population of 4.6 million, the state of Louisiana in the United States would be the largest political entity to be affected by subsidence in this comparative study. A 2017 scientific paper by the Geological Society of America found that the coast of Louisiana is sinking at a rate of just over a third of an inch per year, and named oil and gas extraction as one of the accelerating factors. In popular terms, this loss of land amounts to about a football field's worth each hour, or the equivalent acreage of Manhattan each year and a half. One community has already felt the effects of both this man-made catastrophe, made even worse by the natural fierceness of the Mississippi delta: the Isle de Saint-Charles.

Located in the southern Louisiana marshland, the island that once served as an Indigenous ancestral homeland and burial ground is all but gone: since 1955, it has lost 98 percent of its land.⁵⁰ The Biloxi-Chitimacha-Choctaw tribe resettled in this island much earlier, in the 1830s, escaping the colonial and racist policies of President Andrew Jackson, which included the infamous Indian Removal Act and

⁴⁷ *Tuvalu youth to join strike for climate in New York*, PASIFIKA ENVIRONEWS (Sept. 10, 2019, 11:55 AM) <https://pasifika.news/2019/09/tuvalu-youth-to-join-strike-for-climate-in-new-york/>.

⁴⁸ Lisa Williams, *Tuvalu, Pacific teens joining Thunberg at NY climate summit*, PAC. MEDIA NETWORK (Sept. 18, 2019), <https://www.531pi.co.nz/articles/tuvalu-pacific-teens-joining-thunberg-at-ny-climate-summit> (last accessed Feb. 27, 2021).

⁴⁹ *Transcript: Greta Thunberg's Speech At The U.N. Climate Action Summit*, NPR (Sept. 23, 2019, 01:58 PM), <https://www.npr.org/2019/09/23/763452863/transcript-greta-thunbergs-speech-at-the-u-n-climate-action-summit>.

⁵⁰ John D. Sutter, *'There's no more land,'* CNN (April 8, 2016, 08:15 AM), <https://www.cnn.com/2016/04/08/opinions/sutter-isle-de-jean-charles-louisiana-climate/index.html>.

the segregation of Indigenous children in government boarding schools.⁵¹ At the community's peak, 300 families lived on Isle de Jean Charles, but as of 2019 only about 26 remained.⁵² As the reality of the vanishing land has sunk in, some island natives have been adamant that they will not move: One sign on the island reads, "The people have the right to live where they want., not where people tell them to go and live . . . If the island is not good, stay away." Still, none of this rapid sinking took the community by surprise.

The government had been building dams along the tributaries of the Mississippi as far north as Montana, and put levees in place to prevent floods, since the late 1980s.⁵³ But the effort may have been too little, too late to counteract the gargantuan extraction mission the oil and gas industry has set up there. Since the 1920s, the industry has carved more than 50,000 extraction wells, which create pockets of air in the marsh that allow seawater to rush in and eat away at its roots.⁵⁴ And while estimates place the value of oil and gas extractions at about \$470 billion, the industry has been unmoved in its resistance to contribute to the repair of Louisiana's coastline.⁵⁵ Disagreement over liability has exposed just how intractable the issue of addressing this crisis of subsidence is. Scientists working for oil and gas companies have conceded that those companies are responsible for 36 percent of the marshland subsidence.⁵⁶ The U.S. Department of Interior has estimated that liability at somewhere between 15 and 59 percent.⁵⁷ A third estimate, by Louisiana State University wetlands expert R. Eugene Turner, has suggested that the figure is closer to 90 percent.⁵⁸

⁵¹ See generally, Ethan Davis, *An Administrative Trail of Tears: Indian Removal*, 50 AM. J. OF LEGAL HIST. 49 (2010).

⁵² Robynne Boyd, *The People of the Isle de Jean Charles Are Louisiana's First Climate Refugees—but They Won't Be the Last*, NATIONAL RESOURCE DEFENSE COUNCIL (Sept. 23, 2019), <https://www.nrdc.org/stories/people-isle-jean-charles-are-louisianas-first-climate-refugees-they-wont-be-last> (last visited Feb. 27, 2021).

⁵³ Nathaniel Rich, *The Most Ambitious Environmental Lawsuit Ever*, N.Y. TIMES MAG. (Oct. 2, 2014), <https://www.nytimes.com/interactive/2014/10/02/magazine/mag-oil-lawsuit.html>.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ See Palmer, *supra* note 2.

⁵⁷ *Id.*

⁵⁸ *Id.*

In what has been termed “the most ambitious environmental lawsuit ever,” a man named John Barry sued 97 oil and gas corporations for the damages they acknowledged on paper they had caused. This was an effort without precedent,⁵⁹ both because of the sheer size of the damages — about \$18 billion — and because the culpability to which the corporations admitted. But the proverbial fix was apparently in: Bobby Jindal, the Republican governor of Louisiana who received more than \$1 million in campaign contributions from oil and gas companies, excoriated the suit as “nothing but a windfall for a handful of trial lawyers.”⁶⁰ After four years of litigation, the U.S. Court of Appeals for the 5th Circuit in 2017 upheld the dismissal of the lawsuit, holding that Barry and his levee authority had failed to show that the ninety-seven corporate defendants had a duty under federal law to repair the damage caused by the operations.⁶¹

Even before this latest ruling, however, residents of the Isle de Saint Charles acknowledged the reality that the coast would not be rebuilt anytime soon. In 2016, the U.S. Department of Housing and Urban Development approved a \$48 million grant to the state of Louisiana to relocate the band of the Biloxi-Chitimacha-Choctaw tribe on the island.⁶² This constituted the first time the U.S. government funded the relocation of climate refugees, tacitly acknowledging that it had some responsibility in preserving the livelihoods of these community members. The plan involves relocating more than twenty families to a new site named “New Isle,” a plot of 515 acres of rural land forty miles north of the island that will host 120 houses and commercial and retail spaces once fully developed.⁶³ Some residents will also have the option to move to other places in Louisiana, or to receive a plot of land where they can build

⁵⁹ For a comparative history of environmental litigation claims, *see, e.g.*, Gary Dreyzin, Note, *The Next Wave of Climate Change Litigation: Comparing Constitutional Inverse Condemnation Claims in the United States, South Africa, and Japan*, 31 GEO. ENVTL. L. REV. 183, 185–86 (2018).

⁶⁰ Jeff Adelson, *Jindal denounces lawsuit targeting oil and gas firms*, NOLA.COM (July 25, 2013, 08:14 AM), https://www.nola.com/news/politics/article_536f41e0-92e5-5432-9c5e-b7efal71c34a.html.

⁶¹ Mark Schleifstein, *Appeals court rules for oil firms, against levee authority in wetlands damage suit*, NOLA.COM (March 4, 2017, 12:51 AM), https://www.nola.com/news/environment/article_deb7a37a-091c-57e9-be50-a528fc5172ca.html.

⁶² U.S. Dep’t of Housing and Urban Dev., *National Disaster Resilience Competition Grantee Profiles 7–8* (2016), <https://www.hud.gov/sites/documents/NDRCCGRANTPROF.PDF>.

⁶³ LOUISIANA OFFICE OF COMMUNITY DEVELOPMENT, *RESETTLEMENT OF ISLE DE JEAN CHARLES BACKGROUND AND OVERVIEW 6* (2020), http://isledejeancharles.la.gov/sites/default/files/public/IDJC-Background-and-Overview-6-20_web.pdf.

their own home. But island residents have also told the government resettlement program that they see the island as “a place of security and isolation,” and many are afraid to depart. All participants have to sign an agreement not to use island property for residential purposes and not to convey or sell that property.⁶⁴

Relocation began in 2020 amid the COVID-19 pandemic, which led some residents to find new appeal in the isolation of the island.⁶⁵

Still, the government’s relocation has been problematic. Although the initial proposal submitted by the Isle de Jean Charles tribal chief focused on preserving the tribe’s members, HUD rules prevented the government from focusing solely on Indigenous residents, which resulted in radical changes that led the chief to withdraw support.⁶⁶ In January 2020, the Isle de Jean Charles band of the Biloxi-Chitimacha-Choctaw joined other tribes in Louisiana and Alaska in filing a complaint with the United Nations charging that the U.S. government’s approach to address the effects of the climate crisis “has resulted in significant human rights violations that affects these tribal nation’s ability to secure basic human rights and continue to lead to individual and community displacement from their land.”⁶⁷ The Louisiana tribes asked the Special Rapporteurs on Human Rights and Climate to recommend that the tribes receive federal resources (including emergency funds) that will support their self-governance, and to hold oil and gas corporations responsible for damages they have caused to the Louisiana coast.⁶⁸

ANALYSIS AND CONCLUSIONS

The relocation strategies examined and implemented in Kiribati, Tuvalu, and the United States all constitute examples of cession, because each of them require another state to give up part of its territory for the displaced population to relocate. In the cases of Kiribati and Tuvalu, there are clear economic

⁶⁴ *Id.* at 7.

⁶⁵ *See* Dermansky, *supra* note 3.

⁶⁶ The initial proposal would have allowed the tribe to retain control and governance over the “New Isle,” but it went instead to a nonprofit. Julie Dermansky, *Critics Say Louisiana ‘Highjacked’ [sic] Climate Resettlement Plan for Isle de Jean Charles Tribe*, DESMOG BLOG (April 20, 2019, 03:04 AM), <https://www.desmogblog.com/2019/04/20/critics-louisiana-highjacked-climate-resettlement-plan-isle-de-jean-charles-tribe>.

⁶⁷ Compl. at 48, *Rights of Indigenous People in Addressing Climate-Forced Displacement* (2020), <https://assets.documentcloud.org/documents/6656724/Louisiana-Tribes-Complaint-to-UN.pdf>.

⁶⁸ *Id.* at 10–11.

benefits to cession for both parties. That the ceding States do not have a history of colonizing or brutalizing the incoming population reduces any kind of political rights debt that may be at play in these *cessions by purchase*. Therefore, the feasibility of a cession by purchase — as in the case of Kiribati — hangs in part on amicable relations between the two nations and an absence of colonial violence from one state against the other.

Matters become infinitely more complicated when adding the variable of colonization. In the United States, the federal and Louisiana state governments ceded some of their territory to the Biloxi-Chitimacha-Choctaw tribe, which, though it falls short of meeting the requirements of statehood outlined in the Montevideo Convention, is still an Indigenous nation. This transaction, therefore, could be construed as a cession between states, but the claim that the tribal chiefs make is that the United States has a duty to protect Indigenous peoples who face the loss of their land to climate change. There is no purchase because the tribes had already been dispossessed.

But cession will not last as a territorial remedy, especially when access to vital resources such as water, food, or shelter are at stake. Other rights-based measures, such as recognizing the right to safe haven the right to interact, do not resolve the paradoxical reality of *nationhood* in the absence of *statehood* traditionally defined.⁶⁹ The protection of Indigenous communities must be at the forefront of any protocol or convention that seeks to address the status of climate refugees. But if the international legal framework is to attend to the demands of local activists for the preservation of local community and the roots they have put down in sinking soil, then one alternative could be the funneling of international humanitarian assistance and monetary funds for the creation of artificial lands. Given the limited success of the Maldives, this may be a viable option to mitigate the disaster of nationhood that lies ahead not just for low-lying island states, but for vast swaths of the population in industrialized nations, including the United States.

⁶⁹ See Katina Miriam Wyman, *Sinking States*, in PROPERTY IN LAND AND OTHER RESOURCES 439–69 (Daniel H. Cole & Elinor Ostrom eds., 2012), https://www.lincolnst.edu/sites/default/files/pubfiles/sinking-states_0.pdf.

6. Exclusion and legal efforts of migrants

I. General Impacts of Climate Change on Migrants

Predictions say that anywhere from fifty to 300 million people have been displaced by climate migration.¹ Climate change often impacts and causes the most migration in the Global South and economically developing areas.² These areas already face existing vulnerabilities including poverty, a reliance on livelihoods tied to ecosystems and agriculture, among others, which reduce their adaptive capacity and exacerbate climate change-induced impacts.³

Walter Kälin, a Swiss lawyer and humanitarian focusing on migration issues, points to five scenarios of climate change-induced displacement: 1) immediate disasters causing mostly internal, but sometimes cross-border displacements; 2) gradual environmental degradation deteriorating living conditions and inducing both internal and international economic migration; 3) the specific case of sinking small island states, causing international migration; 4) the designation of certain high-risk zones, too dangerous for human habitation leading to the evacuation of the resident population, and 5) unrest, violence, or conflicts exacerbated by an increased competition for natural resources leading to flows of refugees or internally displaced persons (IDPs).⁴

The term “climate migrants” encompasses diverse populations with a multitude of various climate change impacts that affects which protections they are afforded, what remedies

¹ Abrahm Lustgarten, *The Great Climate Migration*, N.Y. TIMES MAG. (July 23, 2020), <https://www.nytimes.com/interactive/2020/07/23/magazine/climate-migration.html>.

² Refugee Studies Center, *Climate change and displacement*, 31 FORCED MIGRATION REV. 14 (2008), <http://www.fmreview.org/FMRpdfs/FMR31/FMR3I.pdf>

³ *Id.*

⁴ Benoit Mayer, *The Concept of Climate Migration: Advocacy and its Prospects*. Cheltenham, UK: Edward Elgar Publishing (2016), <https://doi-org.proxygt-law.wrlc.org/10.4337/9781786431738>

are possible, and how they are able to engage in climate change activism.⁵ Migrants are hindered from participating in climate change solutions because of their perceived vulnerability and ability to cause disruption, which perpetuate stereotypes that view migrants as passive victims. This part of the paper explores one of the overarching drivers of climate change migration, some of the larger impacts on global migration and international governance, and ways migrants have been able to effect change.

A. Case Study: Hot Zones

Today, one percent of the world is an unlivable hot zone, but by 2070, experts believe that portion could go up to 19 percent.⁶ Millions of people, particularly in Central America, the Sahel region of Africa, and Southeast Asia, will be forced to choose between death or flight due to increasing temperatures attributed to climate change.⁷ By 2070, hot zones could cover nearly one-fifth of the land, possibly placing one in every three people outside of the climate niche, an area defined as suitable for agricultural production and human habitation.⁸ Even if rising temperatures are not a direct cause of migration, they are almost always an exacerbating factor.⁹

Sahel Region

In the Sahel Region, millions of rural people have been migrating towards the coasts and cities in the midst of widespread crop failures and droughts. The U.N. estimates that some 65 percent of farmable land has already been degraded and cannot be used.¹⁰ Experts believe that

⁵ C. Farbotko, *Representation and misrepresentation of climate migrants* in RESEARCH HANDBOOK ON CLIMATE CHANGE, MIGRATION AND THE LAW (2017), <https://doi-org.proxygt-law.wrlc.org/10.4337/9781785366598.00009>

⁶ Lustgarten, *supra* note 1.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

the combination of a growing population in the region with rapid desertification, severe water shortages, and deforestation will lead to extreme suffering and mass migration.¹¹

Southeast Asia

More than eight million people from Southeast Asia have moved to the Middle East, Europe, and North America.¹² The region has suffered from unpredictable monsoon rainfall and drought that has made farming difficult. The World Bank projects that the region will soon have the world's highest food insecurity.¹³

Central America

A model from *The New York Times* suggests that between 2020 and 2050, nearly nine million migrants in Mexico will head for Mexico's southern border, more than 300,000 due to climate change alone.¹⁴ A study published in the *Proceedings of the National Academy of Sciences* found that Mexican migration to the United States increased during periods of drought.¹⁵ In Mexico, studies estimate that with climate change, water availability per capita could decrease by as much as 88 percent in places, and crop yields in coastal regions may decrease by a third.¹⁶ In Guatemala, climate change impacts on agriculture, such as floods, bankruptcy, starvation, and malnutrition in children, have caused hundreds of thousands to flee North.¹⁷

Global Response

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

As a general response to climate-induced migration, the developed world and Global North refuses to accept migrants, while also failing to help them keep their homes safe and habitable. A recent example includes the U.S.'s immigration policy at the southern border with the Migrant Protection Protocols (MPP). The MPP requires certain individuals entering or seeking admission from Mexico to the U.S. irregularly or without proper documentation to return to Mexico and wait outside of the U.S. for the duration of their immigration proceedings.¹⁸ Asylum seekers forced to stay in Mexico generally face increased security and health risks in border towns with poor economic situations and criminal activity that takes advantage of vulnerable migrants.¹⁹ The MPP has also had an impact on immigration proceedings. Notably, asylum seekers that stay in the U.S. are seven times more likely to have an attorney and fifty percent have failed to show up for a hearing, which led to a judge closing the case with an *in absentia* decision, compared to eighty-nine percent of immigrants who stayed in the U.S. attending every court hearing.²⁰

Mexico increasingly pushed for open borders, assuming the country could absorb the influx of people.²¹ However, not anticipating the extent of the Trump Administration's anti-immigrant actions, Mexico found itself burdened by the immigration traffic, particularly areas along the U.S.-Mexico border.²² A study conducted by *The New York Times* shows that more open borders between the U.S., Mexico, and other Central American countries, in combination

¹⁸ U.S. DEP'T OF HOMELAND SEC., MIGRANT PROTECTION PROTOCOLS (2019), <https://www.dhs.gov/news/2019/01/24/migrant-protection-protocols>.

¹⁹ *With Asylum Effectively Blocked at the Border, Those Seeking Safety Face Escalating Violence, Punishing Conditions*, HUMAN RIGHTS FIRST (May 13, 2020), <https://www.humanrightsfirst.org/press-release/asylum-effectively-blocked-southern-border-those-seeking-safety-face-escalating>.

²⁰ *Contrasting Experiences: MPP vs. Non-MPP Immigration Court Cases*, TRAC IMMIGRATION (Dec. 19, 2019), <https://trac.syr.edu/immigration/reports/587/>.

²¹ Lustgarten, *supra* note 1.

²² *Id.*

with strategic foreign aid and the creation of safe, healthy environments so that fewer people need to flee, generally lead to better outcomes and less suffering by allowing people the flexibility to decide for themselves where they live.²³

II. Lack of Real Protection for Migrants as “Climate Change Refugees”

Climate migrants are particularly vulnerable due to a lack of any legal recognition or protection. International organizations, States, and civil society have failed to reach any sort of international agreement or legal framework to afford climate migrants legal protections. The United Nations Framework Convention on Climate Change (UNFCCC) acknowledges climate migrants but fails to properly address the need for action to deal with climate change-induced movement. States have been reticent to address climate change impacts and displacement due to economic reasons and national security. Human movement is increasingly viewed as a national security issue rather than a human rights issue, which hinders protection efforts.²⁴ The events of 9/11 and other cases of terrorism throughout the world, in combination with an economic downturn and the rise of right-wing governments, have increased xenophobic and anti-immigrant sentiments, and led to more stringent border controls.²⁵ Civil society has failed to organize effectively around climate change-induced displacement as well, due to lack of coordination, varied interests, and lack of resources. In addition to the failure of states and the international community to address climate change-induced migration, insufficient economic incentives exist

²³ *Id.*

²⁴ Lauren Nishimura, *Climate Change Migrants: Impediments to a Protection Framework and the Need to Incorporate Migration into Climate Change Adaptation Strategies*, 27 INT’L J. REFUGEE L. 107 (2015).

²⁵ DAVID ABRAHAM, *LAW AND MIGRATION: MANY CONSTANTS, FEW CHANGES, MIGRATION THEORY: TALKING ACROSS DISCIPLINES* (2015).

for developed States to stop or slow resource consumption which is one of the causes of such climate change.²⁶

III. Exclusion from Domestic and International Approaches to Climate Change

Solutions

Migrants are excluded from most domestic and international approaches to addressing climate change due to lack of political power, barriers to litigation, the position of climate migrants in various social and political hierarchies, as well as other vulnerabilities. Among the vulnerabilities include poverty, statelessness, lack of a legal framework, conflict, and economic and social vulnerabilities.²⁷ Migrants lack political power, which undermines their efforts to compel change and because migrants are not constituencies of concern for States, they lack the power necessary to alter State perception.²⁸ In general, those outside of their home State cannot vote and those internally displaced are already marginalized. Developing States and States most impacted by climate change displacement, such as those in the Sahel and Central America, tend to also lack the political capital, such as trade leverage and diplomatic influence, necessary to induce developed states to act.²⁹

Migrants also face multiple barriers to litigation, which impacts their ability to partake in legal recourse to climate change impacts. Without a prior agreement or recognition of compulsory jurisdiction³⁰, international litigation is not an option. A dispute before the International Court of Justice (ICJ) or before an arbitration panel requires the agreement of all parties. Further, no international court appears to have sufficient political legitimacy to set a

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ Compulsory jurisdiction means that any international dispute involving those States may be submitted to a specific international court.

precedent with large enough economic and political consequences to persuade States to implement the court's decisions.³¹ States that are most affected by climate change are generally those with the least diplomatic power, such as those in the Global South. For example, Palau started a campaign for the United Nations General Assembly to request an advisory opinion from the ICJ, but they had to back out when the United States threatened to cut off development aid.³² Finally, given the nature of climate change, there is fragmentation of political responsibility that would need to be apportioned between the contributing states, which could cause confusion and conflict.³³

Migrants are further hindered from participating in international and domestic climate change solutions because of their vulnerability as well as the potential they hold for global shifts and disruption.³⁴ The perception of climate migrants shifts depending on political stance. For example: "A national security threat to the Global North, hero-victims of white environmentalist agendas, a climate refugee threat for climate change campaigners to prompt people to action, sources of mobile labor for capitalist expansion, and more."³⁵ All of these perceptions deny migrants their humanity and perpetuate the belief that they are passive victims, all of which impact their ability to leverage power to achieve real change.

IV. Migrant Activism and How Migrants are Leveraging Domestic and International Legal Frameworks to Bolster Community-Centered Climate Change Solutions

Climate migrants have first-hand experience with the impacts from climate change and are therefore in the best position to recognize central issues and recommend effective solutions.

³¹ BENOIT MAYER, *THE CONCEPT OF CLIMATE MIGRATION: ADVOCACY AND ITS PROSPECTS* ch. 4 (2016), <https://doi-org.proxygt-law.wrlc.org/10.4337/9781786431738>.

³² *Id.*

³³ *Id.*

³⁴ BENOIT MAYER, *RESEARCH HANDBOOK ON CLIMATE CHANGE, MIGRATION AND THE LAW* (2017).

³⁵ *Id.*

However, most climate migration activism is found in post-migration institutional settings, rather than in sites of environmental risk prior to a migration event.³⁶ Climate migrants have attempted to highlight climate solutions in multiple ways including: lobbying in the international arena, peacefully advocating for climate change mitigation and adaptation efforts, pioneering policies for migrating with dignity, self-organising, forming new types of political spaces, and through litigation.³⁷

Policy

An example of a new type of policy for migration exists in Kiribati, a small island in the Pacific, where the Tong Administration approaches migration as a viable, if not desirable, long-term response to their island disappearing due to sea level rise.³⁸ Their “Migration with Dignity” policy, established in 2009, facilitates permanent and temporary labor migration on a voluntary basis. The policy aims to prevent forced migration when possible and promotes human security when migration is not avoidable.³⁹ It allows individuals and families to decide against migration, while leaving open the possibility of moving in the future.⁴⁰ By promoting gradual international migration while promoting skills training, the Kiribati government seeks to minimize the need for humanitarian responses.⁴¹

Litigation

³⁶ See C. Farbotko et al., *Climate migrants and new identities? The geopolitics of embracing or rejecting mobility*, 17 SOCIAL & CULTURAL GEOGRAPHY 533 (2015).

³⁷ See E. Shibuya, “Roaring mice against the tide”: *The South Pacific Islands and agenda-building on global warming*, PACIFIC AFFAIRS 541 (1996).

³⁸ MAYER 2017, *supra* note 34.

³⁹ *Id.*

⁴⁰ Carol Farbotko, *No Retreat: Climate Change and Voluntary Immobility in the Pacific Islands*, MIGRATION POLICY INST. (June 13, 2018), <https://www.migrationpolicy.org/article/no-retreat-climate-change-and-voluntary-immobility-pacific-islands>.

⁴¹ *Id.*

A decision from New Zealand is one of the first instances in international governance where individuals formally stated their overwhelming fear of environmental harm in their home islands in which they self-identified as climate migrants.⁴² A couple moved to New Zealand from Kiribati in 2007 and had three children who were born in New Zealand but were not entitled to citizenship under the Citizenship Act of 1977.⁴³ To avoid deportation following the expiration of their visas, they applied for refugee status under Part 5 of the Immigration Act of 2009.⁴⁴ They claimed that they were entitled to be recognized as refugees due to environmental impacts caused by sea-level rise associated with climate change. In July 2015, the Supreme Court of New Zealand, dismissed an application for leave to appeal the Court of Appeal's decision in which it ruled against the applicant.⁴⁵ While no court has to recognize a climate change refugee, in New Zealand, climate migrants' own perspectives on migration in the context of climate change is officially recorded and hopefully can lead to a greater awareness, if not legal precedent.⁴⁶

V. Conclusion

There is still significant progress that is yet to be made in achieving legal protection for climate change-induced migrants and for including migrant voices in the climate change activist arena. However, as migrants tend to be on the frontlines of climate change impacts, they are typically best positioned to understand the most urgent issues and needs, as well as offer the best climate change mitigation and adaptation strategies. The exclusion of migrant voices from climate change activism and discourse impairs larger efforts to combat climate change by failing to acknowledge the current climate impacts that migrants face and losing out on innovative

⁴² *Id.*

⁴³ *New Zealand: 'Climate Change Refugee' Case Overview*, LIBRARY OF CONGRESS LAW, (July 24, 2020), <https://www.loc.gov/law/help/climate-change-refugee/new-zealand.php>.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

short-term solutions to address those impacts. In order to create truly effective and lasting solutions to climate change, it is necessary to include those that have already been forced to find solutions.

C. People in Occupied Lands: Palestine

1. Introduction

Climate change risks in the occupied Palestinian territories can only be understood in the context of the Israeli occupation. Climate change is not an equalizing phenomenon. Rather, it is a political issue – an issue of race, gender, geographic location, and socio-economic status – all of which must be considered when assessing the risks that climate change poses. Climate change affects marginalized communities disproportionately, and adaptation strategies depend on a population’s position of wealth, power, and resources. Palestinians are in a uniquely disadvantaged position to cope with climate-related risks. Climate-induced stress on resources in the West Bank, East Jerusalem, and the Gaza Strip is compounded by an occupation that actively dispossesses Palestinians of their resources and displaces them from their homes. In fact, Israeli-imposed water scarcity in occupied Palestine is far more substantial than climate change predictions on water scarcity for the region.¹

The most significant climate change effect expected to face Palestine and Israel this century is a thirty percent decrease in precipitation accompanied by a substantial rise in average

¹ U.N. Dev. Program, Program of Assistance to the Palestinian People, *Climate Change Adaptation Strategy and Programme of Action for the Palestinian Authority* 6 (Sept. 10, 2013) [hereinafter *Climate Change Adaptation Strategy*]; Suha Jarrar, *No Justice, No Adaptation: The politics of climate change adaptation in Palestine*, 10 LA Balsa de Piedra 1, 4 (2015).

temperatures resulting in increased risks of summer droughts.² The Intergovernmental Panel on Climate Change (IPCC) predicts that for the southern and eastern Mediterranean region, warming over the twenty-first century will be higher than the global annual mean warming – according to an optimistic emissions scenario, between 2.2 and 5.1°C.³ Average temperatures have already increased by 0.5°C in the Mediterranean over the past four decades.⁴ Decreased precipitation combined with higher average temperatures will lead to increased demand for already over-exploited water resources. Water scarcity is detrimental to the Palestinian agricultural sector, a major foundation of the Palestinian economy.⁵ Increases in extreme weather events and the rise in the sea level from at least eighteen to thirty-eight centimeters or twenty-six to fifty-nine centimeters by 2100 are also expected.⁶ However, climate change predictions for the Mediterranean are not certain as they suffer from a lack of scientific observations on regional atmospheric conditions and limited long-term environmental data.⁷

The Notre Dame Global Adaptation Initiative (ND-GAIN) country index summarizes a country's vulnerability to climate change and its ability to adapt.⁸ According to this study, Israel is well-positioned to deal with climate change, sitting at the nineteenth least vulnerable country and the thirty-second most ready country to deal with climate change.⁹ Occupied Palestine was not included in this study, but Palestine's vulnerability to climate change is a result of what amounts to climate apartheid. This is because the IPCC defines vulnerability to climate change

² ZENA AGHA, CLIMATE CHANGE, THE OCCUPATION, AND A VULNERABLE PALESTINE (Al-Shabaka, 2019); *Climate Change Adaptation Strategy*, *supra* note 1, at 9.

³ *Climate Change Adaptation Strategy*, *supra* note 1, at 9.

⁴ AGHA, *supra* note 2.

⁵ *Id.*

⁶ *Climate Change Adaptation Strategy*, *supra* note 1, at 13.

⁷ *Id.* 9.

⁸ *Country Index*, ND-GAIN NOTRE DAME GLOBAL ADAPTATION INITIATIVE, <https://gain.nd.edu/our-work/country-index/>.

⁹ AGHA, *supra* note 2.

as the degree to which structures are susceptible to, and able to cope with, the impacts of climate change.¹⁰ Climate change vulnerability, therefore, hinges on a community's access to the resources needed to combat climate change's adverse effects, which inevitably varies among groups and individuals. Thus, vulnerability to climate change is not only measured in terms of the direct impact on natural resources, but also through the rights of individuals and communities over their resources.¹¹ Israel's occupation of Palestine not only hinders the ability to implement climate change adaptation strategies, but is also considered an environmental risk in and of itself.¹²

The impact of climate change on the lives of Palestinians pales in comparison to the detrimental effects of the Israeli occupation. Yet, climate change is integral to the Palestinian cause, as it is exacerbated by their condition under a military occupation.¹³ The separation wall, settlement expansion and settler violence, military checkpoints, and the institutionalized control and weakening of Palestinian governance increases food insecurity, water scarcity, and climate change vulnerability.¹⁴

This section of the paper will focus on settler-colonialism as an ecological resource conflict to shed light on how Palestinians must combat climate change in the context of the occupation. It is important to provide a background on how the British Mandate facilitated Israel's settler colonial enterprise and subsequent dispossession of resources and displacement of the Palestinian people. Following is an explanation of how the Nakba ("the catastrophe" in Arabic)

¹⁰ Jarrar, *supra* note 1, at 6.

¹¹ *Id.*

¹² *Climate Change Adaptation Strategy*, *supra* note 1, at 18.

¹³ AGHA, *supra* note 2.

¹⁴ The separation wall is also called the "Apartheid Wall," the "separation barrier" or sometimes just "the wall," and is a militarized barrier constructed to control the movement of Palestinians in the West Bank and enforce their segregation. *Id.*

and occupation are both ongoing systems that actively deprive Palestinians of their resources and livelihoods. Finally, this section of the paper discusses how Palestinians under occupation use domestic and international tools to combat climate change and resist normalization of the occupation. They do so by resisting the “NGO-industrial complex” that profits off of the continued occupation of Palestine, and instead turn to popular resistance strategies, including international solidarity projects and reviving traditional methods of agriculture and environmental preservation as a means of resistance to the occupation.

2. Legal Control of Resources in Palestine: From Mandate to Occupation

A. Legal control of resources during the Mandate period

To understand climate change challenges facing Palestinian society under occupation, it is necessary to understand how British colonialism and Orientalist policies contributed to the current situation of water scarcity and land degradation. Dispossession of land and resources is central to the discussion of legal control over Palestine’s resources during the Mandate period, and subsequently necessary to understand the legacy it has left on Palestine’s ability to adapt to climate change.¹⁵

The British Mandate relied on racial perceptions to dispossess Palestinians of their water rights. The British colonial administrators viewed Palestinians through an Orientalist lens that

¹⁵ Though the two are not mutually exclusive, exploitation colonialism focuses on extracting resources for export to the colonial power by relying on indigenous resources and labor, whereas settler colonialism actively seeks to transplant a settler population and expel or subjugate indigenous people in the process of resource dispossession. Although the League of Nations Mandate system was meant to facilitate self-determination for indigenous populations, the British instituted a Mandate in Palestine with the objective of facilitating Zionist settler-colonial ambitions while protecting British interests. See Abeer al-Butmeh, Zayneb al-Shalalfeh, Mahmoud Zwahre, & Eurig Scandrett, *The environment as a site of struggle against settlercolonisation in Palestine* in ENVIRONMENTAL JUSTICE, POPULAR STRUGGLE AND COMMUNITY DEVELOPMENT 153, 153–54 (2019); Simon I. Awad, *Ecological Justice for Palestine* in ENVIRONMENTAL JUSTICE, POPULAR STRUGGLE AND COMMUNITY DEVELOPMENT 117, 118 (2019) (“The terms of the Mandate incorporated a letter known as the Balfour Declaration . . . to publicly state Britain’s support for the establishment of a Jewish homeland in Palestine.”).

perceived the Arab farmer as “anti-modern and fatalistic when it came to improving his lot and his land.”¹⁶ British officials perceived European Jewish people as having “an innate tendency towards modernity” and thus favored fostering Zionist water development projects while pressuring Palestinians to adopt “modern” agricultural practices.¹⁷ The “modern” agricultural practices employed by the Jewish settler populace were water-intensive, and dependent on machinery, chemicals, and water control.¹⁸ Palestinian cultivators and pastoralists, on the other hand, traditionally employed extensive land use practices, moving animals between water sources while inflicting little alteration to the water landscapes.¹⁹ The British employed an “environmental Orientalism” that viewed the land as “exotic, unchanging, harsh and neglected or wasted,” and its people, too, were “exotic, unchanging and ‘unimproving.’”²⁰ Thus, the need to “improve” or “normalize” the environment provided justification for importing and implementing European water-intensive agricultural practices with the settler population, and objections to the imposition of such practices by Palestinians were treated as proof of native-backwardness.²¹

British perceptions worked to dismantle the methods Palestinians developed over the course of centuries to adapt to the varied water and climate conditions throughout the country.²² Palestinian agricultural practices responded to where water was present, rather than forcing its existence. This included dry farming methods, such as growing crops that could succeed without

¹⁶ John Broich, *British Water Policy in Mandate Palestine: Environmental Orientalism and Social Transformation*, 19 *Environment and History* 255, *Id.* at 259 (2013).

¹⁷ *Id.* at 259–60.

¹⁸ *Id.* at 256.

¹⁹ *Id.*

²⁰ *Id.* at 260.

²¹ *Id.* at 259–60.

²² *Id.* at 262.

irrigation, such as wheat, barley, and *durra* (sorghum), and raising water-sparing livestock.²³ Farmers used terracing to preserve water and avoid erosion, and planted their olive trees a wide distance apart to reduce watering needs.²⁴ In some communities with available water sources, farmers employed irrigation methods and created small water control systems, and rules were established to determine fair water division from springs.²⁵

However, from the beginning of the British Mandate period, Palestinians experienced dramatic changes in their landscape as access to their water and lands were confiscated for construction of Zionist settlements.²⁶ Between the late 1920s and 1930, over 200 water supply and reclamation projects drained or altered over 150,000 acres of Palestinian land (out of 6.5 million total acres of land in Palestine).²⁷ In the mid-1920s, Palestinian fruit growers and shepherds in the Bethlehem area lost a share of their local spring water expropriated for use in Jerusalem, and access to the Zarka River was expropriated by a Zionist and British development project, cutting off the Palestinian communities who relied on this water source to sustain their livelihoods.²⁸ By the late 1930s, Zionist settlements supported by the British Mandate blocked Palestinian *fellahin* (farmers) in Hula Valley from reaching their herds' traditional watering places.²⁹ These examples are just a brief portrait of how British Mandate policies and Zionist settler colonial expansion altered the Palestinian landscape. It is impossible to assess the percentage of all traditional water supplies that were eliminated or removed from Palestinian use,

²³ *Id.* at 262–63.

²⁴ *Id.* at 263.

²⁵ *Id.* at 264.

²⁶ *Id.* at 255–56 (2013).

²⁷ *Id.* at 256–57.

²⁸ *Id.* at 256.

²⁹ *Id.*

as it was against the Mandatory and Zionist authorities' interests to characterize such sources as usable in the first place.³⁰ Thus, no total area survey exists.³¹

Palestinian farmers were not passive to their dispossession, but rather turned to both legal and popular resistance methods to counter the seizures of their water resources and their characterization as “backward” and “primitive.”³² In 1922, Palestinians of Kabara in Haifa subdistrict hired an attorney to argue that they had clear title to their land and to contest the government's plan to sell it to a company seeking to drain and irrigate it.³³ In 1924, the *Yishuv*³⁴ was granted the right to build a hydro-electric dam on the Jordan River, leading the Palestine Arab Congress to complain to the League of Nations that the British were hindering Arab efforts to improve town water supplies.³⁵ Villagers from Urtas took the District Governor of Jerusalem to court in 1925 to prevent the town from appropriating and diverting part of Urtas' local spring water to support the British and Zionist expansion of Jerusalem.³⁶ The 1936 Arab Revolt, on the other hand, was a nationalist uprising against the British administration of the Mandate. The three-year revolt called for independence and an end to open-ended Jewish migration and settlement in Palestine. The British were quick to quell the resistance, killing more than 5,000 and arresting and expelling many notable Palestinian leaders.³⁷ Overall, Palestinian attempts to

³⁰ *Id.* at 257.

³¹ *Id.*

³² *Id.* at 277.

³³ *Id.* (“That case ended in Attorney General Norman Bentwich publicly declaring the sale a *fait accompli* with a consequent rush by Arab families to come to terms with the buyers.”).

³⁴ SHIRA ROBINSON, *CITIZEN STRANGERS PALESTINIANS AND THE BIRTH OF ISRAEL'S LIBERAL SETTLER STATE* 4 (Stanford University Press, 2013) (explaining that the *Yishuv* is the collective name used to refer to the Zionist settler movement).

³⁵ Broich, *supra* note 26, at 277.

³⁶ *Id.*

³⁷ *Id.*; Ian Black, *Book Review – ‘Britain’s Pacification of Palestine: The British Army, the Colonial State, and the Arab Revolt, 1936–9’ by Matthew Hughes*, LSE MIDDLE EAST CENTER (May 31, 2019), <https://blogs.lse.ac.uk/mec/2019/05/31/book-review-britains-pacification-of-palestine-the-british-army-the-colonial-state-and-the-arab-revolt-1936-1939-by-matthew-hughes/>.

resist appropriation of land and water resources through popular resistance and the legal system were generally unsuccessful and met with British legal counterattacks and increased policing and surveillance, all the while maintaining that Palestinian opposition to colonialist policies were the reaction of a backward native people.³⁸ Despite Palestinian resistance to British policies, the Mandate laid the groundwork for the continued dispossession and displacement of Palestinians from their homes and resources for the century to come.

The alteration of Palestine's water landscapes during the Mandate period continues to have implications for climate change adaptivity today. The switch to water-intensive agricultural practices and the introduction of non-native flora and fauna has damaged the ecology of the land extensively.³⁹ The Jewish National Fund (JNF) acted as a tool of the Zionist settler colonial movement to purchase Palestinian land and expand settlements in an effort to "Judaize" the land to resemble that of central Europe.⁴⁰ This "greening of Palestine" persisted through the Nakba in 1948, when towns and villages were razed and planted over with trees native to central Europe, covering evidence of Palestinian life that once existed.⁴¹

B. The Nakba, the Occupation, and Oslo – dispossession, displacement, and belligerent law of occupation

The Nakba

The Nakba (or "the catastrophe" in Arabic) in 1948 solidified the dispossession and displacement of the Palestinians from their land and homes as Jewish militias expelled around 750,000 Palestinians from their villages and towns between 1947 and 1949 following the pronouncement of the 1947 U.N. Partition Plan, and seized control of 78 percent of historic

³⁸ Broich, *supra* note 26, at 278.

³⁹ Awad, *supra* note 15, at 119.

⁴⁰ *Id.*

⁴¹ *Id.* at 119–20.

Palestine.⁴² Legal fortifications of the colonial project's gains were swift. Following the establishment of the state of Israel, a formal military regime was established in the areas that the army had occupied outside of the territory that the U.N. Partition Plan had allocated to the Jewish state.⁴³ Section 125 of the Defense Regulations of 1945 allowed local governors and military commanders to declare any area of the country closed for security reasons, preventing Palestinian farmers from reaching their lands.⁴⁴ These lands would be left uncultivated, or "fallow," leading to the Emergency Regulations regarding the Cultivation of Fallow Lands and Unexploited Water Sources in October 1948.⁴⁵ This regulation retroactively and subsequently legalized the seizure and reallocation of confiscated Palestinian land.⁴⁶ All lands systematically depopulated of their Palestinian inhabitants were labeled "absentee" and transferred to Jewish settlers.⁴⁷ Thus, the newly established state of Israel weaponized the law to solidify its colonial gains and dispossess the Palestinian people of their land and resources, a method that continues to be both directly and indirectly supported by Western states today.⁴⁸

⁴² The Nakba resulted in more than 500 Palestinian villages systematically destroyed throughout the war by the Israeli military, ultimately displacing 85 percent of the indigenous population. At least seventy massacres that killed more than 15,000 Palestinians took place throughout the Nakba. BADIL RESOURCE CTR., SURVEY OF PALESTINIAN REFUGEES AND INTERNALLY DISPLACED PERSONS 2013-2015 xxxi (BADIL Resource Center, vol. viii 2015) (stating that between 750,000 and 900,000 Palestinians (approximately 55 to 66 percent of the total Palestinian population at the time) were forcibly displaced between the end of 1947 and early 1949); *see also* ROBINSON, *supra* note 34, at 29; Awad, *supra* note 15, at 120. Jewish militias included the Irgun, Stern Gang, and Haganah, among others, and the Haganah particularly is viewed as the predecessor to the Israeli army.

⁴³ ROBINSON, *supra* note 34, at 33.

⁴⁴ ROBINSON, *supra* note 34, at 35; Jeremy Forman & Alexandre (Sandy) Kedar, *From Arab Lands to 'Israel Lands': the legal dispossession of the Palestinians displaced by Israel in the wake of 1948*, 22 ENV'T & PLANNING D: SOC'Y & SPACE 809, 814 (2003).

⁴⁵ ROBINSON, *supra* note 34, at 35; Forman & Kedar, *supra* note 44, at 814.

⁴⁶ ROBINSON, *supra* note 34, at 35–36.

⁴⁷ *Id.*

⁴⁸ Many "Western" nations have both directly and indirectly acquiesced or approved of Israel's dispossession of Palestinians in contravention of international law. For example, the United States supports the occupation by funding the Israeli military with a \$38 billion aid package, the Trump Administration recognized Jerusalem as the capital of Israel and withdrew from UNESCO over "anti-Israel bias" following the organization's criticism of Israel's annexation of East Jerusalem, naming certain

The Nakba had substantial ecological consequences in addition to the human cost that resulted in the ongoing mass refugee crisis in the region. The switch to water-intensive agriculture and the planting of non-native species threaten the biodiversity of the land and has resulted in present-day efforts to reverse ecological damage.⁴⁹ The newly established Israeli state seized control of water sources, expanded the building of settlements, constructed thousands of kilometers of roads, and seized swaths of land for military purposes, damaging wetlands and forests.⁵⁰ Lake Hula, an ecologically significant water source, was drained by the JNF in the 1950s, causing the extinction of endemic fauna and the near collapse of the ecosystem, resulting in a later attempt to re-flood a section of the lake to revive what was destroyed.⁵¹

The Nakba, however, was not a one time event. The dispossession and displacement of Palestinians is an ongoing project that continues to this day – from settlement building, rerouting water supplies, and planting non-native flora over depopulated Palestinian villages. The continued military occupation of the West Bank and Gaza Strip since 1967 serves as an example.

The Occupation & Oslo

The Israeli occupation commenced in 1967 following the Six-Day War, and is considered the greatest non-environmental risk facing the Palestinians in the occupied territories – however, the United Nations Development Program (UNDP) considers the occupation an environmental risk

areas with historical Jewish ties as Palestinian heritage sites, and granting full membership to Palestine in 2011. See Matt Spelnick, *U.S., Israel sign \$38 billion military aid package*, REUTERS (Sept. 14, 2016), <https://www.reuters.com/article/us-usa-israel-statement/u-s-israel-sign-38-billion-military-aid-package-idUSKCN11K2CI>; Thomas Adamson, *U.S. and Israel officially withdraw from UNESCO*, PBS NEWSHOUR (Jan. 1, 2019), <https://www.pbs.org/newshour/politics/u-s-and-israel-officially-withdraw-from-unesco>; *US to recognize Jerusalem as Israel's capital*, BBC NEWS (Dec. 6, 2017) <https://www.bbc.com/news/world-middle-east-42246564>.

⁴⁹ Awad, *supra* note 15, at 119.

⁵⁰ *Id.* at 120.

⁵¹ *Id.*; see also *The Hula Valley – Bird Watching Site*, HAARETZ, <https://www.haaretz.com/israel-news/travel/1.5009600> (last visited Mar. 12, 2021); see also M. Goren, *Tristamella intermedia*, THE IUCN RED LIST OF THREATENED SPECIES (Jan. 31, 2006), <https://www.iucnredlist.org/species/60792/12399367>.

itself, alongside sea-level rise and altered rainfall patterns.⁵² Upon Israel's occupation of the West Bank, Gaza Strip, and East Jerusalem in 1967 (known as the "Naksa" or "the setback" in Arabic), the Israeli Defense Forces (IDF) issued a series of military orders to further restrict Palestinians' access to their water resources and strategically seize essential land areas.⁵³ Prior to 1967, Palestinians in the West Bank relied on local supplies of water from shallow wells and springs, until Military Proclamation No. 2, which expropriated all water resources in the now-occupied Palestinian territories as Israeli state-owned property.⁵⁴ Military Order 158 of that same year, still in force today, prohibited Palestinians from building new water installations without first acquiring official authorization through a complex permit regime administered by the army, and any water system constructed without approval is subject to immediate confiscation.⁵⁵ IDF approval is extremely difficult to obtain, leaving Palestinians with no choice but to build systems without approval or turn to the heavy financial burden of purchasing water from Israel, which is sourced from the Mountain Aquifer under West Bank land.⁵⁶ Confiscations are not limited to unlicensed well drillings: in 2007, residents of Wadi Foqin in Area C of the West Bank received a land confiscation order that included destruction of one licensed water well, six water springs, and thirteen rainwater systems, as well as uprooting a number of olive and almond trees throughout the village.⁵⁷ Furthermore, the West Bank water infrastructure, under control of Israeli authorities, was formally transferred to the Israeli national water company Mekorot in

⁵² *Climate Change Adaptation Strategy*, *supra* note 1, at 18; AGHA, *supra* note 2; Zena Agha, *Climate Change and the Palestinian Authority*, AL-SHABAKA (Mar. 7, 2019), <https://al-shabaka.org/memos/climate-change-and-the-palestinian-authority/>.

⁵³ Jarrar, *supra* note 1, at 4, 14. Israel also occupied the Syrian Golan Heights in 1967.

⁵⁴ *Id.* at 14–15.

⁵⁵ *Id.* at 15.

⁵⁶ Michael Vexler, *Visualizing Occupation: Distribution of Water*, +972 MAGAZINE (July 1, 2012), <https://www.972mag.com/visualizing-occupation-distribution-of-water/>.

⁵⁷ Jarrar, *supra* note 1, at 15.

1982.⁵⁸ Mekorot controls and extracts all of the water resources in the West Bank and monopolizes these resources for settlement use.⁵⁹ Meanwhile, Palestinians must purchase the water sourced from under their feet at a price determined by the Israeli authorities.⁶⁰

This power imbalance is perpetuated by the Oslo Accords. The agreement, still in force twenty-five years later despite the fact that it was intended to be a five-year arrangement, has advanced the separation of Palestinians from their resources.⁶¹ Under the Accords, Israel assumed control over Palestinian water supplies as a “shared” resource.⁶² However, in the West Bank, Palestinians have access to less than twenty percent of the water resources available, while about eighty to ninety percent of the water is appropriated for Israel and the illegal settlements.⁶³ On average, almost three million Palestinians in the West Bank consume about seventy-two liters of water per capita a day, placing them well below the World Health Organization (WHO) recommendation of 100 liters of water per capita a day.⁶⁴ Those in the West Bank not connected to the water grid, such as communities located in Israeli-controlled Area C, survive on just ten to twenty liters per capita a day.⁶⁵ Meanwhile, a rapidly growing population of over 640,000 Israelis living in illegal settlements in the West Bank, where water is considered a “scarce”

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ AGHA, *supra* note 2. The accords split the West Bank into three areas: Area A under Palestinian control; Area B under Palestinian civil rule and Israeli security control; and Area C, which controls sixty percent of the West Bank, under full Israeli control. *See* Jarrar, *supra* note 1, at 5.

⁶² Declaration of Principles on Interim Self-Government Arrangements (“Oslo I Accord”) Annex III, Is.-Pal., Sept. 13, 1993 [hereinafter “Oslo I”]; Israeli-Palestinian Interim Agreement on the West Bank and Gaza Strip (“Oslo II Accord”) art. XVII, Is.-Pal., Sept. 28, 1995.

⁶³ Vexler, *supra* note 56; AL-HAQ, ISRAELI OCCUPYING AUTHORITIES DEMOLISH PALESTINIAN WATER WELLS; EXPAND WATER LINES FOR ISRAELI SETTLEMENTS – REPORTING PERIOD 10-16 JUNE 2019 (Al-Haq, 2019), <http://www.alhaq.org/monitoring-documentation/15167.html>.

⁶⁴ Awad, *supra* note 15, at 121; AGHA, *supra* note 2.

⁶⁵ AGHA, *supra* note 2.

resource, enjoy about 700 liters of water per capita a day.⁶⁶ While only 50.9 percent of Palestinian households in the West Bank have access to water on a daily basis, Israelis living in illegal settlements use six times more water than the entire Palestinian population for drinking, irrigating their crops, watering their lawns, and filling their swimming pools.⁶⁷ Settler violence that frequently targets Palestinian property and agricultural infrastructure and crops further perpetuates Palestinian vulnerability.⁶⁸ This situation is regarded as “water apartheid,” a component of the larger regime of climate apartheid Israel imposes upon Palestinians.⁶⁹

The Joint Water Committee (JWC) was also a creation of the Interim Agreement of Oslo II, which seeks to “foster cooperation to develop new water sources,” but is an institution that prohibits any water-related decisions without Israeli approval.⁷⁰ However, this “cooperation” has only served to legitimize Israel’s power over Palestinian resources. Since the establishment of the JWC, Israeli authorities have consistently rejected every Palestinian well-drilling proposal in the Western Basin of the Mountain Aquifer and imposes a tortuous permit regime with few approvals granted over small and local water networks.⁷¹ Palestinians have riparian water rights to the Jordan River, yet the JWC completely cuts off Palestinian access by declaring adjacent lands as closed military zones and consistently denies permits to Palestinians seeking to capture

⁶⁶ Awad, *supra* note 15, at 121; *see also* *Settlements*, B’TSELEM, <https://www.btselem.org/topic/settlements>; *West Bank settlements report rapid growth in 2019*, THE TIMES OF ISRAEL (Jan. 28, 2020), <https://www.timesofisrael.com/west-bank-settlements-report-rapid-growth-in-2019/>; Abeer al-Butmeh, *Palestine is a climate justice issue*, AL JAZEERA (Nov. 28, 2019), <https://www.aljazeera.com/indepth/opinion/palestine-climate-justice-issue-191127102617054.html>; Dror Etkes, *Using stolen water to irrigate stolen land*, +972 MAGAZINE (July 16, 2016), <https://www.972mag.com/using-stolen-water-to-irrigate-stolen-land/> (noting that “the settler population is growing at 5% per year, twice that of the population growth in Israel”)

⁶⁷ AGHA, *supra* note 2; AL-HAQ, *supra* note 63.

⁶⁸ AGHA, *supra* note 2.

⁶⁹ al-Butmeh, *supra* note 66.

⁷⁰ Jarrar, *supra* note 1, at 5; AGHA, *supra* note 2.

⁷¹ Jarrar, *supra* note 1, at 5; AGHA, *supra* note 2.

runoff water in dams.⁷² Furthermore, over 190,000 Palestinians living in rural areas, including those connected to the water network, are without access to running water.⁷³ Some communities have access to piped water once every few weeks, and the 5,000 residents of the overcrowded Aida refugee camp outside of Bethlehem receive water an average of six hours per week.⁷⁴ Meanwhile, Israeli settlers can turn on the tap at any given moment, every day of the year.

Under the international law of belligerent occupation, Israel is obligated to meet the needs of the population that it occupies.⁷⁵ According to Article 55 of the 1907 Hague Convention, this includes the guardianship of natural resources, and Article 147 of the Fourth Geneva Convention prohibits the extensive destruction and appropriation of property.⁷⁶ As stipulated in Article 54(2) of Additional Protocol I of the Fourth Geneva Convention, the arbitrary destruction and appropriation of property, and the destruction, removal, and disablement of civilian objects indispensable to the civilian population, including agricultural areas, drinking water installations, and irrigation works, is explicitly prohibited.⁷⁷ Israel is legally bound to both conventions by way of customary international law as well as Israel's ratification in 1951 of the Fourth Geneva Convention.⁷⁸ Although Israel has not ratified Additional Protocol I, Article 54(2) codifies obligations already widely regarded as customary international law, thus binding Israel to its obligations.⁷⁹ The Israeli occupation, and the damage to Palestinian water and agricultural

⁷² AGHA, *supra* note 2.

⁷³ Jarrar, *supra* note 1, at 5; Vexler, *supra* note 56.

⁷⁴ Jarrar, *supra* note 1, at 5; Stephanie Westbrook, *A West Bank water crisis for Palestinians only*, +972 MAGAZINE (Nov. 22, 2014), <https://www.972mag.com/a-west-bank-water-crisis-for-palestinians-only/>.

⁷⁵ Geneva Convention Relative to the Protection of Civilian Persons in Time of War section III, Aug. 12, 1949 [hereinafter "Fourth Geneva Convention"]; AGHA, *supra* note 2.

⁷⁶ Fourth Geneva Convention art. 147, 12 August 1949; Regulations concerning the Laws and Customs of War on Land art. 55, The Hague, 18 Oct. 1907; *Climate Change Adaptation Strategy*, *supra* note 1, at 64.

⁷⁷ Protocol Addition to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I) June 8, 1977; AGHA, *supra* note 2.

⁷⁸ *Climate Change Adaptation Strategy*, *supra* note 1, at 64.

⁷⁹ *Id.*

infrastructure that it causes, is clearly established as *prima facie* a breach of international humanitarian law.⁸⁰

The imposition of an apartheid system that confiscates land and water resources from Palestinians for the benefit of settlers directly damages the environment and prevents Palestinians from meeting climate change adaptation needs. Settlements in the West Bank, numbering around 240 and confiscating about 25,000 acres of Palestinian land, are declared illegal under international law.⁸¹ Article 49 of the Fourth Geneva Convention states: “The Occupying Power shall not deport or transfer parts of its own civilian population into the territory it occupies,” and “prohibits the ‘individual or mass forcible transfers, as well as deportations of protected persons from occupied territory.’”⁸² Yet, the number of illegal settlements and settlers continues to climb as the Israeli government offers economic incentives to encourage Israeli citizens to move to West Bank settlements.⁸³

In addition to the legal ramifications of Israel’s occupation, the construction of settlements, military checkpoints, and the separation wall damage the environment substantially.⁸⁴ Settlement construction and the extensive system of “settler only” roads, which Palestinians are prohibited from traveling on, cause deforestation and disrupt the biodiversity of the land.⁸⁵ There are more than twenty industrial settlements in the West Bank, which emit toxins into Palestinian

⁸⁰ AGHA, *supra* note 2 (citing *Climate Change Adaptation Strategy*, *supra* note 1 at 64).

⁸¹ S.C. Res. 446 (Mar. 22, 1979); Etkes, *supra* note 66.

⁸² Fourth Geneva Convention art. 49, 12 August 1949; Joseph Krauss, *A look at Israel’s settlements ahead of possible annexation*, AP NEWS (Jan. 29, 2020), <https://apnews.com/1a4f52cfa6ffb42b2a2bfded4c0bd643>

(stating that there are around 130 officially recognized settlements and 110 outposts built without official authorization, and Israel removed about 8,000 settlers from the Gaza Strip when it withdrew in 2005).

When referring to the West Bank, East Jerusalem is included in the numbers.

⁸³ Awad, *supra* note 15, at 122.

⁸⁴ *Id.*

⁸⁵ *Id.*

communities, causing disease, asthma, and cancer in the population, as well as destroying the vegetation, crops, and animal diversity of the surrounding areas.⁸⁶ Industrial settlements built on confiscated land in Tulkarm are an important example for perspective: factories that were originally located on the Israeli side of the Green Line were relocated inside the West Bank once Israeli citizens took legal action to remove the nuisance.⁸⁷ The court injunction stipulated that the relocated factories were not allowed to operate when the prevailing headwinds changed in the direction of the Israeli side of the Green Line.⁸⁸ Thus, these industrial settlements purposefully inflict damage upon Palestinian communities and their environments with impunity. While Israeli citizens can file nuisance claims in court to prevent the pollution of their neighborhoods, Palestinians under occupation are left with no legal recourse or rights, forced to suffer the consequential disease and damage.

Israel began constructing the separation wall in 2002 for “security reasons,” and continues its construction despite the fact that it violates international law.⁸⁹ More than eighty-five percent of the separation wall is built inside of the West Bank, cutting deep into Palestinian land and resulting in the confiscation and effective annexation of about 9.4 percent of the West Bank, including its most fertile lands and rich water resources.⁹⁰ At its completion, the wall is expected to be 708 kilometers long, more than double the length of the Green Line.⁹¹ The separation wall, built on a path to accommodate and annex as many illegal settlements to Israel as possible, has

⁸⁶ *Id.* at 125–26.

⁸⁷ Legal action was taken to move the factories under the English common law of nuisance, still in force in Israel as a result of the British Mandate. *Id.* at 126.

⁸⁸ *Id.*

⁸⁹ *Israel’s Wall: Security or Apartheid?*, VISUALIZING PALESTINE (2015),

<https://101.visualizingpalestine.org/resources/audiovisuals/israels-wall-security-or-apartheid>.

⁹⁰ *Separation Wall*, AL JAZEERA, <https://interactive.aljazeera.com/aje/palestineremix/wall.html> (last visited Mar. 12, 2021).

⁹¹ Awad, *supra* note 15, at 127; *Separation Wall*, *supra* note 90.

ghettoized Palestinians towns and villages and choked off a number of Palestinian communities, who now need special permits to access their homes, farmlands, water sources, social services, and schools on the other side of the wall.⁹² As discussed earlier, this system of barriers supports land seizures – preventing Palestinians from reaching their property means that the lands are regarded as abandoned and annexed to Israel.⁹³ The International Court of Justice (ICJ) ruled in 2004 that the wall was “contrary to international law” and Israel accordingly “ has the obligation to cease forthwith the works of construction of the wall being built by it in the Occupied Palestinian Territory, including in and around East Jerusalem.”⁹⁴ The ICJ also stated that Israel must return seized property and compensate Palestinian landowners who have been damaged by construction of the wall.⁹⁵ Furthermore, Israel’s construction of settlements, the separation wall, and military checkpoints, all of which de facto annex West Bank land, are in direct contradiction to Article XXXI of Oslo II, which states, “Neither side shall initiate or take any step that will change the status of the West Bank and the Gaza Strip pending the outcome of the permanent status negotiations.”⁹⁶

The 25-foot-tall barrier, accompanied by a system of over 400 military checkpoints and roadblocks, not only restricts Palestinian freedom of movement and cuts off many villagers from water supplies and agricultural lands, but also cuts off wildlife migration corridors and breeding

⁹² Awad, *supra* note 15, at 127; *see also Photos: 13 days without water in East Jerusalem*, +972 MAGAZINE (Mar. 17, 2014), <https://www.972mag.com/photos-13-days-without-water-in-east-jerusalem/> (“The East Jerusalem neighborhoods of Ras Shehada, Ras Khamis, Dahyat A’salam and the Shuafat refugee camp, which are cut off from the rest of the city by the separation wall, have gone without running water since March 4.”).

⁹³ al-Butmeh et al., *supra* note 15, at 154–55; *see also* ROBINSON, *supra* note 34, at 35–36.

⁹⁴ Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. No. 131 at 44, 59 (July 9); *Separation Wall*, *supra* note 90.

⁹⁵ Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. No. 131 at 44; *Separation Wall*, *supra* note 90.

⁹⁶ Oslo II Accord, II.-Pal., Sept. 28, 1995, https://ecf.org.il/media_items/624.

areas.⁹⁷ For example, the Palestinian mountain gazelle population dramatically decreased by seventy percent over the course of fifteen years to only 2,000 known gazelle left in 2015 as a result of habitat loss produced by settlement expansion, paving of roads, and separation wall construction that have depleted the main habitable areas of the gazelle.⁹⁸ Construction of the separation wall has also destroyed archaeological sites and the livelihoods of Palestinian agriculturalists – according to the Arab Group for the Protection of Nature (APN), Israel, on average, is uprooting one tree per minute in occupied Palestine, and between 2001-2005, Israeli authorities uprooted over 1.4 million trees in the area.⁹⁹ Often, these are olive groves and fruit-bearing trees important to the livelihoods of Palestinians, both economically and culturally.¹⁰⁰

Therefore, climate apartheid is an important part of the much broader system of apartheid that Israel imposes upon Palestinians under occupation. The systemic dispossession of Palestinian resources for distribution to Israeli settlers and an arduous permit regime that institutes two unequal systems for two different peoples, is a calculated, ongoing project of a settler-colonial system seeking to further its gains at the expense of the indigenous people it occupies, across the West Bank and Gaza Strip.

The Gaza Strip

The Gaza Strip is a man-made environmental catastrophe with a bleak future in sight, amid past U.N. projections estimating that Gaza would be unlivable by 2020.¹⁰¹ Israel's land, air, and

⁹⁷ *Climate Change Adaptation Strategy*, *supra* note 1, at 18; Awad, *supra* note 15, at 128.

⁹⁸ Alexandra Day, *Climate Apartheid in Palestine*, 8 IRISH MARXIST REV. 36, 38 (2019); Peter Beaumont, *Palestine mountain gazelle now endangered, say scientists*, THE GUARDIAN (Sept. 3, 2015), <https://www.theguardian.com/world/2015/sep/04/palestine-mountain-gazelle-now-endangered-say-scientists>.

⁹⁹ Hilmi S. Salem, *Impacts of Climate Change on Biodiversity and Food Security in Palestine*, in CLIMATE CHANGE, BIODIVERSITY AND FOOD SECURITY IN THE SOUTH ASIAN REGION 222, 228 (2010).

¹⁰⁰ *Id.*; Awad, *supra* note 15, at 128; al-Butmeh, *supra* note 66 (explaining that Israel has uprooted 800,000 olive trees since 1967).

¹⁰¹ al-Butmeh, *supra* note 66.

sea blockade of the coastal enclave has choked it off from the rest of the world and restricted the territory's ability to cope with climate change. Frequent Israeli assaults on the territory cause considerable damage in terms of food security, air quality, soil degradation, chemical contamination, coastal pollution, ecological ruin, and destruction of essential infrastructure.¹⁰² Physically and politically separated from the Palestinian Authority-controlled West Bank, the Hamas-led Gaza Strip faces an extreme imbalance in power and inability to address the harsher climate change challenges facing the territory.¹⁰³ The water crisis in the Strip is exacerbated by the Israeli siege, causing over-reliance on groundwater resources and consequent depletion of the Coastal Aquifer, where water is pumped at almost three times the sustainable abstraction rate, causing seawater intrusion and sewage pollution.¹⁰⁴ The blockade also prevents essential resources from entering the territory, such as the materials and fuel needed for wastewater treatment.¹⁰⁵ As of 2017, about two million Palestinians in Gaza consume only 88.3 liters per capita a day, and more than ninety-seven percent of the water pumped from the Coastal Aquifer is unfit for human consumption according to the water quality standards of the WHO.¹⁰⁶ Only about thirty percent of households in Gaza are connected to a daily water supply, and this is subject to complete shutoff during Israel's frequent bombardments of the territory.¹⁰⁷ In addition to preventing enough clean water from entering Gaza, Israel's continual wars on the enclave destroy what little water sanitation infrastructure is available and prevents the ability to rebuild

¹⁰² al-Butmeh et al., *supra* note 15, at 155.

¹⁰³ AGHA, *supra* note 2.

¹⁰⁴ Day, *supra* note 98, at 38; WORLD BANK GROUP, SECURING WATER FOR DEVELOPMENT IN WEST BANK AND GAZA 5 (World Bank Group, 2018), https://www.un.org/unispal/wp-content/uploads/2018/07/WORLDBANKSN_150618.pdf.

¹⁰⁵ al-Butmeh, *supra* note 66.

¹⁰⁶ The Palestinian Central Bureau of Statistics (PCBS) and the Palestinian Water Authority (PWA) Issue a Press Release on the Occasion of World Water Day, March 22th , 2019 (2019), http://www.pcbs.gov.ps/portals/_pcbs/PressRelease/Press_En_21-3-2019-water-en.pdf.

¹⁰⁷ AGHA, *supra* note 2.

infrastructure by inhibiting the importation of basic building materials from entering the territory.¹⁰⁸ These Israeli occupation policies exact a deadly human cost: contaminated water is the cause of more than twenty-six percent of all recorded disease in Gaza, and is the leading cause of child mortality, accounting for twelve percent of adolescent deaths.¹⁰⁹

While Israel has facilitated an environmental catastrophe in Gaza, the state is lauded as leader on green policy in the Middle East. For example, Israel declared ahead of the 2015 United Nations Climate Change Conference in Paris an emissions reductions target of seventeen percent by 2030 and an increase in renewable energy by seventeen percent, as well as a twenty percent reduction in transportation emissions.¹¹⁰ This minimal target garnered praise, even though 97.7 percent of Israel's electricity production comes from fossil fuels.¹¹¹ Meanwhile, Palestinian farmers in Gaza must risk Israeli army sniper fire to reach over a third of their arable lands, located around the periphery of the militarized "security fence" that effectively turns the Strip into the largest open-air prison in the world.¹¹² Some 4,000 Palestinian fishermen who care for 24,000 families also struggle to make a living as Israel imposes a restricted fishing zone that prevents fishermen from reaching waters beyond three to ten nautical miles from the coast, where the catch is less abundant and inhabits the contaminated water closest to shore.¹¹³ This

¹⁰⁸ *Climate Change Adaptation Strategy*, *supra* note 1, at 18, 50; AGHA, *supra* note 2.

¹⁰⁹ AGHA, *supra* note 2; al-Butmeh, *supra* note 66.

¹¹⁰ AGHA, *supra* note 2.

¹¹¹ al-Butmeh, *supra* note 66.

¹¹² *Climate Change Adaptation Strategy*, *supra* note 1 at 50 ("Some of the best agricultural land is taken by Israeli settlements in the Jordan River Valley, while 20% of arable land in the Gaza Strip is off-limits to farmers because it falls within the Israeli security zone adjoining the border. Similarly, Israeli restrictions prevent both bulk imports of clean water in the Gaza Strip and the development of irrigation in the West Bank."); Michael Mason, Mark Zeitoun, & Ziad Mimi, *Compounding Vulnerability: Impact of Climate Change on Palestinians in Gaza and the West Bank*, 41 *Journal of Palestine Studies* 38, 43 (2012); *supra* note 13, at 43; al-Butmeh et al., *supra* note 15, at 155.

¹¹³ *Gaza fishing industry declines 50% due to Israel attacks on fishermen*, MIDDLE EAST MONITOR (Jun. 10, 2020), <https://www.middleeastmonitor.com/20200610-gaza-fishing-industry-declines-50-due-to-israel-attacks-on-fishermen/>; al-Butmeh et al., *supra* note 15, at 155.

puts Israel in violation of their obligation under the Oslo Accords to provide access to water twenty nautical miles from the coast of Gaza.¹¹⁴ Furthermore, fishermen are frequently targeted and shot by the heavy Israeli military presence enforcing the constantly shifting exclusion zones.¹¹⁵

The situation in both the Gaza Strip and the West Bank amount to climate apartheid, fabricating a situation in which Palestinians must survive within a system that deprives them of their own resources and prevents them from accessing the most fundamental necessities to survive in a world that must adapt to climate change. The climate change challenges facing occupied Palestine are largely man-made disparities that force Palestinians into a second-class system that restricts their access to their water and land resources, coercing them to rely on the occupying power that implemented the man-made water scarcity and land degradation problems in the first place. So long as the occupation exists, it will be increasingly difficult for Palestinians under occupation to adapt effectively to climate change challenges.

3. Popular resistance as a tool: greenwashing, the NGO-industrial complex, and climate apartheid

Palestinians throughout history have relied on popular resistance as a method to combat their colonization, displacement, and occupation. This is also true in the climate change context. Palestinians under occupation have sought to combat the “NGOization”¹¹⁶ of Palestine when it comes to climate change adaptation approaches, instead turning to international solidarity as a strategy while also struggling against the “environmental Nakba” by returning to traditional methods of agriculture and environmental preservation as a form of resistance to the occupation.

¹¹⁴ *Gaza fishermen: restricted livelihoods*, UNRWA (Jul. 19, 2016), <https://www.unrwa.org/newsroom/features/gaza-fishermen-restricted-livelihoods>.

¹¹⁵ *Gaza fishing industry declines 50% due to Israel attacks on fishermen*, *supra* note 113.

¹¹⁶ AGHA, *supra* note 2.

International organizations and local Palestinian NGOs frequently view climate change as divorced from the political situation on the ground. This dehistoricized view of the settler-colonial power imbalance when it comes to climate change adaptation work, known as “green-washing,” serves to legitimize, rather than oppose, the Israeli occupation.¹¹⁷ In this context, NGOs work within the occupation, rather than against it.¹¹⁸ For example, the U.N. Framework Convention on Climate Change (UNFCCC) implicitly normalizes the occupation by describing climate change as an ‘apolitical’ issue that exceeds the issues of politics and “equalizes” or “brings together” both Palestinians and Israelis in a way that decontextualizes climate change and environmental realities on the ground.¹¹⁹ Yet, the Palestinian Authority (PA) has no direct access to any of the climate change adaptation financial assistance available to parties under the UNFCCC.¹²⁰ NGO and donor discourse on climate change adaptation in Palestine also commonly reinforces Israel’s false claims about water scarcity in the region, and donors are often reluctant to challenge Israel’s policies that inhibit the efficacy of their work for fear over the continuity and sustainability of the financed projects.¹²¹ In other words, working with the occupation rather than against it is profitable for the “NGO-industrial complex,” even if the occupation prevents the projects from being successful.

As the representative body of Palestine, the PA is expected by the UNFCCC and broader international community to implement climate change adaptation strategies, yet it has no sovereign authority over Palestine’s natural resources and much of its territory, and subsequently does not have the political power to mitigate climate change risks.¹²² By applying the same

¹¹⁷ al-Butmeh et al., *supra* note 15, at 163; Day, *supra* note 98, at 40.

¹¹⁸ al-Butmeh et al., *supra* note 15, at 163–65.

¹¹⁹ Day, *supra* note 98, at 37.

¹²⁰ *Climate Change Adaptation Strategy*, *supra* note 1, at xii.

¹²¹ Jarrar, *supra* note 1, at 11.

¹²² AGHA, *supra* note 2.

metric to assess climate change preparedness to both Israel and the Palestinians, the international community is normalizing the occupation rather than treating it as an “abnormal and debilitating structure.”¹²³ Furthermore, the international community – including states, donors, and U.N. agencies – have a “limited or no-contact policy” with Hamas, preferring to work exclusively with the PA and NGOs, hindering Gaza’s government from effectively implementing climate change adaptation strategies.¹²⁴ Thus, the international community, donors, and NGOs control where the resources go in a way that disempowers the Palestinian community, while further entrenching and normalizing the occupation.

Palestinians under occupation have opposed this “NGO-industrial complex” that dominates the climate change conversation in Palestine in favor of building an international solidarity strategy that reclaims Palestinian agency and sheds light on the detrimental climate change realities exacerbated by the Israeli occupation. One example is the 2005 call for a campaign of Boycott, Divestment, and Sanctions against Israel, focused on three demands that represent the interests of three sectors of the Palestinian community: (1) an end to the occupation (including the West Bank, East Jerusalem, Gaza Strip, and the Syrian Golan Heights); (2) an end to discriminatory laws within Israel (which target Palestinian citizens of Israel); and (3) the right of return for Palestinian refugees.¹²⁵ This has been an effective grassroots tool to exert pressure on the Israeli government to end its discriminatory policies, including those that exacerbate climate change risks in occupied Palestine. The movement has included calling on environmental organizations to exert global pressure on Israel to end its discriminatory and environmentally harmful policies through boycotts of institutions and companies that are complicit and profiting

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ al-Butmeh et al., *supra* note 15, at 166.

off of the destruction of the Palestinian environment.¹²⁶ The strategy includes boycotting the international projects of Mekorot, which upholds discriminatory policies through depriving Palestinians of their right to water by routing the resource to Israel's illegal settlements in the West Bank, and boycotting Israeli-produced medjoul dates, which are grown in the Jordan Valley using land and water expropriated from Palestinians.¹²⁷ The Jordan Valley, at risk of being *de jure* annexed to Israel under President Netanyahu's policies, accounts for thirty percent of the West Bank and is some of its most fertile land.¹²⁸

International solidarity is also utilized by the recently established Palestine Action for the Planet (PAP) network, which intends to connect local Palestinian environmental organizations, like PENGON-Friend of the Earth, and global climate activist networks, such as Extinction Rebellion, to address climate change and Israeli occupation as issues that are interconnected.¹²⁹ Among PAP's goals are challenging "Zionist colonialist and imperialist actions locally and globally" while protecting indigenous people and promoting sustainable communities on the ground, and maximizing "the usage of traditions and cultural heritage" in environmental preservation as it is "more eco-friendly and effective."¹³⁰

Most notably, Palestinian activists are combatting climate change and Israel's climate apartheid policies by returning to traditional agricultural methods and means of preserving the land as a form of resistance to the occupation. Palestinian farmers are denied access to fertile

¹²⁶ al-Butmeh, *supra* note 66.

¹²⁷ *Id.*; Westbrook, *supra* note 74 ("Together with Palestine solidarity groups, Italian water movements have been waging a campaign calling on Acea, as well as the City of Rome, a majority shareholder in the company, to cancel the agreement due to Mekorot's violations of international law.").

¹²⁸ It is argued that the existing system of settlements, checkpoints, land and water resource confiscations, and the separation wall amounts to the West Bank already being *de facto* annexed to Israel, regardless of whether Israel goes through with its formal annexation plan.

¹²⁹ *Palestine Action for the Planet*, PALESTINE INSTITUTE FOR BIODIVERSITY AND SUSTAINABILITY OF BETHLEHEM UNIVERSITY, <https://www.palestinenature.org/palestine-action/>.

¹³⁰ *Id.*

land, water resources, and markets, while Israeli fruits and vegetables, grown with some of the highest concentration of chemicals and pesticides in the world, inundate West Bank supermarkets where rejected produce that doesn't meet quality standards is dumped into the Palestinian market at low prices.¹³¹ This negatively effects the health of Palestinians and their agricultural economy, and has led to grassroots agroecology movements to revive traditional Palestinian agrarian practices.

For example, Vivien Sansour, founder of the Palestine Heirloom Seed Library, is challenging the occupation by preserving Palestinian agricultural heritage, including the rituals, methods, and practices used for centuries prior to the Nakba through her work to revive the native Palestinian varieties of seeds which are no longer widely grown.¹³² Due to the fact that the occupation has facilitated food insecurity and Palestinian dependence upon Israel, Sansour believes that regaining Palestinian agricultural autonomy is imperative, because “farmers who can produce their own food and make their own seeds represent a threat to any hegemonic power that wants to control a population.”¹³³ Communities such as Battir, a village located on the outskirts of Bethlehem and Jerusalem that never stopped using heirloom seeds, work with Sansour to distribute heirloom seeds to dozens of local farmers, challenging Israeli agribusiness monopolies across occupied Palestine.¹³⁴ The Palestine Heirloom Seed Library seeks to preserve and distribute the heirloom seeds that were cultivated by Palestinian agrarians over centuries to

¹³¹ Tessa Fox, *Working towards food sovereignty in Palestine*, AL JAZEERA (Feb. 15, 2019), <https://www.aljazeera.com/news/2019/02/working-food-sovereignty-palestine-190209110514832.html>.

¹³² Joshua Leifer, *Seeds of resistance: The woman fighting occupation with agriculture*, +972 MAGAZINE (Mar. 8, 2018), <https://www.972mag.com/seeds-of-resistance-the-woman-fighting-occupation-through-agriculture/133677/>.

¹³³ *Id.*

¹³⁴ *The Seed Queen of Palestine*, AL JAZEERA (Dec. 10, 2018), <https://www.aljazeera.com/programmes/witness/2018/12/seed-queen-palestine-181209110212131.html>.

accommodate the natural ecology of the land.¹³⁵ One heirloom crop, for example, is “Abu Samra,” a type of wheat that grows with no irrigation and is rain-fed. This crop variety, accompanied by traditional non-water intensive Palestinian agrarian practices, is an example of how heirloom seeds were cultivated to accommodate the natural Palestinian environment, prior to the British Mandate and settler movement forcing water-intensive agricultural practices that dry out and degrade the land to this day.

Similar agricultural coping mechanisms have been employed in Gaza, where the water crisis has led farmers to select less water-intensive and more salt-resistant crops, such as date palms. This practice reflects a return to tradition and a rejection of the water-intensive citrus production that began in the territory during the period of Israeli settlement in Gaza.¹³⁶ A shortage of chemical fertilizers has also encouraged farmers to revive organic methods of cultivation, and shortages of cooking gas has created solar food-drying pilot projects.¹³⁷ However, other short-term coping mechanisms, such as using raw sewage for agricultural irrigation, pose extreme risk to public health and diminishes long-term sustainability from being achieved.¹³⁸ These coping mechanisms are unlikely to be sufficient to sustain farming livelihoods under the harsh climate change scenarios predicted for the region.¹³⁹

Furthermore, agroecological methods of farming that aim to minimize environmental impact are also employed in occupied Palestine.¹⁴⁰ The Om Sleiman farm in the village of Bil’in is at the forefront of the agroecology and community supported agriculture movement in the West Bank. The farm, located on four dunams of village land, is a community site of non-violent

¹³⁵ Leifer, *supra* note 132.

¹³⁶ Mason, *supra* note 47113, at 45.

¹³⁷ *Id.*

¹³⁸ AGHA, *supra* note 2.

¹³⁹ Mason, *supra* note 13, at 45.

¹⁴⁰ Fox, *supra* note 131.

resistance.¹⁴¹ Mohab Alami and Yara Duwani, the farm’s cofounders, work with volunteers and Palestinian trainees in the agroecology field to promote principles of “co-creation, efficiency, resilience, and shared economy.”¹⁴² The village, which lost a large swath of land to a nearby Israeli settlement, is an example of resilience through their ongoing and peaceful struggle to regain their land through demonstrations and use of the legal system.¹⁴³ However, Palestinians under occupation are subject to the Israeli military court system, whereas Israeli settlers in the West Bank enjoy full civil and political rights, including access to the civil court system afforded to all Israeli citizens.

According to the Palestine Central Bureau of Statistics, the percentage of the Palestinian population working in the agricultural sector, including forestry and fishing, dropped from forty-five percent in 2003 to fourteen percent in 2017.¹⁴⁴ Alami explained that many of the reasons for this dramatic decrease can be attributed to Israel’s control over 100 percent of Palestine’s water resources, constant demolition orders carried out by the IDF, and harassment by Israeli settlers of people and property.¹⁴⁵ However, one of the ten elements of agroecology is the solidarity economy, a domestic tool which combats the environmental and economic challenges imposed by the occupation.¹⁴⁶ The solidarity economy supports Palestinian food sovereignty by encouraging Palestinians to buy Palestinian produce, which in turn diminishes the power that Israel has over Palestine’s markets, food production, and therefore, Palestinians themselves.¹⁴⁷

¹⁴¹ *Id.* (explaining that 4 dunams equals 4,000 square meters).

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

Notable efforts have been made at both the individual and communal level to offset the effects of the occupation on food and water scarcity while simultaneously working to adapt within the risks that climate change poses to the land in Palestine. However, these efforts can only be effective to a certain extent without an end to the occupation, which amplifies food and water scarcity, Palestinian dependence on Israel in the marketplace, and exacerbates climate change challenges.

4. Conclusion

Until the occupation comes to an end, climate change adaptation strategies will have little impact. Ending the occupation is the most crucial step to meet climate change adaptation needs. However, this situation is unlikely to be realized until the international community exerts pressure on Israel to end its occupation and human rights abuses in the West Bank and Gaza Strip. Yet, this system is perpetuated by the international community itself, and in the case of NGOs, the situation is profitable, entrenching the occupation as the status quo rather than treating it as a climate change risk in and of itself. Thus, Palestinians are resisting the “NGO-industrial complex” in Palestine by building international solidarity movements and returning to traditional agricultural methods as a means of combating the occupation and adapting to climate change needs.

D. Religious Minorities

This section will explore religious communities’ attitudes towards climate change and the political and legal mechanisms religious groups are using to advocate for a more sustainable environment. A difficulty of more comprehensively studying the intersections between religion and climate change is the lack of data on sectarian polling, attitudinal surveys, or comprehensive

studies. Most of the literature surrounding these intersections addresses theoretical or theological frameworks and individual case studies. However, addressing religious motivations in communities' climate advocacy is essential to better understanding the starting points and frameworks of many climate advocates and victims.

I. Religion and Climate Change Theology

The three largest monotheistic religions—Judaism, Christianity, and Islam—anchor most discussions of climate change and environmental sustainability in the theological notion of stewardship. While substantive differences in their applications of stewardship exist, all three share a fundamental appreciation for a god who created the world. Consequently, humans carry a duty in worshipping this Creator to respect and cultivate His creation. Humanity is accountable to the Creator for how it interacts with creation. Judaism, the patriarch of monotheism, houses a rich tradition of teaching and practicing stewardship.

The Christian doctrine of the Incarnation teaches Jesus Christ is God and became human to reconcile all of the sinful and broken creation with God the Creator. Climate degradation is inherent in various denominations' teachings about human corruption and disrespect of creation. Catholicism, Christianity's largest faith tradition, has produced several encyclicals teaching Christians about climate change and creation care.¹ In particular, Pope Francis's encyclical on ecology, *Laudato Si*, challenges governments to consider whether industries are devoted to “the

¹ E.g., Pope John Paul II, *Peace with God the Creator, Peace with All of Creation* (Jan. 1, 1990), http://w2.vatican.va/content/john-paulii/en/messages/peace/documents/hf_jp-ii_mes_19891208_xxiii-world-day-for-peace.html; Pope Paul VI, *A Hospitable Earth for Future Generations: Message to the Stockholm Conference on Human Environment* (June 1, 1972), <http://faculty.theo.mu.edu/schaefer/ChurchonEcologicalDegradation/documents/AHospitableEarthforFutureGenerations.pdf>.

care of creation,” incorporating climate awareness and care into a robust theology of ecology.² Environmental conservation, according to Church teaching, is a religious duty.

The world’s second largest religion, Islam, has also stressed the importance of climate care as a religious responsibility. In 2015, the Islamic Climate Change Declaration, inspired by Pope Francis’ *Laudato Si*, officially launched the Global Muslim Climate Network.³ The Declaration was a fruit of the International Islamic Climate Change Symposium held in Istanbul, Turkey and was co-sponsored by Islamic Relief Worldwide and the Islamic Foundation for Ecology and Environmental Sciences.⁴ Over eighty Muslim leaders endorsed the Declaration, which was presented before the United Nations (UN) and stressed the Islamic concept of *khilafa*, or stewardship. The Symposium founded the Green Ramadan project in 2016, which in conjunction with the Declaration, broadly encourages Muslim governments, corporations, and citizens to act on their theology of stewardship and lead fossil fuel elimination and renewable energy perspectives.⁵ In particular, the Declaration challenges oil-producing nations to “lead the way in phasing out their greenhouse gas emissions as early as possible” and “re-focus their concerns from unethical profit from the environment, to that of preserving it and elevating the condition of the world’s poor.”⁶ The consistent relationship between Muslim grassroots communities and the international community, represented by the UN, is an important

² Pope Francis, Encyclical Letter, *Laudato Si’: On Care for Our Common Home* (May 24, 2015), http://w2.vatican.va/content/francesco/en/encyclicals/documents/papafrancesco_20150524_encyclica-laudato-si.html.

³ *Muslim Leaders Deliver Islamic Climate Change Declaration*, ISLAMIC RELIEF WORLDWIDE, <https://www.islamic-relief.org/muslim-leaders-deliver-islamic-climate-change-declaration> (last visited Jan. 5, 2021).

⁴ *Id.*

⁵ *Islamic Declaration on Global Climate Change*, Australian Religious Response to Climate Change, https://www.arrcc.org.au/islamic_declaration (last visited Jan. 5, 2021).

⁶ *Id.*

illustration of a global institution partnering with a prime religious community in tackling a pressing religious and secular issue.

This brief survey does not do justice to the rich tapestry of religious teachings on climate change. Jews, Hindus, Buddhists, Sikhs, Protestants, indigenous religions, and scores of other religious traditions have adopted vibrant attitudes and degrees of urgency in addressing religious communities' rights and responsibilities in respect climate victimization and advocacy. A striking example of religious cooperation in fighting climate change is the Interfaith Climate Change Statement, which garnered over 270 signatures and was presented to the U.N. General Assembly President in April 2016.⁷ The Statement elevates climate advocacy as a catalyst for combating poverty and cultivating peace, a vision religious communities are at the forefront of championing. Religious declarations before the United Nations and other global bodies demonstrate religion's role in leading moral conversations about climate change and interfaith and intrafaith communities' influence on the culture surrounding much of international law.

II. Religion and Climate Change Activism

Complementing theological manifestos, several case studies and examples illustrate the diversity and effectiveness religion can have in effectuating progress around climate change. In particular, indigenous religions in threatened and marginalized communities provide compelling examples of religion's unique authority in combating climate change. This section focuses on Native Americans' experiences of climate change's religious elements and the response of indigenous activists to climate and religious threats.

⁷ *Interfaith Climate Change Statement to World Leaders (April 18, 2016)*, Human Rights and Climate Change Working Group, Center for International Environmental Law, [https://climaterights.org/interfaith-climate-change-statement-to-world-leaders-april-18-2016/#:~:text=The%20Interfaith%20Climate%20Change%20Statement%20to%20World%20Leaders%20\(2016\)%20outlines,force%20as%20soon%20as%20possible](https://climaterights.org/interfaith-climate-change-statement-to-world-leaders-april-18-2016/#:~:text=The%20Interfaith%20Climate%20Change%20Statement%20to%20World%20Leaders%20(2016)%20outlines,force%20as%20soon%20as%20possible) (last visited Jan. 5, 2021).

In 2016, the Dakota Access Pipeline and opposition against it captured headlines and attention across the United States. The Pipeline cost close to four billion dollars and was designed to cross four states while carrying hundreds of thousands of crude oil barrels from North Dakota to Illinois.⁸ Despite construction creating thousands of jobs and generating millions of tax dollars, grave concerns such as water pollution, endangered animals, and land sustainability caused waves of protests and vocal opposition across the United States. While environmental concerns were certainly a motivating factor, many of the protests surrounding the Pipeline transporting oil from North Dakota to Illinois stemmed from the interrelated fact that the route's proximity to the Standing Rock Reservation of the Sioux tribe disturbed sacred burial grounds.

The Standing Rock Reservation and Native Americans across the country responded to the threat of losing their religious practices, freedoms, and land, by holding prayer vigils, singing ritual chants, and educating people about their indigenous religious and cultural heritage.⁹ Some invoked the American Indian Religious Freedom Act (AIRFA) of 1978, which affords federal protection and preservation of American Indians' "inherent right of freedom to believe, express, and exercise traditional religions...including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites."¹⁰ The AIRFA recognizes and partially codifies the protection of tribal lands in federal law, but in practice, the Act primarily functions more as a policy statement and less as a robust protection of

⁸ Henry Gass, *Behind Dakota Pipeline Protest: Native American Religious Revival*, THE CHRISTIAN SCI. MONITOR., Nov. 1, 2016, <https://www.csmonitor.com/Environment/Inhabit/2016/1101/Behind-Dakota-pipeline-protest-Native-American-religious-revival>.

⁹ *Id.*

¹⁰ 42 U.S.C. § 1996 (1978).

fundamental rights. More thematically, a major difficulty countries like the United States face in protecting indigenous religions is the judiciary's lack of enforcement power.

A statutory protection for Native Americans is the National Historic Preservation Act (NHPA), which strengthens tribal protection from federal government overreach.¹¹ Tribes were granted greater control over sites and objects related to their religions and cultures and were allowed to self-determine their cultural values and heritage. The combination of the NHPA and the legislative intent of the AIRFA has been interpreted as extending First Amendment protection to Native Americans, but until American law and culture appreciate the history and value of Native American religion, the United States will continue to lack a fully expanded vision of religious liberty to Native Americans in the country's laws and jurisprudence. For countries with continuous and often traumatic indigenous presence such as the United States, the importance of continuing to study the law of indigenous peoples in domestic and international law, particularly in the domain of religious freedom, cannot be overstated.

The Dakota Access Pipeline illustrates a key theme at the intersection of climate and indigenous religion: preserving lands. While it is important not to generalize spirituality, many indigenous religions, like the Native American tribal faiths on display in Standing Rock, teach and honor the concept of their lands as sacredly interwoven with the divine. Some land is even the dwelling place of the divine.¹² While this brief case study is an insufficient venue to more deeply analyze the legal history and application of AIRFA, it is important to respect that much of the legal and political opposition to threats to Native American land stems from deep religious

¹¹ 54 U.S.C. § 300101 (1966).

¹² Henry Gass, *Behind Dakota Pipeline Protest: Native American Religious Revival*, THE CHRISTIAN SCI. MONITOR., Nov. 1, 2016, <https://www.csmonitor.com/Environment/Inhabit/2016/1101/Behind-Dakota-pipeline-protest-Native-American-religious-revival>.

and spiritual conviction. This conviction both circumscribes and parallels various other environmental, cultural, and political agendas. The United States' broadly secular law and culture should not obscure the fundamental tenet underlying much of indigenous religion: land is divinity's abode.

Standing Rock is only a cursory example highlighting the significance of understanding and respecting the role of religion in indigenous responses to climate change. To be maximally effective, the ethical imperatives for climate change action must be understood and supported by religious leadership in most of the world. Across the globe, organized and indigenous faiths contain deep wells of teaching surrounding climate change's intersections with the impoverished and poor, peaceful coexistence with nature, and a responsibility to steward the Creator's gifts. The world is only getting more religious.¹³ A holistic perspective on climate change necessitates space for cultivating and amplifying religious voices, especially those of marginalized climate victims and climate activists motivated by religion.

E. Women of Racial and Sexual Diversity

Womxn¹ Climate Activists

¹³ Noah Rayman, *The World is Getting More Religious*, TIME MAG., Apr. 2, 2015, <https://time.com/3769287/religion-atheists-study>.

¹ This section of the paper uses the term “womxn” to account for racial, gender, and sexual diversity among people who identify as women and to foreground the most marginalized and therefore climate-change-vulnerable groups of women: women of color and women in the Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex (LGBTQI+) community. For examples and detailed explanations of the use of this term in the literature, see Tomoki Mari Birkett and Teresa Montoya, For Standing Rock: A Moving Dialogue, *Standing with Standing Rock: Voices from the #NoDAPL Movement*, University of Minnesota Press 278 (2019), JSTOR, www.jstor.org/stable/10.5749/j.ctvr695pq.24, and Bonnie Hart, *Intimate Partner Violence between Queer Women: Shining a Light on the Second Closet*, 28 HUM. RTS. DEFENDER 26, 28 (2019).

Gender inequalities are magnified by the effects of climate change.² For example, climate-change-induced natural disasters widen gender inequalities in access to nutritious food and health care.³ Far from mere victims of climate change, womxn are competent activists uniquely equipped to contribute to and lead climate resilience initiatives.⁴ Indeed, womxn’s voices are proven defenses against climate change: countries with greater female parliamentary representation and Human Development Index rankings were found to be more likely to make decisions that protect natural resources and curtail carbon dioxide emissions.⁵ However, the underrepresentation of womxn in law- and policy-making bodies limits their opportunities to engage in climate activism and contribute to gender-responsive⁶ climate change solutions.⁷ As researchers, U.N. agencies, and international non-governmental organizations concluded in their

² See generally *Women, Gender Equality and Climate Change*, U.N. WOMEN WATCH (2010), https://www.un.org/womenwatch/feature/climate_change/factsheet.html#1.

³ See Joint Statement on Human Rights and Climate Change, U.N. HUMAN RIGHTS OFFICE OF THE HIGH COMMISSIONER (Sept. 16, 2019), <https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=24998&LangID=E> (citing CEDAW General Recommendation 37 (GR)).

⁴ See Yannick Glemarec, Seemin Qayum & Marina Olshanskaya, *Leveraging Co-benefits Between Gender Equality and Climate Action for Sustainable Development 7*, U.N. WOMEN (Oct. 2016), https://unfccc.int/files/gender_and_climate_change/application/pdf/leveraging_cobenefits.pdf; Interactive expert panel, 52nd session of the Commission on the Status of Women, *Gender Perspectives on Climate Change, 2* (Feb. 28, 2008), <https://www.un.org/womenwatch/daw/csw/csw52/issuespapers/Gender%20and%20climate%20change%20paper%20final.pdf>.

⁵ HUMAN DEVELOPMENT REPORT 2011, 63, U.N. DEVELOPMENT PROGRAMME (2011), http://hdr.undp.org/sites/default/files/reports/271/hdr_2011_en_complete.pdf.

⁶ In materials used by the Convention on Elimination of Discrimination Against Women, “gender-responsive” programs are defined as those “recogniz[ing] several important differences (in areas of histories, life circumstances, and behaviors) between females and males, and takes these differences into account when designing programs.” U.N. Office of the High Commissioner for Human Rights, *Concept note for the General Discussion on Gender-related dimensions of Disaster Risk Reduction and Climate Change*, Appendix A, <https://www.ohchr.org/Documents/HRBodies/CEDAW/ClimateChange/ConceptNote.pdf> (last visited Mar. 24, 2021).

⁷ COMM’N ON THE STATUS OF WOMEN, ISSUES PAPER ON ITS FIFTY-SECOND SESSION, *GENDER perspectives on climate change 3* (Feb. 28, 2008), <https://www.un.org/womenwatch/daw/csw/csw52/issuespapers/Gender%20and%20climate%20change%20paper%20final.pdf>.

2015 policy brief on gender and climate change, “[e]fforts to mitigate and adapt to climate change that exclude womxn’s input and perspectives are unsustainable and often detrimental to the environment, women’s rights and entire communities.”⁸ Increasing womxn’s participation in domestic decision-making⁹ is therefore critical to curbing climate change.¹⁰

The following subsections focus on two, geographically and ethnically distinct groups of womxn—fish processors along the coast of Senegal and LGBTQI+ womxn in Fiji—as case studies of how womxn are impacted by climate change and excluded from domestic approaches to climate change law and policy. The analysis then turns to how womxn activists in Senegal and Fiji are nonetheless finding legal tools to elevate their voices and strengthen their capacity to mitigate and adapt to climate change.

1. Senegal

Senegal presents a case study of the vulnerability and resilience of coastal womxn on the frontlines of climate change who are pushing for legal protections in the face of this crisis. In Senegal, womxn constitute about a third of the fishing industry workforce, mostly in the postharvest sector.¹¹ Womxn living and working as fish processors along the country’s long coastline are vulnerable to losing their homes and businesses to rising sea levels and soil

⁸ *Gender and Climate Change: Evidence and Experience*, CENTER FOR INTERNATIONAL FORESTRY RESEARCH (2015), www.jstor.org/stable/resrep01985.

⁹ Womxn’s representation at the international level is discussed in [insert part when defined], which examines the gender-responsive decisions of the United Nations Framework Convention on Climate Change.

¹⁰ See generally *Gender and Climate Change*, *supra* note 8.

¹¹ *Fishery production system report 2008: Senegal Fisheries Sector*, FISHERIES AND RESOURCE MONITORING SYSTEM 11 (2015), <http://firms.fao.org/firms/fishery/472/en>.

erosion,¹² issues exacerbated by climate change.¹³ Thus, womxn fish processors have uniquely “climate sensitive livelihoods.”¹⁴ However, these womxn’s specific needs are underrepresented due to acute gender inequality in Senegal, which ranks at the bottom of the Gender Inequality Index despite numerous initiatives aimed at reducing gender inequalities.¹⁵ A report on the gender gap in Senegalese fisheries notes that “women account for less than [five percent] of those involved in fisheries governing bodies, as cultural factors hinder their ability to contribute to the decision-making process.”¹⁶ Similarly, womxn’s specific needs are absent in domestic climate change decisions, with none of Senegal’s three climate change laws, fourteen policies, and six climate targets mentioning gender concerns.¹⁷

In the absence of clearly gender-responsive action from the government, Senegalese womxn climate activist fish processors have self-organized to protect their ways of life. One such organizer is Yacine Dieng, a fish processor in Bargny who has been advocating for

¹² ELEANOR BLOMSTRUM ET AL., U.N. POPULATION FUND & WOMEN’S ENV’T & DEV. ORG., CHANGEMENT CLIMATIQUE: CONNEXIONS 21 (2009), <https://www.wedo.org/wp-content/uploads/ClimateConnectionsBookletFrench1.pdf>.

¹³ USAID & UNIV. OF RHODE ISLAND GRAD. SCH. OF OCEANOGRAPHY, EMPOWERING WOMEN IN ARTISANAL PROCESSING OF FISHERIES PRODUCTS 5 (July 2018), https://pdf.usaid.gov/pdf_docs/PA00TH2N.pdf.

¹⁴ Alicia Natalia Zamudio & Anika Terton, *Review of current and planned adaptation action in Senegal* iii (CARIAA Working Paper no. 18, 2016), <https://www.iisd.org/system/files/publications/idl-55877-senegal.pdf>.

¹⁵ See UNITED NATIONS HUMAN DEV. PROGRAMME, HUMAN DEVELOPMENT REPORT 2020: SENEGAL 5 (2020), http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/SEN.pdf (“Senegal has a GII value of 0.523, ranking it 125 out of 162 countries in the 2018 index.”); BLOMSTRUM ET AL., *supra* note 12, at 21.

¹⁶ USAID, THE IMPORTANCE OF WILD FISHERIES FOR LOCAL FOOD SECURITY: SENEGAL 2 https://www.agrilinks.org/sites/default/files/resource/files/senegal_file.pdf (citing USAID/COMFISH, BRIDGING THE GENDER AND CULTURAL GAP IN SENEGAL’S FISHERIES SECTOR (2020)) (last visited Mar. 17, 2021).

¹⁷ See *Senegal*, GRANTHAM RESEARCH INSTITUTE ON CLIMATE CHANGE AND THE ENVIRONMENT (2020), <https://climate-laws.org/cclow/geographies/senegal>; see also Zamudio & Terton, *supra* note 14 at 23 (“Climate change issues do not appear to be integrated into [gender-responsive climate adaptation policies in Senegal].”).

protections for other womxn fish processors displaced by rising sea levels since at least 2015.¹⁸ Recently, she has been “helping women from the coast get organized and lobby for solutions that can improve their lives.”¹⁹ In her words, “[t]he sea took the little we had. We are left with no choices, we have nowhere to go.”²⁰ Another climate activist serving the fish processor community, Woré Gana Seck, established a more formal womxn climate activist network, Green Senegal, in 1999.²¹ Green Senegal is a non-government organization that engages in advocacy and communication to advance sustainable development, such as by advocating for laws to protect Senegalese womxn facing coastal erosion²² and help these womxn become leaders in their communities.²³ Dieng’s and Seck’s efforts are exemplars of Senegal’s active network of grassroots activism and civil society mobilization, which “enhance[s] [Senegal’s] capacity to engage civil society, the private sector, and governments in developing and disseminating information on climate change and the need to adapt.”²⁴

¹⁸ Stefania Summermatter, *A population fighting against erosion and coal*, SWISS INFO (Dec. 11, 2015), https://www.swissinfo.ch/fre/du-s%C3%A9n%C3%A9gal-un-non-au-changement-climatique_une-population-en-lutte-contre-l-%C3%A9rosion-et-le-charbon/41826180.

¹⁹ *West Africa’s Coast: Losing Over \$3.8 Billion a Year to Erosion, Flooding and Pollution*, THE WORLD BANK (Mar. 14, 2019), <https://www.worldbank.org/en/region/afr/publication/west-africas-coast-losing-over-38-billion-a-year-to-erosion-flooding-and-pollution>.

²⁰ *Id.*

²¹ *Our History*, GREEN SENEGAL, <https://www.greensenegal.sn/copie-de-qui-sommes-nous-1> (last visited Oct. 2, 2020); Harouna Niang, *Vore Gana Seck, Sénégal*, EDITIONS SCIENCE ET BIEN COMMUN, <https://scienceetbiencommun.pressbooks.pub/citoyennesdelaterre/chapter/wore-gana/> (last visited Oct. 2, 2020).

²² *Our Action Plans*, GREEN SENEGAL, <https://www.greensenegal.sn/nos-projets> (last visited Oct. 2, 2020); Niang, *supra* note 21.

²³ *L’autonomisation des femmes*, GREEN SENEGAL (Apr. 29, 2019), <https://www.greensenegal.sn/post/autonomisation-des-femmes>.

²⁴ Zamudio & Terton, *supra* note 14, at 32.

2. Fiji

The voice of womxn climate activists, especially those from the LGBTQI+ community, is often silenced and vastly understudied; yet the strong voice of such womxn from Fiji, united against climate change and intent on securing legal protections, resounds.²⁵ Climate change worsens the cyclones and resulting floods that regularly ravage the country and upend Fijian lives. Womxn are key actors in natural disaster response measures, but the experience of womxn in times of disaster varies with gender and sexual diversity. For instance, non-LGBTQI+ Fijian womxn, less likely to work outside the home than men, were able to communicate advancing floodwaters to men during a 2012 flood because they were up early preparing food when the flooding began.²⁶ The active role of non-LGBTQI+ womxn in the 2012 flood contrasts with the disempowerment of LGBTQI+ womxn during Cyclone Winston in 2016, the “most intense cyclone on record to affect the country.”²⁷ During and after the cyclone, some Fijian womxn of diverse gender and sexual identities risked staying home for fear of violence and harassment in evacuation centers.²⁸

The Fijian government does not appear to be responding directly to the vulnerabilities of LGBTQI+ womxn or supporting their capacities to adapt to and mitigate climate change. In the Fijian government’s post-cyclone response needs assessment, the section assessing disaster

²⁵ GOV’T OF THE REP. OF FIJI, CLIMATE VULNERABILITY ASSESSMENT 74 (2018), <https://cop23.com.fj/wp-content/uploads/2018/02/Fiji-Climate-Vulnerability-Assessment-.pdf> (“Compared with their status in other Pacific island Countries, diversity in sexual orientation and gender identity issues have a somewhat high profile in Fiji.”).

²⁶ GLOBAL GENDER AND CLIMATE ALLIANCE, GENDER AND CLIMATE CHANGE IN AFRICA 13 (2016), <https://wedo.org/wp-content/uploads/2016/11/GGCA-RP-Factsheets-FINAL.pdf>.

²⁷ GOV’T OF THE REP. OF FIJI, FIJI POST-DISASTER NEEDS ASSESSMENT 10 (2016), [https://www.gfdrr.org/sites/default/files/publication/Post%20Disaster%20Needs%20Assessments%20CYCLONE%20WINSTON%20Fiji%202016%20\(Online%20Version\).pdf](https://www.gfdrr.org/sites/default/files/publication/Post%20Disaster%20Needs%20Assessments%20CYCLONE%20WINSTON%20Fiji%202016%20(Online%20Version).pdf).

²⁸ RAINBOW PRIDE FOUND. & OXFAM, DOWN BY THE RIVER: ASSESSING THE RIGHTS, NEEDS, AND STRENGTHS OF FIJIAN SEXUAL AND GENDER MINORITIES IN DISASTER RISK REDUCTION AND HUMANITARIAN RESPONSE 16 (2017), https://www.gdnonline.org/resources/Down-By-The-River_Web.pdf.

effects on gender and social inclusion notes that "[n]o information was available on issues related to sexual orientation and ethnicity."²⁹ The Fijian government has also reported that whether gender and sexually diverse Fijians are disproportionately impacted by climate change is unknown.³⁰ Moreover, Fiji's climate change laws, regulations, policies, and targets do not address gender or sex concerns.³¹ These concerns are also absent from the development plan the Fijian government created to help empower womxn and foster a more egalitarian society.³²

Responding to these knowledge and action gaps, a group of LGBTQI+ Fijian climate activists known as the Rainbow Pride Foundation (RPF) produced a report on the post-Winston trauma experienced in the gender and sex diverse community, left out of the Cyclone Winston Disaster Response Relief plan.³³ RPF also shared its findings and recommendations for gender- and sex-inclusive natural disaster response policy with the Asia Development Bank in a panel event.³⁴ RPF has been actively collaborating with other actors, such as civil society organizations and the United Nations, in its efforts to compel gender-responsive climate action by the Fijian government.³⁵ Additionally, RPF has expressed interest in working more directly with the government, such as by speaking with the prime minister and other leaders about ending the government's stigma against the LGBTQI+ community;³⁶ however, there is no evidence of successful meetings between the Fijian government and RPF activists.

²⁹ FIJI POST-DISASTER NEEDS ASSESSMENT, *supra* note 27, at 103 n. 124.

³⁰ CLIMATE VULNERABILITY ASSESSMENT, *supra* note 25, at 74.

³¹ *Climate Change Laws of the World: Fiji*, GRANTHAM RESEARCH INSTITUTE ON CLIMATE CHANGE AND THE ENVIRONMENT (2020), <https://climate-laws.org/cclow/geographies/fiji>.

³² MINISTRY OF ECON. OF THE REP. OF FIJI, 5-YEAR & 20-YEAR NATIONAL DEVELOPMENT PLAN (Nov. 2017), <https://www.fiji.gov.fj/getattachment/15b0ba03-825e-47f7-bf69-094ad33004dd/5-Year-20-Year-NATIONAL-DEVELOPMENT-PLAN.aspx>.

³³ *See* DOWN BY THE RIVER, *supra* note 28, at 16.

³⁴ *Campaigns & Events*, RAINBOW PRIDE FOUNDATION, <https://rainbowpridefoundation.org/events/> (last visited Oct. 2, 2020).

³⁵ *Id.*

³⁶ *Id.*

A. Paths forward for Senegalese and Fijian womxn climate activists

Womxn climate activists in both Fiji and Senegal are pressing their governments to take gender-responsive action on climate change. Despite these efforts, neither country has developed clearly gender-responsive climate change laws, policies, or targets. In response, Fiji and Senegal can look to other countries with gender-responsive measures, such as Peru,³⁷ for inspiration in developing their own plans specific to the needs of womxn within their borders.

Part II: INTERNATIONAL ORGANIZATIONS

A. Overview of international organizations

This Part considers how legal instruments concluded under the auspices of international organizations, namely the United Nations, support or could respond to and support the climate activism of vulnerable communities, such as those discussed in Part I. It focuses on four distinct instruments: the U.N. Declaration on the Rights of Indigenous Peoples; the World Heritage Convention; U.N. measures on gender and climate change; and the Convention on the Rights of the Child.

B. Declaration on the Rights of Indigenous Peoples

The United Nations has recognized that climate change disproportionately affects indigenous peoples, noting that they “are among the first to face the direct consequences [...]

³⁷ Peru’s policy on gender and climate change, embodied in an action plan approved in 2016, makes recommendations to reduce gender disparities and enhance women’s adaptive and mitigation capacities. See ACTION PLAN ON GENDER AND CLIMATE CHANGE AND EXECUTIVE DECREE NO. 012-2016-MINAM, PERU MINISTRY OF ENV’T, <https://perma.cc/BWQ4-L3MY>.

owing to their dependence upon, and close relationship with the environment and its resources.”¹ Not only are indigenous lands, property, and culture at risk of being destroyed by flooding, glacial melts, deforestation, loss of biodiversity, climate change-related drought and other weather-pattern shifts, or environmentally unfriendly commercial activity,² but climate change also affects their physical and mental health and well-being.³ Paradoxically, some climate change mitigation efforts are harmful to indigenous populations. Biofuels and hydroelectric power, for example, may help to reduce global greenhouse emissions by providing alternative energy sources, but such projects often end up displacing indigenous populations or destroying their land and communities.⁴ Similarly, forest conservation efforts may result in indigenous peoples’ displacement and loss of land that was previously farmed sustainably.⁵ The United Nations Declaration on the Rights of Indigenous Peoples⁶ can be a powerful tool to help marginalized indigenous communities assert their rights in their fight against climate change.

Historical context and the drafting of UNDRIP

UNDRIP began to take shape in 1982, when the UN’s Economic and Social Council (“ECOSOC”) established the Working Group on Indigenous Populations in response to a study on

¹ *Climate Change and Indigenous Peoples - Backgrounder*, UNITED NATIONS PERMANENT FORUM ON INDIGENOUS ISSUES,

https://www.un.org/en/events/indigenousday/pdf/Backgrounder_ClimateChange_FINAL.pdf.

² See generally *Climate Change and Indigenous Peoples – Backgrounder*, *supra* note 1.

³ See Rudolph C. Rýser, *Growing CO2 Levels in Earth’s Atmosphere: Massive Danger to Indigenous Peoples*, CENTER FOR WORLD INDIGENOUS STUDIES (Jan. 22, 2018),

<https://www.cwis.org/2018/01/growing-co2-levels-in-earths-atmosphere-massive-danger-to-indigenous-peoples/>.

⁴ See Randall S. Abate & Elizabeth Ann Kronk, *Commonality Among Unique Indigenous Communities: An Introduction to Climate Change and its Impacts on Indigenous Peoples*, 26 TUL. ENVTL. L. J. 179, 185 (2013).

⁵ See *id.* at 186 (discussing the results of a conservation effort in Kenya that displaced thousands of indigenous community members “despite the tribe’s sustainable existence there for hundreds of years”).

⁶ G.A. Res. 61/295, annex, Declaration on the Rights of Indigenous Peoples, U.N. Doc. A/RES/61/295 (Oct. 2, 2007) (full text available at https://www.un.org/en/genocideprevention/documents/atrocities-crimes/Doc.18_declaration%20rights%20indigenous%20peoples.pdf) [hereinafter UNDRIP or Declaration].

the discrimination, oppression, marginalization, and exploitation of indigenous peoples around the globe.⁷ In 1994, one year before the first International Decade of the World's Indigenous People began, the Sub-Commission on the Prevention of Discrimination and Protection of Minorities approved a first draft and sent it to the U.N. Commission on Human Rights for further debate.⁸ Two issues became roadblocks about which some States expressed concerns: provisions dealing with the right to self-determination and control over natural resources existing on traditional lands.⁹ The Human Rights Council replaced the Commission on Human Rights in 2006, and, in June of that year overcame the obstacles to adopt UNDRIP and send it to the General Assembly. Namibia led an initiative to “delay consideration and action on [UNDRIP] to allow time for further considerations thereon.”¹⁰ The U.N. General Assembly took note of the Human Rights Council's action, and, having granted Namibia's request for additional time for consideration, eventually adopted UNDRIP on September 13, 2007.¹¹ One hundred and forty-four States were in favor, four were against, and eleven abstained. The four States voting against the initial resolution – the United States, Canada, New Zealand, and Australia, all of which have significant populations of indigenous peoples – have subsequently changed their positions and supported the Declaration; two of the abstaining states – Columbia and Samoa – have since also expressed support for the declaration.¹²

⁷ See *Historical Overview*, U.N. DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS – INDIGENOUS PEOPLES, <https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples/historical-overview.html> (last visited July 22, 2020).

⁸ See *id.*

⁹ See *id.*

¹⁰ See *id.*

¹¹ See Rep. of the Human Rights Council, U.N. Doc. A/61/L.67* (Sep. 12, 2007).

¹² See *Historical Overview*, *supra* note 8. Indigenous Canadians make up 4.9% of the country's population, for example; indigenous New Zealanders are 15% of the country's population; and indigenous Australians are 3.3% of the country's population. In the U.S., the numbers vary depending on the source (many sources use self-reported data), but there are estimated to be between 2.5 and 6.5 million indigenous Americans. See THE INT'L WORK GRP. FOR INDIGENOUS AFFS., THE INDIGENOUS WORLD

Free, Prior, and Informed Consent

One of the anchors of UNDRIP is the notion of Free, Prior, and Informed Consent (“FPIC”). Some form of FPIC appears seven times in the Declaration.¹³

Free, Prior, and Informed Consent is embedded in the right to self-determination.¹⁴ The U.N. charter includes references to self-determination,¹⁵ and several U.N. treaties and other international instruments are explicit in naming it a basic human right. For example, both the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights note that “[a]ll peoples have the right of self-determination,” that “[i]n no case may a people be deprived of its own means of subsistence,” and that “[t]he States Parties to the present Covenant [...] shall promote the realization of the right of self-determination.”¹⁶ The International Court of Justice has also affirmed the right to self-determination.¹⁷

2020 (Dwayne Mamo ed., Apr. 2020),

http://iwgia.org/images/yearbook/2020/IWGIA_The_Indigenous_World_2020.pdf.

¹³ In arts. 11(2), 19, 28(1), 29(2), and 32(2), FPIC appears as written. In Article 30(2), it is as follows: “States shall undertake effective consultations with the indigenous peoples concerned, through appropriate procedures and in particular through their representative institutions prior to using their lands or territories for military activities.”

¹⁴ UNITED NATIONS FOOD & AGRIC. ORG., FREE PRIOR AND INFORMED CONSENT: AN INDIGENOUS PEOPLES’ RIGHT AND A GOOD PRACTICE FOR LOCAL COMMUNITIES – MANUAL FOR PROJECT PRACTITIONERS 12 (2016), <http://www.fao.org/3/a-i6190e.pdf>.

¹⁵ See U.N. Charter art. 1, ¶ 2.

¹⁶ International Covenant on Civil and Political Rights art. 1(1)–(3), Dec. 16, 1966, 999 U.N.T.S. 171; International Covenant on Economic, Social and Cultural Rights art. 1(1)–(3), Dec. 16, 1966, 993 U.N.T.S. 3. As of Aug. 17, 2020, there are 173 States party to the ICCPR and 171 States party to the ICESCR. Examples of other international or regional instruments where self-determination makes an appearance include the U.N. Declaration of Principles of International Law Concerning Friendly Relations and Co-operation Among States, <https://www.un.org/ruleoflaw/files/3dda1f104.pdf>; Part 1 § 1-VIII of the Organization for Security and Co-operation in Europe’s Helsinki Final Act, <https://www.osce.org/helsinki-final-act>; Article 20 of the African Charter of Human and Peoples’ Rights, <https://www.achpr.org/legalinstruments/detail?id=49>.

¹⁷ See, e.g., Note, *The United Nations, Self-Determination and the Namibia Opinions*, 82 YALE L. J. 533, 534 (1973) (discussing the International Court of Justice’s June 21, 1971 advisory opinion in the *Namibia Cases*) (“The court there recognized that the primary issue regarding South Africa’s continued presence in Namibia was its refusal to allow the Namibians the right to determine their own future, a right established by the General Assembly in its debates and resolutions.”).

Though rooted in the right to self-determination, Free, Prior, and Informed Consent has proven to be tough to define. Some critics argue that there is no hard definition of consent, which makes FPIC something less than a real right. They posit that the right to FPIC is procedural at best; from this point of view, FPIC as found in UNDRIP is nothing more than a conceptual framework to which no real rights are attached.¹⁸ Other commentators note that, because self-determination has been historically linked to decolonization, it has been difficult to craft a legal argument for self-determination generally (and thus, one can infer, for FPIC). Still others take the more recently developed approach that self-determination does not necessarily mean the separation from an existent State; rather, it is a “range of alternatives including the right to participate in the governance of the State as well as the right to various forms of autonomy and self-governance.”¹⁹ Contained in these forms of autonomy and self-governance are rights “to authority over lands, territories, and resources, and to [...] decision-making power regarding their use and development.”²⁰ Put in a slightly different way, this view posits that indigenous peoples’ right to self-determination gives rise to the right of permanent sovereignty over their territories and the resources therein, and they should thus not be “deprived of their resources as a consequence of unequal or oppressive arrangements, contracts, or concessions....”²¹ Proponents of the recent approach suggest that the right of indigenous peoples to give prior and informed consent to

¹⁸ “[FPIC] is simply a noun with redundant intensifiers. [...] It is at most a procedural right (the right to give or withhold consent) that is incidental to or a part of some substantive right. [...] Sometimes, perhaps in most instances, [FPIC] is not a right at all – merely a thing, a concept. As it is used in the [UNDRIP, FPIC] is not a right at all.” Robert T. Coulter, *Free, Prior, and Informed Consent: Not the Right it is Made Out to Be* 1–2, INDIAN LAW RESOURCE CENTER (Oct. 31, 2013), https://www.indianlaw.org/sites/default/files/FPIC_RTC_Oct2013.pdf.

¹⁹ U.N., Econ. & Soc. Council, Comm’n on Human Rights, Prevention of Discrimination and Protection of Indigenous Peoples, 17, U.N. Doc. E/CN.4/2004/30 (July 13, 2004), <https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2017/12/IPPermanentSovereigntyNaturalResources.pdf>.

²⁰ *Id.* ¶ 38.

²¹ *See id.* ¶ 47 (discussing the idea of permanent sovereignty).

activities related to and / or affecting their lands, territories, and resources is a logical extension of property and self-determination rights.²²

As the varying interpretations suggest, and as noted above, the definitional ambiguity of FPIC made it into a contentious issue during the Declaration's negotiations.²³ There was general support for the draft articles' spirit, but many states felt that more precision was necessary. Some states, in particular the United States, thought that the language was overly broad; others, for example Canada and Australia, felt that their own domestic law required the Declaration's articles to be amended.²⁴

In 2005,²⁵ the United Nations Permanent Forum on Indigenous Issues ("UNPFII") held an international workshop on methodologies regarding FPIC in relation to indigenous peoples, with the goal of developing "realistic and concise methodologies on how the principle of FPIC should be respected in activities relating to indigenous peoples."²⁶ Their conclusions may help to make the definition of FPIC somewhat clearer. Specifically:

"Free" implies that there has been no coercion, intimidation, or manipulation of the indigenous peoples involved in any decision that requires FPIC.

²² *Id.*; see also Tara Ward, *The Right to Free, Prior, and Informed Consent: Indigenous Peoples' Participation Rights within International Law* 10 NW. J. OF INT'L HUM. RTS. 54, 55 (2011).

²³ Megan Davis, *Indigenous Struggles in Standard-Setting: the United Nations Declaration on the Rights of Indigenous People*, 9 MELB. J. OF INT'L. L. 26 (2008), https://law.unimelb.edu.au/__data/assets/pdf_file/0003/1683219/Davis.pdf (online version paginated as separate document; print version begins at p. 439). See also U.N. Econ. & Soc. Council, Permanent Forum on Indigenous Issues, Rep. on the Int'l Workshop on Methodologies regarding Free, Prior and Informed Consent and Indigenous Peoples, ¶¶ 14–19, U.N. Doc. E/C.19/2005/3 (Feb. 17, 2005), <https://undocs.org/E/C.19/2005/3>.

²⁴ Davis, *supra* note 2, at 26.

²⁵ Recall that UNDRIP was approved by the U.N.G.A. in 2007.

²⁶ Rep. on the Int'l Workshop on Methodologies regarding Free, Prior and Informed Consent and Indigenous Peoples, *supra* note 24, ¶ 12.

“Prior” implies that anyone seeking indigenous peoples’ consent for a project do so “sufficiently in advance of any authorization or commencement of [project] activities,” and that the indigenous peoples’ time requirements are respected.

“Informed” implies that the indigenous peoples have been provided with certain types of information. The UNPFII enumerates the requirements explicitly in its report: “(a) the nature, size, pace, reversibility and scope of any proposed project or activity; (b) the reason(s) for or purpose(s) of the project and/or activity; (c) the duration of the above; (d) the locality of areas that will be affected; (e) a preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks and fair and equitable benefit-sharing in a context that respects the precautionary principle; (f) personnel likely to be involved in the execution of the proposed project (including indigenous peoples, private sector staff, research institutions, government employees and others); and (g) procedures that the project may entail.”²⁷

“Consent” implies both sufficient participation and good-faith consultation.²⁸ The UNPFII’s report on the workshop explains that the process of consent “may include the option of withholding consent,” and that “[c]onsent to any agreement should be interpreted as indigenous peoples have reasonably understood it.”²⁹ Although the word “veto” is not mentioned in the UNPFII’s report, commentators note that FPIC was not intended to provide the right to veto projects related to indigenous peoples’ lands or resources, although some indigenous peoples viewed (and continue to view) it as providing a quasi-veto right.³⁰

The reference, in the UNPFII’s definition of “informed,” to the precautionary principle is particularly important for advocates of climate change-related FPIC. The idea behind the

²⁷ *See id.* ¶ 46.

²⁸ *Id.*

²⁹ *See id.* ¶¶ 47–48.

³⁰ *See, e.g.,* Davis, *supra* note 24, at 27.

precautionary principle is that “when an activity raises threats of harm to human health or the environment, precautionary measures should be taken, even if some cause and effect relationships are not fully established scientifically.”³¹ Under the Wingspread Statement’s enumeration of the precautionary principle, the burden of proof that there would be no harm during a given project was shifted from the public to the proponents of the activity.³² In other words, it is incumbent upon a project sponsor to show that there will not be harm; those saying there would be harm if a particular project were allowed to go forward do not need to provide proof of that harm. FPIC, particularly when it relates to climate change and projects that affect indigenous peoples, can play an outsized role in ensuring that the correct precautions are taken and that the precautionary principle is respected.

In 2016, the Food and Agriculture Organization of the United Nations (“FAO”) published a practitioner’s manual on a human-rights based approach to FPIC, and provided a comprehensive (although, it should be noted, still not by any means absolute) definition of FPIC, based in part on the UNPFII and on a number of humanitarian, development, and aid organizations’ experiences trying to implement FPIC in the field. Like the UNPFII, the FAO sees FPIC as a right that allows indigenous people to “give or withhold consent to a project that may affect them or their territories.”³³ It is, however, “not just a process to obtain consent to a particular project.”³⁴ It should

³¹ See, e.g., Peter L. deFur & Michelle Kaszuba, *Implementing the Precautionary Principle*, 288 THE SCIENCE OF THE TOTAL ENVIRONMENT 155 (2002) (providing the Wingspread Statement on the Precautionary Principle, which was made in 1998).

³² See, e.g., David Kriebel et al., *The Precautionary Principle in Environmental Science*, 109 ENV’T L HEALTH PERSPECTIVES 871 (2001); THE OCEAN FOUND., UNDERSTANDING AND APPLYING THE PRECAUTIONARY PRINCIPLE TO DEEP SEA MINERALS MINING IN THE PACIFIC ISLANDS REGION: A SOCIO-CULTURAL AND LEGAL APPROACH 11, <https://www.oceanfdn.org/sites/default/files/Understanding%20and%20Applying%20the%20Precautionary%20Principle%20to%20Deep%20Sea%20Minerals%20Mining%20in%20the%20Pacific%20Islands%20Region.pdf> (last visited Mar. 17, 2021).

³³ UNITED NATIONS FOOD & AGRIC. ORG., *supra* note 15, at 13.

³⁴ *Id.*

be more holistic, involving “independent and collective discussion.”³⁵ Indigenous peoples should always be part of the decision-making process, in a way that does not make them feel intimidated.³⁶ Negotiation is a key component, providing indigenous peoples the wherewithal to participate in defining the conditions for a project’s design, implementation, and monitoring and evaluation. Consent is “[a] freely given decision that may be a ‘Yes,’ a ‘No,’ or a ‘Yes with conditions,’ including the option to reconsider if the proposed activities change or if new information relevant to the proposed activities emerges.”³⁷

In sum, despite the definitional ambiguities, it seems clear that FPIC should include both consultation with and consent from the widest possible population of the indigenous communities affected by any particular project or issue, that indigenous peoples must understand what it is to which they are consenting, and that consent should be both freely given and neither guaranteed nor definitive.

Article 29 and an underlying framework for climate action

Climate change is intimately tied to land and territory, as are (many) indigenous peoples. Article 29 of UNDRIP deals specifically and explicitly with the right to conservation and protection of the environment and of the productive capacity of indigenous peoples’ lands. It provides that States shall create and put into place conservation and environmental protection programs and shall ensure that hazardous materials are not stored or disposed of on indigenous peoples’ lands without FPIC.³⁸ The Declaration weaves a framework into place for ensuring that

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.* at 16.

³⁸ Interestingly, FPIC is only explicitly mentioned in the second paragraph, in relation to the disposal of hazardous waste within indigenous territory. The full text of Article 29 is as follows:

(1) Indigenous peoples have the right to the conservation and protection of the environment and the productive capacity of their lands or territories and resources. States

the rights enumerated in Article 29, particularly those related to land, are respected and that self-determination and FPIC occur.

Parts of the framework are more implicit; they are tangential, yet important, to land rights. For example, Article 3 reaffirms that indigenous peoples have the right to self-determination, which creates their right to FPIC. Article 8 notes that “States shall provide effective mechanisms for prevention of, and redress for” a variety of actions against indigenous peoples, including dispossession of their lands, territories, or resources.³⁹ When climate change damages indigenous peoples’ land or natural resources, the impact is often severe, and dispossession effectively occurs.⁴⁰ Articles 18 and 19 support the right to FPIC, providing that indigenous peoples have “the right to participate in decision-making in matters which would affect their rights,” and that “States shall consult and cooperate in good faith with indigenous peoples [...] to obtain their free, prior, and informed consent before adopting and implementing legislative or administrative measures that may affect them.”

Articles 26 through 28, and Article 32, create a far more explicit framework for ensuring indigenous peoples’ rights related to land and the environment enumerated in Article 29. Article

shall establish and implement assistance programmes for indigenous peoples for such conservation and protection, without discrimination.

(2) States shall take effective measures to ensure that no storage or disposal of hazardous materials shall take place in the lands or territories of indigenous peoples without their free, prior and informed consent.

(3) States shall also take effective measures to ensure, as needed, that programmes for monitoring, maintaining and restoring the health of indigenous peoples, as developed and implemented by the peoples affected by such materials, are duly implemented.

³⁹ UNDRIP, *supra* note 7, art. 8(2). There are several additional actions that are listed in Article 8(2), but they are less relevant to climate change.

⁴⁰ See U.N. General Assembly, Rep. of the Special Rapporteur on the Rights of Indigenous Peoples, ¶ 64, U.N. Doc A/HRC/36/46 (Nov. 1, 2017), <https://undocs.org/en/A/HRC/36/46>. Perhaps the best, and most extreme, example is the effect of climate change on indigenous peoples living in island nations that are at risk of being completely inundated by rising seas as a result of a warming climate. For a recent example, see, e.g., *People urgently fleeing climate crisis cannot be sent home*, U.N. rules, BBC (Jan. 20, 2020), <https://www.bbc.com/news/world-asia-51179931>.

26 deals with ownership rights, providing specifically in 26(2) that “[i]ndigenous peoples have the right to own, use, develop, and control the lands, territories and resources that they possess...” and in 26(3) that “States shall give legal recognition *and protection* to [indigenous peoples’] lands, territories, and resources.”⁴¹ Article 27 provides for an adjudication process for issues that arise in relation to indigenous peoples’ territories, lands, and resources. In addition to providing the right to indigenous peoples to participate in the adjudication process, Article 27 requires “due recognition to indigenous peoples’ laws, traditions, customs, and land tenure systems.” Echoing Article 8, Article 28 provides for the right to redress for “lands, territories, and resources that have been confiscated, taken, occupied, used or damaged without [FPIC].” Finally, Article 32(1) provides that “[i]ndigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources;” Article 32(2) ties in good-faith FPIC on the part of States prior to approving projects affecting indigenous peoples’ lands or territories, particularly for projects involving water, mineral, or other resources; and Article 32(3) reiterates that effective redress must be available, and, equally important, that “appropriate measures shall be taken to mitigate adverse *environmental*, social, cultural, or spiritual impact.”⁴²

Because climate change is a threat to indigenous land, and land is generally connected to identity, particularly in indigenous communities, climate change may affect the ability of indigenous people to fully enjoy their right to self-determination.⁴³ Article 29 and the other related articles found in UNDRIP offer a powerful framework for addressing climate change and its effects on indigenous peoples. As the following section explains, however, there is one major challenge

⁴¹ Emphasis added.

⁴² Emphasis added.

⁴³ Abate & Kronk, *supra* note 5, at 190.

to ensuring that UNDRIP actually allows indigenous peoples to exercise the rights enumerated therein.

The challenge: FPIC and UNDRIP are not legally binding in international law

It remains unclear whether or not the concept of FPIC has in fact become a binding customary international legal principle. For it to have done so, it would require the “constant and uniform practice of States and other subjects of international law in or impinging upon their international legal relations, in circumstances which give rise to a legitimate expectation of similar conduct in the future.”⁴⁴ United Nations bodies supervising U.N. treaties have, in many cases, recognized the right of indigenous peoples to FPIC; however, “general comments or recommendations on the application of a treaty by the U.N. Treaty supervisory bodies are not legally binding decisions,” which makes their impact on customary international law limited.⁴⁵ The International Labor Organization’s Convention Concerning Indigenous and Tribal Peoples in Independent Countries (“ILO 169”)⁴⁶ also discusses FPIC, in two articles.⁴⁷ ILO 169 is a treaty, so binding on its States Parties, and it is often referenced in relation to FPIC; however, only 23

⁴⁴ INTERNATIONAL LAW ASSOCIATION COMMITTEE ON FORMATION OF CUSTOMARY (GENERAL) INTERNATIONAL LAW, FINAL REPORT OF THE COMMITTEE – STATEMENT OF PRINCIPLES APPLICABLE TO THE FORMATION OF GENERAL CUSTOMARY INTERNATIONAL LAW (AS AMENDED AT THE LONDON CONFERENCE) 8 (2000) (available online at <http://www.law.umich.edu/facultyhome/drwcasebook/Documents/Documents/ILA%20Report%20on%20Formation%20of%20Customary%20International%20Law.pdf>).

⁴⁵ See Ward, *supra* note 23, at 57.

⁴⁶ Int’l Labor Organization [ILO], *Convention Concerning Indigenous and Tribal Peoples in Independent Countries*, ILO Doc. 169 (Jun. 27, 1989, entered into force on Sep. 5, 1991), https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169.

⁴⁷ Article 6(2) (“The consultations carried out in application of this Convention shall be undertaken, in good faith and in a form appropriate to the circumstances, with the objective of achieving agreement or consent to the proposed measures.”) and Article 16(2) (“Where the relocation of these peoples is considered necessary as an exceptional measure, such relocation shall take place only with their free and informed consent. Where their consent cannot be obtained, such relocation shall take place only following appropriate procedures established by national laws and regulations, including public inquiries where appropriate, which provide the opportunity for effective representation of the peoples concerned.”)

countries have ratified it, which hardly makes it a candidate for elevating FPIC to the level of customary international law.

On a regional level, at least in some regions, there may be more of a case for FPIC being a binding principle, but it remains a difficult argument. The best example is the Inter-American Human Rights system, where several cases have established the right to FPIC. In *Awas Tingni v. Nicaragua*, an indigenous community “awoke one day to find loggers encroaching on their territories.”⁴⁸ The Nicaraguan government had given logging concessions to a multinational corporation, but never told the community members. Not only did the logging result in social problems related to the loggers’ presence, it also resulted in “severe damage to the environment” and “harm to communal resources.”⁴⁹ The Inter-American Court on Human Rights ruled that, when Nicaragua issued concessions without obtaining the community’s consent, it violated the right to property and traditionally occupied lands and territories.⁵⁰ In an earlier case, the Inter-American Commission on Human Rights looked to, among other instruments, provisions in the American Declaration on the Rights of Indigenous Peoples, and found that determinations of indigenous land rights should “be based on the fully informed consent of the whole community.”⁵¹ Whether or not these cases have contributed to making FPIC a norm of customary regional law,⁵² they remain regional, and do not really inform the adoption of FPIC as an *internationally recognized* norm through customary international law. There are other regional examples,⁵³ but

⁴⁸ See Alex Page, *Indigenous Peoples’ Free Prior and Informed Consent in the Inter-American Human Rights System*, 4 SUSTAINABLE DEV. L. & POL’Y 16, 16 (2004).

⁴⁹ See *id.*

⁵⁰ See *id.*

⁵¹ See *id.* at 18. The case in question is *See id.* at 18. The case in question is *Mary and Carrie Dann v. United States*, Report, Inter-Am. Ct. H.R. No. 75/02 (Dec. 27, 2002).

⁵² This question remains up for debate.

⁵³ Ward provides several: “[a] communication filed with the African Commission of Human Rights on behalf of the Ogoni People of the Niger Delta found that in order to comply with the spirit of Articles 16 and 24 of the African Charter on Human and Peoples’ Rights, referring respectively to the rights to health

they are not widespread, and the same problem arises. There is no uniform global practice amongst States in relation to FPIC, nor does there seem to be a legitimate expectation that FPIC has become an international norm.

If the case for FPIC being a norm of customary international law (and thus a binding obligation) is murky, the case that UNDRIP is not a binding international obligation is much clearer. Despite the text of Article 38 of UNDRIP, which provides that “States in consultation and cooperation with indigenous peoples, shall take the appropriate measures, including legislative measures, to achieve the ends of this Declaration,”⁵⁴ the Declaration has “weak provisions for enforcement,” and it was principally drafted with the intention of creating norms and standards to guide States rather than to impose a legal regime upon them.⁵⁵

Some States, particularly those that initially did not vote in favor of the Declaration,⁵⁶ have framed UNDRIP as a purely aspirational document, and some have explicitly referenced its non-binding nature. The United States, for instance, noted in its 2011 announcement of support for UNDRIP that it “supports the Declaration, which – *while not legally binding or a statement of international law* – has both moral and political force.”⁵⁷ In New Zealand’s 2010 expression of support before the United Nations, the Minister of Māori Affairs spoke about the Māori’s status

and a clean environment, a State is required to undertake scientifically and technically sound environmental and social impact assessments, publicize these results, and provide meaningful opportunities for the affected peoples to be heard and participate in the decision making process. Most recently, a government investigation in India found that the granting of licenses to a mining project violated the rights of the affected indigenous peoples’ right to FPIC, as articulated in India’s Forest Rights Act.” See Ward, *supra* note 23, at 66.

⁵⁴ See *Declaration on the Rights of Indigenous Peoples – Frequently Asked Questions*, UNITED NATIONS PERMANENT FORUM ON INDIGENOUS ISSUES, https://www.un.org/esa/socdev/unpfi/documents/faq_drips_en.pdf. Unlike treaties, declarations made under the auspices of the United Nations are generally not legally binding.

⁵⁵ Davis, *supra* note 24, at 17.

⁵⁶ Recall that these were Australia, Canada, New Zealand, and the United States, all four of whom eventually reversed their positions and supported the Declaration.

⁵⁷ *Announcement of U.S. Support for the United Nations Declaration on the Rights of Indigenous Peoples*, U.S. DEP’T OF STATE (Jan. 12, 2011), <https://2009-2017.state.gov/s/srgia/154553.htm>.

as the indigenous people of New Zealand; he spoke of the Declaration in terms of “*widely supported aspirations*.”⁵⁸ Australia similarly spoke of aspirations in its 2009 declaration of support, and noted the non-binding nature of the Declaration. The government also explained that Article 46 of UNDRIP “makes it clear that the Declaration cannot be used to impair Australia’s territorial integrity and political unity.”⁵⁹ Broad interpretations of Article 46 might result in restricting the rights of indigenous climate activists, particularly in relation to FPIC; Australia’s statement noted that “[w]hile there is continuing international debate about the meaning of [FPIC], we will consider any future interpretations in accordance with Article 46.”⁶⁰ Despite Australia’s support for the Declaration, indigenous Australians’ rights to land remain difficult to establish; obtaining title under the Native Title Act requires proof of connection to the claimed land, and proof that the “native title claim group have continued to hold the native title in accordance [with traditional laws and customs].”⁶¹ In addition, native title is weak, and easily extinguished: many previous exclusive possession acts of government (e.g. “granting freeholding estates or leases that

⁵⁸ *Ministerial Statements — U.N. Declaration on the Rights of Indigenous Peoples—Government Support*, NEW ZEALAND PARLIAMENT (Apr. 20, 2010), https://www.parliament.nz/en/pb/hansard-debates/rhr/document/49HansD_20100420_00000071/ministerial-statements-un-declaration-on-the-rights-of (emphasis added).

⁵⁹ *See Statement on the United Nations Declaration on the Rights of Indigenous Peoples*, AUSTRALIA MINISTRY FOR FAMILIES, HOUSING, COMMUNITY SERVICES AND INDIGENOUS AFFAIRS (Apr. 3, 2009), https://www.un.org/esa/socdev/unpfii/documents/Australia_official_statement_endorsement_UNDRIP.pdf. UNDRIP Article 46(1) reads: “Nothing in this Declaration may be interpreted as implying for any State, people, group or person any right to engage in any activity or to perform any act contrary to the Charter of the United Nations or construed as authorizing or encouraging any action which would dismember or impair, totally or in part, the territorial integrity or political unity of sovereign and independent States.” Included in Article 46(2) is the following: “The exercise of the rights set forth in this Declaration shall be subject only to such limitations as are determined by law.” This suggests that national law can be written (if it is not already existent) to limit the rights enumerated in the Declaration.

⁶⁰ *See Statement on the United Nations Declaration on the Rights of Indigenous Peoples*, *supra* note 61.

⁶¹ *See Native Title Act 1993* (Cth) pt 15 div 2 s 223 (Austl.); *id.* at pt 3 div 1 s 62. *See also id.* at pt 15 div 2 s 225; *id.* at pt 15 div 4 s 253. For a discussion on the evidentiary requirements in native title claims, see generally Nick Duff, *What’s Needed to Prove Native Title? Finding Flexibility Within the Law on Connection*, AUSTRALIAN INSTITUTE OF ABORIGINAL AND TORRES STRAIT ISLANDER STUDIES (June 2014), https://aiatsis.gov.au/sites/default/files/products/discussion_paper/whats-needed-to-prove-native-title.pdf.

confer exclusive possession” or the “construction or establishment of public works”) completely extinguish native title, and many previous non-exclusive possession acts (e.g. “non-exclusive agricultural leases” or “non-exclusive pastoral leases”) partially extinguish native title.⁶²

None of this is to say that the countries in the above examples are not working to improve. New Zealand, for instance, has been trying to make progress: in 2019, after almost nine years during which no plan or strategy was developed, the country announced that it would be creating a Declaration Working Group (“DWG”) to develop a Declaration Plan. By August of that year, the DWG had started its activities.⁶³

The non-binding nature of FPIC and UNDRIP affects indigenous peoples’ ability to use them in their advocacy on climate change. Domestic legislation modeled after international norms is essential to ensuring that UNDRIP provides indigenous voices a platform for climate-change activism. Unlike the examples above, many countries have succeeded in creating some sort of domestic framework or legislation that partially implements UNDRIP’s norms and standards.⁶⁴ As of 2019, however, the only country to fully incorporate UNDRIP into domestic legislation at a national or federal level was Bolivia, when it approved Law No. 3760 in 2007.⁶⁵

All is not lost: UNDRIP’s influence

Despite its non-binding nature, and the lack of countries that have adopted it as binding law at a national level, UNDRIP has influenced later agreements, organizations, and activists, providing a framework to which they have looked -- and can look in the future -- when they are

⁶² See *Native Title Act 1993*, *supra* note 63, at pt 2 div 2B s 23A *et seq.*

⁶³ See *U.N. Declaration on the Rights of Indigenous Peoples*, NEW ZEALAND MINISTRY OF MAORI DEVELOPMENT (last updated Dec. 12, 2019), <https://www.tpk.govt.nz/en/whakamahia/un-declaration-on-the-rights-of-indigenous-peoples>.

⁶⁴ For a long list of examples of UNDRIP norms and standards being implemented at the national and regional levels, see United Nations Dep’t of Econ. and Soc. Affairs, *State of the World’s Indigenous Peoples*, at 8-21, U.N. Doc. ST/ESA/371, U.N. Sales No. E.19.IV.5 (2019).

⁶⁵ See *id.* at 9.

addressing climate change as it relates to indigenous peoples. For example, Article 3 of the 1994 U.N. Convention to Combat Desertification (“UNCCD”) notes that the parties to the convention shall be guided by the same principles as those enshrined in FPIC.⁶⁶ Much more recently, after UNDRIP was adopted, the UNCCD secretariat noted that a report issued during the thirteenth UNCCD Conference of Parties in China in 2017 makes recommendations that “highlight the indigenous peoples rights contained in UNDRIP.”⁶⁷ Specifically, one of UNCCD COP13’s recommendations included an invitation for “parties to consider the recommendations made by [that report] regarding land rights.”⁶⁸

Perhaps the best example of UNDRIP’s influence on climate change-related activity on a global scale is the International Indigenous Peoples’ Forum on Climate Change (“IIPFCC”), an organization established in 2008 as a caucus for indigenous peoples who were participating in the United Nations Framework Convention on Climate Change.⁶⁹ The IIPFCC represents the interests of indigenous peoples at each new Conference of the Parties, bringing to the forefront the role that indigenous peoples can play in mitigating the effects of climate change and the particularly

⁶⁶ United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa art. 3, Oct. 14, 1994, 1954 U.N.T.S. 3 (“The Parties should ensure that decisions on the design and implementation of programmes to combat desertification and/or mitigate the effects of drought are taken with the participation of populations and local communities and that an enabling environment is created at higher levels to facilitate action at national and local levels.”). Note that this convention was adopted before UNDRIP.

⁶⁷ *Questionnaire to the U.N. system agencies, funds and programmes and intergovernmental organizations* 8, UNITED NATIONS PERMANENT FORUM ON INDIGENOUS ISSUES (2017), <https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/02/UNCCD-secretariat.pdf>.

⁶⁸ United Nations Convention to Combat Desertification Conference of the Parties, *Report of the Conference of the Parties on its thirteenth session, held in Ordos, China, from 6 to 16 September 2017*, p. 14, U.N. Doc. ICCD/COP(13)/21/Add.1 (Oct. 23, 2017). For the report that contains these recommendations throughout its pages, see Civil Society Organizations (CSO) Panel, *Land Rights for Sustainable Life on Land*, United Nations Convention to Combat Desertification (undated), <https://www.unccd.int/sites/default/files/documents/2017-07/CSO%20Panel%20-%20Land%20Rights.pdf>.

⁶⁹ *Who Are We?* INTERNATIONAL INDIGENOUS PEOPLES FORUM ON CLIMATE CHANGE, <http://www.iipfcc.org/who-are-we> (last visited Sep. 29, 2020).

vulnerable position into which indigenous communities have been thrust as a result of climate change.⁷⁰ One of the IIPFCC’s key issues is the recognition of the rights of indigenous peoples. In referencing UNDRIP, the organization notes: “In developing strategies to address climate change, the 2014 World Conference for Indigenous Peoples (WCIP) confirms indigenous peoples’ knowledge and strategies to sustain their environment should be respected and taken into account when we develop national and international approaches to climate change mitigation and adaptation. This rights based approach is an essential framework in addressing climate change.”

All is not lost II: a brief case study of incorporating UNDRIP in domestic law

In 2016 Canada’s Indigenous and Northern Affairs Minister, Carolyn Bennet, made the following statement at the UN: “We intend nothing less than to adopt and implement the declaration in accordance with the Canadian Constitution”⁷¹ She additionally noted that Section 35 of Canada’s Constitution provides a “robust framework for the protection of indigenous rights.”⁷² Despite these intentions, at a federal level, Canada has not yet successfully incorporated the Declaration into legislation; it has stated that it intends to do so by the end of 2020.⁷³ However, the provincial government of British Columbia (“B.C.”) passed Bill 41 – 2019 (“Bill 41”), the

⁷⁰ *Id.*

⁷¹ See *Fully Adopting UNDRIP: Minister Bennett’s Speech at the United Nations*, NORTHERN PUBLIC AFFAIRS (May 11, 2016), <http://www.northernpublicaffairs.ca/index/fully-adopting-undrip-minister-bennetts-speech/>.

⁷² *Id.* For the text of Section 35, see Constitution Act, 1982, *being* Schedule B to the Canada Act, 1982, c 11 (U.K.), <https://laws-lois.justice.gc.ca/eng/const/>.

⁷³ See, e.g., Justin Brake, *‘Let us rise with more energy’: Saganash responds to Senate death of C-262 as Liberals promise, again, to legislate UNDRIP*, APTN (Jun 24, 2019), <https://www.aptnnews.ca/national-news/let-us-rise-with-more-energy-saganash-responds-to-senate-death-of-c-262-as-liberals-promise-again-to-legislate-undrip/> (“Saganash is speaking out just days after C-262, which represented his second attempt to have Canada align its laws with the global minimum human rights standards for Indigenous peoples, was left to die following weeks of intense opposition from Conservatives in the Senate.”); Jorge Barrera, *Trudeau government moving forward on UNDRIP legislation, says minister*, CBC (Dec. 4, 2019), <https://www.cbc.ca/news/indigenous/trudeau-undrip-bill-1.5383755>.

Declaration on the Rights of Indigenous Peoples Act.⁷⁴ The province’s lieutenant governor gave the bill royal assent on November 28th, 2019, allowing the act to come into force. B.C.’s Premier at the time of the bill’s passage, John Horgan, noted that “[t]he notion of ‘free, prior and informed consent’ in industrial development decisions is key in enacting UNDRIP.”⁷⁵

A closer look: the United States and Canada at a federal level

Although, as noted above, the United States recognizes the UNDRIP “has both moral and political force,” the Declaration is not recognized as domestic law.⁷⁶ The legal effect of the rights granted to indigenous people under the Declaration with regards to U.S. domestic law is significant because the United States has a large population of American Indians and Alaska Natives.⁷⁷

U.S Federal courts have resisted jurisdiction over claims arising under U.N Declarations. Federal courts have rejected claims both arising under the Universal Declaration of Human Rights and the Declaration on the Rights of Indigenous People.

The Supreme Court, considering a claim based on rights asserted in the Universal Declaration of Human Rights, declined to interpret the Declaration as binding international law. The plaintiff, a Mexican national abducted by DEA agents, brought claims against the agents under the Alien Tort Statute. The statute provides “original jurisdiction of any civil action by an alien for a tort only, committed in violation of the law of nations,” § 1350.

⁷⁴ See *B.C. Declaration on the Rights of Indigenous Peoples Act*, GOVERNMENT OF BRITISH COLUMBIA, <https://www2.gov.bc.ca/gov/content/governments/indigenous-people/new-relationship/united-nations-declaration-on-the-rights-of-indigenous-peoples> (last visited Aug. 21, 2020). The text of Bill 41 – 2019: Declaration on the Rights of Indigenous Peoples Act is available at <https://www.leg.bc.ca/parliamentary-business/legislation-debates-proceedings/41st-parliament/4th-session/bills/first-reading/gov41-1> (last visited Aug. 10, 2020).

⁷⁵ Karin Larsen, *‘We are moving forward together’: Premier urges feds to follow B.C.’s lead in enshrining UNDRIP*, CBC.CA (Dec. 3, 2019), <https://www.cbc.ca/news/canada/british-columbia/assembly-of-first-nations-recognizes-b-c-s-historic-undrip-legislation-1.5382649>.

⁷⁶ *Announcement of U.S. Support for the United Nations Declaration on the Rights of Indigenous Peoples*, *supra* note 59.

⁷⁷ See INT’L WORK GRP. FOR INDIGENOUS AFFS., *supra* note 13.

The Supreme Court explained:

Alvarez cites two well-known international agreements that, despite their moral authority, have little utility under the standard set out in this opinion. He says that his abduction by Sosa was an “arbitrary arrest” within the meaning of the Universal Declaration of Human Rights (Declaration), G.A. Res. 217A (III), U.N. Doc. A/810 (1948).⁷⁸

Describing the Declaration as “a set of principles” rather than a “treaty imposing legal obligations,” the Supreme Court decided the plaintiff “cannot say that the Declaration and Covenant themselves establish the relevant and applicable rule of international law.”⁷⁹ The Court then considered if the plaintiff’s “arbitrary arrest” violated a norm of customary international law sufficient to create a cause of action under the Alien Tort Statute. The Court decided, “a single illegal detention of less than a day, followed by the transfer of custody to lawful authorities and a prompt arraignment, violates no norm of customary international law so well defined as to support the creation of a federal remedy.”

The Third Circuit Court of Appeals extended the Supreme Court’s argument in *Alvarez*, holding, “the *Universal Declaration of Human Rights* is a non-binding declaration that provides no private rights of action.”⁸⁰

Federal district courts have applied the same interpretation to claims arising under UNDRIP. A district court held that a plaintiff failed to demonstrate that “monetary compensation is an available remedy against the Government under these Declarations.”⁸¹ Another federal district court stated, “There is no private right of action under declarations such as the United Nations Declaration on the Rights of Indigenous Peoples.”⁸²

⁷⁸ *Sosa v. Alvarez-Machain*, 542 U.S. 692, 734 (2004).

⁷⁹ *Id.* at 735.

⁸⁰ *United States v. Chatman*, 351 F. App’x 740, 741 (3d Cir. 2009).

⁸¹ *Van Hope-el v. United States Dep’t of State*, No. 1:18-CV-0441, 2019 WL 295774, at *3 (E.D. Cal. Jan. 23, 2019).

⁸² *Lewis-Bey v. Wilson*, No. 3:17CV763, 2019 WL 4889261, at *6 (E.D. Va. Oct. 3, 2019).

Some scholars have criticized the United States' objection to the Declaration being customary international law, arguing that it is inconsistent with "the United States' long history and practice of recognizing indigenous peoples' rights."⁸³ An analysis of the state of indigenous rights in countries party to UNDRIP found "despite shortcomings in the United States legal system... judicial and legislative decisions have resulted in a board pattern of recognition and protection of indigenous peoples rights in lands and natural resources."⁸⁴

The analysis points to 55.4 million acres of land and resource rights held in in-alienable trusts not subject to federal taxation by American Indian and Alaska Native tribes, as well as treaties "recognizing Indian land and resource rights in traditional lands...Today some-300 plus treaties recognize indigenous land and resource rights and form the legal basis for the extensive system of Indian-held lands in the United States."⁸⁵ Federal statutes granting tribal control of natural resources is a key component of tribal property interests in the United States. 25 U.S.C. § 396 authorizes tribal governments to lease tribal land for mining purposes, § 397 for grazing, § 398 for oil and gas, § 402 for farming.

The United States' 2010 statement of support for UNDRIP recognized the saliency of the Declaration's articulation of self-determination within American jurisprudence:

For the United States, the Declaration's concept of self-determination is consistent with the United States' existing recognition of, and relationship with, federally recognized tribes as political entities that have inherent sovereign powers of self-governance. This recognition is the basis for the special legal and political relationship, including the government-to-government relationship, established between the United States and federally recognized tribes, pursuant to which the United States supports, protects, and promotes tribal governmental authority over a broad range of internal and territorial affairs, including membership, culture, language, religion,

⁸³ Nicole Friederichs, *A Reason to Revisit Maine's Indian Claims Settlement Acts: The United Nations Declaration on the Rights of Indigenous Peoples*, 35 AM. INDIAN L. REV. 497, 505 (2011)

⁸⁴ S. James Anaya & Robert A. Williams, *The Protection of Indigenous People's Rights over Lands and Natural Resources Under*, 14 HARV. HUM. RTS. J. 33, 67 (2001).

⁸⁵ *Id.*

education, information, social welfare, community and public safety, family relations, economic activities, lands and resource management, environment and entry by non-members, as well as ways and means for financing these autonomous governmental functions.⁸⁶

Even if the Declaration itself is not considered an acceptable source of customary international law to the American judicial system, key concepts underlying FIPC are consistent with longstanding precedents in American jurisprudence. The U.S. 2010 statement in support of the Declaration compares the “inherent sovereign powers of self-governance” recognized in the American legal system and the Declaration’s articulation of the right to self-determination. Consistent with the “duty to consult” portion of FPIC, the US maintains a policy that government agencies consult with tribal entities before taking actions that might impact indigenous populations.⁸⁷ The International Law Association supports the theory that key aspects of the Declaration are norms of customary international law, writing: “important norms expressed in [the Declaration] can also be found in the other source of international law: customary international law.”⁸⁸

Similarly, in Canada, the Declaration is not considered to be customary international law despite domestic legal protections for indigenous populations that create similar rights of self-determination and a duty to consult as found in the FPIC doctrine. The Constitution of 1982 provides “existing aboriginal and treaty rights of the aboriginal peoples of Canada are hereby recognized and affirmed.”⁸⁹ Professors Anaya and Williams note “this legal guarantee

⁸⁶ Friederichs, *supra* note 85, at 505 (quoting U.S. 2010 Statement, *supra* note 59 at 3).

⁸⁷ *Id.* (citing Memorandum on Government-to-Government Relations with Native American Tribal Governments, 30 Weekly Comp. Pres. Doc. 936 (Apr. 28, 1994) (memorandum from President Clinton for the heads of executive departments and agencies)).

⁸⁸ Int’l Law Ass’n, Constitution of the Association art. 3.1 (2010)

⁸⁹ Constitution Act, 1982 pt. II (Rights of the Aboriginal Peoples of Canada), sec. 35(1).

encompasses aboriginal title as an enforceable substantive right and thereby limits legislative acts that would restrict or extinguish indigenous people's aboriginal property rights."⁹⁰

The substantive property and cultural rights provided to indigenous people in the United States and Canada creates a conundrum for understanding the legal force the Declaration holds in both nations' legal systems. Both countries' governments support the Declaration, if not recognizing it as a source of domestic law. At the same time, however, both countries' legal systems provide substantive rights to indigenous populations that are quite similar to the two prongs of FPIC: self-determination and state consultation. Even if the Declaration, as a product of the international community, does not have force of law in the U.S. and Canada, advocates should be able to rely on the enforceability underlying the provisions of the declaration, particularly FPIC as it relates to indigenous peoples' legal right in the United States and Canada. As climate change increasingly affects and impairs the use of land held by indigenous people, the principles of self-determination and state consultation underlying the FPIC doctrine in the declaration should provide adequate legal remedies for indigenous communities impacted by climate change.

C. World Heritage Convention

The Convention Concerning the Protection of the World Cultural and Natural Heritage of 1972 (otherwise known as the World Heritage Convention) is the rare international legal document to rise to the level of nearly universal public cognizance. People from Egypt to Ecuador understand the basic heritage protections that the Convention requires for properties like the Pyramids of Giza or the Galapagos Islands that have been placed on the UNESCO World

⁹⁰ Anaya & Williams, *supra* note 86, at 66.

Heritage list. This list is the Convention's marquee achievement, creating highly visible and readily decipherable testaments to its purpose and effect. While the benefit of World Heritage listing has become a matter of debate among scholars of anthropology and cultural studies,¹ it remains a widely sought imprimatur among States Parties by virtue of its prestige and the economic development it can stimulate through increased tourism.² Inclusion on the list brings concomitant duties upon the State Party to ensure adequate heritage preservation and management.³

Central to World Heritage listing is the element of Outstanding Universal Value, which establishes that a property possesses a “cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity.”⁴ While the Convention crucially leaves the duty of protection to States Parties and conditions this duty upon the extent of a State Party's own resources,⁵ the element of Outstanding Universal Value establishes an equity interest in the heritage property that belongs to the entirety of humanity, unbounded by territoriality or generation.⁶

In ways not contemplated by the Convention drafters, World Heritage properties today face threats from climate change that are congruously universal, if not evenly distributed. Natural

¹ See JoAnn Vrabel, *Tourism at UNESCO World Heritage Sites: Protecting Global Treasures and the Travelers Who Seek Them*, 46 CASE W. RES. J. INT'L L. 675, 676–78 (2014) (summarizing scholarly critiques of the effects of World Heritage listing).

² See UNESCO, WORLD HERITAGE AND TOURISM IN A CHANGING CLIMATE 9 (2016).

³ Convention Concerning the Protection of the World Cultural and Natural Heritage art. 4, Nov. 16, 1972, 1037 U.N.T.S. 151, 154 [hereinafter World Heritage Convention].

⁴ Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, UNESCO, Operational Guidelines for the Implementation of the World Heritage Convention ¶ 49 (2019).

⁵ See World Heritage Convention, *supra* note 3, at 154.

⁶ For an in-depth discussion of the emergence of cultural heritage as a shared interest of humanity, see Francesco Francioni, *Beyond State Sovereignty: The Protection of Cultural Heritage as a Shared Interest of Humanity*, 25 MICH. J. INT'L L. 1209 (2004).

heritage properties – listed by virtue of their outstanding natural, geographic, or ecological value under Article 2 of the Convention – face unique threats as a result of climate change that could undermine the basis upon which they benefit from heritage protections by virtue of the Convention.⁷ For example, the Ilulissat Icefjord on the west coast of Greenland is included on the World Heritage list as a natural heritage property for its universal scientific and aesthetic importance, a rationale that is fundamentally threatened by the rapid rate of polar warming as a result of climate change.⁸ Cultural heritage properties – listed under Article 1 of the Convention – face threats of their own from climate change that could undermine the integrity of their Outstanding Universal Value.⁹ The historic city of Timbuktu, for example, must fend off sand encroachment from desertification exacerbated by climate change that threatens the ancient mosques that have made it a hub of learning and teaching for centuries.¹⁰

The nature and extent of climate change threats to World Heritage properties, as well as the structure of the Convention itself, has presented impediments to a coherent and comprehensive response to climate change under the Convention, but the initiatives and decisions of the World Heritage Committee (the Convention’s governing body comprised of representatives of 21 States Parties),¹¹ States Parties, and affiliated actors suggest a response to climate change under the Convention is crystallizing under a risk management approach. While less toothsome than a precautionary approach that some have argued found support for under the Convention, the emerging risk management approach nevertheless highlights important functions of the World Heritage Convention, and heritage preservation generally, in combating climate

⁷ See UNESCO, CASE STUDIES ON CLIMATE CHANGE AND WORLD HERITAGE 14 (2007).

⁸ *Id.* at 24.

⁹ *Id.* at 14–15.

¹⁰ *Id.* at 74–75.

¹¹ See World Heritage Convention, *supra* note 3, at 155.

change. This section will examine the ways in which the risk management approach to climate change under the Convention supports (1) a protective function for addressing direct threats to World Heritage properties, (2) an adaptive function for introducing sustainable practices to heritage-adjacent industries, and most crucially, (3) a focusing function for training public consciousness of climate threats and progress.

A. The protective function

The clearest utility of the World Heritage Convention in combating threats from climate change comes from the protective mechanisms it lays out for heritage properties included, or eligible for inclusion, on the World Heritage list. As a substantive matter, the Convention creates a duty upon States Parties to “ensur[e] the identification, protection, conservation, presentation, and transmission to future generations” of heritage properties within its territory.¹² It further requires States Parties to develop the research and methods “capable of counteracting the dangers that threaten its cultural or natural heritage.”¹³ In this way, the Convention does not itself protect World Heritage properties, but rather creates a duty to protect for States Parties under international law. The Convention expressly limits “international protection” of world heritage to the “establishment of a system of international co-operation and assistance designed to support States Parties.”¹⁴ From this foundation, the Convention provides a protective mechanism that supports the preservation and management of heritage properties impacted by climate change.

A powerful tool for addressing climate threats to heritage properties under the Convention is the “List of World Heritage in Danger.” The Convention obliges the World Heritage Committee to maintain a list of properties inscribed on the World Heritage list that are

¹² *Id.* art. 4.

¹³ *Id.* art. 5(c).

¹⁴ *Id.* art. 7.

“threatened by serious and specific dangers” and “for the conservation of which major operations are necessary.”¹⁵ Inscription on the World Heritage in Danger list may occur at the request of the territorial state in which the property is located or on the initiative of the Committee itself.¹⁶

While provision for the World Heritage in Danger list was not made in cognizance of the threats presented by climate change, such threats fall squarely within the illustrative examples included in the Convention, which include: “the threat of disappearance caused by accelerated deterioration;” “major alterations due to unknown causes;” “calamities and cataclysms;” and “changes in water level, floods, and tidal waves.”¹⁷ Indeed, past practice of the Committee shows the World Heritage in Danger list to be an effective tool for responding to threats that might be climate-related.¹⁸

Once on a property is placed on the World Heritage in Danger List, the territorial state incurs additional duties to report back to the Committee and engage with international heritage experts who will provide independent assessments of progress.¹⁹ Properties can remain on the World Heritage in Danger List for extended periods of time,²⁰ but in extraordinary situations where the Outstanding Universal Value of a property has been lost, the Committee can remove a property from the World Heritage List altogether.²¹ While only three properties have been

¹⁵ *Id.* art. 11(4).

¹⁶ Gionata P. Buzzini & Luigi Condorelli, *Article 11*, in *THE 1972 WORLD HERITAGE CONVENTION: A COMMENTARY* 181–87 (Francesco Francioni ed., 2008) (analyzing the Convention’s text and Committee’s past practice to conclude that the Committee may place a property on the World Heritage in Danger list in the absence of a request or consent from the territorial state).

¹⁷ *See* World Heritage Convention art. 11(4).

¹⁸ *See* Herdis Hølleland, Evan Hamman & Jessica Phelps, *Naming, Shaming and Fire Alarms: The Compilation, Development and Use of the List of World Heritage in Danger*, 8 *TRANSNAT’L ENV’T L.* 35, 47 tbl.4 (2019) (historic overview of all World Heritage in Danger listings showing that a cumulative fourteen percent of all listings 1978–2017 were attributable to environmental degradation or natural disasters).

¹⁹ Operational Guidelines, *supra* note 4, ¶¶ 177–91.

²⁰ And, indeed, many do. *See id.* at 55–57 app.

²¹ *See id.* ¶¶ 191(c), 192–98.

delisted in the history of the Convention, the removal of Oman’s Arabian Oryx Sanctuary property from the World Heritage List in 2007 may prove instructive in light of future climate threats.²² There, the Outstanding Universal Value of the property’s rare population of oryx was irreversibly undermined when, *inter alia*, the population declined to only four breeding pairs due to habitat degradation and poaching.²³ Although Oman took aggravating actions to reduce the size of the protected area which may have encouraged the Committee to seek delisting,²⁴ that habit degradation and species loss—notable effects of climate change—can provide the basis for removal from the World Heritage List is clear.

But although listing on the World Heritage List in Danger and delisting play important roles in upholding the Convention’s overall heritage preservation regime, their protective function with respect to climate change is more limited. This is primarily because these remedies were crafted to address threats that are localized and specific, a far cry from the transboundary, existential threat of climate change. They may be effective at compelling States Parties to address impacts on properties brought about by climate change, but they do little to obviate these downstream consequences in the first place. Indeed, this is the essence of the “risk management” approach to climate change under the Convention. But the limits of the listing remedies are more fundamental still, for in the face of future globalized climate impacts to World Heritage properties that wholly undermine their Outstanding Universal Value, the Convention could in fact offer *less* protections than it does now, as properties face delisting. That these remedies could result in a reduced protective scope suggests their inherent limitations vis-à-vis climate change.

²²See UNESCO, Decisions Adopted at the 31st Session of the World Heritage Committee, U.N. Doc. WHC-07/31.COM/24, 50–51 (2007).

²³ *UNESCO Removes Oman Oryx Sanctuary from Heritage List*, REUTERS, June 30, 2007.

²⁴ *Id.*

A. *The adaptive function*

In an indirect manner, many of the protective mechanisms secured in the World Heritage Convention have been successful as a result of carbon-intensive industries that contribute to the problem of climate change, most notably tourism. The economic development generated by increased tourism provides both an incentive for States Parties to assume the duties to protect heritage properties in accordance with the Convention, as well as the means to finance such protections. Unfortunately, this means that the Convention's substantive protections and the near-universality that makes it an appealing legal instrument to address the global challenge of climate change rest in many ways upon a climate-adverse framework.

The apparent climate paradox of the Convention has not gone unnoticed, and UNESCO has addressed the matter in a number of research and policy documents, the most important of which was the 2016 *World Heritage and Tourism in a Changing Climate* report published in conjunction with UNEP and the Union of Concerned Scientists.²⁵ The report's broad set of recommendations generally evinces an understanding that stakeholders other than States Parties to the Convention, including tourism promoters and industry managers, represent crucial actors in addressing the risks to World Heritage properties from climate change.²⁶ It recommends drawing tourism and environmental stakeholders into various aspects of site management and planning activities for World Heritage properties so that climate, tourism, and heritage

²⁵ See UNESCO, *WORLD HERITAGE AND TOURISM IN A CHANGING CLIMATE* (2016).

²⁶ *Id.* at 27–32 (*e.g.*, “In view of limitations on human and financial capacity in many developing countries, the task of managing and monitoring World Heritage sites will need to be widened to other sectors such as tourism. The use of innovative and layered approaches involving multiple partners and stakeholders pooling their talents and resources will improve short- and long-term planning, and strengthen monitoring and protection efforts. The coordination capacity of national World Heritage authorities will also require assistance and support from key tourism stakeholders. In particular, tourism promoters and management agencies must be tasked with raising the levels of awareness in their value chains of the vulnerabilities of World Heritage sites and encouraging a coordinated response.”).

preservation initiatives can be harmonized.²⁷ Further, it recommends that site management plans developed for World Heritage properties “should closely reflect the predicted operational risks and potential impacts of both climate change and tourism.”²⁸

Indeed, this approach to tourism planning reflects a policy hierarchy reflected in the World Heritage Committee’s foremost policy document on climate change.²⁹ In the 2007 “Policy Document on the Impacts of Climate Change on World Heritage Properties,” the Committee endorses adaptation and mitigation strategies for properties facing climate impacts, while expressing clear priority for an adaptive framework.³⁰ The same document sidesteps the larger legal question about adoption of a precautionary approach by merely recommending that the Committee consider incorporating reference to it within the Convention’s Operational Guidelines.³¹ This suggests that the Committee itself understands and accepts the proposition that there is an adaptive function for the World Heritage Convention in responding to climate change, at least at the level of heritage properties and the industries entwined with them.

B. The focusing function

Perhaps the most important function of the World Heritage Convention in addressing threats from climate change is also the furthest from the legal text of the document: the effect of World Heritage designation to render legible to the public the specific threats, adaptations, and consequences of climate change on the cultural and environmental fabric of society. This effect might well be considered to be the Convention’s “focusing” function for the way it distills for lay publics the vast and uncertain challenges of climate change, making the highly visible and

²⁷ *See id.* at 29.

²⁸ *Id.* at 30.

²⁹ *See* UNESCO, Policy Document on the Impacts of Climate Change on World Heritage Properties, U.N. Doc. WHC-07/16.GA/10 (2007).

³⁰ *Id.* at 10.

³¹ *Id.* at 9.

familiar World Heritage properties into universally comprehensible parables of the way that threats from climate change are real, consequential, and accelerating. In this way, the degradation or loss of a beloved World Heritage property might be the catalyst to action on climate solutions, or the adaptation or restoration of a climate-threatened property might be the yardstick by which the efficacy of climate solutions is measured.

States Parties have shown wariness with the focusing function of the Convention. In one notable example, Australia successfully pushed to have a section of the *World Heritage and Tourism in a Changing Climate* report removed that documented the climate threats to the Great Barrier Reef.³² Australia was concerned that the report's description of coral bleaching and the widespread damage to the reef wrought by warming waters would depress future tourism in the region.³³ Australia's aim to hinder the Convention's focusing function, may have had the opposite of its intended effect, however, as news of the deletion likely amplified international media attention to an otherwise routine UNESCO report.

Other than dubiously efficacious efforts to hide or redact unflattering reports, like those pursued by Australia, there is likely little that States Parties can do to subvert or interfere with the Convention's focusing function. That is because it represents the mere corollary effect of the flagship benefit driving States Parties' participation in the Convention to begin with: visibility. States Parties seek inscription of a property on the World Heritage list for the economic and reputational advantages that flow from the visibility it provides; it should not surprise, then, that this same visibility should prove powerful in focusing public attention and developing public understanding of threats to the same property posed by climate change. Visibility is both the key

³² See Michelle Innis, *Australia, Fearing Fewer Tourists, Has Chapter Taken Out of Climate Report*, N.Y. TIMES, May 27, 2016.

³³ *Id.*

to the Convention's substantive mechanisms for heritage preservation³⁴ and key to the Convention's focusing function in addressing climate change.

By virtue of its concern with heritage protection, global reach, and widespread familiarity, the World Heritage Convention offers an appealing prospect for those in search of legal solutions to address challenges from climate change. For those seeking an instrument with substantive, precautionary effect, however, the Convention does not live up to its promise, at least to date.³⁵ Under the present regime, States Parties and the World Heritage Committee have preferred to address climate change through a "risk management" approach that has had a mixed track record of remedying climate threats to heritage properties. Notwithstanding, the Convention represents an important international legal tool in the fight against climate change for the way in which it offers substantive protections to properties, encourages adaptation within climate-adverse industries, and focuses public attention on the effects, pace, and consequences of unchecked climate change. Even within this restrained risk management paradigm, the Convention demonstrates that turning to the richness of human heritage can provide some answers, however incomplete, to assist in confronting the great existential threats of the future.

The World Heritage Convention & the Precautionary Principle

While the World Heritage Committee has adopted a risk management approach to its procedures and practices, a competing approach emerged in the early 1980s: the precautionary principle. In tension with the foundational precepts of risk management, the precautionary

³⁴ Indeed, two leading scholars on the Convention have argued that while the Convention is largely "soft" in character because States Parties incur only a general duty to protect heritage properties while receiving all the benefits of World Heritage list inscription, this softness is in fact the true strength of the Convention because it minimizes negative incentives. See Francesco Francioni & Federico Lenzerini, *The Future of the World Heritage Convention*, in *THE 1972 WORLD HERITAGE CONVENTION: A COMMENTARY* 402–03 (Francesco Francioni ed., 2008).

³⁵ Nevertheless, we present an argument in favor of reading the Convention according to the Precautionary Principle in the following section.

principle acknowledges the inherent gaps in scientific evidence available to decisionmakers at any given point, and encourages action, regardless of empirical uncertainty.

This section explores Outstanding Universal Value, and then the origins and modern acceptance of the precautionary principle, particularly in contrast with the World Heritage Committee's current risk management approach. It defines the precautionary principle, and then examines several textual applications of the precautionary principle in the context of climate change. Finally, it suggests that the World Heritage Committee might benefit from adopting the precautionary principle in its pursuit of preserving sites of universal cultural and natural heritage.

a. Outstanding Universal Value

Central to the idea of the World Heritage Convention is the concept of Outstanding Universal Value, wherein some natural and cultural resources, though located in a single state's sovereign territory, are the "common concern of humankind."³⁶ This concept is highlighted in several Articles of the World Heritage Convention: in Article 4, each State Party is charged with "ensuring the identification, protection, conservation, presentation, and *transmission to future generations* of the cultural and natural heritage."³⁷ The duty to pass along such heritage to future generations is explicitly dubbed "world heritage" in Article 6, wherein the World Heritage Convention delicately balances state sovereignty and the need for international cooperation, recognizing that "such heritage constitutes a world heritage for whose protection it is the duty of the international community as a whole to co-operate."³⁸ While Article 11 details the process of

³⁶ Anna Huggins, *Protecting World Heritage Sites from the Adverse Impacts of Climate Change: Obligations for States Parties to the World Heritage Convention*, 14 AUST. INT'L L. J. 121, 128 (2007).

³⁷ World Heritage Convention art. 4 (emphasis added).

³⁸ *Id.* art. 6; *see also id.* art. 7 ("[I]nternational protection of the world cultural and natural heritage shall be understood to mean the establishment of a system of international cooperation and assistance designed to support States Parties to the Convention in their efforts to conserve and identify that heritage.").

admitting properties to the list of World Heritage, Article 12 goes further, affirming the following:

The fact that a property belonging to the cultural or natural heritage has not been included [on the World Heritage List] shall in no way be construed to mean that it does not have an outstanding universal value for purposes other than those resulting from inclusion in these lists.³⁹

Article 12 is often understood primarily to delegate responsibility to States Parties for sites of heritage that might not be included on the World Heritage list; however, this demonstrates a higher-level recognition that there is more to world heritage than can be contained on a single list. This is, in principle, the international community's affirmation that there is a universal interest in maintaining all sites of natural and cultural heritage, even if they lie in the sovereign territory of one state, for the enjoyment of all current and future generations.

The ideals of world heritage and of a global duty to preserve heritage for future generations (“intergenerational equity”) are also mirrored in other international documents, such as the Brundtland Report, which emphasized the need for “ensuring the needs of the present [generations] without compromising the ability of future generations to meet their own needs,” particularly in the context of climate change and environmental threats.⁴⁰

Through such wording, the Convention has struck a rare balance, wherein the duty lies with the States Parties to identify and maintain such heritage properties, and yet they are also prompted to engage in a type of climate activism to protect the equity the Convention recognizes as belonging to them in their heritage properties. Despite this tenuous balance of sovereignty and

³⁹ *Id.* art. 12.

⁴⁰ Gro Harlem Brundtland, Rep. of the World Comm. on Env't & Dev., Our Common Future, U.N. Doc. A/42/427, at 16 (Mar. 20, 1987).

cooperation, the Convention has been highly successful for an international agreement, with more than 190 states signing onto the Convention as of January 31, 2017.⁴¹

The World Heritage Convention's inclusion of the ideals of outstanding universal value and the near-global adoption of the Convention reinforce the idea that heritage sites are "places in the heart" that "contribute to a sensory and emotional perception of belonging, of home and community."⁴² The World Heritage Committee has maintained such adherence, even in politically divisive situations, such as its admission of several Palestinian heritage sites onto the list in 2017 which resulted in Israel and the United States withdrawing from UNESCO.⁴³ Beyond the Committee itself, other international bodies have embraced the emphasis on world heritage, such as the International Court of Justice (ICJ). The ICJ handled a case regarding natural and cultural heritage in the 2013 *Case Concerning the Temple of Preah Vihear*; therein, the ICJ weighed in on a contentious border dispute, finding that the Temple (a place of immense cultural significance and a World Heritage Site) was on territory exclusively under the sovereign control of Cambodia, ordering the Thai military to vacate the area and allow Cambodian access.⁴⁴ In that decision, the ICJ specifically emphasized that as State Parties to the World Heritage Convention, both Thailand and Cambodia were "under an obligation not to 'take any deliberate measures which might damage directly or indirectly' such heritage" since both were part of the international community in the fight to protect the site as universal heritage.⁴⁵ Thus, the adoption

⁴¹ UNESCO, 21st Sess., U.N. Doc. WHC/17/21.GA/INF.5B, at 1 (Oct. 2, 2017).

⁴² ROSEMARY LYSTER, ZADA LIPMAN, NICOLA FRANKLIN, GRAEME WIFFEN & LINDA PEARSON, ENVIRONMENTAL AND PLANNING LAW IN NEW SOUTH WALES 380 (3rd ed. 2007).

⁴³ See Peter Beaumont, *UNESCO Makes Hebron Old City Palestinian World Heritage Site*, THE GUARDIAN (July 7, 2017), <https://www.theguardian.com/world/2017/jul/07/unesco-recognises-hebron-as-palestinian-world-heritage-site>); *US, Israel Pull Out of UNESCO, Claiming Bias*, VOICE OF AMERICA (Jan. 1, 2019), <https://www.voanews.com/europe/us-israel-pull-out-unesco-claiming-bias>.

⁴⁴ Request for Interpretation of *Judgment of 15 June 1962 in Temple of Preah Vihear*, Judgment, 2013 I.C.J. 281, ¶¶ 103, 107–08 (Nov. 11).

⁴⁵ *Id.* ¶ 106.

of the Convention and its subsequent interpretations showcase significant acceptance in the world community of a reading of the World Heritage Convention as creating an international interest in protecting world heritage properties as inherently containing outstanding universal value.

b. Precautionary Principle Defined

The precautionary principle originated from a focus on heritage and the environment after World War I, but took shape in earnest in the late 1970s and early 1980s, primarily in Europe.⁴⁶ Originating from the German principle of *vorsorgeprinzip* (foresight principle), the precautionary principle is an approach to environmental issues in particular that avoids unreasonable delays in the process of making decisions and taking action.⁴⁷ Specifically, the precautionary principle requires that “action should be taken to limit, regulate, or prevent potentially dangerous undertakings even in the absence of scientific proof.”⁴⁸ This principle has been incorporated into various documents of international significance and adjusted to fit various specific environmental concerns. For example, the preamble of the Convention on Biological Diversity explains the principle thusly: “Where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat.”⁴⁹

Despite becoming a widely-used term, particularly in the field of environmental conservation, the precautionary principle’s definition is not set in stone. Far from it, there is a

⁴⁶ Timothy O’Riordan & Andrew Jordan, *The Precautionary Principle in Contemporary Environmental Politics*, 4:3 ENVIRONMENTAL VALUES 191, 193 (1995).

⁴⁷ See W. David Montgomery & Anne E. Smith, *Global Climate Change and the Precautionary Principle*, 6:3 HUM. AND ECOLOGICAL RISK ASSESSMENT: AN INT’L J. 399 (2000).

⁴⁸ P.H. Martin, “*If You Don’t Know How to Fix it, Please Stop Breaking it!*” *The Precautionary Principle and Climate Change*. 2 FOUNDATIONS OF SCIENCE 263, 266 (Nov. 1997).

⁴⁹ United Nations Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79, 81.

spectrum of possibilities with the precautionary principle, from weak to strong, with various mixed options in between. Points of contention include the level of scientific evidence needed to identify an environmental threat (standards ranging from “likely/substantial” to proof beyond a reasonable doubt),⁵⁰ the burden of proof (standard assumption that an action is benign until proven otherwise, or a requirement for affirmative proof that an action is not environmentally harmful),⁵¹ and the severity of the harm required to trigger the precautionary principle (though practical constraints and practices tend to only trigger the precautionary principle in the face of serious or irreversible harms.)⁵² While certain interpretations of the precautionary principle may fall along this spectrum, a constant feature of the precautionary principle is that measures taken are only considered to be short-term actions while scientific evidence is being procured or technology is being developed to accurately develop long-term plans.⁵³ However, though they are short-term alternatives, “failure to implement even these basic measures would not be consistent with the obligation imposed by the precautionary principle.”⁵⁴ Though the lack of a firm definition may be concerning to some academics, the principle’s flexibility is beneficial for the World Heritage Convention, allowing the Committee to tailor the principle to the unique challenges facing the preservation of properties of universal heritage.

Under traditional risk management methodologies, such as the ones currently espoused by the World Heritage Committee, decisionmakers held the assumption that traditional scientific processes could sufficiently foretell environmental outcomes of any proposed human activity.⁵⁵

⁵⁰ Alexander Gillespie, *The Precautionary Principle in the Twenty-First Century: A Case Study of Noise Pollution in the Ocean*, 22 INT’L J. MARINE & COASTAL L. 61, 76 (2007).

⁵¹ *Id.* at 76–77.

⁵² *Id.* at 78.

⁵³ See also *Communication from the Committee of the European Communities on the precautionary principle* 19, COM (2000) 1 final (Feb. 2, 2000).

⁵⁴ Gillespie, *supra* note 50, at 87.

⁵⁵ *Id.* at 63.

However, risk assessments such as those used traditionally may not account for non-economic factors and are confined to purely quantitative scientific data.⁵⁶ However, use of the precautionary principle allows decisionmakers to consider non-quantifiable data, such as cultural heritage or natural significance. Then, as a political and legal matter, decisionmakers can commit to a course of action based on the risk level that is considered “acceptable” by the society that bears the risk. In cases of World Heritage sites, the international community is the one that will decide how much risk, if any, they are willing to bear in reference to sites of immense universal significance.⁵⁷ Additionally, under traditional risk management, long-term environmental risks become significantly less actionable, as adverse effects may not materialize until a significant amount of time has passed, which is difficult, if not impossible, to prove with a majority of scientific opinion. In the context of environmental threats however, especially those concerning priceless cultural and natural heritage, risks are “carried forward into the future [and] cannot be eliminated or reduced except at the time of exposure, that is to say immediately.”⁵⁸

c. Textual Precedents for the Precautionary Principle and Climate Change

Though existing as a concept since the end of World War I, the precautionary principle was first officially established in the World Charter for Nature, adopted by the U.N. General Assembly in 1982.⁵⁹ At that time, it was also gaining traction in the Law of the Sea, where Article 23 of the U.N. Convention on the Law of the Sea (LOSC) laid out the need for nuclear-powered ships to “observe special precautionary measures...established by international agreements” when passing through territorial areas of the sea.⁶⁰ LOSC also evidenced adoption

⁵⁶ *Communication from the Committee of the European Communities on the precautionary principle* 11, COM (2000) 1 final (Feb. 2, 2000).

⁵⁷ *Id.* at 15.

⁵⁸ *Id.* at 18.

⁵⁹ *Id.* at 10.

⁶⁰ Convention on the Law of the Sea (LOSC), art. 23, Dec. 10, 1982, 1833 U.N.T.S. 397.

of the precautionary principle by imposing an obligation on States Parties to assess the potential effects of their activities on the seas and be aware when they had “reasonable grounds” for believing their actions could have significant and harmful effects on the marine environment.⁶¹ By 1992, the principle took a more prominent role on the world stage when it was referenced in Principle 15 of the Rio Declaration on the Environment and Development at the 1992 Earth Summit, saying:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.⁶²

In the same year, the Treaty on European Union (Maastricht Treaty) explicitly chose to incorporate the precautionary principle in Title XIX: Environment; specifically, the treaty states that the [European] Community policy on the environment would “be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.”⁶³ The precautionary

⁶¹ See *id.* art. 204-06.

⁶² U.N. Conference on Environment and Development, Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I), principle 1 (Aug. 12, 1992).

⁶³ European Union, *Treaty on European Union (Consolidated Version)*, *Treaty of Maastricht*, Title XIX, art. 174, Feb. 7, 1992, O.J. C 325/5, 24 December 2002.

principle has continued to be widely discussed and referenced in the field of environmental concerns, including in the areas of fisheries,⁶⁴ species protection,⁶⁵ and nuclear activity.⁶⁶

The World Heritage Committee has largely maintained its traditional risk management approach, not explicitly joining the growing number of organizations, institutions, and nations utilizing the precautionary principle. However, in 2007, the Committee showed the possibility of incorporating elements of the precautionary principle into their current approach when they issued the World Heritage Report No. 22, “Climate Change and World Heritage.”⁶⁷ Therein, the World Heritage Committee outlined their “Strategy to Assist States Parties to Implement Appropriate Management Responses” to climate change threats to cultural and natural heritage properties; the Strategy endorsed preventive actions (monitoring, reporting, and mitigation) as well as corrective actions (risk management) and the sharing of knowledge and best practices.⁶⁸ Some elements closely follow a risk-management perspective, even explicitly using the language of risk preparedness and taking steps to “identify, assess, monitor disaster risks, and enhance early warning [systems].”⁶⁹ However, the Strategy also recognizes that, while site-level

⁶⁴ See U.N. Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks, Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea, U.N. Doc A/CONF.164.37, Art. 6.1, 6(3)(d) (Sep. 8, 1995).

⁶⁵ See Agreement on the Conservation of Populations of European Bats (EUROBATS) Res. 4.7. (Sep. 22, 2003), https://www.eurobats.org/official_documents/meeting_of_parties/resolutions; Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS) Res. 3.3 (July 26, 2000), <https://www.ascobans.org/en/document/incidental-take-small-cetaceans>.

⁶⁶ See Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgement of 20 December 1974 in the Nuclear Tests (New Zealand v. France), Judgment, 1995 I.C.J. 288 ¶¶ 89, 91 (Sept. 22) (suggesting that the precautionary principle was established enough to be part of customary international law); Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (July 8) (naming the precautionary principle as a general principle of international environmental law).

⁶⁷ World Heritage Rep. No. 22, Climate Change and World Heritage, U.N. Doc. WHC-06/30.COM/7.1 (2007).

⁶⁸ *Id.* at 40–42.

⁶⁹ *Id.* at 38; see also Anna Huggins, *Protecting World Heritage Sites from the Adverse Impacts of Climate Change: Obligations for States Parties to the World Heritage Convention*, 14 AUST. INT'L L. J. 121, 130

mitigation might be needed, a second step is required, where States Parties look beyond their sites to “develop and implement regional and/or transboundary mitigation and adaptation strategies that reduce the vulnerability of natural World Heritage sites.”⁷⁰ This language indicates an awareness and slight shift towards the foundations of the precautionary principle, but stops shy of officially endorsing the stance. The Strategy also fails to provide concrete action items on this second step, which seems to vitiate their interest in moving towards the precautionary principle. However, the Committee’s willingness to shift towards the precautionary principle, in even such an incremental fashion, could be the foundation needed to more fully embrace the benefits of the precautionary principle.

While there is not yet complete acceptance of the precautionary principle at the global level, some countries have taken a more definitive stance in applying such a precautionary approach to heritage properties under domestic laws. On a judicial level, the Supreme Court of India issued several landmark decisions that referenced the precautionary principle and the “polluter pays” ideas, first in an environmental protection and land development case, and later extended to cultural heritage. The court introduced these ideas to Indian jurisprudence in *Vellore Citizens’ Welfare Forum*,⁷¹ a pivotal case in the search for balance between environmental protection and development. The case revolved around a public interest suit brought against tanneries and industries in the State of Tamil Nadu, which were allowing untreated effluents to run into the River Palar, which is the main source of drinking and bathing water for the surrounding peoples.⁷² In the course of their judgment, the court referred to the Brundtland

(2007) (“[T]he mitigation approach adopted by the Strategy is ineffectual, and does not do justice to the ‘precautionary principle.’”).

⁷⁰ World Heritage Rep. No. 22, *supra* note 67, at 34.

⁷¹ *Vellore Citizens’ Welfare Forum v. Union of India*, (1996) 5 SCC 647 (India).

⁷² *Id.* ¶ 1.

Report and other international documents that lay forth the principles of “Sustainable Development,” including the Precautionary Principle.⁷³ The court defined the Precautionary Principle as meaning:

(i) Environmental measures – by the State Government and the statutory authorities – must anticipate, prevent and attack the causes of environmental degradation. (ii) Where there are threats of serious and irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. (iii) The “Onus of proof” is on the actor or the developer/industrialist to show that his action is environmentally benign.⁷⁴

Though not directly involving a site of cultural or natural heritage as accepted by the World Heritage Convention, *Vellore Citizens* declared the precautionary principle to be essential to sustainable development and set the stage for application to a globally-recognized site.

Later the same year, the Supreme Court of India transferred the logic from *Vellore Citizens* to another pressing issue, this time involving the Taj Mahal, one of the most recognizable sites of cultural heritage in the world.⁷⁵ Built in 1632 and declared a UNESCO World Heritage Site in 1983, the Taj Mahal is one of the most famous buildings in the world, and one of three World Heritage Sites in the Agra region of India. In the *Taj Trapezium Matter*, the Supreme Court of India faced the question of controlling local coal-powered industries that were producing excessive air pollution and consequently causing damage to the Taj Mahal.⁷⁶ The court dubbed the 10,000 sq. km. area around the heritage sites “The Taj Trapezium” and, after extensive research and surveying, compiled a list of 511 offending companies/industries within the Trapezium. Work commenced on a gas pipeline to provide an alternative fuel source for many of the commercial activities and those who were unable or unwilling to connect were to

⁷³ *Id.* ¶ 11.

⁷⁴ *Id.*

⁷⁵ *M.C. Mehta v. Union of India (Taj Trapezium Matter)*, (1997) 2 SCC 353 (1996) (India).

⁷⁶ *Id.* ¶ 4.

relocate outside the Trapezium.⁷⁷ Additionally, the Court instructed that new regulations be imposed, requiring any new industries looking to establish a presence within the Trapezium to affirmatively present evidence that their activities would not cause more damage and pollution before they were allowed to begin operating.⁷⁸ In issuing their orders, the Court explicitly referenced the Precautionary Principle and the “Polluter Pays Principle” as used in *Vellore Citizens*, saying that they were both “essential features of ‘Sustainable Development.’”⁷⁹ The *Taj Trapezium* Court used the same definitions as in *Vellore Citizens*, and stressed that the Precautionary Principle was part of the law of the land in India, and connected to the guarantee of protection of life and personal liberty under Article 21 of the Constitution of India.⁸⁰ The Court stressed that they were unwilling to take even a one percent chance when “the preservation of a prestigious monument like the Taj is involved.”⁸¹ While the Court did state that the Precautionary Principle required anticipation and prevention of risks, much like risk management, they took a much stronger approach by attacking the problem for total elimination, not mere reduction, and by shifting the burden of proof to the industries to affirmatively prove their actions to be environmentally benign.⁸² The court showed their unwillingness to adopt a wait-and-see approach, or simply try and repair the damage to the Taj without addressing the root of the problem; the court recognized the irreplaceability of what they called “the perfect culmination and artistic interplay of the architects’ skill and the jewellers’ inspiration...one of

⁷⁷ *Id.* ¶ 34.

⁷⁸ *Id.*

⁷⁹ *Id.* ¶ 32.

⁸⁰ *Id.*; India Const. art. 21.

⁸¹ *Taj Trapezium Matter* ¶ 33.

⁸² *Id.*

the most priceless national monuments, of surpassing beauty and worth, a glorious tribute to man's achievement in Architecture and Engineering."⁸³

On the level of international tribunals, the ICJ has engaged cases concerning cultural heritage, such as in the *Case Concerning the Temple of Preah Vihear*.⁸⁴ In that case, the ICJ did not explicitly discuss the precautionary principle, but they did specify that both states (Cambodia and Thailand) were under an obligation not to take any measures that would damage the Temple as a site of cultural significance and heritage. While not explicitly related to issues of cultural or environmental heritage, the ICJ had previously run into stricter versions of the precautionary principle, such as the 1995 Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (*New Zealand v. France*) Case.⁸⁵ Therein, the ICJ heard New Zealand's argument for a stronger version of the precautionary principle that would require any state seeking to engage in potentially damaging environmental conduct (here, France's eight nuclear weapons tests in the South Pacific) to show evidence in advance that the activity would not cause contamination.⁸⁶ While the ICJ did not discuss the merits of this argument and eventually dismissed the case on a procedural issue, two dissenting Judges did argue that:

Where a Party complains to the Court of possible environmental damage of an irreparable nature which another Party is committing or threatening to commit, the proof or disproof

⁸³ *Id.* ¶ 1.

⁸⁴ Request for Interpretation of *Judgment of 15 June 1962 in Temple of Preah Vihear* (Cambodia v. Thai.), Judgment, 2013 I.C.J. 281, ¶¶ 103, 107–08 (Nov. 11).

⁸⁵ *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests Case* (N.Z. v. Fr.), 1995 I.C.J. 288.

⁸⁶ *Id.* ¶¶ 63, 68.

of the matter alleged may present difficulty to the claimant as the necessary information may largely be in the hands causing or threatening the damage.⁸⁷

Judge Weeramantry continued to say the precautionary principle was the legal evolution to meet that difficulty and allow for the law to effectively protect the environment.⁸⁸ This statement would seemingly support a stronger view of the precautionary principle that shifts the burden of proof to the party desiring to engage in the questionable conduct, as they will likely have access to fuller evidence to support their case. However, as the case never reached an analysis of the merits of this point, the ICJ has not taken a definitive stance on the shifted burden of proof. Thus, the ICJ and other courts have entertained the tenets of the Precautionary Principle, either opening the door to their adoption, or explicitly embracing them, such as the Supreme Court of India's decision in the *Taj Trapezium Matter*. While the World Heritage Committee has only once showed an interest in evolving their current risk management approach to climate change, there is ample groundwork laid for them to do so.

The risks facing the World Heritage Committee in its pursuit of environmental and cultural preservation are manifold, particularly with the inevitability of climate change, and the World Heritage Committee is currently woefully underprepared to face these risks. The World Heritage Committee currently utilizes the List of World Heritage in Danger to prioritize sites facing immediate threats. However, while climate change is an imminent threat, the World Heritage Committee may be loath to list a large number of sites on the Danger List, as overfilling the list would lessen the impact and effectiveness of the List in its entirety.⁸⁹

⁸⁷ *Id.* at 342.

⁸⁸ *Id.*

⁸⁹ Stefan Gruber, *The Impact of Climate Change on Cultural Heritage Sites: Environmental Law and Adaptation*, 5:2 CARBON AND CLIMATE L. REV. 209, 213–14 (2011).

However, by adopting a precautionary principle approach to world heritage, the World Heritage Committee could effectively counter several key flaws with its current risk management approach to protect cultural heritage, which is what binds society together and ensures the survival of distinct communities.⁹⁰ Climate change has brought new challenges to cultural and natural heritage around the world, with increasing windstorms, floods, desertification, air pollution, and water contamination. While few truly dispute that shifts in global climate can have a severe impact on sites of immense heritage significance, the fact remains that a traditional risk management approach is no longer sufficient. Traditional risk management relies heavily on an economic cost-benefit analysis, which cannot be applied to universal heritage. It is currently impossible to calculate the actual cost of a lost species, loss of habitat, or loss of cultural heritage,⁹¹ and environmental decisions in particular are inherently bound up with a higher number of value judgments and ethical decisions for future generations.⁹² The precautionary principle, with its lower threshold for scientific evidence and flipped burden of proof, challenges the scientific method in areas where environmental damage may be irreversible or potentially catastrophic.⁹³ The precautionary principle is a legal development that would allow for enforceability and higher accountability for the preservation of our world's natural and cultural heritage beyond the short-term scope, expressing the idea that "prevention is better than cure, forethought preferable to afterthought."⁹⁴ This adoption of the precautionary principle will better equip the World Heritage Committee to fulfill the promised benefit of the Convention's

⁹⁰ See Boer & Gruber, *Heritage Discourses*, in ENVIRONMENTAL DISCOURSES IN INTERNATIONAL AND PUBLIC LAW ch. 16 (Kim Rubenstein & Brad Jessup eds., 2011).

⁹¹ O'Riordan & Jordan, *supra* note 46, at 202.

⁹² *Id.* at 196.

⁹³ *Id.* at 193.

⁹⁴ Gro Harlem Brundtland (Chairman), Rep. of the World Comm'n on Env't and Dev., Our Common Future 234 ¶ 100, U.N. Doc. A/42/427 (Mar. 20, 1987).

ratification for State Parties: “to protect and cherish the world's natural and cultural heritage, [and] express a shared commitment to preserving our legacy for future generations.”⁹⁵

D. U.N. Measures on Gender and Climate Change

A. Background

The United Nations is a highly active, vital player in supporting womxn’s climate activism. Numerous non-legally-binding instruments from the United Nations recognize the gendered impacts of climate change,¹ including the fifth Sustainable Development goal: gender equality and womxn’s empowerment.² There are also legally binding instruments relating to gender and climate change, such as the U.N. Security Council Resolution mandating that states develop National Action Plans,³ some of which indirectly address womxn climate activists’ needs.⁴ Perhaps the United Nation’s most direct approach to addressing gender and climate is the United Nations Framework Convention on Climate Change (UNFCCC)’s three interrelated

⁹⁵ *The World Heritage Convention*, UNESCO, <https://whc.unesco.org/en/convention/> (last visited Aug. 26, 2020).

¹ See generally, U.N. CEDAW COMM., CONCEPT NOTE FOR THE GENERAL DISCUSSION ON GENDER-RELATED DIMENSIONS OF DISASTER RISK REDUCTION AND CLIMATE CHANGE 13–15, <https://www.ohchr.org/Documents/HRBodies/CEDAW/ClimateChange/ConceptNote.pdf> (listing non-legally-binding instruments addressing gender equality in disaster risk reduction).

² *Sustainable Development Goals, Goal 5*, UNITED NATIONS, <https://www.un.org/sustainabledevelopment/gender-equality/> (last visited Oct. 2, 2020). For a thorough discussion of the potential to further gender equality through the 2030 Agenda for Sustainable Development, see *Turning Promises Into Action: Gender Equality in the 2030 Agenda For Sustainable Development*, U.N. WOMEN, <https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2018/sdg-report-gender-equality-in-the-2030-agenda-for-sustainable-development-2018-en.pdf?la=en&vs=4332>.

³ S.C. Res. 1325 (Oct. 31, 2000).

⁴ See Elizabeth Seymour Smith, *Climate Change in Women, Peace and Security National Action Plans*, 7 SIPRI INSIGHTS ON PEACE AND SECURITY 1, 2, 12 (2020) (tabulating and discussing the six Women, Peace and Security National Action Plans that acknowledge climate change is a national security issue).

instruments on gender and climate change: the Lima Work Programme on Gender,⁵ the Gender Action Plan,⁶ and the Enhanced Lima Work Programme on Gender and its Gender Action Plan (“Gender Action Plans”).⁷ This section focuses on those iterative, non-binding measures, discussing how they have been used to amplify the voices of womxn climate activists who seek to be heard in climate change decision-making.

B. The Measures

The Lima Work Programme on Gender (LWPG) was a two-year, open-ended work program adopted in 2014 to advance the gender responsiveness of UNFCCC activities.⁸ This instrument laid the foundation for the Gender Action Plan (GAP), which UNFCCC parties agreed to make in 2016⁹ and officially adopted in 2017.¹⁰ The Gender Action Plan was a three-year, more concrete extension of the LWPG aimed at “advanc[ing] women’s full, equal and meaningful participation and promot[ing] gender-responsive climate policy and the mainstreaming of a gender perspective.”¹¹ Three years later, in 2019, the parties updated the Gender Action Plan by adopting the five-year Enhanced Lima Work Programme on Gender and

⁵ Report of the Conference of the Parties on its twentieth session, held in Lima from 1 to 14 December 2014, U.N. Doc. FCCC/CP/2014/10/Add.3, <https://unfccc.int/sites/default/files/resource/docs/2014/cop20/eng/10a03.pdf>.

⁶ Report of the Conference of the Parties on its twenty-third session, held in Bonn from 6 to 18 November 2017, U.N. Doc. FCCC/CP/2017/11/Add.1, https://www.informea.org/sites/default/files/decisions/FCCC_CP_2017_11_Add.1_1.pdf.

⁷ Enhanced Lima work programme on gender and its gender action plan, U.N. Doc. FCCC/CP/2019/L.3, https://unfccc.int/sites/default/files/resource/cp2019_L03E.pdf.

⁸ Report of the Conference of the Parties on its twentieth session, held in Lima from 1 to 14 December 2014, FCCC/CP/2014/10/Add.3, <https://unfccc.int/sites/default/files/resource/docs/2014/cop20/eng/10a03.pdf>; *The Enhanced Lima Work Programme on Gender*, U.N. CLIMATE CHANGE, <https://unfccc.int/topics/gender/workstreams/the-enhanced-lima-work-programme-on-gender> (last visited Oct. 2, 2020).

⁹ Gender and climate change, ¶ 27, U.N. Doc. FCCC/CP/2016/10/Add.2, https://unfccc.int/sites/default/files/pages_17-20_from_10a02.pdf.

¹⁰ Decisions adopted by the Conference of the Parties, U.N. Doc. FCCC/CP/2017/11/Add.1, https://www.informea.org/sites/default/files/decisions/FCCC_CP_2017_11_Add.1_1.pdf.

¹¹ *Id.* at 15.

its Gender Action Plan (“Enhanced GAP”).¹² The Enhanced GAP closely resembles its predecessor, with both listing five priority areas: capacity-building, knowledge management, and communication; gender balance, participation and women’s leadership; coherence; gender-responsive implementation and means of implementation; and monitoring and reporting.¹³ Both plans have specific provisions that recognize and aim to support grass-roots womxn activists through travel funds.¹⁴

In the 2019 review of the implementation of the Enhanced GAP,¹⁵ parties reportedly made progress on numerous fronts that furthered the goals of the plan, including the following: organizing womxn climate activists in Serbia, training CSOs and NGOs in South Asian countries, and providing technical and financial support to womxn farmers in West Africa.¹⁶ Additionally, travel fund donations were received to support participation of grass-roots organizations in UNFCCC sessions.¹⁷ However, there was no information reported or available about encouraging parties to recognize the importance of “grass-roots women in gender-responsive climate change.”¹⁸ To further the gender goals, parties recommended more training on gender and climate change “to empower women to fully participate in the UNFCCC process

¹² Enhanced Lima work programme on gender and its gender action plan, U.N. Doc. FCCC/CP/2019/L.3, https://unfccc.int/sites/default/files/resource/cp2019_L03E.pdf.

¹³ *Id.* at 4; Decisions adopted by the Conference of the Parties, 15, U.N. Doc. FCCC/CP/2017/11/Add.1, https://www.informea.org/sites/default/files/decisions/FCCC_CP_2017_11_Add.1_1.pdf.

¹⁴ Decisions adopted by the Conference of the Parties, 16, U.N. Doc. FCCC/CP/2017/11/Add.1, https://www.informea.org/sites/default/files/decisions/FCCC_CP_2017_11_Add.1_1.pdf. (“Promote travel funds as a means to support the participation of women in national delegations at UNFCCC sessions, including those from grass-roots . . . communities . . .”); Enhanced Lima work programme on gender and its gender action plan, 9, U.N. Doc. FCCC/CP/2019/L.3, https://unfccc.int/sites/default/files/resource/cp2019_L03E.pdf.

¹⁵ Implementation of the Lima work programme on gender and its gender action plan, U.N. Doc. FCCC/SBI/2019/15/Add.1, https://unfccc.int/sites/default/files/resource/SBI2019_15Add1.pdf.

¹⁶ *Id.* at 17.

¹⁷ Implementation of the Lima work programme on gender and its gender action plan, 17, U.N. Doc. FCCC/SBI/2019/15, https://unfccc.int/sites/default/files/resource/sbi2019_15E.pdf.

¹⁸ *Id.* at 10.

and to become advocates by sharing information and delivering training to a broader audience at the national level.”¹⁹

The efficacy of these Gender Action Plans may also be reflected in the UNFCCC gender composition reports. According to the 2019 gender composition report of party delegations to sessions of the governing bodies of the UNFCCC, the Kyoto Protocol, and the Paris Agreement, womxn constituted thirty-eight percent of party delegates and twenty-seven percent of heads of delegation.²⁰ The Gender Action Plans may help bridge this gap in womxn’s representation.

While moderate progress is being made, time and future years’ reviews and gender composition reports will show whether the Gender Action Plans can effectively remedy the underrepresentation of womxn in climate change decision-making bodies and help train womxn to be effective advocates. If proven effective, the Gender Action Plans may be valuable tools of international law to supplement domestic climate change governance in countries lacking gender-responsive climate change law and policy, such as Senegal and Fiji, as discussed in Part I.V *supra*.

E. Convention on the Rights of the Child

The Convention on the Rights of the Child (“CRC”) is an international treaty recognizing the human rights of children and “the importance of international cooperation for improving the

¹⁹ Implementation of the Lima work programme on gender and its gender action plan, 26, U.N. Doc. FCCC/SBI/2019/15/Add.1, https://unfccc.int/sites/default/files/resource/SBI2019_15Add1.pdf.

²⁰ Gender composition, 8, U.N. Doc. FCCC/CP/2019/9, https://unfccc.int/sites/default/files/resource/CP2019_09E.pdf.

living conditions of children in every country, in particular the developing countries.”¹ For the purposes of the CRC, a child is defined as all persons below the age of eighteen years old.² Generally, the CRC establishes global standards to both ensure that children are protected from various forms of violence and advance children’s rights to education, health care, and a decent standard of living.³ Elaborating on the decent standard of living baseline, the CRC recognizes the relationship between children’s rights and the environment, highlighting the dangers posed by environmental pollution and climate change, the importance of clean drinking water, and the need to invest in children’s environmental education around the globe.⁴

A. Background

The CRC was opened for signature by the United Nations General Assembly (“UNGA”) on November 20, 1989, symbolically on the thirtieth anniversary of the General Assembly’s Declaration of the Rights of the Child.⁵ After meeting the required number of countries for ratification, the CRC came into force on September 2, 1990.⁶ Today, 196 countries are a party to the CRC, which includes every member of the United Nations (“UN”) except the United States.⁷ The CRC, frequently characterized as reflecting Western values,⁸ was the result of a greater

¹ Convention on the Rights of the Child, Nov. 20, 1989, 1577 U.N.T.S. 3, Preamble.

² *See id.* art. 1, ¶ 1. Although a child is defined as under eighteen for the majority of the CRC, there are some exceptions where States provide minimum ages, such as for the completion of compulsory education of the admission into employment. *See Frequently asked questions on the Convention on the Rights of the Child*, UNICEF, <https://www.unicef.org/child-rights-convention/frequently-asked-questions> (last visited Aug. 28, 2020).

³ *See 25th Anniversary of the Convention on the Rights of the Child*, HUMAN RIGHTS WATCH (Nov. 17, 2014), <https://www.hrw.org/news/2014/11/17/25th-anniversary-convention-rights-child>.

⁴ *See Child Rights & the Env’t – The Need for Action*, HUMAN RIGHTS WATCH (July 22, 2016), <https://www.hrw.org/news/2016/07/22/child-rights-and-environment-need-action>.

⁵ *See* G.A. Res. 44/25, at 167 (Nov. 20, 1989).

⁶ *See* Convention on the Rights of the Child, 1577 U.N.T.S. 3, Depository.

⁷ *See id.*

⁸ *See* Ann Quennerstedt, Carol Robinson & John P’Anson, *The UNCRC: The Voice of Global Census on Children’s Rights?*, 36 NORDIC J. OF HUM. RTS. 38, 39 (2018) (noting that “[a]spects of the [CRC] that have been critically commented upon include: the tendency of the convention towards a liberal and Western bias”); Sonia Harris-Short, *Listening to ‘the Other’? The Convention on the Rights of the Child*,

focus on children’s universal human rights during the 20th century.⁹ In terms of international law, the three most significant manifestations of this focus were the Declaration of the Rights of the Child, also known as the Declaration of Geneva (1924); the United Nations Declaration of the Rights of the Child (1959); and finally, the United Nations Convention on the Rights of the Child (1989).¹⁰

The recognition and framing of children’s rights was prompted by the widespread violence and destruction during the 20th century. World War I resulted in millions of hungry and displaced children, many of them orphans or refugees.¹¹ The war instigated a coordinated transnational effort to find solutions to ensure the children’s survival, which first resulted in the Declaration of Geneva by the League of Nations.¹² Like most declarations, the Declaration of Geneva was not a legally binding document.¹³ Once the United Nations replaced the League of Nations, the U.N. wanted to take a renewed stance on the rights of the child.¹⁴ The Second World War along with the Industrial Revolution had further “exposed the appalling illness, exploitation, and abuse children in the world face each day.”¹⁵ Although there was a general acceptance and interest in focusing on child welfare around the world, this support was not strong enough for the General Assembly to encapsulate its stance on children’s rights in a legally binding instrument.¹⁶

2 MELB. J. OF INT’L L. 304, 306 (2001) (finding that despite including “some non-Western ideas and practices in the final [CRC] text,” the U.N. enforcement mechanisms have “insisted upon a uniform and very ‘Western’ interpretation of what the [CRC] requires, in which any respect for cultural diversity has been lost”).

⁹ See Zoe Moody, *The United Nations Declaration of the Rights of the Child (1959): Genesis, transformation, and dissemination of a treaty (re)constituting a transnational cause*, 45 PROSPECTS 15, 17 (2015).

¹⁰ See *id.* at 15.

¹¹ See *id.* at 17.

¹² See *id.*

¹³ See *id.* at 21.

¹⁴ See *id.*

¹⁵ See Susan E. Brice, *Convention on the Rights of the Child: Using a Human Rights Instrument to Protect Against Environmental Threats*, 7 GEO. INT’L ENVTL. L. REV. 587, 592 (1995).

¹⁶ See Moody, *supra* note 9, at 23.

As a result, when the UNGA approved the Declaration of Rights of the Child in November of 1959, the principles in the declaration were only aspirational.¹⁷ But by 1989, after much persistence by children’s rights advocates¹⁸ and ten years of development, the UNGA adopted the CRC, which finally recognized children as social, political, economic, civil and cultural actors deserving of universal human rights protections in a legally binding instrument.¹⁹

The CRC is now the most widely ratified human rights convention in the world.²⁰ Moreover, the CRC is one of the only human rights treaties that not only explicitly references the environment, but also requires countries to take steps to protect the environment in order to safeguard children’s environmental rights.²¹ Although litigation focusing on the intersection of children’s rights and the environment is only just emerging, the CRC is considered one of the strongest avenues to legally challenge climate change as a children’s rights crisis on the international stage.²²

B. The CRC and the Environment

The CRC explicitly refers to the environment in two separate articles: Article 24(2)(c) and Article 29(1)(e).²³ Article 24(2)(c), recognizing the right of the child to enjoy the highest attainable standard of health, requires States Parties to take appropriate measures “[t]o combat disease and malnutrition . . . through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution.”²⁴

¹⁷ *See id.*

¹⁸ *See Brice, supra* note 15, at 592.

¹⁹ *Convention on the Rights of the Child- History of child rights*, UNICEF, <https://www.unicef.org/child-rights-convention/history-child-rights> (last visited Aug. 28, 2020).

²⁰ Ivano Alogna & Eleanor Clifford, *Climate Change Litigation: Comparative and International Perspectives* 18, BRITISH INST. OF INT’L & COMP. L. (Mar. 9, 2020).

²¹ U.N. Comm. On the Rights of the Child, Rep. of the 2016 Day of Gen. Discussion Children’s Rights and the Env’t at 6 [hereinafter DCD].

²² *See Alogna, supra* note 20, at 18.

²³ DGD, *supra* note 21, at 7.

²⁴ *See* Convention on the Rights of the Child art. 24(2)(c), 1577 U.N.T.S. 3.

Article 29(1)(e) focuses on the importance of education, directing States Parties devote attention to the broadening of children’s education to develop a respect “for the natural environment.”²⁵

Children’s rights and the environment, as the Committee aptly recognizes, are “indivisible, interlinked, and interdependent.”²⁶ In the children’s rights context, the term “environment” includes both the natural and man-made environment. The Committee has recognized three general categories relating to the term environment in the context of children’s rights: (1) the area where a child lives, which includes “living conditions, housing, and community spaces,” (2) “[t]he natural world, which includes plants, animals and people” because “children need access to the natural world as they develop, and depriving them of this can have a negative impact,” and (3) the current population’s duty to consider the rights of future generations when it comes to exploiting natural resources and generally causing environmental damage.²⁷ These three categories provide a broad basis for activists to challenge States Parties.

General States Parties Obligations

As a legally binding instrument, the CRC imposes obligations on its States Parties. Article 4 requires all parties to “undertake all appropriate legislative, administrative, and other measures for the implementation of the rights recognized in the present Convention.”²⁸ In terms of economic, social and cultural rights, all parties “shall undertake measures to the maximum extent of their available resources and, where needed, within the framework of international co-operation.”²⁹ By specifically outlining States’ duties and obligations to protect children’s rights, both the States Parties and the Committee on the Rights of the Child (“Committee”),³⁰ the U.N.

²⁵ *See id.* art. 29(1)(e).

²⁶ DGD, *supra* note 21, at 8.

²⁷ *Id.*

²⁸ Convention on the Rights of the Child art. 4, 1577 U.N.T.S. 3.

²⁹ *Id.*

³⁰ The Committee on the Rights of the Child is a body of independent experts responsible for evaluating and reviewing the progress of States Parties in implementing the CRC and if applicable, the Optional

body which monitors the implementation of the CRC, have the same baseline expectations for evaluation.³¹ However, the CRC only sets minimum standards for the States in terms of implementing domestic legislation and States meeting the bare minimum obligations, or at least avoiding a direct violation of the CRC, still leave children largely unprotected.³²

Nonetheless, all States Parties to the CRC must submit reports to the Committee detailing how children's rights are being protected in their country two years after ratification and then every five years following that initial report.³³ The Committee examines each report and issues its concerns and recommendations on each State.³⁴

C. States Parties Obligations on the Environment

Separately, the Committee selects and dedicates its focus to one provision of the CRC for its Day of General Discussion (DGD), which takes place every few years.³⁵ The DGD focuses on a pressing children's rights provision in the CRC and the Committee incorporates submissions

Protocols. The Committee, during three sessions per year, independently reviews evaluations submitted by States Parties or by non-governmental organizations (NGOs). See CHILD RIGHTS INTERNATIONAL NETWORK, *Committee on the Rights of the Child*, <https://archive.crin.org/en/guides/un-international-system/committee-rights-child.html#:~:text=The%20Committee%20on%20the%20Rights,with%20dignity%2C%20respect%20and%20equality> (last visited Aug. 28, 2020).

³¹ See U.N. O.H.C.H.R. Comm. on the Rights of the Child, <https://www.ohchr.org/EN/HRBodies/CRC/Pages/Discussion2016.aspx> (last visited Aug. 28, 2020); see also DGD, *supra* note 21, at 7.

³² Karen E. MacDonald, *Sustaining the Environmental Rights of Children: An Exploratory Critique*, 18 FORDHAM ENV'T L. REV. 1, 40 (2006).

³³ *Committee on the Rights of the Child*, CHILD RIGHTS INTERNATIONAL NETWORK <https://archive.crin.org/en/guides/un-international-system/committee-rights-child.html#:~:text=The%20Committee%20on%20the%20Rights,with%20dignity%2C%20respect%20and%20equality> (last visited Aug. 28, 2020).

³⁴ See *id.*

³⁵ See *id.* Originally taking place every year, the Committee now holds its Days of General Discussion on a biennial basis. The biennial schedule began in 2012, with the subsequent sessions occurring in 2014, 2016, and 2018. However, the upcoming DGD, originally scheduled for September of 2020, has been postponed to 2021 due to the COVID-19 pandemic. See *General Discussion Days*, COMMITTEE ON THE RIGHTS OF THE CHILD, <https://www.ohchr.org/EN/HRBodies/CRC/Pages/DiscussionDays.aspx> (last visited Aug. 28, 2020).

from children, NGOs, and other experts to issue a more detailed recommendation to governments on the selected provision.³⁶

The Committee's DGD in 2016 was dedicated to children's rights and the environment, a nod to the importance of this issue while acknowledging that "despite data explicitly linking environmental harm to child rights violations, increased awareness of environmental crises and numerous international agreements, the understanding of the relationship between children's rights and the environment is still in its infancy."³⁷ Although the CRC does explicitly refer to the environment in the children's rights context in Articles 24 and 29, the DGD provides an enormous expansion and elaboration on the Committee's interpretation of both the legal framework and shared key elements of children's rights and the environment.³⁸ The Committee defined two categories necessary to preserve children's environmental rights: (1) ensuring a healthy environment and (2) ensuring a sustainable environment.³⁹

i. Ensuring a Healthy Environment

All children have the right to life in a safe and healthy environment.⁴⁰ Under the CRC, States Parties have a duty to realize and protect a child's right to the highest attainable standard of health by implementing measures to prevent disease caused by environmental harms and allowing access to health care for treatment of these diseases.⁴¹ Examples of environmental harms or degradation include deforestation, mining, the burning of fossil fuels, and other human activities that damage ecosystems.⁴²

³⁶ *Committee on the Rights of the Child*, *supra* note 33.

³⁷ DGD, *supra* note 21, at 3.

³⁸ *See id.*

³⁹ *See id.* at 9–13.

⁴⁰ *See id.*

⁴¹ *See id.* at 9.

⁴² *See id.*

Generally, “[h]uman rights cannot be secured in a degraded or polluted environment.”⁴³ But due to their “age, physical development, and mental development” children are even more vulnerable to the effects of environmental hardship, particularly in terms of direct health impacts, compared to adults.⁴⁴ Children also suffer greater consequences due to pollution and environmental contaminants because they “breathe more air, drink more water and eat more food than adults do per unit body weight and this higher rate of intake results in greater exposure to pathogens and pollutants.”⁴⁵ Unfortunately, environmental factors continue to jeopardize children’s health around the world, from “the rising impact of global climate and ecosystem change and certain environmental chemicals,” to pollution and contaminated water.⁴⁶ Low and medium income countries are disproportionately exposed to environmental health risks, but developed countries are certainly not immune from the effects of a deteriorating environment.⁴⁷

In the DGD, the Committee builds upon the language of Article 24 of the CRC, which explicitly requires States to combat disease and malnutrition by recognizing the harms of contaminated food and water as well as pollution. Children’s environmental health is closely tied to other rights, including “the rights to life, survival and development, food, water and sanitation, adequate housing, education, freedom from economic exploitation, information, and an adequate standard of living.”⁴⁸ Protecting children from environmental health risks requires effectively enforcing legislation and policy “through monitoring and research, outreach and education,

⁴³ See MacDonald, *supra* note 32, at 1.

⁴⁴ DGD, *supra* note 21, at 23; see also Rebecca Kokish, *Children’s Environmental Health – International Actions and Implications*, 14 COLO. J. INT’L ENVTL. L. & POL’Y 143, 144 (2003) (noting that “[i]t is critical that the global community recognizes the unique needs of children” because “[c]hildren are not simply little adults”).

⁴⁵ DCD, *supra* note 21, at 24 (internal quotation marks and citation omitted).

⁴⁶ See *id.* at 10.

⁴⁷ See *id.*; MacDonald, *supra* note 32, at 24 (noting that “asthma is the leading chronic disease among children in *developed* countries”).

⁴⁸ See DGD, *supra* note 21, at 10.

planning and financial support.”⁴⁹ In many countries, legislation or enforcement efforts are often lacking.⁵⁰ However, States must prioritize the implementation and funding of preventative measures to limit children’s exposure to environmental contaminants, which frequently lead to health effects that can manifest years later and that are many times irreversible.⁵¹ Because exposure to toxins in the environment remains a global issue, States must also ensure children can receive timely medical intervention to provide a reliable diagnosis and treatment.⁵² Many countries currently lack monitoring mechanisms to track environmental risk factors and medical practitioners struggle to diagnose environment-related diseases to allow for early intervention.⁵³

ii. Ensuring a Sustainable Environment

Ensuring a sustainable environment, and thus preventing environmental degradation, is also crucial in preserving children’s human rights.⁵⁴ Although there are various justifications, there is broad consensus that the current generation has a responsibility to future generations to protect the environment.⁵⁵ In order to ensure a sustainable environment, States must also devote substantial efforts to sustainable development.⁵⁶ In the children’s rights context, sustainable development strives to balance “economic development goals and environmental protection efforts” in order to achieve intergenerational equity.⁵⁷ The sustainable development approach recognizes the importance of meeting present needs without jeopardizing future generations’

⁴⁹ *See id.* at 11.

⁵⁰ *See id.* at 10.

⁵¹ *See id.*; *see also* Kokish, *supra* note 44, at 146 (highlighting findings of the Natural Resource Defense Council, a U.S. based non-profit international environmental advocacy group, which determined that “prevention rather than treatment of disease must be the overarching goal of all efforts to safeguard the next generation”) (internal quotation marks and citation omitted).

⁵² *See* DGD, *supra* note 21, at 10.

⁵³ *See id.* at 11.

⁵⁴ *See id.*

⁵⁵ *See* Timothy J. Schorn, *Drinkable Water and Breathable Air: A Livable Environment as a Human Right*, 4 GREAT PLAINS NAT. RESOURCES J. 121, 136 (2000) (listing theories).

⁵⁶ *See* MacDonald, *supra* note 32, at 26; *see also* DGD, *supra* note 21, at 11.

⁵⁷ *See* MacDonald, *supra* note 32, at 27.

ability to meet needs of their own.⁵⁸ Thus, approaching environmental degradation from the children's rights perspective can highlight the importance of intergenerational responsibility in maintaining healthy ecosystems, managing natural resources, and more broadly protecting the environment.

D. The CRC as a tool for children's climate activism

Children have a role to play in framing environmental degradation as detrimental to children's rights in order to pressure States into prioritizing environmental protections. Although the Convention on the Rights of the Child lays a modest foundation in recognizing children's environmental rights, it does not include a punishment mechanism that forces States to address environmental issues.⁵⁹ The CRC's enforcement model, carried out through the Committee, does not punish States for non-compliance but rather "turns on fostering an atmosphere in which States Parties voluntarily comply with their obligations to create national legislation that facilitates the realization and promotion of [children's] rights."⁶⁰ Thus, States' political will to recognize and combat climate change both domestically and through coordinated international efforts is essential to safeguard children's environmental rights.⁶¹

But in order to influence States' decisions on environmental protections, children must be recognized as stakeholders, individuals that have "the right to be heard, the right to participate,

⁵⁸ *See id.* at 28.

⁵⁹ *See* Brice, *supra* note 15, at 593.

⁶⁰ *See id.*

⁶¹ *See* Pauline Robert, *Are the rights of children enough to protect them from environmental harm?*, CTR. FOR INT'L ENV'T L. BLOG (Oct. 1, 2016) <https://www.ciel.org/rights-children-enough-protect-environmental-harm/>; *see also* Ursula Kilkelly, *The U.N. convention on the rights of the child: incremental and transformative approaches to legal implementation*, 23 INT'L J. OF HUM. RTS. 323, 325 (2019) ("Creating an infrastructure to support full implementation of the CRC requires a national, whole-government approach, with the participation of civil society, professional bodies and of course children themselves.").

and the right to decision-making.”⁶² Children also struggle with recognition because of their limited ability to exercise political power because in most countries, voting and legislating are reserved for adults.⁶³ Despite these hurdles, children and their advocates can use the CRC to highlight children’s rights issues before a U.N. monitoring body, thus putting pressure on their governments to effectuate change. Although the Committee can only make legally non-binding recommendations to States about the implementation of children’s rights, these types of recommendations “can be very powerful when it comes to encouraging actions by governments to better protect vulnerable populations” and also have “incredible norm-creating value.”⁶⁴

First, children can directly participate in the Committee’s reporting process in order to highlight issues in their home countries, which may or may not have been included in States Parties reports. Second, NGOs and other advocacy organizations can help legitimize children’s voices in the environmental debate using the framework of the CRC.⁶⁵ Finally, under the Optional Protocol to the Convention on the Rights of the Child on a Communications Procedure (“Third Optional Protocol”), children can directly petition the CRC Committee to make their voices heard on the international stage.⁶⁶

i. Direct Participation

Children can serve as their own advocates by directly participating in the Committee’s evaluation process of States Parties reports. Introduced as a new concept in international law,

⁶² Karen E. Makuch, Sunya Zaman & Miriam R. Aczel, *Tomorrow’s Stewards: The Case for a Unified International Framework on the Environmental Rights of Children*, 21 HEALTH & HUM. RTS. J. 203, 209 (June 2019).

⁶³ *Id.* at 211.

⁶⁴ *Id.*

⁶⁵ See Howard Davidson, *Does the U.N. Convention on the Rights of the Child Make a Difference?*, 22.2 MICH. STATE INT’L L. REV. 497, 512 (2014).

⁶⁶ SONJA C. GROVER, *THE CONVENTION ON THE RIGHTS OF THE CHILD COMMUNICATIONS/COMPLAINTS PROCEDURE AND THE CONVENTION GENERAL IMPLEMENTATION ARTICLES 3* (1st ed. 2015).

Article 12 of the CRC states that children capable of forming their own views have the right to be taken seriously and thus must “be provided the opportunity to be heard in any judicial and administrative proceeding affecting the child, either directly, or through a representative or appropriate body, in a manner consistent with the procedural rules of national law.”⁶⁷ Moreover, “[t]he Committee recommends that, wherever possible, the child must be given the opportunity to be *heard directly in any proceedings*.”⁶⁸ The Committee outlines several avenues for children’s participation in its own reporting process, allowing for children’s (1) submissions outlining issues that should be reviewed in State reports, (2) oral presentations and (3) “[p]rivate meetings with the Committee members during the meetings of the pre-session working groups,” as well as participation in (4) videoconferencing and (5) Committee plenary sessions.⁶⁹

Moreover, the Committee has recently made efforts to include geographically diverse perspectives, holding a five-day outreach session in Samoa in March of 2020.⁷⁰ The session was organized to highlight children’s voices in the Pacific region and marked the first time any U.N. human rights treaty body has held a session on a regional level.⁷¹ Inclusion of comprehensive and meaningful dialogue on children’s rights in the Pacific to the Committee has been lacking, in part because of the region’s remoteness from Geneva.⁷² Before the session, “[s]ince 2016, six of the seven reviews of States from the [Pacific] region were conducted via video-link, with limited

⁶⁷ CRC art. 12(2); *see also* SAVE THE CHILDREN UK & UNICEF, EVERY CHILD’S RIGHT TO BE HEARD: A RESOURCE GUIDE ON THE U.N. COMMITTEE ON THE RIGHTS OF THE CHILD GENERAL COMMENT NO. 12 at 1 (2011).

⁶⁸ EVERY CHILD’S RIGHT TO BE HEARD, *supra* note 67, at 24.

⁶⁹ Comm. on the Rts. of the Child, at 3, U.N. Doc. CRC/C/66/2 (2014).

⁷⁰ UNICEF, *Child rights in the Pacific: U.N. body concludes historic session in Samoa*, <https://www.unicef.org/eap/press-releases/child-rights-pacific-un-body-concludes-historic-session-samoa> (last visited Sept. 30, 2020). The CRC Committee usually meets in Geneva, Switzerland. *Id.*

⁷¹ *See id.*

⁷² *See id.*

participation of civil society and none from children.”⁷³ The Samoa session gave children in the Pacific an opportunity to contribute to discussions on the human rights issues most important to them, which made an impression on Committee Chair Luis Pedernera, who stated that, “[t]his week, the children we met with told us that all stakeholders need to work harder to guarantee their rights to participation, education, health, climate change and freedom from violence.”⁷⁴ Audrey, a 16 year old girl who moderated a discussion on children’s right to health, also found the Samoa session with the Committee impactful, and that even though children’s voices have been ignored in the past, “[d]uring this session, we [children] learned that we have the right to be heard. . . [a]nd children’s opinions, perspectives and problems should be voiced.”⁷⁵ Audrey’s words highlight the impact the Committee can have, both in highlighting human rights issues but just as importantly, in encouraging children to exercise their right to be heard.

ii. Advocacy through NGOs

Even though NGOs are not parties to the CRC, child’s rights activists can use NGOs to highlight children’s voices and concerns to the attention of the Committee, putting pressure on the U.N. to recognize shortcomings on countries’ protection of children’s rights.⁷⁶ Compared to most treaties, the CRC allows for substantial NGO participation, with many States still seemingly surprised by the “non-governmental input during the reporting process.”⁷⁷ Moreover, Article 45(a) allows the Committee to “invite specialized agencies, the United Nations Children’s Fund (UNICEF) and other competent bodies to provide expert advice on the

⁷³ *Id.*

⁷⁴ *See id.*

⁷⁵ *Id.*

⁷⁶ *See Committee on the Rights of the Child, supra* note 33.

⁷⁷ Gamze Erdem Türkelli & Wouter Vandenhoele, *The Convention on the Rights of the Child: Repertoires of NGO Participation*, 12 HUM. RTS. L. REV. 33, 33, 63 (2012).

implementation of the Convention.”⁷⁸ For example, NGOs can submit alternative reports to the Committee to provide a different perspective on the implementation of children’s rights in a particular country. Although NGOs are effective tools to highlight States’ violations of the CRC, with approximately 60-70% of NGO concerns being taken up by the Committee in some form,⁷⁹ their overall impact in actually remedying the violations has been considered disappointing.⁸⁰

iii. Third Optional Protocol

To allow children greater access to international justice under the CRC, the Third Optional Protocol was adopted in December of 2011 and came into force in April of 2014.⁸¹ The Third Optional Protocol allows children to petition the CRC Committee to seek “redress of human rights violations where domestic remedies are grossly inadequate or absent.”⁸² Thus, children can now directly file a complaint to the CRC Committee against any State that has ratified the protocol if that State does not provide a remedy for CRC rights violation.⁸³ The Committee can then investigate the complaint and make recommendations to the State in question and request further action be taken to remedy the violations.⁸⁴ The application of the Third Optional Protocol is much narrower compared to the CRC because only 46 States have

⁷⁸ Comm. on the Rts. of the Child, at 1, U.N. Doc. CRC/C/66/2 (2014).

⁷⁹ See Türkelli & Vandenhole, *supra* note 77, at 63–64.

⁸⁰ GROVER, *supra* note 66, at 3.

⁸¹ *Id.*

⁸² *Id.*

⁸³ *Countries violate rights over climate change, argue youth activists in landmark U.N. complaint*, U.N. NEWS (Sept. 24, 2019), <https://news.un.org/en/story/2019/09/1047292>. Before the Third Optional Protocol entered into force, victims of children’s rights violations petitioned their claims to other U.N. treaty bodies, most frequently the U.N. Human Rights Committee. The Third Optional Protocol does not preclude petitioners from filing their communications with these other Committees “if [petitioners] believe that these bodies would adjudicate their claims faster or with greater authority.” However, if filing with another Committee to receive a decision on the merits, petitioners must rely on the corresponding treaty or convention of that Committee, not the CRC. See Alfred de Zayas, *The CRC in Litigation Under the ICCPR and CEDAW*, in *LITIGATING THE RIGHTS OF THE CHILD* 177, 178 (Ton Liefaard & Jaap E. Doek eds., 2015).

⁸⁴ *25th Anniversary of the Convention on the Rights of the Child*, HUMAN RIGHTS WATCH (Nov. 17, 2014), <https://www.hrw.org/news/2014/11/17/25th-anniversary-convention-rights-child>.

ratified the protocol.⁸⁵ Even though the Third Optional Protocol applies only to approximately a quarter of the States that have ratified the CRC, activists are embracing this relatively new legal avenue to demand international intervention to address climate change as a children’s rights crisis.⁸⁶ Most notably, in September of 2019, sixteen youth activists filed a complaint with the Committee under the Third Optional Protocol against Argentina, Brazil, France, Germany, and Turkey, arguing the actions of these five countries caused and perpetuated the climate crisis in violation of the children’s human rights.⁸⁷ This litigation frames climate change as a children’s rights crisis and survived the first significant procedural hurdles.⁸⁸ The U.N. now has the opportunity to legitimize both petitioners’ framing of climate change as a children’s rights issue and petitioners’ legitimacy as stakeholders in international discussions of environmental activism.⁸⁹

⁸⁵ See Alogna & Clifford, *supra* note 20, at 18.

⁸⁶ *Id.*

⁸⁷ *Id.*; see also Petition Submitted under Article 5 of the Third Optional Protocol to the United Nations Convention on the Rights of the Child, *Sacchi et al v. Arg. et al.*, ¶ 25 (Sept. 23, 2019) (“By recklessly causing and perpetuating life-threatening climate change, the respondents have failed to take necessary preventive and precautionary measures to respect, protect, and fulfill the petitioners’ right to life (Article 6), health (Article 24), and culture (Article 30) and are thus violating the Convention.”).

⁸⁸ See Alogna & Clifford, *supra* note 20, at 18.

⁸⁹ *Id.*

Part III: MARKETS

A. Overview of Climate Risk Disclosure, International Organization Work, Soft Law, & Market Forces

Introduction

The aim of this chapter is to provide (1) a high-level comparative look at the climate disclosure regulations among significant securities regulators; (2) a survey of the climate disclosure standards, guidelines, and recommendations produced and discussed by international organizations other than the national securities regulators; and (3) a review of the international coordination, market forces, and the unusual kind of soft law at play in the push for more rigorous climate disclosure. In short, the policies advocated by both the regulators and the international organizations are, for the most part, only hortatory. However, as this chapter will show, the forces of the market and an unusual kind of soft law are effecting change and quickening the pace of adoption of more rigorous climate disclosure regulations and self-reporting.

IOSCO 2020 Report

The International Organization of Securities Commissions (IOSCO), established in 1983, is the cooperative body of the securities regulators of 115 countries, representing 95% of the world's securities markets.¹ IOSCO's Sustainable Finance Network (SFN) was established in 2018 to undertake workstreams relating to sustainable finance disclosure issues and their relevance for investor decision-making as well as on the development of industry-led initiatives.² In its April 2020 report, the SFN provided a snapshot of the current state of climate disclosure regulation among its membership.³ As the report shows, climate

¹ *About IOSCO*, INT'L ORG. OF SEC. COMM'NS, https://www.iosco.org/about/?subsection=about_iosco (last visited Aug. 27, 2020).

² *Sustainable Finance and the Role of Securities Regulators and IOSCO Final Report*, INT'L ORG. OF SEC. COMM'NS (2020), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD652.pdf>.

³ *Id.*

information disclosure mostly has only hortatory force, with only 41% of member regulators viewing it as their responsibility to “[define] ESG-related risks as financial risks that need to be managed and disclosed.”⁴ Moreover, the report details, “[s]everal regulators have supplemented their regulatory frameworks in relation to sustainability with soft-law tools. In this regard, guidelines are the soft-law tool most frequently used (34%), addressing themes such as disclosure of environmental matters”⁵ and only “[s]even percent of regulators have published frequently asked questions (FAQs) or questions and answers (Q&As) to clarify existing guidelines or sustainable finance issues.” That a 59% majority of IOSCO membership does not define the climate risks that need to be disclosed by its issuers shows the absence of a strong coercive requirement for detailed climate disclosure in most securities markets. Moreover, regulators’ unwillingness to use binding law to enforce climate disclosure is evident in their preference for soft law guidelines. Finally, the de minimis seven percent of membership that promotes thoughtful climate disclosure with FAQ or Q&A guidance demonstrates the weak investment in practical guidance for registrants.

Regulators may have good reasons for their hesitancy to bring the power of state-backed coercion into climate disclosure with full force. Concerns such as the absence of clear metrics for determining whether climate risk information is material and uncertainty as to the scope of some regulators’ mandates to regulate sustainable investment may justify their reticence.⁶ Regardless, the absence of strong coercive standards for climate disclosure has opened the door to suggested standards from international organizations.

TCFD & SASB

In the absence of coercive government climate disclosure requirements, two independent sets of standards, promulgated on a hortatory basis by international organizations, have taken dominant positions amid a plethora of options. How they came to these positions of influence is a question for the final section of this chapter, but the standards themselves bear explanation first.

⁴ *Id.*

⁵ *Id.*

⁶ *Id.*

In 2015, the Finance Ministers and Central Bank Governors of the G20 tasked the Financial Stability Board (FSB) with convening public and private sector actors to tackle the issue of climate in the financial sector.⁷ The FSB in turn created the Task Force on Climate-Related Financial Disclosures (TCFD) “to design a set of recommendations for consistent ‘disclosures that will help financial market participants understand their climate-related risks.’”⁸ Under the direction of Mark Carney, the former governor of the Bank of England, and Michael R. Bloomberg, the philanthropist and former mayor of New York, the TCFD issued comprehensive climate disclosure guidelines in 2017.⁹ The guidelines focus on financial intermediaries’ disclosures relating to investment, credit, and insurance underwritings.¹⁰ The disclosure framework breaks down into four broad categories of information: Governance, Strategy, Risk Management, and Metrics and Targets.¹¹ The governance information to be disclosed focuses on oversight of climate risks and opportunities by both the board and management of the issuer.¹² Strategy disclosure centers on the climate-related risks and opportunities the organization has identified over the short, medium, and long term, the impact of climate-related risks and opportunities on the organization’s business, strategy, and financial planning, and the resilience of the organization’s strategy, taking into consideration different climate-related scenarios.¹³ Risk management disclosure includes the methods by which the organization identifies, assesses, and manages climate-related risks.¹⁴ Finally, the TCFD’s Metrics and Targets disclosure focuses on the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.¹⁵

⁷ *Recommendations of the Task Force on Climate-related Financial Disclosures*, TASK FORCE ON CLIMATE-RELATED FIN. DISCLOSURES (2017), <https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf>

⁸ *Overview*, TASK FORCE ON CLIMATE-RELATED FIN. DISCLOSURES (2017), https://www.fsb-tcfd.org/wp-content/uploads/2020/03/TCFD_Booklet_FNL_Digital_March-2020.pdf

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

The Sustainability Accounting Standards Board (SASB), a non-profit launched in 2012 with backing from Bloomberg Philanthropies and the Rockefeller Foundation, provides standards on an industry-by-industry basis for reporting quantitative, non-financial sustainability data, including specific guidance on environmental disclosure.¹⁶ SASB visualizes its standards for registrants in a “materiality map,” which differentiates the likely significance of certain environmental information¹⁷ by industry and weighs whether the issue is more or less than 50% likely to rise to the level of materiality for an issuer in the industry, which would prompt disclosure of information about the issue.¹⁸

Despite TCFD targeting climate and financial intermediaries closely while SASB covers numerous industries, IOSCO estimates that the two frameworks are eighty percent comparable.¹⁹

International Cooperation, Market Force, and Unusual Soft Law

International Cooperation

Although the TCFD and SASB standards have come to dominate the scene in international organization-promulgated disclosure standards, they are far from the only players. Indeed, so many sets of standards are in use that their ubiquity poses serious problems for stakeholders. In its April 2020 report, IOSCO’s SFN noted that one of the three main areas of concern, based on survey responses from both regulators and market participants, was the deluge of different climate disclosure frameworks.²⁰ The frustration with the “alphabet soup” of disclosure standards led the chief executive of Bank of America, Brian Moynihan, to launch a standardization campaign.²¹ The underlying reason for this proliferation of options is, according to some, the very observation made at the beginning of this chapter: lack of state

¹⁶ See *Bank pushed to report sustainability data*, FINANCIAL TIMES (Feb. 23, 2014), <https://www.ft.com/content/d5ac1516-9ca8-11e3-b535-00144feab7de>; see also *SASB Materiality Map*, SUSTAINABILITY ACCT. STANDARDS BD., <https://materiality.sasb.org/> (last visited Aug. 27, 2020).

¹⁷ The map includes the following issues: GHG Emissions, Air Quality, Energy Management, Water and Water Management, Waste and Hazardous Materials Management, Ecological Impacts. See *SASB Materiality Map*, *supra* note 16.

¹⁸ *Id.*

¹⁹ See *Sustainable Finance and the Role of Securities Regulators and IOSCO Final Report*, INT’L ORG. OF SEC. COMM’NS (2020), <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD652.pdf>.

²⁰ *Id.*

²¹ *BofA chief leads new effort to tame unruly ESG metrics*, FINANCIAL TIMES (Jan. 14, 2020), <https://www.ft.com/content/876f143a-36de-11ea-a6d3-9a26f8c3cba4>.

coercion. As Standard and Poor’s head of sustainable finance, corporate and infrastructure ratings, Michael Wilkins puts it, the adoption of standards is disorganized because “they are voluntary and not mandatory.”²²

Market Forces

Although the absence of state coercion can be blamed for the labyrinth of reporting standards, a different form of coercion has begun to turn the tide towards a more standardized framework. In a January 2020 letter, Larry Fink, the chief executive of BlackRock, the world’s largest asset manager, warned that his firm would take a “harsh view” of firms that do not disclose climate information, and specifically elevated TCFD and SASB standards as the gold standard of disclosure frameworks.²³ As the Financial Times put it, “[m]any public companies will now come under pressure from one of their biggest shareholders to disclose in line with those standards. At the same time, rival asset managers are likely to follow in BlackRock’s footsteps and adopt the two frameworks as part of their own investment process.”²⁴ Thus, in the absence of state coercion, the pocket-book coercion of market forces has taken hold. With BlackRock’s announcement, TCFD and SASB are the clear standards-bearers going forward.

Unusual Soft Law

The larger implications of this powerful exercise of market force-backed coercion have not gone unnoticed. Indeed, Bloomberg’s perceptive Matt Levine considers BlackRock’s actions to blur the line between government and business, and hence the boundaries of what commentators are talking about when they are talking about soft law. In Levine’s telling, the world’s largest asset managers (Blackrock, Vanguard, and Fidelity), by virtue of the huge proportion of publicly traded securities they own on behalf of clients, form “another government” which can legislate “quasi-regulatory” obligations onto publicly traded companies.²⁵ In a memorable example Levine illustrates the situation: “[s]hould companies be

²² *Proliferation of demands risks ‘sustainability reporting fatigue*, FINANCIAL TIMES (May 11, 2020), <https://www.ft.com/content/9692adda-5d73-11ea-ac5e-df00963c20e6>.

²³ *Larry Fink rules on the best global standards for climate risk reporting*, FINANCIAL TIMES (Jan. 20, 2020), <https://www.ft.com/content/fc51227b-9d64-4e5a-b1e2-f6c07f4caa58>

²⁴ *Id.*

²⁵ Matt Levine, *Money Stuff: The Government Wants ESG Out of Pensions*, BLOOMBERG (June 23, 2020), <https://www.bloomberg.com/opinion/articles/2020-06-25/the-government-wants-esg-out-of-pensions>.

allowed to dig up coal to provide power, when coal causes a lot of pollution? . . . The U.S. government, under Donald Trump, comes to the answer ‘yes coal is great, more coal please.’ BlackRock Inc., under Larry Fink, recently came to the answer ‘no coal is bad, no more coal please.’ Coal companies are allowed by federal law but banned by BlackRock.”²⁶ The comparison of national regulators’ approach to climate disclosure and the decision by BlackRock, as construed by Levine, arguably calls for a reconsideration of what qualifies as soft law in the realm of climate disclosure.

The IOSCO SFN survey presents national regulators as institutions which can wield the coercive power of the state, but instead are mostly (with some important exceptions) opting for mere hortatory guidelines. The report terms this a “soft law approach.” Conversely, Levine paints BlackRock as an institution unable to wield coercive *state* power, but instead wielding coercive *market* power. If underutilized coercive state power counts as soft law, then robustly utilized and, importantly, results-obtaining market power arguably counts as soft law too. In a telling June 2020 essay in *Foreign Affairs*, John Podesta, the influential counselor to presidents Clinton and Obama, and Todd Stern, the lead U.S. negotiator at the Paris Climate accords, called for “[t]he U.S. Securities and Exchange Commission and other financial regulators around the world [to] commit to adopting and enforcing the TCFD’s protocols.”²⁷ Whether their advice is heeded hinges on the decisions of the Biden administration. But that election is not the only determinant. BlackRock got there first. In this view, actual climate disclosure may be farther ahead than the black letter law analysis of many regimes indicates.

²⁶ *Id.*

²⁷ John Podesta & Todd Stern, *A Foreign Policy for the Climate: How American Leadership Can Avert Catastrophe*, FOREIGN AFFAIRS, May/June 2020, <https://www.foreignaffairs.com/print/node/1125870>.

B. The United States

Introduction

Climate-related disclosures are widely seen as a natural, and crucial, aspect of market evaluations and regulation in a world increasingly marked by the climate change.¹ While the coalition of public-interest groups, sustainability advocates, and investors who seek more Environment, Sustainability, and Government (ESG)² reporting is growing and becoming increasingly vocal,³ change in related legal frameworks and reporting duties in the United States has been slow at best. This section will present an overview of the existing legal regime regarding ESG-related disclosures in the US. It will then highlight the two main legal barriers to a more robust ESG reporting regime: the structural limits of the US's federal system, and the substantive issues that permeate both the existing laws and their enforcement by US courts.

Overview of climate-related disclosure requirements

The impact of climate change on the US economy is a topic that has been gaining relevance and traction within market regulation discussions. As this chapter will discuss, the SEC has considered environment-regulated disclosure requirements over the past few decades, but has done little since its interpretive guidance issued in 2010. While the SEC remains the main securities-related player in the US, developments in regional and local markets within the disclosure hierarchy provide a window into where the SEC could go should it finally revisit climate change disclosures.

The regulatory framework of the SEC

¹ See, e.g., NINA HART, LEGAL TOOLS FOR CLIMATE ADAPTATION ADVOCACY: SECURITIES LAW 3 (2015).

² This chapter will only be focused on the Environment prong of what is currently understood as ESG.

³ See TYLER GELLASCH, AFL-CIO ET AL., TOWARDS A SUSTAINABLE ECONOMY: A REVIEW OF COMMENTS TO THE SEC'S DISCLOSURE EFFECTIVENESS CONCEPT RELEASE 14 (Sept. 2016), <https://static1.squarespace.com/static/583f3fca725e25fcd45aa446/t/5866d3c0725e25a97292ae03/1483133890503/S+ustainable-Economy-report-final.pdf>.

In response to increased attention and demand from investors and other related groups,⁴ the SEC released interpretive guidelines in February of 2010 that outlined how registrants should factor in and disclose impacts of climate change on their businesses.⁵ The guidelines highlighted four main areas in which to consider the impacts of climate change, within existing SEC disclosure requirements:

- A. Description of business within Item 101 of Regulation S-K:⁶ Item 101 explicitly requires the disclosure regarding certain costs of complying with environmental laws.⁷
- B. Legal proceedings within Item 103 of Regulation S-K:⁸ Instruction 5 highlights the particular ways in which environment litigation would be required to be disclosed under this item.⁹

⁴ See, e.g., Commission Guidance Regarding Disclosure Related to Climate Change, Securities Act Release No. 33-9106, Exchange Act Release No. 34-61469, 75 Fed. Reg. 6290, 6291 n. 20 (effective Feb. 8, 2010) (listing petitions for interpretive guidance from a wide range of industry groups) [hereinafter SEC Climate Guidance].

⁵ Id. at 6290–97.

⁶ 17 C.F.R. § 229.10 (2020).

⁷ See Disclosures Pertaining to Matters Involving the Environment and Civil Rights, Securities Act Release No. 5170, Exchange Act Release No. 9252, 36 Fed. Reg. 13,989 (July 19, 1971); Disclosure with Respect to Compliance with Environmental Requirements and Other Matters, Securities Act Release No. 5386, Exchange Act Release No. 10116, 38 Fed. Reg. 12,100 (Apr. 20, 1973); Adoption of Integrated Disclosure System, Securities Act Release No. 6383, Exchange Act Release No. 18624, 47 Fed. Reg. 11,380 (Mar. 16, 1982).

⁸ 17 C.F.R. § 229.103 (2020).

⁹ Item 103 requires disclosure of ongoing or contemplated litigation as long as this litigation is not ordinary routine litigation, when the amount in controversy is below the statutory limit designated in Item 103. Instruction 5 highlights that environment-related litigation “shall not be deemed ‘ordinary routine litigation incidental to the business’” if the proceeding is material to the business or financial condition of the registrant; involves an amount that “exceeds 10 percent of the current assets of the registrant and its subsidiaries on a consolidated basis”; or a government entity is party to the proceedings and the proceedings involve monetary sanctions (barring certain exceptions). For further details, see SEC Climate Guidance, *supra* note 4, at 6293 n.45.

- C. Risk factors in Item 503(c) of Regulation S-K:¹⁰ risk factor disclosure should clearly state the specific risks faced by the registrant.
- D. Management’s discussion and analysis in Item 303 of Regulation S-K:¹¹ this disclosure should provide historical and prospective textual disclosure that enables potential investors to see the registrants through management’s eyes and gain a better understanding of how past and current performance will translate into prospects for the future.¹² Given this disclosure requirement’s emphasis on future trends, the impact of climate change on registrants’ business may prove most relevant, and yet most elusive, in this area of disclosure.¹³

Since this interpretive guidance was issued over a decade ago, very little has changed in terms of SEC ESG regulation.¹⁴ In fact, certain legislative developments have made the implementation of new rules increasingly difficult, boding ill for any changes led by the SEC itself.¹⁵ In the interim, ESG-focused reports fed by voluntary disclosures have attempted to fill the gap left by the SEC.¹⁶ Many

¹⁰ 17 C.F.R. § 229.503(c).

¹¹ *Id.* § 229.303.

¹² *See* SEC Climate Guidance, *supra* note 4, at 16 (citing SEC 1989 Release) for further details regarding this disclosure requirement.

¹³ The SEC Climate Guidance outlines a multi-step process for management to undertake when preparing disclosures in this specific Item. As the SEC Climate Guidance highlights, it requires registrants to consider significantly more information than it requires these registrants to disclose officially. Therefore, management may be actively assessing climate related impact without this making it into SEC disclosures. Somewhat separately, registrants must make a materiality assessment regarding climate-related trends or events which will also impact what ultimately gets disclosed to the SEC.

¹⁴ The SEC Climate Guidance promised additional developments through its Investor Advisory Committee and a public roundtable on disclosure regarding climate change matters, both in Spring 2010, but neither materialized. The Investor Advisory Committee was disbanded shortly afterwards.

¹⁵ For more discussion, see *infra* Section II.

¹⁶ The most used voluntary reporting frameworks are the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the International Integrated Reporting Council (IIRC), the Climate Disclosure Project (CDP), and the United Nations Global Compact (UNGC). *See generally* NASDAQ STOCK EXCH., ESG REPORTING GUIDE 2.0 11–12 (May 2019) <https://www.nasdaq.com/docs/2019/11/26/2019-ESG-Reporting-Guide.pdf> (discussing the wide range of

investors and industry groups remain dissatisfied with these voluntary reporting mechanisms, however.¹⁷ Their wide discrepancy in metrics and content make any meaningful comparison across reports, companies, or industries difficult.

In addition, many entities have highlighted the relative laxity with which the SEC has enforced existing guidelines,¹⁸ which these entities find in themselves to be too vague.¹⁹ For example, a 2014 report by Ceres highlighted how little impact the 2010 SEC Climate Guidelines had on actual reports filed by registrants, with regards to their climate change related disclosures.²⁰ The Ceres report makes the point that these disclosures, made in highly unspecific terms, do not fulfill the SEC's expectations as set out in the SEC Climate Guidance.²¹ As both the Hart paper and Ceres report argue, the SEC is well within its existing authority to issue further guidance or private letters in order to obtain the disclosure information already required.

It's unclear that the SEC will make any changes, despite this authority. As the reports discussed previously highlight, the laxity of enforcement suggests a deprioritization by the SEC of climate-related issues, particularly in the aftermath of the sub-prime mortgage crisis of 2008. Furthermore, recent statements by various SEC commissioners highlight what appear to be deep internal divisions on the

metrics used for voluntary disclosure); *see also* Attracta Mooney, *BlackRock pushes for global ESG standards*, FINANCIAL TIMES, Oct. 29, 2020.

¹⁷ U.S. GOV'T ACCOUNTABILITY OFF., GAO-20-530, PUBLIC COMPANIES: DISCLOSURE OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE FACTORS AND OPTIONS TO ENHANCE THEM 32–33 (2020). *See also* Cynthia A. Williams & Jill E. Fisch, *Request for Rulemaking on Environmental, Social, and Governance (ESG) Disclosure*, U.S. SEC. & EXCH. COMM'N 1 (Oct. 1, 2018), <https://www.sec.gov/rules/petitions/2018/petn4-730.pdf>.

¹⁸ CERES, COOL RESPONSE: THE SEC AND CORPORATE CLIMATE CHANGE REPORTING 5 (2014).

¹⁹ *See generally* Williams & Fisch, *Request for Rulemaking*, *supra* note 17 (arguing that clearer guidelines and requirements would make registrant reporting and investor decisions more efficient, ultimately leading to better market outcomes).

²⁰ *Id.* at 13.

²¹ *Id.* at 14. This is even more the case given the clear increase in environmental regulations that will invariably impact registrants' businesses. Since these regulations are changing, and their impact is something registrants are required to consider, but their disclosures are not, it appears that registrants are not altering their disclosures to adhere to existing SEC guidance.

issue.²² Given a lack of consensus, it seems unrealistic to expect the SEC to take any firm steps on the issue, even to shore up existing disclosure requirements and guidelines.

Additional Securities Regulations in the US

This section will give a brief overview of additional securities regulations and related legislation in the US. The SEC remains the main federal regulatory body. However, the securities exchanges have their own listing and reporting requirements that might bear upon what companies are called upon to disclose. Legislation at federal and state level may also impact the disclosure landscape, particularly if large investment entities subject to this legislation decide to consistently disclose climate-related data even when it is not required, for the sake of simplicity.

The New York Stock Exchange (NYSE) and the National Association of Securities Dealers Automated Quotations exchange (Nasdaq) are two of the largest securities exchanges in the world and together make up the bulk of the securities market in the US. They are self-run bodies that are subject to SEC regulation. Starting in 2017, they have both provided ESG-related training and reporting guidelines, and both are part of the UN's Sustainable Stock Exchanges Initiatives.²³ However, neither the NYSE nor the Nasdaq requires climate change-related disclosures.²⁴

With regards to legislation, both organs of Congress have put forth bills that focus on ESG disclosures for securities. Senator Elizabeth Warren put the Climate Risk Disclosure Act on the Senate floor in September 2018, which would amend the Exchange Act to require climate change-related

²² *Compare* Allison Herren Lee, Comm'r, U.S. Sec. & Exch. Comm'n, Statement on 'Modernizing' Regulation S-K: Ignoring the Elephant in the Room (Jan. 30, 2020), <https://www.sec.gov/news/public-statement/lee-mds-2020-01-30>; *with* Elad L. Roisman, Comm'r, U.S. Sec. & Exch. Comm'n, Keynote Speech at the Society for Corporate Governance National Conference (July 7, 2020), <https://www.sec.gov/news/speech/roisman-keynote-society-corporate-governance-national-conference-2020>.

²³ *ESG Resource Center*, NEW YORK STOCK EXCHANGE, <https://www.nyse.com/esg/resource-center> (last visited Mar. 17, 2021). *See generally* NASDAQ, *supra* note 16.

²⁴ *Criteria for the Sustainable Stock Exchange Database*, U.N. SUSTAINABLE STOCK EXCHANGE INITIATIVE, <https://sseinitiative.org/stock-exchange/nyse/> (last visited Aug. 28, 2020); Davies, Dudek & Wyatt, *Environmental, Social and Governance Matters: The Rapidly Evolving ESG Reporting Landscape*, 41 SEC. & FED. CORP. L. REP. 141, 145 (2019).

disclosures.²⁵ House Representatives Sean Casten and Matt Cartwright, and Representative Juan Vargas, introduced two bills in July 2019.²⁶ Representatives Casten and Cartwright’s bill echoed Senator Warren’s;²⁷ Representative Vargas’ bill aimed to link ESG disclosures to companies’ long-term business strategies, among other things.²⁸ None of these bills have yet become law, and therefore are not currently part of the US securities regulation framework. If the makeup of Congress were to change in upcoming elections, such bills highlight a similar shift in the US’s disclosure regimes.

Finally, states are changing the regulatory landscape. California recently passed a law that requires the California Public Employees’ Retirement System (CalPERS) and the California State Teachers’ Retirement System (CalSTRS), two of the country’s largest pension plans, to analyze and report on material climate-related risks in their portfolios.²⁹ The law will be effective between 2020 and 2035. In Massachusetts, the state Attorney General is suing Exxon Mobil Corporation under state statutes for misleading the state’s investors and consumers.³⁰ While these developments are not part of federal securities regulation, they will likely impact investors, the securities exchanges, and what companies believe they must disclose, paving the way for – if not demanding – further SEC regulatory changes to maintain a coherent reporting field.

Structural issues facing the effort to increase climate-related reporting

The SEC exists within a federal system of allocated authorities, which in itself can create institutionalized legal barriers to meaningful change. For example, the SEC’s regulatory framework is often compared to that of peers in other advanced economies, most notably the European Commission.³¹

²⁵ Davies et al., *supra* note 24 (referencing Climate Risk Disclosure Act of 2018, S. 3481, 115th Cong. (2018)).

²⁶ *Id.*

²⁷ *Id.*; Climate Risk Disclosure Act of 2019, H.R. 3623, 116th Cong. (2019).

²⁸ *Id.*; ESG Disclosure Simplification Act of 2019, H.R. 4329, 116th Cong. (2019) (passed by the H. Fin. Servs. Comm., Sept. 20, 2019).

²⁹ *Id.*

³⁰ Complaint at 1, *Massachusetts v. Exxon Mobil Corp.*, 462 F. Supp. 3d 31 (D. Mass. 2020) (No. 19 Civ. 12430).

³¹ *See* Roisman, *supra* note 22.

As Commissioner Roisman highlighted in his July 2020 speech, the SEC, in comparison to the European Commission, is not a legislating body. Its powers to substantively change the existing reporting regime largely consist of rulemaking, a power that Congress has recently significantly narrowed.³² Such congressional moves highlight that, while an independent regulatory body, the SEC remains one piece of an intricate legal puzzle where political priorities can drive regulatory outcomes.

Substantive issues within the existing legal system

Of more significant impact, however, on the prospects of climate change-related mandatory disclosures is the SEC and courts' fundamental concern with materiality. The concept of materiality underpins any federal ability to regulate securities, whether through SEC regulation or court adjudication.

The SEC

The anchor of the SEC's legal mandate to require disclosures is the established concept that investors deserve a view of any data that impacts the financial value of the companies in which they invest – what is referred to as “material” information in the context of securities.³³ Views on whether climate change-related disclosures are material to financial and business health and to the SEC largely track whether mandating climate change disclosures is considered a question of “value or values.”³⁴ The SEC's legal ability to get involved in the discussion hinges on the answer.

There is a growing body of evidence that climate change is having tangible impact on companies' bottom lines.³⁵ Climate impacts that affect financial health range from systemic risk posed by a changing climate and governments' reactions to this, to specific risks faced by discrete industries such as oil & gas. Stanford University's Graduate School of Business highlighted several relevant dimensions for assessing systemic risk “across all asset classes”: physical risks; regulatory risks; reputation risks; competition risk;

³² See SEC Regulatory Accountability Act, H.R. 2308 112th Cong. (2012).

³³ TSC Industries, Inc. v. Northway, Inc., 426 U.S. 438 (1976).

³⁴ See Roisman *supra* note 22.

³⁵ See Davies et al., *supra* note 24, at 154.

litigation risk; and production risk.³⁶ One recent and high-profile example of litigation risk is the ongoing Exxon litigation.³⁷ The report highlights a different type of climate-related impact relevant to investors, “climate exposure,” which specifically addresses the potential portfolio gains and losses attributable to climate change.³⁸ At a higher level, entities are sounding the alarm regarding the macro-economic impacts of systemic shocks in an environment where financial asset prices do not reflect increasing, yet underreported or uncaptured, risks.³⁹ A growing number of investors, public organizations, and even regulatory bodies are increasingly vocal regarding the materiality of these impacts, in a coalescing consensus that climate change is about value, rather than values.

For the moment, the SEC seems not to have been swayed. While it has not made any pronouncements on this as a body, at least one commissioner has explicitly guarded against letting the SEC’s regulatory mission be coopted by what he has identified as subjective values.⁴⁰ Many commentators still see a focus on ESG – and within this, climate change impact – as a dangerous deviation from the delivery of maximum profits to shareholders.⁴¹ For now, the 2010 SEC Climate Guidelines very firmly couch their disclosure recommendations in registrants’ assessment of materiality,

³⁶ MARK ALLEN ET AL., STANFORD GRAD. SCH. OF BUS., CLIMATE CHANGE AND CAPITAL MARKETS 14 (July 2015).

³⁷ *Massachusetts v. Exxon Mobil Corp.*, 462 F. Supp. 3d 31, 38 (D. Mass. 2020) (citing Complaint at 204–05). Damages sought include \$5,000 for each violation of the Massachusetts Consumer Protection Act. *Id.*

³⁸ ALLEN ET AL., *supra* note 36, at 15. “In a detailed public report from 2011 supported by IFC (World Bank Group) and Carbon Trust, the consulting firm Mercer estimated that as much as 10% of the overall portfolio risk of a diversified portfolio of financial assets could be due to uncertainty about climate policy.” *Id.* at 39. *See also* U.S. COMMODITY FUTURES TRADING COMM’N, MARKET RISK ADVISORY COMM., MANAGING CLIMATE RISK IN THE U.S. FINANCIAL SYSTEM iii (Sept. 9, 2020). Funds that have been actively paying attention to ESG reporting appear to be outperforming their peers. Steve Johnson, *Better stock selection boosted ESG funds, research suggests*, FINANCIAL TIMES, Oct. 14, 2020.

³⁹ MANAGING CLIMATE RISK, *supra* note 38, at ii; *see also* EVA SU & NICOLE VANATKO, CONG. RSCH. SERV., IF11307, CLIMATE-RELATED RISK DISCLOSURE UNDER U.S. SECURITIES LAWS (2019).

⁴⁰ Roisman, *supra* note 22. Other commissioners have disagreed with this position. *See* Lee, *supra* note 22.

⁴¹ Robert Armstrong, *The dubious appeal of ESG investing is for dupes only*, FINANCIAL TIMES, Aug. 23, 2020.

providing these registrants with a significant degree of discretion. All of this suggests that the view of climate change as a normative, sub-topic within broader social and moral values remains potent.

Even if the question of value or values is definitely settled in favor of climate change disclosures, there remains division and uncertainty about how to quantify the impact on value. Climate change and its effects remain amorphous and uncertain, particularly as the interactions between different dimensions of climate risk are still unclear.⁴² Further data is needed to refine standards, but disclosure requirements appear necessary to collect consistent and comparable data.⁴³ As Stanford GSB's report highlights, the structure of the financial system itself – with its shorter timeframes, deeply financial incentives, and reliance on credit committees hesitant to make judgments on still ill-defined data – may hinder efforts to adapt the financial system to climate change realities.⁴⁴ Finally, critics challenge whether the complexities of climate change can be captured by financial and regulatory frameworks at all and suggest that attempts to do so are misleading if not irresponsible.⁴⁵

The Courts

The courts have also upheld the importance of materiality, in that materiality assessments are required elements for any shareholder or 10b-5 or Section 11 suits. As the Hart report points out, proving materiality at the level required by the courts is a daunting task, which may explain why so few suits have been brought up to this point.⁴⁶ Plaintiffs must prove that a reasonable investor would consider a climate change-related fact to be material in order to meet this prong of the judicial inquiry. Second, plaintiffs must be able to calculate and prove actual damages. Climate change, with its still-as-yet undefined contours and interacting impacts, often defy attempts to do so. Until the courts redefine their evidentiary burden to allow for less certainty and/or proximity of causation, the concept of materiality may continue

⁴² MANAGING CLIMATE RISK, *supra* note 38, at i.

⁴³ *Id.* at iii–iv.

⁴⁴ ALLEN ET AL., *supra* note 36, at 16–18, 31.

⁴⁵ SU & VANATKO, *supra* note 39.

⁴⁶ *See* HART, *supra* note 1, for a full list of elements and related sources.

to impede any efforts to move the US regulatory framework towards capturing the effects of climate change.

C. The United Kingdom

Introduction

The United Kingdom has repeatedly and aggressively proposed and implemented policies and regulations to mitigate the risk of climate change and to promote environmental sustainability. For example, the Climate Change Act of 2008, perhaps the UK's greatest commitment, established a legally binding target and provided a long-term framework for the UK to bring all greenhouse gas emissions to net zero by 2050.¹ More recent advances on the part of both the government and independent public regulators have brought private sector climate-risk disclosure to the forefront of the discussion.

The UK government and the Financial Conduct Authority (FCA) operate separately, but are both key players in the country's efforts to increase climate risk disclosure. The FCA is an independent public regulatory body established in 2013, funded by collecting fees from the 60,000 firms under its jurisdiction.² The FCA aims to maintain public confidence in the UK as a major global market and to ensure the market fairly benefits all players.³ The FCA advances this mission through three major objectives: protecting consumers, protecting financial markets, and promoting competition.⁴ Although it operates independently from the UK government, the FCA remains accountable to the Treasury and Parliament.⁵ For example, the FCA issues Annual Reports to the Treasury, who then examines the FCA's performance and dealings with major

¹ Grantham Rsch. Inst., *What is the 2008 Climate Change Act?*, LONDON SCHOOL OF ECONOMICS & POLITICAL SCIENCE (Apr. 30, 2020), <https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-2008-climate-change-act/>.

² *About the FCA*, FINANCIAL CONDUCT AUTHORITY (Apr. 21, 2016), <https://www.fca.org.uk/about/the-fca>.

³ *See id.*

⁴ *Id.*

⁵ *Id.*

regulatory cases and submits its findings in a report to Parliament.⁶ The FCA, however, has its own powers.⁷ It can, for example, issue fines against non-compliant firms and individuals, seek injunctions in the UK courts, bring criminal prosecutions to address financial crime, and withdraw a firm's authorization.⁸

This overview will first provide a brief overview of the recommendations created by the Task Force on Climate-Related Financial Disclosures (TCFD) of the international Financial Stability Board (FSB). It will then explain the UK's adoption of the TCFD recommendations via the Government's Green Finance Strategy of 2019 and the FCA's 2020 Consultation Paper. Finally, it will describe the present status of the 2017 UK–China Climate and Environmental Information Disclosure Pilot Program.

The Task Force on Climate Related Disclosure (TCFD) Recommendations

The TCFD's recommended standard approach of climate-related financial disclosures capable of being adopted by organizations "across sectors and jurisdictions"⁹ was released in June, 2017.¹⁰ In September, 2017 the UK became one of the first countries to formally endorse the TCFD's recommendations.¹¹ The recommendations had four core elements: governance, strategy, risk management, and metrics and targets.¹² A business entity following the TCFD Recommendations would

⁶ See *Reporting to Treasury and Parliament*, FINANCIAL CONDUCT AUTHORITY (Apr. 19, 2016), <https://www.fca.org.uk/about/reporting-treasury-parliament>.

⁷ See *Enforcement*, FINANCIAL CONDUCT AUTHORITY (Apr. 22, 2016), <https://www.fca.org.uk/about/enforcement>.

⁸ *Id.*

⁹ See TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES, FINAL REPORT RECOMMENDATIONS OF THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES iii (2017), <https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf> [hereinafter TCFD 2017 REPORT].

¹⁰ *Climate Risks*, FINANCIAL STABILITY BOARD, <https://www.fsb.org/work-of-the-fsb/policy-development/additional-policy-areas/climate-risks/> (last visited Aug. 25, 2020).

¹¹ GREEN FINANCE STRATEGY 7 (2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf.

¹² TCFD 2017 REPORT, *supra* note 2, at iv.

disclose: (1) how, as an organization, it manages and oversees climate-related risks and opportunities;¹³ (2) the “actual and potential impacts” of climate-related risks and opportunities on its businesses, strategy, and financial planning;¹⁴ (3) “how the organization identifies, assesses, and manages” climate risk,¹⁵ and (4) the metrics and targets it uses to assess climate-related risks and opportunities.¹⁶ The TCFD, however, noted that climate-related financial reporting is continuously evolving; with this in mind, it intentionally created flexible policies that can be changed with future updates as this evolution occurs.¹⁷

The TCFD recommends that organizations disclose the above information in the standard, periodic financial filings required by most if not all regulators.¹⁸ Such an approach encourages organizations to easily promulgate climate-related information and promotes a broader use of climate-related disclosures.¹⁹ Additionally, including climate-related disclosures in financial statements subjects the information to a review process “similar to those used for existing public financial disclosures and would likely involve review by the chief financial officer and audit committee, as appropriate.”²⁰ From a transparency perspective, including disclosures in financial statements signals that climate disclosures and financial results in a given fiscal year are of equal importance. The disclosures are also more accessible and comprehensible to consumers, investors, and civil society when presented as part of regular annual or quarterly reports than as a separate filing or publication. In its 2019 Status Report, the FSB noted that “disclosure of climate related financial information...is still insufficient for investors.”²¹ This is likely the case because the disclosures are done *sua sponte*, so it can be difficult for investors to get an accurate sense of the degree to which the recommendations have been not only adopted but also followed.

¹³ *See id.* at 14.

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *See id.*

¹⁷ *See id.* at v, 41.

¹⁸ *Id.* at iv.

¹⁹ *See id.*

²⁰ *Id.*

²¹ *Climate Risks*, *supra* note 10.

The UK's Multi-Faceted Adoption of the TCFD's Recommendations

1. UK Government's Green Finance Strategy 2019

The Green Finance Strategy is a policy report that outlines how private sector climate-risk disclosures can strengthen the competitiveness of the UK market and help the country achieve its goal of net-zero emissions by 2050.²² The Strategy supports its objectives with three broad initiatives: Greening Finance, Financing Green, and Capturing Opportunity.²³

The Strategy adopted the TCFD's Recommendations in its Greening Finance initiative.²⁴ Greening Finance hopes to “ensur[e] [that] current and future financial risks and opportunities from climate and environmental factors are integrated into mainstream financial decision making.”²⁵ To achieve this end, the Strategy requires all listed companies and large asset owners to disclose information in accordance with TCFD Recommendations by 2022.²⁶ It additionally established a joint task force with UK regulators to “examine the most effective way to approach disclosure, including exploring the appropriateness of mandatory reporting.”²⁷ The Government is expected to publish an interim status report on TCFD disclosures by the end of 2020.²⁸

The Financing Green initiative aims to mobilize private capital for environmentally sustainable growth in line with the net-zero emissions target.²⁹ Among other goals, Financing Green seeks to improve access to finance for green investment and address market barriers.³⁰ Financing Green, however, has attracted backlash for providing Government financial support.³¹ Advocates say financial support is

²² GREEN FINANCE STRATEGY, *supra* note 11, at 5–7.

²³ *Id.* at 7.

²⁴ *See id.* at 8.

²⁵ *Id.* at 7.

²⁶ *Id.* at 8.

²⁷ *Id.*

²⁸ *Id.* at 8.

²⁹ *Id.* at 9.

³⁰ *See id.* at 10–11.

³¹ Erik Tate & Suzanna Hinson, *Green Finance: Mobilising Investment for Green Growth*, HOUSE OF COMMONS LIBRARY (June 24, 2020), <https://commonslibrary.parliament.uk/insights/green-finance-mobilising-investment-for-green-growth/>.

necessary “to address market failures to encourage green technologies,” but skeptics are concerned about the cost of subsidies and advocate for the power of the free market to tackle issues on its own, when presented with the proper incentive structure.³²

Capturing the Opportunity, the third initiative, seeks to ensure that the UK captures the domestic and commercial opportunities arising from Greening Finance and Financing Green.³³ The UK hopes to reap the benefit of new financial products and services supported by increases in climate-related data and analytics as well as collaboration between the public and private sectors.³⁴

2. FCA’s 2020 Consultation Paper

In accordance with the Government’s 2019 Green Finance Strategy, the FCA’s March 2020 Consultation Paper adopted the TCFD’s recommended disclosure standards.³⁵ The Paper proposed introducing a rule that would require companies with a UK premium listing, including sovereign-controlled commercial companies, to include the TCFD’s recommended disclosures in their annual financial statements.³⁶ The rule is to be enforced on a “comply or explain” basis.³⁷ This approach will allow “in-scope issuers to either make TCFD-aligned climate related disclosures or publicly explain why they have not done so.”³⁸ Therefore, even if the FCA does not mandate disclosure or penalize transgressors, a firm may still be held accountable by the public for failing to disclose. Similar to the Green Finance Strategy, issuers under the new FCA rule will need to disclose in accordance with TCFD Recommendations in their 2022 financial statements.³⁹ Additionally, the FCA takes care to clarify the

³² *Id.*

³³ *See* GREEN FINANCE STRATEGY, *supra* note 11, at 10.

³⁴ *See id.* at 10–11.

³⁵ *See* FINANCIAL CONDUCT AUTHORITY, PROPOSALS TO ENHANCE CLIMATE-RELATED DISCLOSURES BY LISTED ISSUERS AND CLARIFICATION OF EXISTING DISCLOSURE OBLIGATIONS (2020), <https://www.fca.org.uk/publications/consultation-papers/cp20-3-proposals-enhance-climate-related-disclosures-listed-issuers-and-clarification-existing> [hereinafter FCA PAPER].

³⁶ *See id.* at 26–27.

³⁷ *Id.* at 26.

³⁸ *Id.*

³⁹ *Id.* at 31.

disclosure requirements via a technical note so an issuer will know if they are already required to make climate-related disclosures under existing rules.⁴⁰

It is important to note that the FCA does not mandate TCFD disclosure at this point.⁴¹ The proposal is the “first step towards adoption of the TCFD’s recommendation more widely within [the FCA’s] rules.”⁴² The FCA recognizes that “issuers’ capabilities are still developing in some areas and [it] do[es] not want to set binding requirements that may not yet be fully achievable.”⁴³ Some issuers, for example, may not even have the data and modeling capabilities required by the TCFD Recommendations.⁴⁴ The FCA is expected to consider feedback on the proposal and publish a Policy Statement including the finalized rules later in 2020.⁴⁵

2017 UK–China Climate and Environmental Information Disclosure Pilot Program

In December 2017, the UK and Chinese governments agreed to jointly pilot a four-year climate and environmental disclosure program.⁴⁶ Ten financial institutions, from both the UK and China, are participating.⁴⁷ In 2019, the pilot brought in three new Chinese companies, bringing the total number of participants to thirteen.⁴⁸ With the addition of these three companies, the pilot’s reach now spans a sampling of the entire financial sector, with representatives from banking, asset management, and insurance.⁴⁹ In 2019, the participating companies disclosed climate-related information in accordance with TCFD recommendations.⁵⁰

⁴⁰ *Id.* at 4.

⁴¹ *Id.* at 3.

⁴² *Id.* at 4.

⁴³ *Id.* at 3.

⁴⁴ *Id.*

⁴⁵ *Id.* at 9.

⁴⁶ *See* U.N. PRINCIPLES FOR RESPONSIBLE INVESTMENT, UK–CHINA CLIMATE AND ENVIRONMENTAL INFORMATION DISCLOSURE PLOT 2019 PROGRESS REPORT (2019), <https://www.unpri.org/download?ac=10546> [hereinafter UK–CHINA PILOT]

⁴⁷ *See id.* at 3.

⁴⁸ *Id.*

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The 2019 update, though generally optimistic, also described some of the pilot’s main challenges.⁵¹ Most prominently, the update highlighted the difficulty of measuring and assessing climate risk in markets that entirely lack private sector disclosure.⁵² Additionally, even in markets where disclosure is the norm, it is a challenge to find “indicators, methodologies, and tools” to use to assess climate risk.⁵³ Despite its challenges, the pilot program is a powerful demonstration of international cooperation to enhance climate-related disclosures.

In summary, the UK has taken great strides in the realm of climate regulation. Both the UK government and the FCA have adopted the TCFD’s recommendations. The government’s Green Finance Strategy went as far as proposing to mandate these disclosures. Perhaps the FCA will follow in the government’s footsteps and similarly adopt a mandatory approach in the near future. Finally, the UK–China Climate and Environmental Information Disclosure Pilot Program is a demonstration of the leadership and cooperation necessary to advance climate risk disclosure in an international context.

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⁵⁶ *See id.*

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⁵⁸ *Id.*

⁵⁹ *See Reporting to Treasury and Parliament*, FINANCIAL CONDUCT AUTHORITY (Apr. 19, 2016), <https://www.fca.org.uk/about/reporting-treasury-parliament>.

⁶⁰ *See Enforcement*, FINANCIAL CONDUCT AUTHORITY (Apr. 22, 2016), <https://www.fca.org.uk/about/enforcement>.

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net-zero emissions by 2050.⁶² The Strategy supports its objectives with three broad initiatives: Greening Finance, Financing Green, and Capturing Opportunity.⁶³

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⁶² GREEN FINANCE STRATEGY, *supra* note 11, at 5–7.

⁶³ *Id.* at 7.

⁶⁴ *See id.* at 8.

⁶⁵ *Id.* at 7.

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⁶⁹ *Id.* at 9.

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⁷³ See GREEN FINANCE STRATEGY, *supra* note 11, at 10.

⁷⁴ See *id.* at 10–11.

⁷⁵ See FINANCIAL CONDUCT AUTHORITY, PROPOSALS TO ENHANCE CLIMATE-RELATED DISCLOSURES BY LISTED ISSUERS AND CLARIFICATION OF EXISTING DISCLOSURE OBLIGATIONS (2020), <https://www.fca.org.uk/publications/consultation-papers/cp20-3-proposals-enhance-climate-related-disclosures-listed-issuers-and-clarification-existing> [hereinafter FCA PAPER].

⁷⁶ See *id.* at 26–27.

⁷⁷ *Id.* at 26.

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It is important to note that the FCA does not mandate TCFD disclosure at this point.⁸¹ The proposal is the “first step towards adoption of the TCFD’s recommendation more widely within [the FCA’s] rules.”⁸² The FCA recognizes that “issuers’ capabilities are still developing in some areas and [it] do[es] not want to set binding requirements that may not yet be fully achievable.”⁸³ Some issuers, for example, may not even have the data and modeling capabilities required by the TCFD Recommendations.⁸⁴ The FCA is expected to consider feedback on the proposal and publish a Policy Statement including the finalized rules later in 2020.⁸⁵

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The 2019 update, though generally optimistic, also described some of the pilot’s main challenges.⁹¹ Most prominently, the update highlighted the difficulty of measuring and assessing climate risk in markets that entirely lack private sector disclosure.⁹² Additionally, even in markets where disclosure is the

⁸¹ *Id.* at 3.

⁸² *Id.* at 4.

⁸³ *Id.* at 3.

⁸⁴ *Id.*

⁸⁵ *Id.* at 9.

⁸⁶ *See* UK–CHINA PILOT, *supra* note 46.

⁸⁷ *See id.* at 3.

⁸⁸ *Id.*

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⁹³ *Id.*

D. The European Union

1. Background

A. EU Governance

Securities regulators in the European Union (EU) face an uphill battle in striking a balance between competing union-wide objectives, such as ensuring efficient capital markets and protecting the environment, and between EU-wide policy and the regulatory regimes of its twenty-eight member states.¹ As a general matter, EU-wide laws are proposed by the European Commission, and the European Council and European Parliament initiate rewriting and negotiations as needed and then make a joint decision.² Elected members of the Parliament represent the citizens of the EU, the Council advances the national interests of the member states, and the Commission purports to serve the interest of the EU as a whole.³

The financial sector is governed by the European System of Financial Supervision, a “decentralised, multi-layered system of micro- and macro-prudential authorities established by the European institutions in order to ensure consistent and coherent financial supervision in the EU.”⁴ This framework includes information sharing amongst national securities regulators and the European Securities and Markets Authority (ESMA).⁵ The chair of ESMA sits on the European Systemic Risk Board, from which relevant national and supranational entities, including ESMA, receive advice and

¹ See, e.g., Directorate-General for Communication, *6 Commission Priorities for 2019–2024*, EUROPEAN COMMISSION (July 19, 2019), https://ec.europa.eu/info/strategy/priorities-2019-2024_en (listing a “European Green Deal” as one of six priorities on the five-year agenda of the EC).

² *About the EU: Institutions and Bodies*, EUROPA.EU, https://europa.eu/european-union/about-eu/institutions-bodies_en#law-making (last visited Aug. 26, 2020).

³³ *Id.*

⁴⁴ *ESMA: European Supervisory Framework*, EUROPA.EU, <https://www.esma.europa.eu/about-esma/governance/european-supervisory-framework> (last visited Aug. 26, 2020).

⁵ *Id.*

warnings.⁶ A simple search of the ESMA’s public database reveals 17,850 regulated entities and identifies the “competent authority” that has reported the entity and is empowered to regulate it.⁷

Securities markets operate to match buyers with sellers of interests in economic enterprise and to allow businesses to raise capital from the public. A critical component of a quality securities market is transparency,⁸ though of course there is much debate about just how much transparency should be required.⁹ As part of the EU’s ongoing attempt to build a true single capital market, it implemented Securitisation Regulation 2017/2402,¹⁰ which requires all securities to be subject to due diligence, risk retention, and transparency rules, and delegates the design of reporting requirements to ESMA.¹¹ ESMA was also entrusted with establishing the additional criteria that must be met to qualify as a simple, transparent and standardized (“STS”) securitization, which allows issuers to avoid some of the more restrictive capital requirements put in place after the 2008 financial crisis.¹² ESMA, therefore, is the primary agency responsible for crafting disclosure rules applicable to securitizations and secured transactions within the EU, and imposing climate disclosure obligations is within its purview and jurisdiction. ESMA, and in turn the EC, has recognized that in light of increasing complexity and number of players in the financial markets, new services and instruments in the 21st century are “necessary to provide for the degree of harmonisation needed to offer investors a high level of protection and to allow investment firms to provide services throughout the Community, being a Single Market, on the basis of

⁶ *Id.*

⁷ *Register: MiFID/UCITS/AIFMD/TICOUE Entities*, ESMA, https://registers.esma.europa.eu/publication/searchRegister?core=esma_registers_upreg (last updated Feb. 9, 2020).

⁸ ROBERT A. SCHWARTZ & RETO FRANCONI, *EQUITY MARKETS IN ACTION: THE FUNDAMENTALS OF LIQUIDITY, MARKET STRUCTURE & TRADING* 82 (2004).

⁹ *See, e.g.*, Eur. Parl. Deb. (Oct. 28, 2015) (Remarks of Mr. Dombrovskis), https://www.europarl.europa.eu/doceo/document/CRE-8-2015-10-28-ITM-018_EN.html.

¹⁰ Regulation 2017/2402, 2017 O.J. (L 347) 35 (EU).

¹¹ *See ESMA: Securitisation*, EUROPA.EU, <https://www.esma.europa.eu/policy-activities/securitisation> (last visited Aug. 20, 2020).

¹² *Id.*; Nick Shiren & Alexander Collins, *STS: A new age for European securitisations*, BUTTERWORTHS J. OF INT’L BANKING & FIN. L. 31 (Jan. 2019).

home country supervision.”¹³ ESMA and the EC promulgate laws and non-binding guidelines, and rely on the respective securities regulators of Member states to enforce them and impose additional requirements on domestic issuers as they see fit.

B. Climate Disclosures

Financial disclosure requirements are an obviously integral part of any financial sector regulatory scheme, but recently regulators have been called to respond to the increasingly important role of *non*financial information in investor decision-making. In recent decades, as the global community has awakened to the existential threat of climate change, governments and the financial sector have responded with regulatory action. In fact, 97% of the sustainable finance policies identified by U.N.PRI in its 2019 global report were enacted after 2000, including over 80 new policies or revisions worldwide in 2019 alone.¹⁴

A standardized requirement of climate disclosure across the EU is coming to be seen as part of the critical infrastructure that enables functioning, efficient, and safe investment markets in the twenty-first century. As the European Commission reported publicly in 2019, “[w]ithout sufficient, reliable and comparable sustainability-related information from investee companies, the financial sector cannot efficiently direct capital to investments that drive solutions to the sustainability crises we face, and cannot effectively identify and manage the risks to investments that will arise from those crises.”¹⁵

Not only is access to accurate climate-related risk data invaluable information for potential acquirers, consumers, and investors, EU companies and financial market participants have much to gain from incorporating climate disclosures into their reports. The 2016 Progress Report from the OECD’s Sustainable Stock Exchanges Initiative lists the benefits reporting companies enjoy when they make climate disclosures as including maximizing operational efficiency, cost savings, easier access to capital

¹³ Council Directive 2004/39, 47 O.J. (L 145) 1 (EC).

¹⁴ U.N. PRINCIPLES FOR RESPONSIBLE INVESTMENT, TAKING STOCK: SUSTAINABLE FINANCE POLICY ENGAGEMENT AND POLICY INFLUENCE 3 (2019), https://d8g8t13e9vf2o.cloudfront.net/Uploads/c/j/u/pripolicywhitepapertakingstockfinal_335442.pdf.

¹⁵ *Guidelines on non-financial reporting: Supplement on reporting climate-related information*, COM (2019) 209/01 final (June 20, 2019), 62 O.J. (C 209) 2 [hereinafter *2019 Supplement*].

from confidence in performance, better performance in financial markets, and higher ranking on indices.¹⁶ But despite these benefits, thirty years of growing calls for companies to disclose their environmental policies have made little headway.¹⁷ It has become clear that a system of piecemeal and voluntary disclosures that relies on civil society pressure and prudent management to achieve compliance is inadequate.¹⁸ Selection bias in voluntary financial disclosure regimes has already been identified; it is no leap of faith to assume that managers would be similarly incentivized to disclose positive ESG records and climate change-related opportunities and omit less favorable information.¹⁹ Under a purely voluntary, non-standardized, pick-and-choose regime, interested parties—investors, governments and policymakers, other companies, consumers, indices, credit ratings agencies, and civil society—are left to compare apples, oranges, and a mystery grab bag containing some unknown piece of fruit.

2. Current State of Affairs

A. Global Standards for Voluntary Disclosures

The TCFD (task force on climate-related financial disclosures), created by the G20's Financial Stability Board, developed and released a framework in June 2017 that outlines best practices in voluntary disclosure of climate-related information by firms and financial institutions,²⁰ discussed in greater detail in Chapter ____ [Henley's piece on IOs]. In brief, the TCFD recommends that mandatory annual corporate reports should disclose both the risks and the opportunities that management expects to materialize as a result of climate change ("transition risks") as well as its short- or longer-term consequences on the

¹⁶ ORG. FOR ECON. COOPERATION & DEV., REPORT ON CLIMATE CHANGE DISCLOSURE IN G20 COUNTRIES 18 (2016), <https://www.oecd.org/daf/inv/mne/Report-on-climate-change-disclosure-in-G20-countries.pdf>.

¹⁷ Jeffrey M. McFarland, *Warming Up to Climate Change Risk Disclosure*, 14 FORDHAM J. OF CORP. & FIN. L. 281, 294 & n.15 (2009).

¹⁸ See Matthew Nelson, *The Importance of Nonfinancial Performance to Investors*, HARVARD LAW SCHOOL FORUM ON CORPORATE GOVERNANCE (Apr. 25, 2017), <https://corpgov.law.harvard.edu/2017/04/25/the-importance-of-nonfinancial-performance-to-investors/>.

¹⁹ *Id.* (finding that most investors "believe that companies don't disclose ESG risks that could affect their business"); see also Anne Beyer & Ilan Guttman, *Voluntary disclosure, disclosure bias and real effects*, 50 J. OF ACCOUNTING RSCH. 1141, 1142 (2012).

²⁰ *Id.*

physical needs and operations of the business (“physical risks”).²¹ Those risks should be identified and assessed from four different perspectives: corporate governance; business strategy; risk management; and metrics or targets.²² Over 100 businesses signed the Recommendations as a statement of their support and much consultation with industry and business leaders went into their creation.²³ Onlookers reported with optimism that more than 500 businesses, industry groups, and investors had adopted the Recommendations eighteen months after their release,²⁴ but the Recommendations are just that—a series of recommendations, without compulsion, enforcement, or binding effect—and voluntary disclosure guidelines will always produce less than 100% participation.

Although a voluntary regime fits follows the unfortunate theme of non-binding pledges, rather than binding treaties, embodying international climate change-related obligations, the EU in particular purports to take these obligations more seriously.²⁵ According to the European Council, the TCFD Recommendations are “widely recognized as authoritative guidance on the reporting of financially material climate-related information,” and the European Commission (EC) continues to reference them in EU Regulations and encourage all companies to implement them.²⁶

B. The EU’s Progress Towards Mandatory Disclosures

In line with global trends, and as a historical leader on the issue of climate change, the EU (and France in particular) has taken significant steps in the last decade towards a regulatory regime of required climate disclosure and there are promising proposals for further progress in the future.

i. 2014 Non-Financial Reporting Directive

²¹ Trucost ESG Analysis, *Climate-Risk Disclosure Takes Investors By Storm*, S&P GLOBAL (Feb. 7, 2019), <https://www.trucost.com/trucost-blog/climate-risk-disclosure-takes-investors-by-storm/>.

²² *Id.*

²³ See *Statement of Support and Supporting Companies*, FINANCIAL STABILITY BOARD (June 29, 2017), <https://www.fsb.org/wp-content/uploads/Statements-of-Support.pdf>.

²⁴ *Id.*

²⁵ See, e.g., Commission Regulation 2018/842, 2018 O.J. (L 156) 26 (EU) (binding member states to emissions reductions target).

²⁶ See, e.g., *2019 Supplement*, *supra* note 15, at 3.

In its first major step towards comprehensive mandatory ESG disclosures, the 2014 Non-Financial Reporting Directive (NFRD) obligated roughly 6,000 large firms in the EU to include information about their corporate social responsibility practices in annual reports or release supplemental reports.²⁷ Covered entities must disclose information “to the extent necessary” to understand the “development, performance, position and impact” of their operations on the environment.²⁸ This information includes, but is not limited to, “details of the current and foreseeable impacts of the undertaking’s operations on the environment, and, as appropriate, on health and safety, the use of renewable and/or non-renewable energy, greenhouse gas emissions, water use and air pollution.”²⁹

Business undertakings subject to the NFRD are “Public Interest Entities” (including large publicly-traded companies, banks, and insurance companies) with more than 500 employees.³⁰ Member states can and have lowered the threshold to 250 employees, and the NFRD mandate had expanded to cover 7,400 entities by January 2019.³¹ Publicly-traded companies for the purposes of NFRD are “entities governed by the law of a Member State whose transferable securities are admitted to trading on a regulated market of any Member State.”³²

ii. 2017 Guidelines on Non-Financial Reporting

In 2017, the EC published non-binding guidelines, based on the TCFD Recommendations, to help covered entities comply with the NFRD in “a more consistent and more comparable manner.”³³ However, companies can choose to follow international, European, or national guidelines in crafting their reports.³⁴

²⁷ See Council Directive 2014/95, 57 O.J. (L 330) 1 (EU).

²⁸ *Id.* at 4.

²⁹ *Id.* at 2.

³⁰ *Id.* at 4.

³¹ EU TECHNICAL EXPERT GRP. ON SUSTAINABLE FIN. (TEG), REPORT ON CLIMATE-RELATED DISCLOSURES 6 (Jan. 2019), https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190110-sustainable-finance-teg-report-climate-related-disclosures_en.pdf.

³² *Id.* at 5.

³³ *Guidelines on Non-Financial Reporting*, COM (2017) 4234 final (July 5, 2017) 60 O.J. (C 215) 1, https://ec.europa.eu/info/publications/non-financial-reporting-guidelines_en [hereinafter *2017 Guidelines*].

³⁴ *Id.*

The 2017 guidelines outline six key principles of best practice disclosures: they should be (1) material, financially and/or environmentally; (2) fair, balanced and understandable; (3) comprehensive but concise; (4) strategic and forward-looking; (5) stakeholder-oriented; and (6) consistent and coherent.³⁵ Although addressed to the entities subject to the NFRD mandate, the EC allows and encourages companies beyond the NFRD's scope, including small and medium-sized enterprises, to make climate disclosures and follow the Guidelines in doing so.³⁶

iii. High-Level Expert Group on Sustainable Finance

A high-level expert group on sustainable finance (“HLEG”) was created by an EC communication on accelerating reform of the Capital Markets Union in 2016,³⁷ following the Paris Climate Agreement reached in 2015 and the adoption of the UN's 2030 sustainable development goals. The EC's objective in establishing the HLEG was to receive recommendations on how to “hardwire sustainability into the EU's regulatory and financial policy framework and how to mobilise more capital flows towards sustainable investment and lending.”³⁸ HLEG identified two primary goals: (1) using finance to promote sustainable and inclusive growth, and (2) strengthening financial stability and asset pricing.³⁹ The HLEG published its Interim Report in July 2017 and its Final Report in January 2018.

On the topic of disclosures, the Interim Report stresses an “urgent” need for better ESG reporting and “clear, comprehensive and comparable” disclosures, but it takes a rosy view of progress already made.⁴⁰ For instance, it highlights that EU stock exchanges made up seven of the top ten leaders in sustainability disclosure in the world in 2016, and that EU-based firms have “a clear edge” in the realm of environmental disclosure.⁴¹ Because of this perceived strength in disclosures, and because North America

³⁵ *Id.* at 5–9.

³⁶ *Id.* at 4.

³⁷ See COM (2016) 601 final (Sept. 14, 2016).

³⁸ INTERIM REPORT, EU HIGH-LEVEL WORKING GRP. ON SUSTAINABLE FIN. 9 (July 2017), https://ec.europa.eu/info/sites/info/files/170713-sustainable-finance-report_en.pdf.

³⁹ *Id.* at 3.

⁴⁰ *Id.* at 2, 5.

⁴¹ *Id.* at 15.

and the Asia-Pacific region report higher proportions of firms with green revenues and higher returns in green industries, the Interim Report sees capital-raising for firms with green revenues, rather than disclosure, as its short-term priority.⁴² In addition, the Interim Report makes an interesting suggestion that management of sustainability risks is part of the fiduciary duty that directors owe under common law, an approach to mandating disclosure that would entail a shift in the prevailing interpretation of existing legal duties rather than new laws.⁴³

The final HLEG Report builds on the recommendations of its 2017 Interim Report to make a series of recommendations for EU-wide policies that would stimulate simultaneous change across the entire EU and entire financial sector. It points to the barrier-breaking French Article 173 as a paradigm to be followed by the EU as a whole, discussed below.⁴⁴ The result of this final HLEG Report was the EU Action Plan on Financing Sustainable Growth, released in 2018.⁴⁵

iv. 2018 EU Action Plan on Financing Sustainable Growth

The EU Action Plan, published in 2018 as a communication from the EC to the Council, Parliament, European Central Bank, and several committees, integrated expert recommendations and working papers and built on previous Action Plans and Agendas for Sustainable Development.⁴⁶ In twenty pages, it proposes ambitious updates to the existing regulatory framework of Europe's financial sector.

Specifically, Action 7 anticipates the EC bringing a legislative proposal “to clarify institutional investors’ and asset managers’ duties in relation to sustainable considerations” by mid-2018. The legislation would explicitly require covered firms to integrate ESG factors and to disclose to end-investors how sustainability considerations are accounted for in investment decision-making.⁴⁷ As for corporations, Action 9 of the Plan announces its plans for: (a) a “fitness check” into public corporate reporting

⁴² *Id.*

⁴³ *Id.* at 5.

⁴⁴ *See infra* Part 2(B)(vi)(a).

⁴⁵ *Action Plan: Financing Sustainable Growth*, COM (2018) 97 final (Mar. 8, 2018).

⁴⁶ *Id.* at 1.

⁴⁷ *Id.* at 8–9.

legislation, including sustainability reporting; (b) a revision of the NFRD to include environmental and other social factors and elaborate on corporate climate disclosure guidelines in accordance with the TCFD Recommendations; and (c) the creation of a European Corporate Reporting Lab to collect and determine best practices for ESG disclosure.⁴⁸ Many of the suggestions in the Plan are coded “NL,” meaning their implementation would be via a non-legislative measure.⁴⁹ However, the proposal of Action 7 is coded “L,” suggesting that there may be new legal obligations imposed on these entities in the future.⁵⁰

The sweeping proposals of the Plan sent different signals to different observers and players in the financial sector. BlackRock, one of the world’s largest institutional investors, read the Plan as proposing four main ideas: (1) “new firm- and product-level disclosure requirements”; (2) adding “sustainability preferences” to the suitability rules covering investment firms; (3) adding “sustainability risk” into the existing frameworks that regulate investment firms, private equity funds, hedge funds, mutual funds, pension plans, and insurance companies; and (4) building a taxonomy of “common reference for environmentally sustainable investment.”⁵¹

v. 2019 Supplement to 2017 Guidelines on Non-Financial Reporting

As part of its implementation of the Action Plan, the EC established a Technical Expert Group on Sustainable Finance (“TEG”). Task 4 of TEG’s mandate was to develop climate-related metrics to allow improved disclosure on climate-related information.⁵² Consequently, TEG’s climate-related non-financial disclosures report was released in January 2019, and formed a central part of the EC’s considerations when adopting the latest guidelines.⁵³ Both TEG and the EC solicited, considered, and selectively published stakeholder feedback on their proposals, and the EC followed Article 2 of the 2014 NFRD and

⁴⁸ *Id.* at 10.

⁴⁹ *Id.* at 16–18 (Annex III).

⁵⁰ *Id.* at 18.

⁵¹ BLACKROCK, TOWARDS A COMMON LANGUAGE FOR SUSTAINABLE INVESTING 4 (Jan. 2020), <https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-towards-a-common-language-for-sustainable-investing-january-2020.pdf>.

⁵² TEG, *Report on Climate-related Disclosures*, *supra* note 31, at 3.

⁵³ *See 2019 Supplement*, *supra* note 15.

the 2018 Action Plan when it published the supplemental guidelines in June 2019.⁵⁴ The 2019 guidelines also reiterated the six key principles from the 2017 Guidelines, were similarly non-binding, and continued to allow companies to choose their preferred methodology for selecting and presenting climate-related information, within reason.⁵⁵ This flexibility is necessary, the EC notes, because best practices in climate disclosures are changing rapidly.⁵⁶

Since the 2019 Supplement, therefore, companies, firms, and investors in the EU that are covered by the 2014 NFRD are asked to make their required disclosures in accordance with the non-binding guidelines, and firms for which climate reporting is still optional are encouraged to do so as well. All entities must consider both risk perspectives when evaluating their climate risks: the risk of climate change having a negative impact on the company's financial performance (including both physical risks and transition risks), and the risk of the company's operations having a negative impact on the climate.

Section 3 of the 2019 Supplement proposes, although does not require, that the disclosures are made for each of five reporting areas: (1) business model (including climate risks to the company and climate risks created by company operations); (2) policies and due diligence conducted to mitigate, adapt to, or set targets on climate change; (3) outcomes of these company climate change policies; (4) principal climate-related risks and how they are identified, assessed, and managed; and (5) key performance indicators (KPIs) used by the company to assess risks, opportunities, and outcomes.⁵⁷ Section 3 applies to all companies covered by the NFRD, including banks and insurance companies but excluding asset management companies and pension funds.⁵⁸ EC pronouncements on disclosures in the single market, including in the 2019 Supplement, continue to acknowledge the contributions of Member states' regulators, in particular Germany and France.

vi. Member State Case Studies

a. France

⁵⁴ *Id.* at 3.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.* at §§ 3.1–3.5.

⁵⁸ *Id.* at Annex I.

With France’s “Energy Transition for Green Growth,” effective 1 January 2016, France increased the onus on listed companies to make mandatory carbon disclosures and became the first country to mandate that institutional investors account for and disclose ESG and climate change considerations in their investment strategies and policies.⁵⁹ While companies were already required to report the social and environmental consequences of their activities under the Grenelle II Law (2010),⁶⁰ Article 173 further required that listed companies annually disclose the financial risks posed by climate change, how they were being mitigated, and the effects of climate change on their business activities. The risks to be disclosed are divided into the categories of “physical risks” (how the firm or investment strategy helps to combat global warming) and “transition risks” (how the firm’s business aids in or is threatened by France’s national effort to shift to a clean-energy economy).⁶¹

The legislation broadly covers medium and large-sized investors, including pension and social security plans, asset managers, and insurers, having a total balance sheet over \$500 million euros. Smaller firms must still make general reports of how they are considering ESG factors in decision-making. Article 173 is notable particularly because its naked policy purpose is capping carbon emissions and slowing global warming, rather than protecting investors and consumers from businesses and investments made risky by the failure to mitigate climate-related risks.⁶² However, because it is technically a “comply or explain” regime rather than a mandate triggering punishment for non-compliance, it is both lauded for its flexibility and criticized for its open-endedness.⁶³

b. Germany

⁵⁹ Susanna Rust, *France aims high with first-ever investor climate-reporting law*, IPE MAG. (Feb. 1, 2016), <https://www.ipe.com/france-aims-high-with-first-ever-investor-climate-reporting-law/10011722.article>.

⁶⁰ Library of Congress, *France: Law on National Commitment for the Environment*, GLOBAL LEGAL MONITOR (Aug. 12, 2010), <https://www.loc.gov/law/foreign-news/article/france-law-on-national-commitment-for-the-environment/>.

⁶¹ Rust, *supra* note 59.

⁶² *Id.*

⁶³ *French Energy Transition Law: Global investor briefing on Article 173*, U.N. PRINCIPLES FOR RESPONSIBLE INVESTING (Apr. 26, 2016), <https://www.unpri.org/climate-change/french-energy-transition-law-global-investor-briefing-on-article-173/295.article>.

The EC has also looked to Germany for guidance as it designs union-wide ESG regulations for the financial sector. The German Council for Sustainable Development released the German Sustainability Code (“DNK”) in 2011, updated in 2014, which allows companies to choose whether to comply or explain their noncompliance with twenty separate ESG-related criteria.⁶⁴ The DNK produces a public trove of raw data and is designed for “maximum compatibility” with reporting and analysis instruments in the financial sector and corporate supply chains.⁶⁵ Because the initial threshold is low, the Code encourages and assists companies in adopting comprehensive and transparent sustainability practices, without making them vulnerable to shame or discreditation for non-compliance.⁶⁶

3. *Current State of Compliance*

Although there are now hundreds of pages of regulations on the books for EU companies to consult,⁶⁷ what little data exists suggests there is still serious room for improvement. A study of the 2019 disclosures of the EU’s fifty largest companies, representing a combined \$4.3 trillion market capitalization, concluded that climate-related risk disclosures were a “key weakness” for 78% of them.⁶⁸ It found that, on average, companies were performing well in reporting areas (1), business model, (2),

⁶⁴ Terri Kafyeke, *The German Sustainability Code*, GREEN ECO NET: CONNECTING SMES FOR A GREEN ECONOMY (Sept. 2015), [http://greeneconet.eu/german-sustainability-code#:~:text=The%20German%20Sustainability%20Code%20\(GSC,to%20use%20when%20self%2Dreporting](http://greeneconet.eu/german-sustainability-code#:~:text=The%20German%20Sustainability%20Code%20(GSC,to%20use%20when%20self%2Dreporting).

⁶⁵ *Id.*

⁶⁶ GERMAN COUNCIL FOR SUSTAINABLE DEV., MAKING GERMANY A LEADER IN SUSTAINABLE FINANCE: RECOMMENDATION RE INTERIM REPORT OF SUSTAINABLE FINANCE COMMITTEE 2–3 (Apr. 30, 2020), https://www.nachhaltigkeitsrat.de/wp-content/uploads/2020/05/20200430_RNE-Statement_Interim_Report_Sustainable_Finance.pdf.

⁶⁷ The sheer number of published guidelines may actually hinder rather than encourage compliance where it forces companies to apply cumulative and overlapping frameworks instead of following a single centralized standard. This is especially problematic for EU issuers subject to both Member State and bloc-wide regulations. *See, e.g.*, Tom Brown et al., *Towards consistent and comparable ESG reporting*, 62 FRONTIERS IN FIN. 48, 49 (May 2020) (“A significant number of frameworks and voluntary standards already exist for ESG reporting, even running into the hundreds. But in fact, this is part of the problem.”).

⁶⁸ CLIMATE DISCLOSURE STANDARDS BOARD (CDSB), FALLING SHORT? WHY ENVIRONMENTAL AND CLIMATE-RELATED REPORTING UNDER THE EU NON-FINANCIAL REPORTING DIRECTIVE MUST IMPROVE 1, 16 (May 19, 2020), https://www.cdsb.net/sites/default/files/falling_short_report_single_page_spread.pdf.

policies and due diligence, and (5) KPIs, but struggling in (4), disclosing principal risks and how their materiality is determined, as well as with overall TCFD standards and timeline compliance.⁶⁹

Specifically, it found that 42% of companies studied omitted potentially material climate-related risks entirely, but 100% included descriptions of their policies and 97% disclosed their due diligence processes.⁷⁰ Only 54% considered both physical and transition risks,⁷¹ and only 4% followed the double materiality approach by disclosing all risks that were financially *or* environmentally material.⁷² Though the substance of the disclosures was lacking, increased procedural consistency bodes well for a future of easily-digestible and comparable climate reporting: 84% included their climate disclosures in their mainstream reports, in an average of fourteen pages that were mostly helpfully signposted and cross-referenced.⁷³

The Report's conclusion provides an accurate summary of the obstacles still in place under the current array of EU-wide disclosure guidelines. Although most companies facially comply with addressing the NFRD's main content categories and incorporating TCFD principles, "substantive improvements are still required in the quality, coherence, and connectivity" of climate-related reporting in order to achieve the actual objectives of the reporting regime.⁷⁴

3. Proposals for Future Progress

A. The European Green Deal

The European Green Deal was released in 2019 as a further proposal for how the EU can collectively meet its domestic and international commitments to achieve certain climate targets by 2030 and by 2050.⁷⁵ Objectives include raising the emissions reductions targets; ensuring effective carbon

⁶⁹ *Id.* at 1.

⁷⁰ *Id.* at 10, 23.

⁷¹ *Id.* at 21. However, this is still a marked increase from 28% in 2018. *See id.* at 14 (citing CDSB, FIRST STEPS: CORPORATE CLIMATE AND ENVIRONMENTAL DISCLOSURE UNDER THE EU NON-FINANCIAL REPORTING DIRECTIVE (Nov. 29, 2018), https://www.cdsb.net/sites/default/files/cdsb_nfrd_first_steps_2018.pdf).

⁷² *Id.* at 23.

⁷³ *Id.* at 24.

⁷⁴ *Id.* at 26.

⁷⁵ *The European Green Deal*, COM (2019) 640 final, (Dec. 11, 2019).

pricing throughout the economy (including adopting a carbon border adjustment mechanism); adaptation strategies to mitigate climate change-induced disruptions; and transitioning to a carbon-neutral economy in a way that benefits consumers, creates jobs, and mobilizes industry.⁷⁶ The Green Deal highlights the need for companies and financial institutions to increase climate disclosures and commits the Commission to reviewing the NFRD.⁷⁷

The Commission conducted that review and released its initial results for public and stakeholder feedback in January 2020.⁷⁸ It outlined three possible paths forward: (1) maintaining the status quo of non-binding recommendations; endorsing a different or updated standard on voluntary non-financial reporting; or (3) undertaking serious revisions of the NFRD. The latter option would involve altering the scope of covered entities and imposing a mandatory NFRD standard on at least a subsection of relevant business entities.⁷⁹ This is the option that would have the largest impact on the state of disclosure law in the EU, and appears to be the path the EU has chosen.

B. Regulatory Technical Standards

In November 2019, the EU promulgated legislative act Regulation (EU) 2019/2088 on Sustainability-Related Disclosures in the Financial Services Sector, known as the SFDR.⁸⁰ Article 3 obligates financial market participants (“FMPs”) and financial advisers to include information on how sustainability risks are incorporated in their investment decision-making process or investment/insurance advice, respectively, on their websites.⁸¹ Article 4 requires FMPs with over 500 employees to “publish and maintain on their websites” information on how they recognize and prioritize “principal adverse

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ European Commission, *Inception Impact Assessment*, Ref. Ares (2020) 580716 (Jan. 30, 2020), <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12129-Revision-of-Non-Financial-Reporting-Directive>.

⁷⁹ *Id.* at 3.

⁸⁰ Regulation 2019/2088 on Sustainability-Related Disclosures in the Financial Services Sector, 62 O.J. (L 317) 1 (Nov. 27, 2019) (EU), https://www.esma.europa.eu/sites/default/files/jc_2020_16_-_joint_consultation_paper_on_esg_disclosures.pdf.

⁸¹ *Id.* at 9.

sustainability impacts and indicators” and descriptions of those impacts and responsive actions taken or planned. Recognizing the need for more specific requirements to ensure uniform and easily comprehensible disclosures, Recital 30 tasks a Joint Committee including ESMA with crafting regulatory technical standards (“RTS”) to “further specify the content, methodologies and presentation of information in relation to sustainability indicators with regard to climate and other environment-related adverse impacts.”⁸²

In February 2020, ESMA and two other European Supervisory Authorities released a Joint Consultation Paper reviewing the 2014 NFRD and proposing the new RTS.⁸³ The Paper takes a more urgent tone than past EU statements on the subject, stating that “it is necessary to start *demanding* data from financial market participants” and advisers to effectuate the SFDR.⁸⁴ The result of the consultation is a draft Commission regulation supplementing 2019/2088, complete with fifty-two Articles and two annexes, proposing comprehensive standards for the form and substance of mandatory climate disclosures. These disclosures would include not only those to be made in an entity’s periodic report aimed at regulators, but also would entail firms publishing their ESG-related due diligence policies on their websites and making pre-contractual disclosures to consumers if offering “green” investment products.⁸⁵ If the RTS are used to implement the SFDR, FMPs with over 500 employees would disclose the “principal adverse effects” of sustainability factors: first on a “comply or explain” basis, and then on a truly mandatory basis three years after entry into force of the final RTS.⁸⁶ The Paper anticipates the new RTS will be effective March 10, 2021 but allows some exceptions up to January 1, 2022.⁸⁷

⁸² *Id.* at 6.

⁸³ EUROPEAN SUPERVISORY AUTHORITIES, JOINT CONSULTATION PAPER: ESG DISCLOSURES (Apr. 23, 2020), https://www.esma.europa.eu/sites/default/files/jc_2020_16_-_joint_consultation_paper_on_esg_disclosures.pdf.

⁸⁴ *Id.* at 8 (emphasis added).

⁸⁵ *Id.* at 6–7.

⁸⁶ *Id.* at 74.

⁸⁷ *Id.* at 48.

The public comment period was scheduled to close on 1 September 2020, and the initial deadline for the submission of the final RTS to be passed into binding EU-wide law was December 30, 2020.⁸⁸ It remains to be seen whether this deadline will be met or delayed, due to the Covid-19 pandemic or otherwise.

4. Conclusion

In conclusion, regulations regarding climate-related disclosures for EU business entities remain, for the most part, voluntary in nature but well-developed and comprehensive in substance. The 2014 NFRD, incorporating the TCFD Recommendations, has been supplemented with the 2017 and 2019 Guidelines so that its original sub-topic of “environmental matters” now includes five content categories: business model, policies and due diligence, outcomes, principal risks, and key performance indicators. Explicitly covered entities include banks, insurance companies, and publicly-traded corporations with over 500 employees, but smaller companies are actively encouraged to comply. For fiscal year 2019, early indicators show widespread attempts at compliance by large EU-based companies, but also widespread deficiencies in the form and substance of their climate-related disclosures. The new SFDR and proposed Regulatory Technical Standards suggest that disclosures by major FMPs will soon be mandatory, or at least comply-or-explain, and will follow uniform standards of content, presentation, and publication. Ultimately the goal is not to have FMPs making lengthy climate disclosure reports for reporting’s sake; climate disclosures are valuable only insofar as they enable regulators, investors, and civil society to make reliable comparisons and glean meaningful insight that can inform future decision-making.

⁸⁸ *Id.* at 5.

E. Hong Kong

1. Status of Environmental Disclosures in Hong Kong

As a Special Administrative Region (SAR) of China, Hong Kong is both “an inalienable part of the People’s Republic of China,”¹ and authorized “to exercise a high degree of autonomy and enjoy executive, legislative and independent judicial power.”² Hong Kong’s economic policies differ significantly from those of the Mainland, particularly in its minimal government interference with the economy.³ The Hong Kong Stock Exchange (HKEX) exemplifies these differences, enabling faster and easier listings than the SSE and SZSE, not imposing capital controls, and having a transparent regulatory framework focusing on “prudent minimum standards.”⁴ These standards make Hong Kong not only a hub of foreign investment, but also the preferred destination for most Chinese companies looking to raise capital.⁵

A. Regulation of the Hong Kong financial market

HKEX is regulated by the Securities and Futures Commission (SFC), a statutory body operationally independent of the Hong Kong government.⁶ Its stated aims are to maintain and promote the “fairness, efficiency, competitiveness, transparency and orderliness of the securities and futures industry.”⁷ The SFC cooperates with the city’s banking, insurance, and mandatory

¹ Xianggang Jiben Fa art. 1.

² *Id.* art. 2.

³ *Hong Kong vs. Mainland China: What’s the Difference?*, INVESTOPEDIA, <https://www.investopedia.com/articles/investing/121814/hong-kong-vs-china-understand-differences.asp#citation-15> (last visited Sept. 30, 2020).

⁴ Tianlei Huang, *Why China Still Needs Hong Kong*, PETERSON INST. FOR INT’L ECON. (Jul. 15, 2019), <https://www.piie.com/blogs/china-economic-watch/why-china-still-needs-hong-kong>.

⁵ *Hong Kong vs. Mainland China*, *supra* note 3.

⁶ *Our Role*, SECURITIES AND FUTURES COMM’N, <https://www.sfc.hk/web/EN/about-the-sfc/our-role/> (last updated Nov. 19, 2019).

⁷ *Id.*

provident fund (pension scheme) regulators, which are the Hong Kong Monetary Authority (HKMA), The Insurance Authority, and The Mandatory Provident Fund Schemes Authority respectively.⁸ The HKMA also functions as Hong Kong’s de facto central bank, and manages the Exchange Fund, which consists mainly of the government’s fiscal reserves.⁹

B. Benchmarks for Hong Kong’s ESG regime

As the Mainland released its 2016 “Guidelines for Establishing the Green Financial System,”¹⁰ the SFC was beginning its own efforts towards regulating environmental disclosures within Hong Kong.¹¹ The SFC has stressed the need for the SAR to stay in step with Mainland China in terms of environmental disclosures,¹² but the region has not limited itself to only following the Mainland’s lead—Hong Kong has also targeted its ESG policies towards benchmarks in the international community. The SFC has made efforts to track Hong Kong’s progress against markets like France, the European Union, and Singapore.¹³ Additionally, the HKMA has stated its intent to integrate ESG factors into its investment of the Exchange Fund, modeling the way Japan has taken initiative to put its Government Pension Investment Fund towards ESG assets.¹⁴ Like several other markets, many of the current HKEX regulations were drawn from the recommendations of the TCFD; for example, HKEX’s guidelines for boards and

⁸ *Id.*

⁹ *The HKMA*, THE HONG KONG MONETARY AUTHORITY, <https://www.hkma.gov.hk/eng/about-us/the-hkma/> (last updated Aug. 26, 2019).

¹⁰ *Guanyu Goujian Luse Jinrong Tixi de Zhidao Yijian* (关于构建绿色金融体系的指导意见) [*Guidelines for Establishing the Green Financial System*] (promulgated by the People’s Bank of China, Sept. 2, 2016), People’s Bank of China, <http://www.pbc.gov.cn/english/130721/3133045/index.html>.

¹¹ SEC. & FUTURES COMM’N, PRINCIPLES OF RESPONSIBLE OWNERSHIP (2016) (H.K.).

¹² SEC. FUTURES COMM’N, STRATEGIC FRAMEWORK FOR GREEN FINANCE ¶ 7 (2018) (H.K.).

¹³ *Id.* ¶¶ 12, 16.

¹⁴ *A Hong Kong Giant’s Journey Towards Responsible Investment*, SUSTAINABLE FINANCE INITIATIVE (Feb. 19, 2020), <https://sustainablefinance.hk/a-hong-kong-giants-journey-towards-responsible-investment/>.

directors on implementing its new ESG disclosure requirements are directly adapted from a TCFD guide for ESG implementation.¹⁵

C. Evolution of environmental disclosure regulatory regime

The SFC and HKEX have also often viewed “sustainable investing” in Hong Kong under a broader ESG framework, rather than focusing only on environmental disclosures. The first relevant disclosure policy released in the SAR was the SFC’s *Principles of Responsible Ownership*, published in 2016.¹⁶ The document set forth a set of sustainable investment principles that were non-binding and voluntary,¹⁷ and suggested that investors engage with investee companies by encouraging the development of policies on “environmental, social, and governance (ESG) issues.”¹⁸ In 2018, it released a *Strategic Framework for Green Finance*, focused specifically on environmental disclosures, in which it reiterated China’s goal of requiring environmental disclosures by 2020, as well as explicitly confirming its desire to align with TCFD recommendations.¹⁹ In 2019 it conducted a survey of asset managers and owners of SFC-licensed firms in regards to their ESG disclosure practices,²⁰ which in 2019 found that while 68% of firms saw ESG factors as a source of financial risk, only 35% of firms consistently integrated ESG factors in their investment and risk management processes.²¹ HKEX also began investigating ESG disclosures in 2019, when it published a consultation paper reviewing ESG

¹⁵ HONG KONG STOCK EXCHANGE, LEADERSHIP ROLE AND ACCOUNTABILITY IN ESG: GUIDE FOR BOARD AND DIRECTORS 18 (Mar. 2020), https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Environmental-Social-and-Governance/Exchanges-guidance-materials-on-ESG/directors_guide.pdf?la=en [hereinafter *Leadership Guide*].

¹⁶ PRINCIPLES OF RESPONSIBLE OWNERSHIP, *supra* note 11, ¶ 23.

¹⁷ *Id.* ¶ 2.

¹⁸ *Id.* ¶ 17.

¹⁹ SEC. & FUTURES COMM’N, STRATEGIC FRAMEWORK FOR GREEN FINANCE ¶ 7 (2018) (H.K.).

²⁰ *Id.* ¶ 25.

²¹ *New SFC survey on ESG, climate change and asset management*, SEC. & FUTURES COMM’N (Dec. 16, 2019), <https://www.sfc.hk/edistributionWeb/gateway/EN/news-and-announcements/news/doc?refNo=19PR117>.

reporting guidelines and emphasizing the important role of a company’s Board of Directors in ESG matters.²²

D. HKEX’s new disclosure regime

In late 2019, HKEX announced its new policy, a “comply or explain” regime requiring the boards of all listed companies to disclose additional ESG metrics in financial years commencing on or after 1 July 2020.²³ Under Appendix 27, published in July 2020, issuers must now publish annual ESG reports containing twelve specific aspects, eight of which are social aspects and four of which are environmental.²⁴ The four environmental aspects are emissions, use of resources, the environment and natural resources, and climate change.²⁵ Each aspect requests both general disclosure and the reporting of specific relevant KPIs.²⁶

For each of the aspects, the board may choose to either “comply” by reporting on both the general disclosure and KPIs, or “explain” why they choose not to report. In determining whether to report, the board should conduct a materiality assessment.²⁷ Materiality is defined as “the threshold at which ESG issues are ‘sufficiently important to investors and other stakeholders’ that they should be reported.”²⁸ If an assessment is conducted and any of the environmental aspects are found to be “not material” to an issuer’s business, the issuer does not need to disclose.²⁹ Simply writing that an aspect is “not material to [the] business” is a sufficient explanation to meet the comply or explain requirement.³⁰

²² *A Hong Kong Giant’s Journey*, *supra* note 14.

²³ *Id.*

²⁴ HONG KONG STOCK EXCHANGE, APPENDIX 27, 5–11 (2020).

²⁵ *Id.* at 5–7.

²⁶ *Id.*

²⁷ LEADERSHIP GUIDE, *supra* note 15, at 14–17.

²⁸ *Id.* at 14.

²⁹ *Id.* at 14.

³⁰ *Id.* at 2.

E. Details of the Appendix 27 requirements

i. Emissions

In regard to emissions, the board must disclose information on the policies, laws, and regulations relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.³¹ Required KPIs include tonnes and intensity of greenhouse gas emissions, description of how waste is handled, and description of emissions targets and steps taken to achieve them.³²

ii. Use of resources

The use of resources aspect asks for general disclosure on the efficient use of resources including energy, water, and other raw material. KPIs include energy consumption by type and intensity, total water consumption, and tonnes of packaging material used for finished products.³³

iii. The environment and natural resources

This aspect calls for disclosure of policies minimizing the issuer's impacts on the environment and natural resources. The one KPI required is a description of the significant impacts of the issuer's activities on the environment and natural resources and the actions taken to manage them.³⁴

iv. Climate change

The climate change aspect asks for disclosure of policies on the identification and mitigation of significant climate-related issues which have impacted or may impact the issuer. The one required KPI asks for a description of the actions taken to manage these issues.³⁵

³¹ ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORTING GUIDE, LISTING RULES AND GUIDANCE (HKEX) APP'X 27, at 5 (July 2020) [hereinafter APPENDIX 27].

³² *Id.* at 5–6.

³³ *Id.* at 6.

³⁴ *Id.* at 6.

³⁵ *Id.* at 7.

F. Additional report details

HKEX encourages boards to think about both physical risks to profitability—e.g. extreme weather events and rising sea levels—as well as transition risks which will occur during the global transition to a low-carbon economy, such as adoption of new legal regimes on energy efficiency, shifts in supply and demand, or emerging technologies which may reduce the company’s competitiveness.³⁶

Structurally, each report should consist of three sections. First is “Governance Structure,” a statement from the board containing its overview, management of, and review of progress on ESG-related issues.³⁷ Second is “Reporting Principles,” which explain the application of principles such as materiality within the report; finally, there is “Reporting Boundary,” which explains the scope of the report.³⁸ HKEX has prepared an in-depth guide to assist boards and directors in writing a full report.³⁹

G. Barriers to regime implementation

Although the new regime is stricter than the former SFC voluntary reporting regime, it may not be enough to achieve full transparency. A 2019 HSBC report on sustainable investing in Asia concluded that one barrier to implementing ESG regimes in the continent is that Asian issuers tend to disclose less than those in other areas, and feel less pressure to increase disclosures.⁴⁰ This appears to hold true in Hong Kong. In early 2020, the South China Morning Post reported that in a study of 500 randomly-chosen Hong Kong companies’ ESG reports, only

³⁶ HONG KONG STOCK EXCHANGE, HOW TO PREPARE AN ESG REPORT: A STEP-BY-STEP GUIDE TO ESG REPORTING 3–4 (2020) [hereinafter ESG REPORTING GUIDE].

³⁷ APPENDIX 27, *supra* note 31, at 4.

³⁸ *Id.*

³⁹ *See* ESG REPORTING GUIDE, *supra* note 36.

⁴⁰ HSBC, SUSTAINABLE FINANCING AND INVESTING SURVEY 7 (2019).

39% fully disclosed their environmental KPIs.⁴¹ The rest offered only incomplete or no disclosure, and failed to give sufficient explanation as to why.⁴²

In a region where less than half of companies are currently reporting on their environmental KPIs, it is worth considering whether the temptation to maintain the status quo by “explaining” rather than complying with the new disclosure rules will be strong. With the current structure of reporting requirements, where any “non-material” aspect does not need to be disclosed, it is possible that boards will feel incentivized to lean on this explanation for a lack of disclosure rather than doing the more difficult work of drafting a report. It is also worth questioning whether boards have a true incentive for honest disclosure, or whether putting the burden on this particular group will lead to a “greenwashing” of the potential severity of environmental issues in an attempt to keep profits high.

Another area of uncertainty is the recently implemented national security law, which imposes strict penalties for anyone involved in “secession,” “subversion,” “terrorism,” or “collusion with foreign forces” against the Mainland.⁴³ Eddie Yue Wai-man, chief executive of HKMA, published a letter weeks after the law was implemented, seeking to reassure the public that fund inflows to Hong Kong remain high, that the law will not affect the city’s financial institutions, and that capital markets are still trading as usual.⁴⁴ However, there remains concern that the offenses targeted by the law are so broadly defined that they will generally stifle free

⁴¹ Eric Ng, *Hong Kong listed firms get ‘F’ on ESG report card, put on notice as rules become mandatory in 2021*, SOUTH CHINA MORNING POST (Jan. 1, 2020), <https://www.scmp.com/business/article/3044106/hong-kong-listed-firms-get-f-esg-report-card-put-notice-rules-become>.

⁴² *Id.*

⁴³ *Hong Kong’s national security law: 10 things you need to know*, AMNESTY INT’L (July 17, 2020), <https://www.amnesty.org/en/latest/news/2020/07/hong-kong-national-security-law-10-things-you-need-to-know/>.

⁴⁴ Enoch Yiu, *National Security Law: HKMA tells bankers it’s ‘business as usual’ as Hong Kong absorbed US \$14 billion of fund inflows since April*, SOUTH CHINA MORNING POST (Jul. 23, 2020).

speech,⁴⁵ which could have impacts such as discouraging accurate reporting on environmental disclosures which would negatively affect the Mainland's image. The law also appears to assert jurisdiction over people who are not even residents of Hong Kong,⁴⁶ which could make foreign investors hesitant to become more involved in the city's financial markets, lest they subject themselves to extradition by the Mainland for their political views.⁴⁷ Some foreign investors also predict that Mainland control of Hong Kong's capital markets will escalate,⁴⁸ which could affect Hong Kong's future ability to autonomously update its environmental disclosure regime.

It remains to be seen whether the comply or explain regime set forth under Appendix 27 will be sufficient to provide transparency to investors in regards to environmental issues in Hong Kong's current business environment.

⁴⁵ *Hong Kong's national security law: 10 things you need to know*, *supra* note 43.

⁴⁶ *Id.*

⁴⁷ *Most US firms in Hong Kong worried about new security law*, AL JAZEERA (Jul. 13, 2020), <https://www.aljazeera.com/economy/2020/7/13/most-us-firms-in-hong-kong-worried-about-new-security-law-survey>.

⁴⁸ Vincenzo Villamena, *Implications of Hong Kong's New Security Law*, FORBES (Oct. 15, 2020), <https://www.forbes.com/sites/theyec/2020/10/15/implications-of-hong-kongs-new-security-law-and-how-to-protect-your-business/?sh=146e70413952>.

F. China & Japan

1. Introduction

China and Japan present illustrative case studies reflecting the increased attention to environmental reporting requirements by government regulators across the Asia-Pacific region. By the end of 2021, all of China's stock exchanges will require listed companies and bond issuers to disclose ESG information to investors. Despite steadfast government support, implementation may prove a challenge for listed Chinese companies, which vary in terms of literacy in ESG and related information.¹ Japan, meanwhile, has also seen government-backed support for ESG disclosure, but has launched a series of initiatives focused on voluntary rather than mandatory disclosure.

A. China

China serves as a regional leader in the adoption of climate change-related initiatives, reflected in its strong performance in terms of its Paris Climate Accord commitments.² In 2016, China's central government issued the "Guidelines for Establishing a Green Financial System," which included a plan to introduce a mandatory ESG disclosure framework for listed companies and bond issuers.³ Fang Xinghai, Vice Chairman of the China Securities Regulatory Commission (CSRC) has repeatedly confirmed the intent to move forward with such a plan.⁴

¹ Foreign investors have only recently gained access to China's equity markets, *see infra* note 11, and given their familiarity with developed markets may be better poised to adopt any future ESG disclosure requirements.

² Adam Vaughan, *China is on track to meet its climate change goals nine years early*, NEW SCIENTIST (July 26, 2019), <https://www.newscientist.com/article/2211366-china-is-on-track-to-meet-its-climate-change-goals-nine-years-early/>.

³ *Guanyu Goujian Luse Jinrong Tixi de Zhidao Yijian* (关于构建绿色金融体系的指导意见) [*Guidelines for Establishing the Green Financial System*] (promulgated by the People's Bank of China, Sept. 2, 2016), People's Bank of China, <http://www.pbc.gov.cn/english/130721/3133045/index.html>.

⁴ Zuo Yonggang, *Fang Xinghai: 2020 Niandi Shangshi Gongsu Dou Xuyao Boluo Huanjing Xinxi* (2020 年底上市公司都需要披露环境信息) [*Fang Xinghai: By the End of 2020 All Listed Companies Must*

The CSRC is the chief regulator charged with overseeing the country's securities and futures markets. The CSRC reports directly to the central government's State Council, China's functional equivalent of a cabinet.⁵ Unlike the HKSE, the Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE) are both located on the mainland and are thus subject to the direct jurisdiction of the central government. The CSRC maintains two commissioner offices in Shanghai and Shenzhen.⁶ China's central bank, the People's Bank of China, also plays a coordinating role in the area of ESG disclosure, including through its promulgation of the 2016 guidelines.

The SSE and SZSE are on track to implement a mandatory disclosure scheme by the end of 2020.⁷ This follows the introduction of guidelines regarding the disclosure of ESG information for the SSE and SZSE in 2006 and 2008, respectively.⁸ While the mainland stock exchanges are expected to employ China's own standards for reporting, China's prior endorsement of international standards such as those developed by the TCFD suggest that there will be a degree of convergence with internationally recognized best practices.⁹

As with many government-backed initiatives in China, a key question is how effectively these measures—if indeed introduced on schedule—will be implemented. The fact that the trend toward mandatory ESG disclosure in China has been largely driven by government regulators may pose

Disclose Environmental Information], SECURITIES DAILY (Apr. 21, 2018, 5:38 PM), <http://www.zqrb.cn/stock/gupiaoyaowen/2018-04-21/A1524303545463.html>.

⁵ Eleanor Albert et al, *The Chinese Communist Party*, COUNCIL ON FOREIGN RELATIONS (June 9, 2020, 8:00 AM), <https://www.cfr.org/background/chinese-communist-party>.

⁶ *About CSRC*, CHINA SEC. REG. COMM'N, http://www.csrc.gov.cn/pub/csrc_en/about/ (last visited Sept. 26, 2020).

⁷ Gozde Celik, *Catching up on ESG standards: How do Chinese companies perform in social investing?*, KRASIA (July 23, 2020), <https://kr-asia.com/catching-up-on-esg-standards-how-do-chinese-companies-perform-in-social-investing>.

⁸ Thomas Hale, *Greater disclosure to open doors for China green investors*, FINANCIAL TIMES, June 5, 2020, <https://www.ft.com/content/427c0d9a-8eab-11ea-af59-5283fc4c0cb0>.

⁹ China launched a 3-year pilot program in collaboration with the United Kingdom in which a group of UK and Chinese companies pilot TCFD reporting standards. The China Green Finance Committee has also collaborated with the European Investment bank to explore efforts toward a standard-neutral taxonomy in green finance.

challenges in terms of adoption by companies in certain sectors or in state-owned enterprises (SOEs).¹⁰ Technology companies, for example, tend to place a greater emphasis on monitoring ESG issues than those in sectors such as manufacturing, while SOEs have less developed standards for corporate governance.¹¹ SOEs are also more prominent in high-emitting industries, reflected in their higher rates of violations of pollution control regulations.¹² At a more general level, “ESG disclosure by [listed] Chinese companies [] trails that found in other markets”¹³ and is driven by considerations other than stock exchange-issued standards, such as environmental protection laws.¹⁴ As a result, China’s ESG disclosure score, as calculated by Bloomberg, is one of the lowest among major economies (though it remains ahead of the United States).¹⁵

It should be noted that foreign investors have only recently gained access to China’s equity markets. As of July 2020, as part of China’s continued efforts at reform and opening, all caps on equity stakes in securities, fund management, futures, and life insurance have been removed.¹⁶ With the potential for foreign investors to play a greater role in China’s equity markets, boards comprised of individuals with experience in more developed markets may place a greater emphasis on ESG reporting and in turn contribute to the development of China’s nascent ESG disclosure system.

Such expectations should be measured, however, given the potential influence of U.S.-China economic and trade tensions on investor sentiment. Foreign direct investment in China dropped by 1.3%

¹⁰ Michael Lai, *ESG gains traction in China as investor base expands*, THE BANGKOK POST (Aug. 17, 2020), <https://www.bangkokpost.com/business/1969551/esg-gains-traction-in-china-as-investor-base-expands>.

¹¹ *Id.*

¹² XIAOSHU WANG ET AL., CHINA’S ECONOMIC TRANSFORMATION: A NEW ERA OF ESG OPPORTUNITY (June 2015), <https://www.msci.com/documents/10199/8b447f98-50bc-4d3d-b3f3-d4000a7084e7>.

¹³ Richard Sheng, *China needs to untangle its rules for ESG reporting*, NIKKEI ASIAN REV. (June 29, 2020, 9:22 PM), <https://asia.nikkei.com/Opinion/China-needs-to-untangle-its-rules-for-ESG-reporting>.

¹⁴ *See supra* note 7.

¹⁵ Gozde Celik, *ESG Standards Are Going to Be a Challenge for Chinese Companies*, EQUALOCEAN (Apr. 19, 2020, 10:28 AM), <https://equalocean.com/analysis/2020041913900>.

¹⁶ Cissy Zhou, *China eases restrictions on foreign investors, but is it too little too late?*, SOUTH CHINA MORNING POST (June 25, 2020, 10:07 PM) <https://www.scmp.com/economy/china-economy/article/3090620/china-eases-restrictions-foreign-investors-it-too-little-too>.

during H1 of 2020.¹⁷ Despite this, foreign investors have taken advantage of new investment opportunities in Chinese equity markets, and foreign investment in Chinese stocks and bonds has continued to steadily increase over the last few years.¹⁸ Even as the Trump administration seeks to increase regulation of Chinese investment in U.S. equity markets, highlighting the risks associated with financial ties to Chinese entities, U.S. and foreign investors more broadly may not be deterred from taking note of the strong growth prospects of the Chinese market.

B. Japan

Unlike in China, where movement toward mandatory ESG information disclosure has been driven by government regulators, the Japanese government has worked to encourage such disclosure in line with international best practices through collaborative efforts with industry groups and investors. Indeed, a joint report issued by the World Business Council for Sustainable Development and the Climate Disclosure Standards Board in 2019 found that “sustainability and integrated reporting have increased in Japan due to market drivers and investor expectations rather than through regulatory requirements.”¹⁹

Japan’s Financial Services Agency (FSA) is an integrated regulator that oversees regulation of the banking, securities, and insurance markets.²⁰ The Securities and Exchange Surveillance Commission, which sits within the FSA, oversees the exchange markets, including corporate disclosure requirements.²¹

¹⁷ *China H1 FDI down 1.3% y/y in yuan terms*, REUTERS, July 16, 2020, <https://www.reuters.com/article/china-economy-fdi/china-h1-fdi-down-13-y-y-in-yuan-terms-idUSB9N2EK04G>.

¹⁸ Narayanan Somasundaram, *China's stock market rally gets extra push from foreign investors*, NIKKEI ASIAN REV. (Aug. 20, 2020, 9:57 PM), <https://asia.nikkei.com/Business/Markets/China-s-stock-market-rally-gets-extra-push-from-foreign-investors>.

¹⁹ REPORT: ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) REPORTING LANDSCAPE IN JAPAN, CLIMATE DISCLOSURE STANDARDS BOARD (Feb. 11, 2019), <https://www.cdsb.net/harmonization/884/report-environmental-social-and-governance-esg-reporting-landscape-japan>.

²⁰ *List of licensed (registered) Financial Institutions*, FINANCIAL SERVICES AGENCY, <https://www.fsa.go.jp/en/regulated/licensed/index.html#06> (last accessed Sept. 4, 2020).

²¹ *FSA's Organization Chart (Outline)*, FINANCIAL SERVICES AGENCY, https://www.fsa.go.jp/common/about/organization/fsa_org_chart_en.pdf (last accessed Sept. 4, 2020).

Japan has five stock exchanges, the largest and most prominent of which is the Tokyo Stock Exchange run by the Japan Exchange Group.²²

Efforts toward encouraging ESG disclosure have been made pursuant to the “three arrows” of the so-called Abenomics strategy under the administration of Shinzo Abe: aggressive monetary policy; fiscal consolidation; and growth strategy. Implementation of the third “arrow” involved a review of corporate-investor relationships conducted by Kunio Ito, a Professor at Hitotsubashi University.²³ While not exclusively focused on ESG disclosure, the so-called “Ito Review” recommended that ESG information disclosure be linked to financial management “key performance indicators,” such as cost of capital or investment returns, so as to facilitate shared mid- to long-term perspectives between listed Japanese corporations and their investors.²⁴

As an example of the fruits of these government-directed studies, in December 2018 the Ministry of Economy, Trade and Industry (METI) released its Guidance for Climate-related Financial Disclosure, which endorsed the recommendations developed by a TCFD study group launched in the months prior.²⁵ In effect, the Guidance served to encourage companies to embark on ESG information disclosure in line with the TCFD Recommendations released in 2017. Recent initiatives reflect additional collaborations between the Japanese government and the private sector to encourage ESG information disclosure. An ESG Disclosure Study Group was launched in June 2020 to “carry out research related to ESG information disclosure” and involves nineteen private-sector companies, including representatives or subsidiaries of major Japanese conglomerates such as Mitsubishi UFJ Financial Group, Inc., Mizuho

²² *Tokyo Stock Exchange (TSE)*, INVESTOPEDIA, <https://www.investopedia.com/terms/t/tokyo.asp>.

²³ KUNIO ITO, ITO REVIEW OF COMPETITIVENESS AND INCENTIVES FOR SUSTAINABLE GROWTH BUILDING RELATIONSHIPS BETWEEN COMPANIES AND INVESTORS (Aug. 2014), https://www.meti.go.jp/english/policy/economy/corporate_governance/pdf/FRIR.pdf.

²⁴ *Id.* at 107.

²⁵ *METI Formulates TCFD Guidance and Declares its Support for TCFD*, MINISTRY OF ECONOMY, TRADE AND INDUSTRY (Dec. 25, 2018), https://www.meti.go.jp/english/press/2018/1225_006.html (Japan).

Financial Group, Inc., and Hitachi, Ltd.²⁶ That same month, Japan Exchange Group and the Tokyo Stock Exchange issued a Practical Handbook for ESG Disclosure, aimed at stymying differing expectations between corporates and investors and harmonizing the often-overlapping standards for ESG information reporting.²⁷ The Handbook includes four main “steps” that companies can employ, which were developed in reference to international standards such as the TCFD as well as those from the Sustainability Accounting Standards Board, The International Integrated Reporting Council, and the Global Reporting Initiative.

Challenges that Japan may face going forward include successful explanation of how the ESG information disclosed is material to the business as Japanese corporates struggle to “meet external data requirements while also identifying the sustainability information that is key to conveying the company’s strategy and priorities.”²⁸ At present, a majority of Japanese companies appear to lack a unified, robust means of assessing materiality of ESG issues.²⁹ Japan’s ESG disclosure score as calculated by Bloomberg, like China’s, also still lags behind the UK and European countries such as France and Germany.³⁰ In any event, recent initiatives such as the ESG Disclosure Study Group demonstrate shared interest in improving Japan’s position in this regard by both the government and Japanese corporates.

G. Editor’s Note: February 2021 Update

There have been several developments since our team finished its research in September 2020.

²⁶ Yuzo Yamaguchi, *Japanese companies mull local standards on sustainable investing, disclosure*, S&P GLOBAL (July 13, 2020), <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/japanese-companies-mull-local-standards-on-sustainable-investing-disclosure-59404133>.

²⁷ *Japan Exchange Group and Tokyo Stock Exchange publish ESG disclosure handbook*, WORLD FEDERATION OF EXCHANGES (June 2020), <https://focus.world-exchanges.org/articles/japan-esg-disclosure>.

²⁸ CORPORATE AND SUSTAINABILITY REPORTING TRENDS IN JAPAN, CLIMATE DISCLOSURE STANDARDS BOARD (2019), https://www.cdsb.net/sites/default/files/wbcasd_japancasestudy_online_final_2019.pdf.

²⁹ *Id.*

³⁰ *See supra* note 15.

United States:

Significant moves have been made in the U.S. towards a climate disclosure mandate. The Biden Administration, inaugurated in January 2021, brings with it a more aggressive regulatory approach to both scope and enforcement, including announcing the development of “a more comprehensive framework that produces consistent, comparable, and reliable climate-related disclosure.”¹ Gary Gensler, Biden’s pick to lead the SEC, signaled in his nomination hearing before the Senate Banking Committee that he was ready to advance that agenda: “In 2021, there’s tens of trillions of dollars of invested assets that are looking for more information about climate risk . . . And I think then the SEC has a role to play to bring some consistency and comparability to those disclosures.”² On March 5, 2021, the SEC announced it had rolled out a 22-person task force as a central component of its “effort to update guidance for public companies on how they share information with investors on climate risk and made the topic a priority for 2021 examinations.”³

European Union:

In the EU, progress continues despite some bumps in the road. The SFDR takes effect bloc-wide on March 10, 2021, but the ESAs announced a delay in the release of the specific (so called “Level 2”) Regulatory Technical Standards (RTS) needed for *full* implementation of the harmonized disclosure

¹ Tory Newmyer, *President Biden’s SEC pick signals companies could face new wave of disclosure rules*, WASH. POST (Mar. 2, 2021, 5:52 PM), <https://www.washingtonpost.com/business/2021/03/02/gensler-chopra-sec-cfpb-confirmation/>.

² *Id.* The issue is by no means settled as a political matter; Senate Republicans are already accusing Democrats of causing the SEC to “stray from its tradition of bipartisanship by using its regulatory powers to advance a liberal social and cultural agenda” on issues such as climate change. *Id.* (quoting Sen. Patrick Toomey). *See also* Zachary Warmbrodt, *Big Business squirms as Biden tightens climate regulations*, POLITICO (Feb. 8, 2021, 6:01 AM), <https://www.politico.com/news/2021/02/08/biden-climate-backlash-big-business-467130> (quoting business-friendly groups and Republican lawmakers voicing distaste and unease about the SEC’s foray into ESG).

³ Chris Prentice, *U.S. markets regulator deploys team to target climate, ESG misconduct*, REUTERS (Mar. 4, 2021, 1:55 PM), https://www.reuters.com/article/businessNews/idUSKBN2AW2KH?campaign_id=4&emc=edit_dk_20210305&il=0&instance_id=27753&nl=dealbook®i_id=73987285&segment_id=52844&te=1&user_id=0b038cbe5c922a7df3c2055d6fc5bf80.

regime.⁴ The EC is still requiring “high level principles-based” compliance as of March 2021, and “best efforts” attempts to further the policy goals of those SFDR provisions that rely on the RTS.⁵ SFDR Article 4 compliance requirements will begin at comply-or-explain in March and transition to mandatory compliance in June 2021.⁶ Although these piecemeal steps may mean extra paperwork for FMPs, and concerns about disadvantaging EU companies vis-a-vis competitors in lesser-regulated markets,⁷ the calls for initiatives like the SFDR remain strong.⁸ Additional changes are expected to take effect January 2022, and member state governments may strengthen the SFDR as applied to their national securities markets.

United Kingdom:

Although the twin crises of Brexit and the Covid-19 pandemic have roiled the U.K. in 2020, momentum continues. The UK Centre for Greening Finance and Investment (CGFI) will launch in April 2021 with £10 million (\$13.8 million) in government funding with the aim of accelerating “world-class” risks analysis in its financial institutions.⁹ Pension funds are supportive of the project and investment managers have expressed their approval.¹⁰ The FCA officially adopted a listing rule requiring premium listed commercial companies to have TCFD-compliant climate risk disclosures in their 2021 annual

⁴ *SFDR: Regulatory Technical Standards: Disharmonious Delay?*, DECHERT LLP (Oct. 8, 2020), <https://www.dechert.com/knowledge/onpoint/2020/10/sfdr--regulatory-technical-standards--disharmonious-delay-.html>.

⁵ *European Commission delays application of SFDR Level 2 RTS*, SIMMONS & SIMMONS LLP (updated Nov. 3, 2020), <https://www.simmons-simmons.com/en/publications/ckfy0n7sz6yal0a25lk4acasc/european-commission-delays-application-of-sfdr-level-2-rts>.

⁶ *Id.*

⁷ Rachel Fixsen & Susanna Rust, *Stakeholders wary of latent snags in EC’s sustainable-governance plan*, IPE MAG., Mar. 2021, at 10.

⁸ *See, e.g.,* Luigi Serenelli, *German investors expect positive impact of new EU disclosure rules*, IPE MAG., Mar. 2021. The same magazine reports that 67% of respondents to an EC survey wanted stronger auditing requirements for non-financial disclosures, 62% favored *all* large public-interest entities be covered, and 82% thought a mandatory uniform standard would address comparability, reliability, and relevance problems. *See* Elisabeth Jeffries, *ESG reporting upgrade*, IPE MAG., Mar. 2021, at 43–44.

⁹ Susanna Rust, *New UK centre aims to ‘transform availability of climate data in finance’ to assist transition to sustainability*, IPE MAG., Mar. 2021, at 8.

¹⁰ *Id.*

reports (to be published in 2022) and each year thereafter.¹¹ Enforcement will begin with a comply-or-explain model but the legal and investment communities expect a true mandatory regime to follow.¹² A wider-ranging “Technical Note” is in the works that would require *all* UK-listed issuers to have climate-risk-assessment systems.¹³

H. Conclusion

Due to reticent government action, market forces and an unusual kind of soft law have so far been the driving factors behind the regulation of environmental disclosures. Though a lack of standardization amongst different markets’ requirements still poses issues for investors and businesses navigating the regulatory landscape, the TCFD recommendations have emerged as the global standard, largely due to their support by powerful market actors. Some have even likened BlackRock CEO Larry Fink’s overt recommendation that businesses disclose climate information in line with TCFD standards to a “quasi-regulatory” order. While many nations still lag behind in their implementation of mandatory disclosure requirements, there appears to be a pressure from these market forces to fall in line with international standards or suffer the financial and reputational consequences.

While the United States has been slow to implement a legal framework, due to factors such as political forces and constraints on the SEC’s legal power, the European Union has presented a plethora of voluntary disclosure options--perhaps too many for investors to navigate successfully. The UK and Hong Kong have implemented regimes quite close to the TCFD’s

¹¹ Kate Astley, Victoria Rankmore & Matthew Townsend, *Enhanced climate-related financial risk disclosure for companies with UK-listed shares*, JD SUPRA (Feb. 5, 2021), <https://www.jdsupra.com/legalnews/enhanced-climate-related-financial-risk-5837769/>.

¹² *See id.* (observing that “as availability of data widens and tools and models improve, climate disclosure requirements are destined to become more stringent”).

¹³ *See* FIN. CONDUCT AUTH., PROPOSALS TO ENHANCE CLIMATE-RELATED DISCLOSURES BY LISTED ISSUERS AND CLARIFICATION OF EXISTING DISCLOSURE OBLIGATIONS, 2020, POLICY STATEMENT PS 20/17 (UK).

recommendations, though both stop short of requiring mandatory disclosure. Japan and Mainland China are slowly but surely making progress. Japan has begun efforts of government and private sector collaboration to encourage these standards, while the Mainland has worked in partnership with the UK to explore disclosures and consistently reiterated its goal to eventually implement them. Overall, the world's largest financial markets vary in terms of degree of disclosures recommended and the amount of regulations in place, but all seem to share the same goal: increasing transparency around business's environmental impacts. And yet, the desire to require anything stricter than voluntary disclosures appears to be unpopular. None of these markets has yet implemented a robust, mandatory environmental disclosure regime with genuine consequences for non-compliance.

In truth, there are consequences for the lack of transparency around the environmental harms done by businesses, but these are currently felt by the planet, not by financial markets. That will soon change. As the concrete consequences of climate change worsen, as the number of climate refugees grows and entire nations disappear into the ocean, there will eventually be a resounding economic impact for the entire world. It is worthwhile to ask, are the current efforts to regulate financial markets doing enough to prepare us for this incoming crisis?

One issue with the current way of framing environmental disclosures is placing them in a broader context of "ESG" goals. While social goals, such as increasing gender parity in the workplace, are certainly worthwhile pursuits, it is possible that the urgency of the environmental crisis in our world is being obscured by pushing all of these disparate topics into one policy package. There is no legal reason that a report on carbon emissions should also contain data on labor standards. A more adequate response would be to specifically make environmental disclosures mandatory, given that action against climate change is so urgent and critical, and

merely recommend voluntary disclosures of the social and governance topics that remain important but not life-threatening.

Another issue is the complexity of some disclosure requirements, paired with the lack of training on how to adequately complete them, which will likely reduce compliance.

Contradictorily, policies with the goal of increasing transparency on environmental practices may prove too obtuse for the average stakeholder to understand or fulfil. Particularly in regimes like the EU, where overlapping requirements of member states and the overarching governance structure create a minefield of varied requirements, there is a risk of businesses misunderstanding how to comply, or choosing not to comply at all because it would be too complicated and time-consuming to learn how.

Finally, it is worth asking whether simply being more transparent about environmental harms is a proportional response to the role of the business sector in causing environmental destruction around the world. Transparency will not reduce carbon emissions, remove toxic chemicals from the environment, or rebuild communities forced from their lands due to drought and natural disasters. Ideally, there need to be real penalties imposed by the legal system, not just for companies failing to comply with disclosure requirements, but for those who are proven by disclosure to be the worst offenders, as well as those who lack concrete plans for reducing their planetary footprint moving forward. Nothing short of drastic systemic change will avert the oncoming crisis, and hesitancy to impose even voluntary disclosures is an insufficient and disproportionate response. Regulators may be hesitant to make bold moves, fearful of the effects on the world's economy. But if we fail to prevent New York, Hong Kong, and London from being swept away by the ocean, there may be no market left to regulate at all.

Part IV: CENTRAL BANKS AND CLIMATE CHANGE

Introduction

As climate change becomes a more urgent priority for governments around the world, some are looking to the role that central banks can play in combating its dangerous effects, while others appear more dogmatic that climate action falls outside of central banks' remit. In what follows, this paper focuses on four central banks that are of particular importance to the global financial system: the U.S. Federal Reserve, the European Central Bank, the Bank of England, and the Bank of Japan, often collectively referred to as the "G4."¹ They are respectively responsible for the world's four most widely held reserve currencies and are often viewed as peer institutions that share information, coordinate during times of financial crisis, and discuss central bank policy. The paper also considers the role of the International Monetary Fund because of the critical role it serves in fostering global monetary cooperation between central banks and in safeguarding financial stability.

Each section (1) describes the statutory authority each institution has within its respective system; (2) identifies the financial institution's own position on climate change and its institutional posture; and (3) teases out the outer limits of what sort of climate action is possible, acknowledging and describing the limits of climate action in terms of the given institution's authority and willingness to act. The G4 central banks are in various ways restricted in their ability to take climate action, with, for example, the Bank of Japan lacking prudential regulatory

¹ SOMNATH KARMAKAR AND SUBHAJIT MAJUMDER, *THE IMPACTS OF MONETARY POLICY IN THE 21ST CENTURY* 278 (Ramesh Chandra Das ed., 2019).

authority, and the Federal Reserve constrained by unfavorable political dynamics. However, these institutions nevertheless possess broad statutory authority and have significant policy options at their disposal, including responding to climate change through monetary policy decisions, employing their convening authority within their financial systems to coordinate and share best practices on addressing climate change risks, as well as researching and understanding the impacts of climate change on the economy.

A. The U.S. Federal Reserve

Overview

The Federal Reserve (the “Fed”) long avoided weighing in on the effects of climate change on the economy. In 2019, however, the Federal Reserve Bank of San Francisco hosted the system’s first climate research conference, and its president, Mary C. Daly, stated that recognizing the risks of climate change is “essential to achieving [the Fed’s] mission.”¹ Fed Chairman, Jerome Powell, also previously stated that “the public has every right to expect...that [the Fed] will assure that the financial system is resilient and robust against the risks of climate change.”² In December 2020, the Federal Reserve Board of Governors (the “Board”) announced that it formally joined the Network for Greening the Financial System, a forum comprised of over sixty central banks and monetary authorities devoted to adapting the financial system to climate change.³ Nevertheless, climate change is a politically sensitive issue in the United States,

¹ Jeanna Smialek, *Why the Fed, Long Reticent, Has Started to Talk About Climate Change*, N.Y. TIMES (Nov. 8, 2019), <https://www.nytimes.com/2019/11/08/business/economy/federal-reserve-climate-change.html>.

² Katia Dmitrieva, *Powell Says Fed is Likely to Join Group of Green Central Banks*, BLOOMBERG (Jan. 29, 2020, 3:50 PM), <https://www.bloomberg.com/news/articles/2020-01-29/powell-says-fed-is-likely-to-join-group-of-green-central-banks>.

³ Press Release, Federal Reserve Board, Federal Reserve Board announces it has formally joined the Network of Central Banks and Supervisors for Greening the Financial System, or NGFS, as a member (Dec. 15, 2020), <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20201215a.htm>.

and as an independent government agency, the Fed is eager to avoid entanglement with politicians who may oppose the central bank taking climate-related action. Even if the Federal Reserve includes climate change as a consideration in its formulation of monetary policy and financial regulation to achieve nonpartisan economic ends, taking explicit action on climate change may be interpreted as the Fed going beyond its remit or stepping into the purview of elected officials.

As severe weather events and rising temperatures impede economic growth and place strains on the financial system,⁴ it may become more difficult for the Fed to achieve its core macroeconomic and financial stability objectives while remaining insulated from the political process.⁵ At the very least, the Fed will likely have to consider climate change data in making its monetary policy decisions and adapt its supervision duties to encourage banks to include climate change in their risk management systems. The Fed may also implement more proactive measures, for example, by directly applying its considerable prudential regulation powers to actively reverse the harmful effects of climate change.

Despite growing acknowledgment that climate change can create uncertainty and hamper economic growth, at present, there does not appear to be robust support for the Fed to assume a leading role in combating climate change. Additionally, political realities may preclude Fed leadership from adopting broader interpretations of the Fed's monetary policy mandate and financial stability function to address climate change risks, though with President Joseph Biden's election and Democratic control of Congress, the Fed may have more room to act.

Sources of Authority

⁴ Mary C. Daly, *Why Climate Change Matters to Us*, Remarks at the Economics of Climate Change Conference at the Fed. Reserve Bank of S.F., (Nov. 8, 2019).

⁵ See Scott A. Wolla, *Independence, Accountability, and the Federal Reserve System*, Page One Economics, FEDERAL RESERVE BANK OF ST. LOUIS (May 2020).

The Fed was created by Congress through the Federal Reserve Act in 1913 to provide the United States with a safe and stable monetary and financial system.⁶ Congress specified that the purpose behind the creation of the Federal Reserve was “to furnish an elastic currency, to afford means of rediscounting commercial paper, [and] to establish a more effective supervision of banking in the United States.”⁷ In other words, the Federal Reserve’s founding purpose was to provide the nation with bank reserves and a flexible currency supply, as well as to prevent the perennial banking crises that had shocked the American economy.⁸ In 1977, Congress responded to years of persistent inflation and unemployment by amending the Federal Reserve Act to include explicit macroeconomic objectives under Section 2A: promoting maximum employment and stable prices (often defined as an inflation rate of two percent).⁹ These two monetary policy goals are primarily achieved through affecting the availability and cost of money and credit in the economy and are collectively referred to as the Fed’s “dual mandate.”¹⁰

The Federal Reserve’s financial stability function includes minimizing and containing “systemic risks” to the financial system, as well as supervising and regulating individual financial institutions to ensure that they are run in a “safe and sound” manner.¹¹ Although the

⁶ See THE FEDERAL RESERVE SYSTEM PURPOSES & FUNCTIONS 23 (Board of Governors of the Federal Reserve System, 10th ed. 2016).

⁷ Federal Reserve Act. Pub. L. 63-43, ch. 6, 38 Stat. 251 (1913).

⁸ Joy Zhu, *Federal Reserve Reform Act of 1977*, FEDERAL RESERVE HISTORY (Nov. 22, 2013), https://www.federalreservehistory.org/essays/fed_reform_act_of_1977.

⁹ 12 U.S.C. § 225(a); Federal Reserve Reform Act. Pub. L. 95-188, 91 Stat. 1387 (1977).

¹⁰ A third goal of moderate long-term interest rates is included in 12 U.S.C. § 225(a) but is less commonly discussed because “long-term interest rates can remain low only in a stable macroeconomic environment...that is, the Federal Reserve seeks to promote the two coequal objectives of maximum employment and price stability.” Frederic S. Mishkin, *Monetary Policy and the Dual Mandate*, Address at Bridgewater College, Bridgewater, Va., (Apr. 10, 2007).

¹¹ The Board of Governors of the Federal Reserve System defines a financial system as being stable when “financial institutions— banks, savings and loans, and other financial product and service providers—and financial markets are able to provide households, communities, and businesses with the resources, services, and products they need to invest, grow, and participate in a well-functioning economy.” THE FEDERAL RESERVE SYSTEM PURPOSES & FUNCTIONS at 56. “Systemic risk” does not have a uniform definition under U.S. law, but the International Monetary Fund and Bank of International Settlements

original Federal Reserve Act specified the Fed’s bank supervision authority, it did not provide the Fed with a statutory mandate to maintain the overall stability of the financial system. This responsibility has nevertheless been implied, as a stable financial system is considered necessary for economic growth and the Fed’s achievement of its macroeconomic objectives.¹² Indeed, the Fed routinely employs monetary policy to stabilize the financial system in the face of adverse economic events by cutting interest rates, which lowers the cost of capital for borrowers, reduces market uncertainty about the value of assets, and enables firms and households to increase their spending.¹³ Additionally, the Board of Governors of the Federal Reserve System explicitly recognizes that the Fed’s primary functions include “promot[ing] the stability of the financial system and seek[ing] to minimize and contain systemic risks through active monitoring and engagement in the U.S. and abroad.”¹⁴

After Congress passed the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank”) in response to the Global Financial Crisis, the Fed’s role in safeguarding financial stability became firmly codified in law.¹⁵ Dodd-Frank tasked the Fed with mitigating risks to the financial system by acting in response to market dysfunction or the failure of a systemically important financial institution. In particular, Dodd-Frank assigned the Federal Reserve the responsibility of supervising and regulating large U.S. bank holding companies, as

describes systemic risk as the “risk of disruption to financial services that is caused by an impairment of all or parts of the financial system and has the potential to have serious negative consequences for the real economy.” Graham Steele, *Green Light: How Dodd-Frank can Address Wall Street’s Role in the Climate Crisis* 10, n. 35, GREAT DEMOCRACY INITIATIVE (Jan. 2020); *see also* Renee Haltom & John A. Weinberg, *Does the Fed Have a Financial Stability Mandate?*, FEDERAL RESERVE BANK OF RICHMOND ECONOMIC BRIEF 2 (June 2017).

¹² Frederic S. Mishkin, *Financial Instability and Monetary Policy*, Address at the Risk USA 2007 Conference New York, (Nov. 5, 2007).

¹³ *Id.*

¹⁴ THE FEDERAL RESERVE SYSTEM PURPOSES & FUNCTIONS, *supra* note 6, at 1.

¹⁵ *See*, Haltom & Weinberg, *supra* note 12, at 2.

well as the U.S. operations of foreign banking organizations, under heightened prudential standards outlined in Section 165 of the act.¹⁶ Dodd-Frank also mandated the creation of the Financial Stability Oversight Council (“FSOC”), which is comprised of all of the financial regulatory agencies, including the Federal Reserve, and is charged with identifying risks to financial stability, promoting market discipline by reducing the expectation of government bailouts, and responding to emerging threats to the financial system.¹⁷ Although Dodd-Frank outlines specific prudential standards that may be promulgated by the Fed, such as enhanced public disclosures, and limits on off-balance sheet exposures and financial leverage, the statute also provides significant discretion to regulatory agencies in determining how best to preserve financial stability and mitigate systemic risk.¹⁸

Avenues for Taking Climate Action

Monetary Policy that Accounts for Climate-related Impacts

The Fed uses its key monetary policy tools – namely, adjusting the federal funds rate and conducting large-scale asset purchases – to achieve its dual mandate of maximum employment and price stability and to help the economy weather adverse events.¹⁹ However, as the effects of climate change present clear financial risks, the Fed will likely have to consider climate-related

¹⁶ Section 165 has been interpreted as providing the Federal Reserve with a clear financial stability mandate. Steele, *supra* note 11, at 15 & n. 53; 12 U.S.C. § 5365(a)(1); THE FEDERAL RESERVE SYSTEM PURPOSES & FUNCTIONS, *supra* note 6, at 79–80.

¹⁷ See 12 U.S.C. § 5321–22.

¹⁸ 12 U.S.C. § 5365(b)(1); Steele, *supra* note 11, at 14.

¹⁹ The European Central Bank has begun favoring environmentally friendly bonds in its monetary policy, and in particular through its corporate sector purchase program. In contrast, the Fed is restricted to purchasing Treasury securities and longer-term securities issued or guaranteed by government-sponsored agencies such as Fannie Mae or Freddie Mac in its open market operations. Thus, in contrast to the ECB, the Fed does not have a similar option of “greening” its asset purchases or bond buying programs. See Isabel Schnabel, Member of the Executive Board of the ECB, Remarks at a virtual roundtable on “Sustainable Crisis Responses in Europe” organized by the INSPIRE research network (July 17, 2020), <https://www.ecb.europa.eu/press/key/date/2020/html/ecb.sp200717~1556b0f988.en.html>; *Credit and Liquidity Programs and the Balance Sheet*, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM (August 13, 2019), https://www.federalreserve.gov/monetarypolicy/bst_openmarketops.htm.

impacts in its monetary policy decisions and integrate climate risk into economic outlook assessments in order to satisfy its dual mandate.²⁰ In fact, in a November 2019 speech, Lael Brainard, a Governor of the Federal Reserve Board, stated that the high levels of uncertainty regarding climate-related events, as well as the policies enacted to mitigate climate change, will influence price stability and employment, thereby restraining economic activity and affecting the Fed's ability to fulfill its mandate.²¹

While there appears to be little disagreement that the Fed may eventually have to respond to such events – either by setting monetary policy that will be “resilient to climate-induced disruptions,” or by integrating climate risk into its economic outlook assessments – the degree to which the Fed can use its monetary policy tools to preemptively address exogenous shocks to the economy appears to be left to the discretion of the Federal Open Market Committee (“FOMC”) and the Board of Governors.²² It is important to note, however, that even climate risks that are decades ahead may have near-term financial consequences, because equity prices and long-term financial assets rely on expected future conditions.²³ Additionally, economic research that influences the formulation of monetary policy – including research routinely conducted by central banks – often employs long-term models that take into account future projections of economic indicators or demographic trends.²⁴ Because future climate change will likely have immediate effects on present economic condition, a preemptive monetary policy response

²⁰ *Addressing Climate as a Systemic Risk: A Call to Action for U.S. Financial Regulators*, THE CERES ACCELERATOR FOR SUSTAINABLE CAPITAL MARKETS 18, (June 2020).

²¹ Lael Brainard, *Why Climate Change Matters for Monetary Policy and Financial Stability*, Remarks at "The Economics of Climate Change" research conference sponsored by the Federal Reserve Bank of San Francisco (Nov. 8, 2019).

²² *Addressing Climate as a Systemic Risk*, *supra* note 20, at 24.

²³ Glenn D. Rudebusch, *Climate Change and the Federal Reserve*, Federal Reserve Bank of San Francisco Economic Letter (March 25, 2019).

²⁴ *Id.*

informed by assumptions regarding the future impact of climate change would likely be consistent with agency practice and within the bounds of the Fed’s remit under Section 2A of the Federal Reserve Act.

Using Bank Supervision and Regulation to Address Climate Change

The Federal Reserve Act and Dodd-Frank provide statutory bases for the Fed to address risks to the financial stability of the United States. Some observers have argued that fulfilling this purpose requires that the Fed employ its supervisory and regulatory authority to address system-wide climate-related risks, citing in particular Section 165 of Dodd-Frank and the role of the FSOC.²⁵ Others have been careful to point out that while regulators should ensure that risk management frameworks at financial firms address climate risks, they are “not in a position to advocate for, or provide incentives for a particular policy outcome.”²⁶ At present, the world’s largest financial institutions are major financiers of the fossil fuel industries and have significant credit, market, and operational risk exposures to climate change.²⁷ Thus, the case for taking action on climate change to fulfill the Fed’s financial stability objective seems clear. Nevertheless, the Fed may also be wary of undermining the government or legislature by effecting a specific policy choice.

In addition to the prudential standards required under 12 U.S.C. § 5365(i)(1)(A), Section 165 provides the Federal Reserve with the authority to impose macroprudential standards on large, interconnected financial institutions and non-bank financial companies supervised by the

²⁵ Steele, *supra* note 11, at 14.

²⁶ Kevin Stiroh, *Climate Change and Risk management in Bank Supervision*, Remarks at the conference on “Risks, Opportunities, and Investment in the Era of Climate Change” at Harvard Business School (Mar. 4, 2020).

²⁷ Steele, *supra* note 11, at 7–8.

Board of Governors that it “determines are appropriate.”²⁸ According to a January 2020 report from the Great Democracy Initiative, a progressive advocacy group, this high degree of discretion given to the Board could allow the Fed “to incorporate the risks of climate change-causing activities and climate driven events into prudential regulations on the basis of their potential implications for financial stability.” For example, “risk-based capital requirements and leverage limits” is listed as the first required prudential standard that must be established by the Board under Section 165.²⁹ As climate change heightens the riskiness of certain financial assets, the risk weightings of bank capital adequacy ratios (measured as a firm’s available capital expressed as a percentage of a bank’s risk-weighted credit exposures) can be updated to account for potential capital losses from climate events that are occurring with greater frequency.³⁰ Similarly, the Board might deem appropriate that firms should be limited in the amount of climate change-related assets that are permitted in their lending and investment portfolios in order to address financial stability vulnerabilities arising from climate change risks.³¹

Despite the Fed’s authority to impose direct regulations on financial institutions, legislative opposition during the federal rule-making process would likely present significant challenges to the Board’s promulgating climate-related prudential standards, in contrast to the Fed’s authority to set monetary policy, which is held by the FOMC.³² Here, Congress enjoys

²⁸ Fed Chairman Ben Bernanke described a “macroprudential approach” to financial regulation as one that supplements traditional supervision and regulation of individual firms or markets with explicit consideration of threats to the stability of the financial system as a whole.” Ben S. Bernanke, *Implementing a Macroprudential Approach to Supervision and Regulation*, Remarks at 47th Conference on Bank Structure and Competition, Federal Reserve Bank of Chicago (May 11, 2011); 12 U.S.C. § 5365(b)(1)(B)(iv).

²⁹ 12 U.S.C. § 5365(i)(1)(A).

³⁰ Steele cites commercial real estate’s increased vulnerability to flooding and high energy costs as an example of climate change raising the riskiness of certain financial assets. Steele, *supra* note 11, at 16–17 & n. 55.

³¹ *Id.* at 19 & n. 69.

³² For an overview of the rule-making process, see Maeve P. Carey, CONG. RSCH. SERV., IF10003, AN OVERVIEW OF FEDERAL REGULATIONS AND THE RULEMAKING PROCESS (Jan. 7, 2019).

procedural controls on agencies that have been granted the authority to implement statutory programs, including ensuring that the public is able to participate in a notice and comment rulemaking process as required by the Administrative Procedure Act (“APA”).³³ Specifically, section 553 of the APA requires that an agency provide notice that it intends to promulgate rules and to publish any proposed rules in the *Federal Register*.³⁴ Because of the politically sensitive nature of the climate debate in American politics, any attempt by the Fed to promulgate rules under its Section 165 authority may be met with financial industry and legislative pushback during the rule-making process. Ultimately, proposed rules that receive bipartisan support and overcome industry interests will likely have to be supported by a comprehensive analytical framework that measures precisely how financial activities affect climate change and increase risks to financial stability.

Finally, as noted above, the Financial Stability Oversight Council is given broad authority to respond to risks to financial stability, promote market discipline, and respond to emerging threats to the financial system.³⁵ As a member of the FSOC, the Chairman of the Fed can seek to prioritize climate risk, but the council is chaired by the Secretary of the Treasury and comprises ten voting members and five non voting members who lead the United States’ primary financial regulatory agencies. Thus, despite the FSOC’s expansive mandate to identify and respond to emerging systemic risks and to subject nonbank financial companies to enhanced regulation if they pose a threat to financial stability, achieving consensus on how to address climate change risks will likely be difficult.³⁶

³³ *Id.*

³⁴ 5 U.S.C. § 553.

³⁵ *See* 12 U.S.C. § 5321–22.

³⁶ The FSOC has not mentioned the issue of climate change in any of its annual reports since 2017. Steele, *supra* note 11, at 27 & n. 112.

The Fed's prudential regulation authority provides perhaps the most effective and flexible means for taking proactive measures on climate change. Dodd-Frank supplemented the Fed's existing bank supervision and regulation powers with the broad authority to impose macroprudential standards on firms as it "determines are appropriate," while the FSOC was tasked with identifying emerging risks (which it could determine to include climate change) to the financial system. Ultimately, because of the political challenges it faces, the Fed is unlikely to employ its supervision and regulation powers to combat climate change.

Informal Mechanisms for Addressing Climate Change

Beyond the formal mechanism of direct regulation, the Fed has significant informal power to shape the financial system's response to climate change. The Fed plays an important role as a coordinating forum for the American financial system, with the power to convene major players in the financial system, to cooperate with foreign and international institutions in creating standards, and to develop soft law principles for financial institutions. Where practical political considerations prevent the Fed from acting formally, such informal, quasi-legal mechanisms may prove a more effective means for addressing climate change, should the Fed decide to take advantage of them.

As the nation's Central Bank, the Fed wields significant informal authority to shape financial markets through its power to convene the major institutional players in the financial system. By bringing together the most important actors in the financial system to study climate change, the Fed can play an educating role on climate-related issues, gradually working towards shifting the institutional culture at major firms and developing best practices with respect to climate change. Indeed, the New York Fed has recently attempted to use this convening authority

to address banking ethics and culture in lieu of direct regulation.³⁷ Although these methods have so far yielded little concrete action on the part of banks, it must be remembered that the use of this convening power to shift institutional culture is designed to be a long-term process aimed at addressing problems that are difficult to fix using short term policies. These methods are a supplement to, rather than a substitute for, more conventional policies.

Although direct climate-change regulation remains difficult to implement, the Fed may attempt to supplement conventional policy with more indirect methods of addressing climate change. Using its convening power, the Fed has the ability to place climate change at the top of the agenda and to signal to major institutional players that the regulators take climate change seriously. Moreover, convening the major players in the financial system may serve as a starting point for a more institutionalized process aimed at developing financial industry standards related to climate change.

These standards need not be enforced through formal regulatory mechanisms nor do they need to be legally binding. If sufficiently institutionalized, these standards may take on the character of “soft law,” non-binding rules that are nevertheless widely accepted and observed among a given set of actors.³⁸ Although soft law may not share the same legally binding qualities

³⁷ See, e.g., David Zaring, *Regulating Banking Ethics: A Toolkit*, 43 SEATTLE U. L.R. 555, 562-563 (2020); James Hennessey, Senior Vice President, Fed. Reserve Bank of N.Y., Remarks at Westminster Business Forum Policy Conference: We're Only Human: Culture and Change Management (Sep. 5, 2019), <https://www.newyorkfed.org/newsevents/speeches/2019/hen190905>; Kevin J. Stiroh, Exec. Vice President, Fed. Reserve of N.Y., Remarks at the 4th Annual Culture and Conduct Forum for the Financial Services Industry: Complexity of Culture Reform in Finance (Oct. 4, 2018), <https://www.newyorkfed.org/newsevents/speeches/2018/sti181004>; William C. Dudley, Former President & Chief Exec. Officer, Fed. Reserve Bank of N.Y., Speech at Federal Reserve Bank of New York: Strengthening Culture for the Long Term 3-4 (June 18, 2018), <https://www.newyorkfed.org/medialibrary/media/governance-and-culture-reform/Dudleyculture-conference-180618.pdf>.

³⁸ Andrew T. Guzman & Timothy L. Meyer, *International Soft Law*, 2 J. LEGAL ANALYSIS 171, 173 (Spring 2010).

as formal “hard” law, soft law principles may still invite widespread compliance and, over time, engender legal consequences.³⁹

Even if the process does not result in widespread compliance, this sort of gradual, scaled approach may be preferable to direct action because it avoids the potentially sticky political problems associated with direct regulation and would allow the Fed to move at the speed of the politically possible. Thus, what begins as an informal convening exercise may grow into a more institutionalized standard-setting process, or eventually, the basis for future regulatory action.

The Fed has already entered into international arrangements targeted at addressing climate change, notably with the Board’s decision to join the NGFS, the worldwide grouping of central banks and monetary authorities devoted to studying the intersection between monetary policy, finance, and climate change.⁴⁰ Much of the international financial regulatory regime is already governed by such convening institutions promulgating “soft” rules, for example, the Basel Committee, the International Organization of Securities Commissions, and the International Association of Insurance Supervisors.⁴¹ Although these organizations lack the authority to legally bind members, the standards that they set are nevertheless widely implemented by domestic regulatory authorities. Participation in the NGFS and similar international networks will not necessarily yield immediate action on climate change. Nevertheless, as in the case of the Fed’s domestic convening power, participation in such

³⁹ *Id.* at 175.

⁴⁰ Press Release, Federal Reserve Board, Federal Reserve Board announces it has formally joined the Network of Central Banks and Supervisors for Greening the Financial System, or NGFS, as a member (Dec. 15, 2020), <https://www.federalreserve.gov/newsevents/pressreleases/bcreg20201215a.htm>.

⁴¹ See Chris Brummer, *How International Financial Regulation Works (And How It Doesn’t)*, 99 GEO. L.J. 257, 278–79 (2010).

decentralized technocratic networks allows domestic regulators like the Fed to begin a process of standard setting that may eventually result in tangible action.⁴²

Where direct regulation is impracticable, the Fed still has recourse to indirect methods of addressing climate change. By convening domestic players in the financial system or conferring with international counterparts, the Fed may begin a flexible standard-setting process that avoids domestic political entanglements. Although these methods may not yield the immediate results of direct regulation, they may serve as the basis for future direct regulation or, over time, develop soft law, non-binding rules that are nevertheless widely accepted among domestic institutional players.

Conclusion

The Fed—with its powerful regulatory and monetary policy tools, as well as convening authority—is uniquely well-positioned to take action against climate change. The Board itself has recognized the urgency of the climate change situation and taken important steps toward understanding the impact that climate change will have on the financial system. Under President Biden and a Democrat-controlled Congress, the Fed may have more room to maneuver and take bolder action on climate change, including through the use of its statutory authority under Section 165 of Dodd-Frank or through its position on the FSOC. Nevertheless, at present, the Fed appears to be proceeding cautiously, and whether or not it will assume a leading role in the fight against climate change remains to be seen.

⁴² *Id.*; see also Nicholas W. Turner, *Combating Threats to the International Financial System: The Financial Action Task Force*, 59 N.Y.L. SCH. L. REV. 547, 549 (2014/15).

B. European Central Bank

Overview

The European Central Bank (“ECB”) is acting within its legal authority as one of the first notable central banks (“CB”) to take an active role in the fight against climate change. In October 2019, the ECB expressed its commitment to fighting climate change in its Environmental Statement by seeking to run its operations in a more “environmentally friendly” manner and through the pursuit of greener monetary policies.¹ In July 2020, ECB President Christine Lagarde further solidified the ECB’s commitment to combatting climate change through monetary policy when Lagarde promised to explore all of the ECB’s options to combat climate change, such as using the ECB’s €2.8 trillion asset-purchase programs (“APP”).² Though the ECB holds approximately a fifth of green bonds eligible for purchase under the APP’s private sector program—including the corporate sector purchase program (“CSPP”)—using the APP to hold more green bonds may yield preferential treatment for green bonds that finance sustainable activities.³ Preferential treatment towards green bonds may increase the number of bonds the ECB holds, promoting the growth of green financial markets by reducing the capital required to invest in clean energy in comparison to carbon-based energy.⁴ Lagarde argues that

¹ *ECB Environmental Statement 2019*, EUROPEAN CENTRAL BANK: EUROSISTEM (2019), <https://www.ecb.europa.eu/ecb/orga/climate/green/pdf/ecb.environmentalstatement201910~5da457479d.en.pdf>.

² See Roula Khalaf, *Lagarde Puts Green Policy Top of Agenda in ECB Bond Buying*, FIN. TIMES (July 8, 2020), <https://www.ft.com/content/f776ea60-2b84-4b72-9765-2c084bff6e32>.

³ See Gavyn Davies, *Central Banks Begin To Grapple With Climate Change*, FIN. TIMES (Jan. 12, 2020), <https://www.ft.com/content/eafee5dc-2e52-11ea-bc77-65e4aa615551>; Jill Ward & Olivia Konotey-Ahulu, *Europe Set for Biggest Shift Yet in Financing Cleaner Growth*, BLOOMBERG (Sept. 21, 2020, 7:17AM), <https://www.bloomberg.com/news/articles/2020-09-21/europe-poised-for-biggest-shift-yet-in-financing-cleaner-growth>; *ECB’s Green Bonds Buying to Boost Eligible Issuers’ Liquidity*, FITCH RATINGS (July 9, 2020, 6:29AM), <https://www.fitchratings.com/research/banks/ecb-green-bonds-buying-to-boost-eligible-issuers-liquidity-09-07-2020>.

⁴ Davies, *supra* note 3.

these measures are essential to ensure the ECB continues to successfully fulfill its primary objective of maintaining price stability in the euro area.⁵ The ECB has identified extreme weather events and the transition from a high-carbon economy to a low-carbon economy as the twin dangers of climate change that threaten to jeopardize the ECB's ability to maintain price stability in the euro area.⁶ However, despite the ECB framing the fight against climate change in terms of its most legally authoritative mandate,⁷ there are those that argue these measures are too bold and exceed the ECB's legal authority. Certainly, the greatest opponent to the ECB's climate change endeavors is Germany's Central Bank, *Die Deutsche Bundesbank*,⁸ and Germany's highest court, *das Bundesverfassungsgericht*.⁹

The remainder of this paper will address what legal sources of authority the ECB possesses to combat climate change and what measures the ECB has taken to fight climate change.

⁵ Treaty of Lisbon Amending the Treaty on the European Union and the Treaty Establishing the European Community, art. 245(a) Dec. 13, 2007, 2007 O.J. (C 306) 111 [hereinafter Treaty of Lisbon]; Treaty on European Union (Maastricht text), July 29, 1992, 1992 O.J. (C 191) 68 [hereinafter Maastricht TEU]; Consolidated Version of the Treaty on the Functioning of the European Union art. 127, May 9, 2008, 2008 O.J. (C 115), at 102 [hereinafter TFEU]; *see also Climate Change and the ECB*, EUROPEAN CENTRAL BANK: EUROSISTEM (2020), <https://www.ecb.europa.eu/ecb/orga/climate/html/index.en.html>; *Climate Change and the Role of Central Banks*, THE ECB PODCAST (Mar. 3, 2020), https://www.ecb.europa.eu/press/tvservices/podcast/html/ecb.pod200303_episode5.en.html.

⁶ *See Climate Change and the ECB*, *supra* note 5; *Climate Change and the Role of Central Banks*, *supra* note 5; *How Will We Be Affected?* EUROPEAN CENTRAL BANK: EUROSISTEM (last visited Sept. 20, 2020), https://ec.europa.eu/clima/policies/adaptation/how_en.

⁷ Treaty of Lisbon, *supra* note 5, at 36 (ex EC Treaty art. 30); *see also Monetary Policy*, EUROPEAN CENTRAL BANK: EUROSISTEM, <https://www.ecb.europa.eu/mopo/intro/html/index.en.html> (last visited Sept. 20, 2020); Adam Hayes, *European Central Bank*, INVESTOPEDIA (Apr. 6, 2020), <https://www.investopedia.com/terms/e/europeancentralbank>.

⁸ Balazs Korany, *German Central Banker Pushes Back on Calls for ECB to Fight Climate Change*, REUTERS (Nov. 28, 2019), <https://www.reuters.com/article/us-ecb-climatechange-bundesbank/german-central-banker-pushes-back-on-calls-for-ecb-to-fight-climate-change-idUSKBN1Y226X>.

⁹ The *Bundesverfassungsgericht* ruled in May 2020 that the ECB's Asset Purchase Program has exceeded its legal mandate. *ECB Decisions on the Public Sector Purchase Programme Exceed EU Competences*, BUNDESVERFASSUNGSGERICHT (May 5, 2020), <https://www.bundesverfassungsgericht.de/SharedDocs/Pressemitteilungen/EN/2020/bvg20-032.html>.

Sources of Authority

The ECB likely finds the legal authority to combat climate change in the Treaty on the Functioning of the European Union (“TFEU”) and in Protocol (No 4) to the Lisbon Treaty on the Statute of the European System of Central Banks (“ESCB”) and of the European Central Bank (“the Statute of the ESCB and ECB”). The thrust of the TFEU and the Statute of the ESCB and ECB is found in Article 119 of the TFEU, which states, in relevant part:

the activities Member States and the Union . . . shall include a single currency, the euro, and the definition and conduct of a single monetary policy and exchange-rate policy the primary objective of which shall be to maintain price stability and, without prejudice to this objective, to support the general economic policies in the Union, in accordance with the principle of an open market economy with free competition.¹⁰

Article 119 establishes the principles that all Member States and official institutions of the Union must follow in pursuing economic policy and monetary policy with the aim of maintaining price stability. Article 120 of the TFEU establishes that economic policy is exclusively conducted by Member states; notably, the ECB is not mentioned in articles 120 through 126—constituting the articles on economic policy—save for Article 123(1).¹¹ Conversely, the ECB may engage in monetary policy to maintain price stability as found in Article 127 and Article 282 of the TFEU and Article 2 of the Statute of the ESCB and ECB; these articles identify that the primary objective of the ECB is to maintain price stability. Therefore, if the ECB has the legal authority to combat climate change, these efforts must be pursued in accordance with the goal of

¹⁰ Treaty of Lisbon, *supra* note 5, art. 119; TFEU, *supra* note 5, art. 2.

¹¹ Article 123(1) of the TFEU prevents public credit institutions from engaging in monetary financing through overdraft or credit facilities. TFEU, *supra* note 5, art. 123(1).

maintaining price stability. The ECB maintains price stability through its governance of the ESCB and the Eurosystem, the tasks and duties assigned to the ECB, and the organization of the ESCB.

The ECB Governance of the ESCB and the Eurosystem

The ECB plays important but different roles through the ESCB and the Eurosystem. The ESCB is defined, under Article 282(1) of the TFEU and Article 1 of the Statute of the ESCB and ECB, as composed of the ECB and the national central banks (“NCB”) of the member states regardless of whether they have adopted the euro.¹² The Eurosystem, on the other hand, is comprised of the ECB and the NCBs whose currency is the euro.¹³ The primary objective of the ESCB is to maintain price stability, while the Eurosystem is responsible for conducting the Union’s monetary policy.¹⁴ However, both the ESCB and the Eurosystem are governed by the ECB through Article 282 of the TFEU and Article 9 of the Statute of the ESCB and ECB.

The ECB’s Responsibility for Price Stability

The primary tasks of the ECB, through the ESCB, include defining and implementing the monetary policy of the Union, conducting foreign-exchange operations with the goal of price stability, holding and managing Member States’ foreign reserves, and promoting smooth operation of payment systems.¹⁵

¹² *Id.* art. 282; Consolidated Version of the Treaty on European Union, art. 282, 2010 O.J. C 326/01, at 167; *ECB, ESCB and the Eurosystem*, EUROPEAN CENTRAL BANK: EUROSISTEM, (2020), <https://www.ecb.europa.eu/ecb/orga/escb/html/index.en.html>.

¹³ Treaty of Lisbon, *supra* note 5, art. 282; TFEU, *supra* note 5, art. 282.

¹⁴ Maastricht TEU, *supra* note 5, art. 1; TFEU, *supra* note 5, arts. 127(1), 282(2).

¹⁵ Treaty of Lisbon, *supra* note 5, art. 127(2); Maastricht TEU, *supra* note 5, art. 3; TFEU, *supra* note 5, at 127.

The secondary duties of the ECB are meant to fulfill the primary tasks of the ESCB, such as creating regulations¹⁶ and making decisions necessary to implement and carry out the tasks of the ESCB,¹⁷ gathering statistical information with the help of the NCBs,¹⁸ and using monetary instruments to operate in the financial markets and conduct credit operations with credit institutions.¹⁹

The ECB also plays an advisory and representative role. In the ECB's advisory role, both the Union and national authorities must consult with the ECB regarding an act or draft legislative provision within the ECB's field of competence.²⁰ In its representative role, the ECB alone decides how the ESCB is represented in areas of international cooperation.²¹

The ECB's Independence in Pursuing Price Stability

The ESCB and ECB's legal organization grants it the independence to freely make decisions to maintain price stability. The ESCB's independence stems from Article 191 and Article 39 of the TFEU, which grants the ECB privileges and immunities so it may pursue its tasks without external influence. Article 130 of the TFEU and Article 7 of the Statute of the ESCB and ECB further insulate the ECB and the NCBs from the influence of Union institutions, bodies, offices, and agencies as well as the government of Member states when making decisions, exercising powers, and carrying out the tasks and duties of the ESCB.²² Furthermore, the ECB is a full legal personality that may "acquire or dispose of movable and immovable

¹⁶ Council Decision 468/2014, Establishing The Framework For Cooperation Within The Single Supervisory Mechanism Between The European Central Bank And National Competent Authorities And With National Designated Authorities (SSM Framework Regulation), 2014 O.J. (L 141).

¹⁷ TFEU, *supra* note 5, art. 132; Maastricht TEU, *supra* note 5, art. 3.

¹⁸ TFEU, *supra* note 5, art. 5; Maastricht TEU, *supra* note 5, art. 5.

¹⁹ TFEU, *supra* note 5, art. 18.

²⁰ *Id.* at art. 127(4); Maastricht TEU, *supra* note 5, art. 4.

²¹ Maastricht TEU, *supra* note 5, art. 6.

²² TFEU, *supra* note 5, art. 130; Maastricht TEU, *supra* note 5, art. 7.

property and may be a party to legal proceedings.”²³ The ECB may therefore initiate legal claims in the European Court of Justice.²⁴

The legal framework of the ECB and the ESCB may provide an avenue for the ECB to combat climate change so long as such efforts are made with respect to price stability.

The ECB’s Efforts in the Fight Against Climate Change and their Justifications

ECB’s Funds

Under Article 282, the ECB has the legal authority to manage its funds to combat climate change. Article 282(3) of the TFEU states that the ECB “shall be independent in the exercise of its power and in the management of its finances. Union institutions, bodies, offices and agencies and the governments of the Member States shall respect that independence.”²⁵ Because the ECB enjoys a high degree of independence, the ECB has used its funds to combat climate change through its Pension Fund²⁶ and the ECB Own Fund.²⁷

Firstly, the pension fund has holdings that are highly diversified and invested in a broad range of projects, resulting in greater opportunities available to the ECB to implement climate-related considerations.²⁸ To enhance the likelihood that climate-related considerations will be pursued, selected investment managers are signatories to the United Nations Principles for

²³ TFEU, *supra* note 5, art. 282(3); Maastricht TEU, *supra* note 5, art. 9.

²⁴ *Why is the ECB Independent?* EUROPEAN CENTRAL BANK: EUROSISTEM, (Jan. 12, 2017), https://www.ecb.europa.eu/explainers/tell-me-more/html/ecb_independent.en.html.

²⁵ TFEU, *supra* note 5, art. 282.

²⁶ *See Pension Funds*, EUROPEAN CENTRAL BANK: EUROSISTEM (2020), https://www.ecb.europa.eu/stats/financial_corporations/pension_funds/html/index.en.html.

²⁷ *Foreign Reserves and Own Funds*, EUROPEAN CENTRAL BANK: EUROSISTEM (2020), <https://www.ecb.europa.eu/ecb/tasks/reserves/html/index.en.html>; *Climate Change and the Role of Central Banks*, *supra* note 5.

²⁸ *Climate Change and the Role of Central Banks*, *supra* note 5.

responsible investing; ensuring that environmental, social, and member state government considerations are taken into account when voting on policies.²⁹ The pension funds also have a selective inclusion list. The portfolio is not used to implement monetary policy but still is considered an “investment portfolio,”³⁰ which enables the ECB to reduce its carbon footprint by approximately 50% without increasing the risk of the portfolio.³¹ Secondly, the ECB Own Funds is approximately 20 billion euros in size and the ECB is trying to increase its share of green bonds, which could help to finance green projects and further reduce carbon footprint.³²

The use of the ECB’s funds to combat climate change are a legal, effective, and non-controversial method at the ECB’s disposal.

Price Stability

The ECB is taking the most effective avenue to combat climate change by framing success in the fight against climate change as essential for the ECB to maintain price stability in the euro area. In fulfilling the ECB’s primary objective of price stability, the ECB turns to Articles 119-144 and 282-244 of the TFEU and to the Statute of the ESCB and ECB. The ECB’s primary objective of price stability is explicitly stated in Article 117 and Article 282 of the TFEU and Article 2 of the Statute of the ESCB and the ECB.³³ The ECB’s Governing Council defined “price stability” as a yearly increase in the euro area of the Harmonized Index of Consumer Prices (“HICP”) at a rate below but near 2%.³⁴ To maintain price stability, the ECB has the

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.*

³² *Id.*

³³ TFEU, *supra* note 5, art. 117, 282; Maastricht TEU, *supra* note 5, art. 3; *see also European Monetary Policy*, FACT SHEETS ON THE EUROPEAN UNION: EUROPEAN PARLIAMENT, (Dec. 2019), <https://www.europarl.europa.eu/factsheets/en/sheet/86/european-monetary-policy>

³⁴ The ECB seeks to maintain inflation rates below but near 2% to avoid the risk of inflation or deflation of the euro. *The Definition of Price Stability*, EUROPEAN CENTRAL BANK: EUROSISTEM (2020), <https://www.ecb.europa.eu/mopo/strategy/pricestab/html/index.en.html>; *Monetary Policy*, EUROPEAN

authority to engage in monetary policy under Article 282 of the TFEU. Monetary policy is conducted in two stages: strategy and implementation. The ECB is therefore fighting climate change through its monetary policy strategy and its implementation of monetary policy.

Monetary Policy Strategy and Climate Change

Similar to the ECB's approach to conducting monetary policy, the ECB uses a two-pillar approach to conduct monetary policy strategy: conducting economic analysis and conducting monetary analysis.³⁵

Economic Analysis

The ECB's economic analysis focuses on short and medium-term price developments influenced by the relationship between supply and demand in the markets.³⁶ The central argument in favor of the ECB having the authority to combat climate change is that without factoring climate change in the ECB's economic analysis, it is not possible to draw up accurate economic projections, which in turn impede the ECB from successfully pursuing and achieving its primary objective of maintaining price stability within the euro area.³⁷ Climate change impacts the ECB's economic analysis through spurring supply and demand shocks that impact outputs and the real economy.

One example of how the ECB is seeking to maintain price stability by preparing for the impacts of climate change is by analyzing transition risks. As the fight against climate change progresses and economies seek to transition from a high-carbon or "brown" economy to a low-

CENTRAL BANK: EUROSISTEM (Aug. 2006),

https://www.ecb.europa.eu/ecb/educational/shared/img/MP_0806_300dpi-textsheet.en.pdf.

³⁵ See THE MONETARY POLICY OF THE ECB, EUROPEAN CENTRAL BANK: EUROSISTEM, (2011),

<https://www.ecb.europa.eu/pub/pdf/other/monetarypolicy2011en.pdf>.

³⁶ See *id.* at 69.

³⁷ See Malin Andersson et al., *Climate Change and the Macro Economy* (ECB Occasional Paper Series No. 243, 2020), <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op243~2ce3c7c4e1.en.pdf>.

carbon or “green” economy, this transition may shock or disturb the market.³⁸ For instance, products typically bought, such as gasoline fueled cars³⁹, may abruptly see a reduction or cessation in sales; the result is a cascading effect where because companies see a reduction in sales and profits, employees then may see a reduction in employment.⁴⁰ In light of these types of dangers, the ECB has joined the Network of Central Banks and Supervisors for Greening the Financial System (“NGFS”).⁴¹ The purpose of the NGFS is to further the role central banks play in understanding and managing climate risks.⁴²

Monetary Analysis

Monetary analysis focuses on the relationship between money and prices over a larger span of time.⁴³ Lagarde has stated that, “[t]he effects of climate change will have implications for price stability and inflation, which lie at the heart of the ECB’s mandate.”⁴⁴ The threat that climate change presents to the ECB’s ability to conduct price stability is supported by professionals such as Fatima Perez from the Financial Stability Department of the ECB. Perez argues that as the Earth continues to warm due to climate change, markets face physical and chronic risks as well as transition risks.⁴⁵ As certain areas within the euro area become prone and susceptible to severe physical risks (e.g. landslides or floods), acute physical risks (e.g. heatwaves), and chronic risks (e.g. droughts or rising sea levels) due to climate change, prices

³⁸ *Id.* at 14–18.

³⁹ The auto industry is facing major challenges due to COVID-19 and climate change. *See* Jack Ewing, *The Pandemic Will Permanently Change the Auto Industry*, N.Y. TIMES (May 13, 2020), <https://www.nytimes.com/2020/05/13/business/auto-industry-pandemic.html>.

⁴⁰ *Id.*

⁴¹ *Origin and Purpose*, NETWORK FOR GREENING THE FINANCIAL SYSTEM, <https://www.ngfs.net/en/about-us/governance/origin-and-purpose> (last updated Sept. 13, 2019).

⁴² *Id.*

⁴³ *See* Andersson et al., *supra* note 37, at 7.

⁴⁴ *See* Dominique Lecoq & Marc Aubault, *Interview with Le Courrier Cauchois*, EUROPEAN CENTRAL BANK: EUROSISTEM (July 31, 2020), <https://www.ecb.europa.eu/press/inter/date/2020/html/ecb.in200731~7df348b85b.en.html>.

⁴⁵ *Climate Change and the Role of Central Banks*, *supra* note 5.

may fluctuate within the area.⁴⁶ For example, insurance premiums may either increase or discontinue to cover these high-risk areas; this then impacts home ownership, therefore impacts economic projections.⁴⁷ Furthermore, physical risks can also impact the solvency of firms and households if they are hit by natural disasters.⁴⁸ For these reasons, Lagarde argues that the ECB should be permitted to inquire if central banks within the ESCB have taken climate change into account in their loan assessments.⁴⁹ Some European banks have taken steps to shift their participation in companies furthering the acceleration of climate change; for example, Banks such as Britain's Barclays' is no longer providing project finance to new coal-fired power plants.⁵⁰

Lagarde and the ECB therefore have strong justifications as to why they are factoring in the role of climate change in their monetary strategy.

Implementation

In addition to this two-pillar approach, the ECB is using its monetary instruments in the fight against climate change to maintain price stability. Under the Statute of the ESCB and the ECB, the ECB has the legal authority under Article 20 to use “other instruments of monetary control.”⁵¹ The ECB has used Article 20 to create its Asset Purchase Programme (“APP”). The APP is a non-standard monetary policy instrument designed to promote price stability and

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ Hurricane Laura is causing major damage as it moves inland. See Paul Murphy, *Before and after satellite images show widespread destruction from Hurricane Laura*, CNN (Aug. 28, 2020), <https://www.cnn.com/2020/08/28/us/satellite-images-hurricane-laura-before-after-trnd/index.html>.

⁴⁹ *Id.*

⁵⁰ Susanna Twidale & Sinead Cruise, *Big European banks face call to end funding for firms building coal-fired plants*, REUTERS (Dec. 5, 2019), <https://www.reuters.com/article/us-europe-banks-coal/big-european-banks-face-call-to-end-funding-for-firms-building-coal-fired-plants-idUSKBN1Y92C8>.

⁵¹ Maastricht TEU, *supra* note 5, art. 20.

maintaining market neutrality by maintaining broad eligibility criteria designed to provide the ECB with a gross range of purchasable securities.⁵² The APP consists of four key programs, but the primary programs being employed to combat climate change include the Public Sector Purchase Program (“PSPP”) and the Corporate Sector Purchase Program (“CSPP”).⁵³ The PSPP and the CSPP are the ECB’s most effective and most controversial monetary instruments being used in the fight against climate change.

The ECB’s use of the PSPP⁵⁴ and the CSPP⁵⁵ to purchase green bonds is the ECB’s most effective monetary instrument to combat climate change because of the potential for green bonds to promote the growth of the green financial markets.⁵⁶ The PSPP amounts to approximately 80% of the total purchases within the €2.8 trillion APP;⁵⁷ the remaining 20% of the APP consists of the private sector APP programs, including the CSPP.⁵⁸ The significance of this is that the ECB is presumably the world’s largest green bond owner, and therefore one of the largest contributors to a green financial market. More concretely, the ECB bought about 20% of the outstanding 31-billion-euro balance in November 2018.⁵⁹ The ECB’s efforts in this realm will only expand in the near future as the ECB begins to accept bonds linked to environmental goals such as “sustainability performance targets.”⁶⁰

⁵² *Id.* art. 20.

⁵³ *Climate Change and the Role of Central Banks*, *supra* note 5.

⁵⁴ Council Amendment No. 2017/100 on the Secondary Markets Public Sector Asset Purchase Programme, 2017 O.J. L 16/51, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0001&from=EN>.

⁵⁵ Council Amendment No. 2017/1359 on the Implementation of the Corporate Sector Purchase Programme, 2017 O.J. L 190/20, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017D0013&from=EN>.

⁵⁶ *See* Davies, *supra* note 3.

⁵⁷ *See* Khalaf, *supra* note 2.

⁵⁸ *Id.*

⁵⁹ *Climate Change and the Role of Central Banks*, *supra* note 5.

⁶⁰ Catherine and Jill Ward, *Lagarde’s Green Push Picks up with New ECB Collateral Option*, BLOOMBERG (Sept. 22, 2020, 6:25 AM), <https://www.bloomberg.com/news/articles/2020-09-22/ecb-accepts-bonds-linked-to-environmental-targets-in-green-push>.

Despite the popularity of the PSPP and CSPP with some environmentalists, critiques of the APP's programs—and the use of the programs to buy green bonds—argue that the ECB exceeds its legal mandate. The greatest critique of the ECB's APP programs is the *Bundesverfassungsgericht* (“BVerfG”) arguing that the ECB's efforts constitute an *ultra vires* act.⁶¹ The BVerfG argued that the ECB's use of the APP as a non-standard monetary policy instrument violates Article 119 of the TFEU by not respecting the separation of powers and responsibilities between the European Union and member states because the ECB's programs are outside the ECB's mandate as defined by Article 127 of the TFEU, outside Articles 17 to 24 of the Statute of the ESCB and ECB, and they infringe Article 123 of the TFEU.⁶² The European Court of Justice (“ECJ”) held in 2018 that the ECB does not exceed its mandate because the ECB has the power to conduct monetary policy under Article 282(4).⁶³ The ECJ also held that the ECB's program does not violate Article 119 or infringe Article 123 because the program is a monetary policy measure and cannot “be treated as equivalent to an economic policy measure for the sole reason that it may have indirect effects that can also be sought in the context of economic policy.”⁶⁴

Conclusion

The ECB is playing a unique role on the world stage as the first central bank to act as a leader that is not only actively combatting climate change but attempting to reverse it. The use of

⁶¹ BVerfG, Judgment of the Second Senate of 5 May 2020 - 2 BvR 859/15 -, paras. 1-237, http://www.bverfg.de/e/rs20200505_2bvr085915en.html

⁶² BVerfG, *supra* note 61; Case C-493/17, Request for a preliminary ruling from the Bundesverfassungsgericht, 2018.

⁶³ The ECB is to “[A]dopt measures necessary to carry out its tasks in accordance with Articles 127 to 133, with Article 138, and with the conditions laid down in the Statute of the ESCB and of the ECB.” TFEU, *supra* note 5, art. 127–133, 138.

⁶⁴ The ECJ noted the authors of the Treaties intentionally left “price stability” as a vague and abstract term. Case C-493/17, *supra* note 61.

the ECB's bank funds, as supported by Article 282 of the TFEU, demonstrates that the ECB is attempting to reduce its carbon footprint while also encouraging the development of the green market. The ECB's use of monetary policy instruments highlights that the ECB is working creatively within its legal mandate to further the green market and fight climate change. Whether these measures are effective or enough to ward off the twin dangers of climate change is yet to be seen. What can be determined, however, is that the ECB is taking bold action to fight climate change and is tip toeing to the edges of its mandate to do so.

C. The Bank of England

Overview

The Bank of England (the "BoE") has been a fairly progressive actor in terms of recently attempting to take certain meaningful steps towards acknowledging the potentially devastating effect of climate change on the world, and more specifically the financial world. While tackling climate change has long been viewed as the domain of government policy rather than monetary policy, there has been a growing view that central banks and financial regulators can play a role in alleviating financial risks from climate change. Former director Mark Carney was an important figure in beginning to steer the bank towards taking climate change more seriously, before stepping down from the position and being appointed the United Nations special envoy for climate action and finance. Carney decided to have the BoE, along with the European Central Bank ("ECB") and Bank of Japan ("BoJ") and more than 60 other central banks and regulators,

form a “Network for Greening the Financial System,” to collaborate on issues of climate change, including releasing sets of climate scenarios for analyzing risks and guides for regulators.¹

In June 2020, for the first time ever, the BoE published a climate-related financial disclosure, which “sets out the Bank’s approach to managing the risks from climate change across its entire operations.”² The BoE found there were two primary risks brought about by climate change: the physical effects and the impact of changes associated with the transition to a carbon-neutral economy.³ As commentators noted, the disclosure showed that the bank has cut emissions in certain areas of its own activities, such as printing banknotes and business travel, but continues to finance certain carbon-intensive activities.⁴ This includes the Bank’s largest portfolio, the Asset Purchase Facility Fund’s sovereign government bond portfolio, which “currently has an average carbon intensity of 202 tonnes of carbon dioxide equivalents ‘per £ million of GDP’.”⁵

Roadmap

This paper will discuss the ways in which the BoE has already taken concrete actions to tackle the problem of climate change within its general statutory charter. It will examine how, through its regulatory authority under the PRA (Prudential Regulatory Authority), the BoE has released supervisory statements regarding the risks of climate change and plans to undertake

¹ Zachary Warmbrodt, *Should Banks Be Forced to Price In Climate Change?*, POLITICO (July 14, 2020), <https://www.politico.com/news/agenda/2020/07/14/federal-reserve-climate-change-341820>.

² *The Bank of England’s Climate-related financial disclosure 2020*, BANK OF ENGLAND (June 18, 2020), <https://www.bankofengland.co.uk/prudential-regulation/publication/2020/climate-related-financial-disclosure-2019-20>.

³ *Id.*

⁴ Cecilia Keating, *Bank of England admits bond portfolio out of step with Paris climate goals*, BUSINESS GREEN (June 19, 2020), <https://www.businessgreen.com/news/4016735/bank-england-admits-bond-portfolio-step-paris-climate-goals>.

⁵ *Id.*

“stress tests” on financial and insurance companies to assess their preparedness for a shock due to climate change. However, keeping in mind that these are not legally binding activities, the paper will then propose an as-yet unexplored avenue for the BoE to pursue: implementing climate-related criteria for assets purchased by the bank in its Corporate Bond Purchase Scheme (CBPS), as could be implemented by the Monetary Policy Committee (MPC). The paper will discuss arguments for legal justification, while also pointing out difficulties with pursuing this path as a more actionable solution.

Sources of Authority: the BoE Overall

The Bank of England (the “BoE”) was created over 300 years ago in 1694 as a private bank, unlike the American Federal Reserve (the “Fed”), which was created by Congress in the Federal Reserve Act of 1913. Although the BoE was nationalized in 1946, it was not until 1997 that monetary policy authority was transferred from the Government to the BoE, making the BoE fully politically independent.⁶ The BoE’s mission is to “promote the good of the people of the United Kingdom by maintaining monetary and financial stability.”⁷ Similarly to the United States’ Federal Reserve, this includes regulating financial institutions, as well as using monetary policy to ensure that costs of living and prices are stable and secure, and that the general public can rely on banking or payment services.⁸

The BoE answers to parliament, specifically the House of Commons Treasury Committee, which regularly requires the Governor and senior representatives to justify decisions in approach to monetary policy and regulation.⁹ However, operationally, it is considered

⁶ Will Kenton, *Bank of England (BoE)*, INVESTOPEDIA (Nov. 1, 2020), <https://www.investopedia.com/terms/b/boe.asp>.

⁷ *Governance and Funding*, BANK OF ENGLAND, <https://www.bankofengland.co.uk/about/governance-and-funding> (last visited Mar. 17, 2021).

⁸ *Id.*

⁹ *Id.*

politically independent, self-described on its website as “owned by the UK government,” but with “specific statutory authorities for setting policy,” which is carried out “within a framework set by Government but free from day-to-day political influence.”¹⁰

The BoE as a whole has two statutory objectives, enumerated in section 2A(1) of the Bank of England Act 1998: a “financial stability objective,” which is currently “to protect and enhance the stability of the financial system of the United Kingdom,” with the BoE Court of Directors responsible for determining the BoE’s strategy relating to this objective. The BoE’s second objective is its “Monetary Policy Objective,” which is to maintain price stability and, subject to that, to support the government's economic policy. HM Treasury is responsible for specifying to the BoE what amounts to price stability and providing information on its economic policy (section 12, BoE Act 1998). The MPC is responsible within the BoE for formulating monetary policy (section 13(1), BoE Act 1998).¹¹

Avenues for Tackling Climate Change: Regulatory Actions Already Pursued by the BoE through the PRA

The BoE currently sees two primary channels through which it must address climate change and the risks to the nation’s financial sector. Those are in assessing the physical effects of climate change, and the impact of changes that will be associated as the country transitions to a lower-carbon economy.¹² The BoE’s 2Q17 bulletin, which addressed climate change specifically, laid out the Bank’s response, which has: “two core elements. First, engaging with firms which face current climate-related risks, such as segments of the insurance industry.

¹⁰ *Independence – 20 years on*, BANK OF ENGLAND
<https://www.bankofengland.co.uk/events/2017/september/20-years-on>.

¹¹ Bank of England Act 1998, c. 11, §§ 2, 12, 13.

¹² Matthew Scott, Julia van Huizen & Carsten Jung, *Quarterly Bulletin 2017 Q2*, BANK OF ENGLAND (2017), <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2017/the-banks-response-to-climate-change.pdf?la=en&hash=7DF676C781E5FAEE994C2A210A6B9EEE44879387>.

Second, enhancing the resilience of the UK financial system by supporting an orderly market transition.”¹³

The PRA, or the Prudential Regulation Authority, is responsible for prudential regulation and supervision of over one thousand banks, credit unions, insurers, and investment firms in the country.¹⁴ It advances this objective by ensuring that PRA-authorized firms carry out their business in a way that avoids negatively affecting the stability of the UK financial system. This means that technically “the PRA is the BoE,” although the functions of the PRA are still exercised separately. In theory, however, it appears that legally PRA regulatory actions – including within the climate regulatory realm – are BoE actions.¹⁵

The PRA has the general objective of “promoting the safety and soundness of PRA-authorized persons,” (i.e. PRA-authorized firms), which is set out in section 2B of FSMA.¹⁶ It advances this objective by ensuring that PRA-authorized firms carry out their business in a way that avoids negatively affecting the stability of the UK financial system. It also has enforcement powers, although it is limited to imposing penalties on PRA-authorized firms.¹⁷

The PRA uses several steps and mediums to create its policy, including Discussion Papers (“used to stimulate debate on issues about which we are considering making rules or setting out expectations”), Supervisory Statements (which “set flexible frameworks for firms... They do not set absolute requirements – these are contained in rules”) and Statements of

¹³ *Id.*

¹⁴ Practical Law Financial Services, *PRA: role, governance and powers*, THOMSON REUTERS PRACTICE LAW, [https://uk.practicallaw.thomsonreuters.com/0-504-5437?originationContext=document&transitionType=DocumentItem&contextData=\(sc.Default\)&comp=pluk&OWSessionId=0b56b36d5b9c42e09efb98f7177df18c&skipAnonymous=true&firstPage=true](https://uk.practicallaw.thomsonreuters.com/0-504-5437?originationContext=document&transitionType=DocumentItem&contextData=(sc.Default)&comp=pluk&OWSessionId=0b56b36d5b9c42e09efb98f7177df18c&skipAnonymous=true&firstPage=true) (last visited Mar. 17, 2021).

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

Policy (“ the formal document in which we detail our policy on a particular matter. Statements of policy usually set out our approach to exercising powers conferred by the Financial Services and Markets Act 2000. They do not contain our expectations, which are set out in supervisory statements.”)¹⁸

Engaging with Firms Facing Climate-Related Risks

One of the most concrete ways in which the BoE can regulate climate risks is through insurance, including “initiating an internal review of the impact of climate change on PRA-regulated institutions in the UK banking sector.”¹⁹ One of the most innovative upcoming actions by the PRA was the climate stress tests, an undertaking that would test the financial system’s hypothetical ability to withstand negative climate shocks. Postponed until mid-2021 due to Covid-19, the launch was originally planned to take place in the latter half of 2020.²⁰ These tests are intended to scrutinize the balance sheets of the largest UK banks and insurers in the event they had to cope with weather events such as severe flooding or rise in temperature. As mentioned above, the results will only be published in the aggregate, and there is no actual pass or fail for the firms participating.²¹ Moreover, the BoE has highlighted that, unlike for general stress tests, “the exercise was not intended to raise capital, as the regular stress tests are, but instead was a way to spot risks on lenders’ and insurers’ balance sheets.”²²

PRA Climate Supervisory Statements

¹⁸ *Policy*, BANK OF ENGLAND, <https://www.bankofengland.co.uk/prudential-regulation/policy>

¹⁹ <https://www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2017/the-banks-response-to-climate-change.pdf?la=en&hash=7DF676C781E5FAEE994C2A210A6B9EEE44879387>.

²⁰ Alastair Marsh, *Bank of England Postpones Climate Stress Tests to Focus on Virus*, BLOOMBERG (May 7, 2020), <https://www.bloomberg.com/news/articles/2020-05-07/bank-of-england-postpones-climate-stress-tests-to-focus-on-virus>.

²¹ Caroline Binham, *Bank of England to set up tough climate stress tests*, FIN. TIMES (Dec. 18, 2019), <https://www.ft.com/content/bacdb162-217e-11ea-92da-f0c92e957a96>.

²² *Id.*

The PRA released a Supervisory Statement in April 2019 outlining its expectations of banks and insurers with regards to the financial risks from climate change.²³ As a Supervisory Statement, it was relevant to “all UK insurance and reinsurance firms and groups...banks, building societies, and Prudential Regulation Authority (PRA) designated investment firms (collectively referred to as ‘banks’).”²⁴ In addition to laying out risks from climate change, the PRA’s Supervisory Statement included strategic approaches for managing the climate change risk expected of supervised firms. These include that the PRA will “expect to see evidence of how the firm monitors and manages the financial risks from climate change in line with its risk appetite statement,” which takes into account “results of stress and scenario testing, for shorter and longer time horizons” as well as “sensitivity of the balance sheet to changes in key risk drivers and external conditions.”²⁵

The PRA also asked that, as a part of risk and solvency assessments, firms include “all material exposures relating to the financial risks from climate change; and an assessment of how firms have determined the material exposure(s) in the context of their business.”²⁶ This is in addition to asking firms to conduct “scenario analysis” to explore vulnerabilities within businesses in terms of specific climate change risks, including both shorter and longer term assessments.

²³ *Discussion Paper: The 2021 biennial exploratory scenario on the financial risks from climate change*, BANK OF ENGLAND (Dec. 2019), <https://www.bankofengland.co.uk/-/media/boe/files/paper/2019/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf>.

²⁴ *Supervisory Statement: Enhancing banks’ and insurers’ approaches to managing the financial risks from climate change*, BANK OF ENGLAND (Apr. 15, 2019), <https://www.bankofengland.co.uk/prudential-regulation/publication/2019/enhancing-banks-and-insurers-approaches-to-managing-the-financial-risks-from-climate-change-ss>.

²⁵ *Id.*

²⁶ *Id.*

The Supervisory Statement also recommended that regulated firms consider disclosure of climate risks. “... all firms within the scope of this SS should consider disclosing how climate-related financial risks are integrated into governance and risk management processes, including the process by which a firm has assessed whether these risks are considered material or principal risks.” While not a specific rule, the PRA’s SS marks a clear widening of expectation in terms of upcoming actions, disclosures, and risk assessments for UK-regulated banks and insurers when it comes to climate change.

Stress Testing

As outlined in its Supervisory Statement, the BoE and PRA will be using, from 2021 onward, a “biennial exploratory scenario” (BES) to investigate risks caused by climate change. This is a part of the bank’s stress-testing framework.²⁷

The objective of these tests is to gain an understanding of the resilience of the current business models of firms under PRA regulation (i.e. banks, insurers, investment funds) when it comes to the risks posed by climate change. With this in mind, the BES will focus more on “sizing risks, rather than testing firms’ capital adequacy or setting capital requirements.” This testing will consist of three scenarios, which will include “scenarios that embody the risks of earlier and later policy action to reach the Paris Agreement target, and a ‘no additional policy action’ scenario where the Paris Agreement target is not met and more severe physical risks crystallise as a result.”²⁸

The BoE recognizes that this will be a pioneering act and exercise, and that the results will be unclear. However, with the objective of providing a comprehensive description of

²⁷ *Discussion Paper: The 2021 biennial exploratory scenario on the financial risks from climate change*, BANK OF ENGLAND (Dec. 2019), <https://www.bankofengland.co.uk/-/media/boe/files/paper/2019/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf>.

²⁸ *Id.*

potential risks of climate change, while “also creating a tractable exercise for firms,” the goal appears to be to begin the process of systemically evaluating climate risks and firms’ abilities to financially deal with those risks, even if concrete, responsive changes will not come about immediately.²⁹

As-Yet Unexplored Avenues for Tackling Climate Change: Targeted “Green” Asset Purchase Schemes through the MPC

The Bank of England’s quantitative easing program, increased recently due to the coronavirus pandemic, has not as yet updated its parameters to discourage bond purchases of companies that contribute to climate change, or encourage purchases of companies that are climate-positive. This is in contrast to the European Union’s ECB, which recently confirmed that it was reviewing options to include fighting climate change as part of its operations within its asset purchase program.³⁰ However, as recently as January 2021, British MPs have been urging the BoE to align its asset purchase portfolio with the wider goals of the Paris agreement on climate change.³¹ “[T]he Bank is at risk of creating a moral hazard by purchasing high-carbon bonds and providing finance to companies in high-carbon sectors without placing any conditions on them to make a transition to net zero,” wrote members of the Environmental Audit Committee to Andrew Bailey, head of the BoE.³²

Whether the BoE has the legal authority to regulate its asset purchases to actively tackle climate change is a separate question. As mentioned above, The BoE as a whole has two

²⁹ *Id.*

³⁰ *ECB’s Green Bonds Buying to Boost Eligible Issuers’ Liquidity*, FITCH RATINGS (July 9, 2020), <https://www.fitchratings.com/research/banks/ecb-green-bonds-buying-to-boost-eligible-issuers-liquidity-09-07-2020>.

³¹ Camilla Hodgson, *MPs push Bank of England to step up green standards in bond purchases*, FIN. TIMES (Jan. 24, 2021), <https://www.ft.com/content/aaefd504-f70a-4d8f-a8ec-8cd5b6017a96>.

³² *Id.*

statutory objectives, enumerated in section 2A(1) of the Bank of England Act 1998, the second of which is the “Monetary Policy Objective,” which is to “maintain price stability and, subject to that, to support the government's economic policy. HM Treasury is responsible for specifying to the BoE what amounts to price stability and providing information on its economic policy (section 12, BoE Act 1998). The MPC is responsible within the BoE for formulating monetary policy (section 13(1), BoE Act 1998).”³³

The Monetary Policy Committee consists of a total of 9 members, a combination of governors of the bank and separately appointed members by the Chancellor of the Exchequer.³⁴ The Committee was created by the 1998 Bank of England Act, which transferred operational responsibility for the country’s monetary policy to the committee as an independent body.³⁵ After the 2008 financial crisis, the MPC had set a bank rate of 0.5%, but decided to further stimulate the economy by “quantitative easing,” or buying up debt -- generally UK government bonds, but extended to a corporate bond purchase scheme (CBPS) in 2016, to keep interest rates low.³⁶ The decisions regarding the size and criteria of the QE purchases are voted on by the MPC.³⁷ As mentioned above, in theory, then, the MPC has the ability to vote on an asset purchase program as it sees fit and necessary to “formulate monetary policy” -- a broad charter. Within that charter for the MPC, of course, is the overarching objective of the BoE under the 1998 Act -- to “maintain price stability and, subject to that, to support the government's economic policy....”, which the MPC implements through “formulating monetary policy.”

³³ Bank of England Act 1998, c. 11, § 11-13; sch. 2A.

³⁴ *Id.* c. 11, § 13 (“Monetary Policy Committee”).

³⁵ *Id.*

³⁶ *Quantitative Easing: What is Quantitative Easing?*, POLITICS.CO.UK <https://www.politics.co.uk/reference/quantitative-easing/?cmpredirect>.

³⁷ *Asset Purchase Facility (APF): Asset Purchases and TFSME – Market Notice 19 March 2020*, BANK OF ENGLAND (Mar. 19, 2020), <https://www.bankofengland.co.uk/markets/market-notices/2020/apf-asset-purchases-and-tfsme-march-2020>.

There are at least two legal arguments that support the MPC's ability to vote to recommend the corporate bond purchase scheme have a framework that takes into account climate change, and companies that contribute to climate change. The first is that the MPC formulates monetary policy to "maintain price stability" (i.e. combat inflation or deflation). The MPC could argue that, per the PRA's findings discussed above, along with government studies, and treaties such as the Paris Accords, "maintaining price stability" and ensuring a stable financial system through monetary policy is inextricably tied to climate change, given that impending climate issues and natural disasters that follow will undoubtedly have an effect on the financial system and, correspondingly, prices. Using monetary policy as a pre-emptive tool to ensure that climate change does not negatively impact the UK financial system or consumer prices could be seen as a legitimate use of the MPC's authority through its quantitative easing program that includes corporate debt.

The other major argument is that, within the language of the BoE's charter, the MPC's monetary policy objective is influenced by the "government's economic policy." Therefore, if parliament were to make its objectives clear regarding use of monetary policy and climate change, and HM Treasury were to transmit those objectives to the MPC, from a statutory perspective the MPC is obligated to take such a consideration into account when making its monetary policy. One could argue that the recent letter from the members of the Environmental Audit Committee to the head of the BoE is the first step in such an objective.

However, there is a problematic counter-argument to this course. While the BoE is technically accountable to parliament, it is still an independent body, with operational independence granted by the 1998 Bank of England Act, in particular with the freedom to set

interest rates as it sees fit -- a core aspect of the quantitative easing program.³⁸ The obvious reason for this independence is to avoid political influence over monetary policy, wherein shorter-term politicians might be tempted to loosen monetary policies to stimulate the economy in the short term for political gain, without regard for the longer-term impact to the country's financial health.³⁹ The MPC, moreover, has structural mechanisms to ensure its independence from overt political influence: for example, while a representative from HM Treasury sits in on MPC meetings and can discuss policy issues and perspectives, it cannot vote.⁴⁰ While HM Treasury can appoint certain "external" members of the MPC, according to the BoE website, "each member of the MPC has expertise in the field of economics and monetary policy. Members do not represent individual groups or areas -- they are independent."⁴¹

The relationship between the MPC and parliament --and BoE and parliament -- is therefore more entangled than *complete* operational independence, but a large degree of independence is still crucial to the BoE's legitimacy. Moreover, the BoE has already faced criticism for its seemingly cozy relationship with the government,⁴² and there is no doubt taking a policy-motivated stance on climate change might be seen as too-far a deviation from the BoE's central objective of health of the financial system. In theory, parliament could even go so far as to change the BoE's remit to actually require a greater focus on environmental issues, but that also would theoretically generate severe pushback regarding the needed independence from

³⁸ *Independence – 20 years on*, BANK OF ENGLAND, <https://www.bankofengland.co.uk/events/2017/september/20-years-on>.

³⁹ David Goodman, *UK treasury is hiring a go-between for BoE*, BUSINESSDAY (Jan. 2021), <https://www.businesslive.co.za/bd/world/europe/2021-01-14-uk-treasury-is-hiring-a-go-between-for-boe/>.

⁴⁰ *Monetary Policy Committee*, BANK OF ENGLAND, <https://www.bankofengland.co.uk/about/people/monetary-policy-committee>.

⁴¹ *Id.*

⁴² Goodman, *supra* note 39.

political influence for a central bank responsible for the long-term financial health of the country.⁴³

D. International Monetary Fund (IMF)

Overview

There is a general consensus that over-indebtedness has re-emerged and that a new round of global debt relief is necessary, which has been exacerbated by the COVID-19 pandemic. “A lost decade of growth in large parts of the world remains a plausible prospect absent urgent, concerted and sustained policy response,” concluded a recent report from the Group of 30.¹ Nations have unleashed credit via central banks and government spending collectively estimated at more than \$11.5 trillion as of September 2020.² All the while, the International Monetary Fund’s (the “Fund”) response to climate change has been anemic. The latter has been left on the backburner, as the pandemic has stolen the spotlight.

Over the past 75 years, the overall objective of the Fund has remained the same, but the role it has played in achieving this objective has evolved considerably in light of the transformative experiences of the global economy.³ It is important to understand the legal parameters in which such evolution has occurred.

If the Fund searches to reorient its programs toward the provision of “green financing,” particularly in the context of the global partnership for sustainable development, it is important

⁴³ *Id.*

¹ G30 WORKING GRP. ON SOVEREIGN DEBT & COVID-19, SOVEREIGN DEBT AND FINANCING FOR RECOVERY AFTER THE COVID-19 SHOCK: PRELIMINARY REPORT AND RECOMMENDATIONS 1 (2020).

² IMF, *A Year Like No Other*, ANNUAL REPORT 2020 8 (Aug. 1, 2020).

³ Sean Hagan, *Reforming the IMF*, in INTERNATIONAL MONETARY AND FINANCIAL LAW: THE GLOBAL CRISIS 40 (Mario Giovanoli & Diego Devos eds., 2011).

to explore the scope and limits of the Fund’s legal mandate, as well as some of the legal features of the financial mechanisms needed to respond to these challenges. The questions thus become: To what extent does climate change fall within the Fund’s legal mandate as laid down in the Articles of Agreement? What are the legal constraints that the IMF faces if it seeks to reorient its programs toward the provision of climate change adaptation and mitigation? What are the innovative and distinct legal features of the Fund’s financial mechanisms that address a “green recovery?” Interpreted broadly, the answer will depend on the interpretation of individual institutional mandates, which are generally construed broadly to comprise implied powers to acquire, process, and distribute information necessary to fulfill their respective purposes.

Sources of Authority

The Fund was created through the Articles of Agreement (“Articles”) and adopted at the United Nations Monetary and Financial Conference, Bretton Woods, New Hampshire, July 22, 1944.⁴ The Articles, an international treaty and the Fund’s charter, entered into force December 27, 1945. The Fund’s primary purpose, since inception, has been the promotion of international monetary and financial stability. In short, the Fund—with its near universal membership of 190 countries—is charged, under its charter, with “oversee[ing] the international monetary system.”⁵ Another fundamental purpose of the Fund is “to give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards, thus providing them with opportunity to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity.”⁶

⁴ Articles of Agreement of the International Monetary Fund, *effective* Dec. 27, 1945, *as amended* Jan. 26, 2016, 2 U.N.T.S. 39 [hereinafter Articles of Agreement].

⁵ *Id.* art. IV, § 3(a).

⁶ *Id.*

Generally, the powers conferred upon the IMF may be described as falling into three categories: “(i) regulatory powers, relating primarily to the Fund's responsibility to monitor and promote the observance of members' obligations under the Articles, (ii) financial powers, and (iii) advisory powers.”⁷ In other words, the Fund fulfills its purpose of ensuring stability of the international monetary system in three ways: “keeping track of the global economy and the economies of member countries; lending to countries with balance of payments difficulties; and giving practical help to members” (i.e., regulatory, financial and advisory powers).⁸

Regulatory Authority

The Fund’s regulatory power has come to be known as “conditionality,”⁹ and it shapes all of the Fund’s lending decisions. Under Article V(3)(a) the Fund shall adopt policies that “will assist members to solve their balance of payments problems.” Under the Guidelines on Conditionality, key aspects of the current framework include the following: program design, program monitoring, assurances under arrangements.¹⁰

Article IV sets forth obligations for the Fund. Article IV, Section 3(a) sets forth two distinct obligations. The Fund is required to oversee the international monetary system to ensure its effective operation and to oversee the compliance of each member with its obligations under Article IV, Section 1. The former provision provides the basis for the Fund’s multilateral surveillance activities, which include the World Economic Outlook and the multilateral consultation process. Accordingly, the latter provides the basis for the Fund’s bilateral

⁷ Sean Hagan, *The Role of Law and Lawyers in the International Monetary Fund*, in INTERNATIONAL ECONOMIC ORGANIZATIONS AND THE LAW: THE PERSPECTIVE AND ROLE OF THE LEGAL COUNSEL, 29–39 (Asif H. Qureshi & Xuan Gao eds., 2012).

⁸ *The IMF at a Glance*, INTERNATIONAL MONETARY FUND, <https://www.imf.org/en/About/Factsheets/IMF-at-a-Glance> (last visited Feb. 18, 2021),.

⁹ *Conditionality in Fund-Supported Programs – Purposes, Modalities and Options for Reform*, IMF POLICY PAPERS (Jan. 30, 2009).

¹⁰ *Id.* at 8.

surveillance activities. The general oversight obligation applies not only to the general obligation to collaborate but also to all of the specific member obligations enumerated in Article IV, Section 1(i) through (iv), including the obligations regarding domestic policies. The Articles explicitly direct the Fund to “exercise firm surveillance over the exchange rate policies of members and to adopt specific principles for the guidance of members with respect to those policies.”¹¹ Thus, the Fund conducts—normally on an annual basis—consultations with members which are generally referred to as “Article IV Consultations.”¹²

Article IV also sets forth obligations of members. Obligations regarding both their exchange rate policies and domestic policies that have an impact on their exchange rates. The general obligation of Article IV is to “collaborate with the Fund and other members to assure orderly exchange arrangements and to promote a stable system of exchange rates.”¹³ The specific obligations contained in Article IV, Section 1(i) through (iv), while being of particular importance with respect to the Fund’s jurisdiction under Article IV, do not exhaust it. The Second Amendment of the Articles in 1978, which incorporated Article IV’s current text, recognized the important relationship between domestic policies and exchange rates.¹⁴

Thus, Article IV identifies certain domestic policy obligations, adherence to which is considered to be of particular importance to members’ general obligation to collaborate.¹⁵ These policies are of international concern as far as their impact on external stability goes, but the relevant obligations are of a “soft” nature, “requiring efforts rather than the achievement of

¹¹ Articles of Agreement, *supra* note 4, art. IV, § 3(b).

¹² Hagan, *Reforming the IMF*, *supra* note 3, at 44.

¹³ Articles of Agreement, *supra* note 4, Art. IV, § 1.

¹⁴ Hagan, *Reforming the IMF*, *supra* note 3, at 43.

¹⁵ *Article IV of the Fund’s Articles of Agreement: An Overview of the Legal Framework*, INTERNATIONAL MONETARY FUND 22 (June 28, 2006).

results.”¹⁶ As the Legal Framework paper by the IMF’s Legal Department highlights, “to the extent that the Fund were to identify other domestic policies that members should take pursuant to the general obligation of collaboration, any such obligations would also need to be of a similarly soft nature.”¹⁷ Hence, were the Fund to identify policies related to climate change risks, these would be obligations of soft nature.

Financial Authority

The primary source for IMF lending is the quota subscriptions of its members, held in the General Resources Account (the “GRA”).¹⁸ A secondary and separate source of financing for IMF members is the Special Drawing Rights (“SDR”), a reserve asset and the Fund’s unit of account, created by the Fund in 1969.¹⁹ Each Fund member is assigned a quota expressed in SDRs. “SDRs are an international reserve asset that is valued based on a basket of key international currencies and serves as a claim on the reserve currencies of the IMF.”²⁰ SDRs currently amount to around SDR 21.2 billion²¹ (US\$29.9 billion)²². Balances of a member's currency are held by the Fund with the central bank of the members, the so-called designated depository.²³

The Fund uses quota resources for its financing operations in different ways but for the purposes of this paper, the focus will be directed towards the Fund’s resources in relation to the

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ Bernhard Steinki & Wolfgang Bergthaler, *Recent Reforms of the Finances of the International Monetary Fund: An Overview*, 3 EUR. Y.B. OF INT’L ECON. LAW 635, 636 (2012).

¹⁹ United Nations Conference on Trade and Development, *Trade and Development Report 2019: Financing A Global Green New Deal* 92.

²⁰ *Id.*

²¹ IMF, *Quarterly Report On IMF Finances: For the Quarter Ended October 31, 2020*, 4 (2020), <https://www.imf.org/external/Pubs/FT/quarter/2021fy/103120.pdf>.

²² On Oct. 31, 2020, 1 SDR was equal to US\$1.41164. *Id.*

²³ Articles of Agreement, *supra* note 4, art. XIII, § 2(a).

conditionality it sets for members using Fund’s resources in order to enable the country to both, resolve its balance of payments difficulties and repay the Fund.²⁴ Specifically, Article V, Section 3(a) provides that the Fund shall adopt policies on the use of its general resources that will “assist members to solve their balance of payments problems in a manner consistent with the provisions of this Agreement and that will establish adequate safeguards for the temporary use of the general resources of the Fund.”

The conceptual framework of conditionality has not changed significantly since the Fund was created. Albeit, “the scope and modalities of conditionality have evolved considerably over time: on scope, with the gradual expansion of coverage of conditionality from macroeconomic to structural reforms and more recent streamlining of conditionality; and on modalities, from virtually no ex post monitoring to the presence of reviews and performance criteria in almost every Fund arrangement.”²⁵ Under the Guidelines on Conditionality, key aspects of the current framework include program design, program monitoring, and assurances under Arrangements. Thus, the guidelines—the program that is instituted by a country in order to receive a standby-arrangement—are of particular importance.²⁶

Advisory Power

Article V, Section 2(b) states that “if requested, the Fund may decide to perform financial and technical services . . . that are consistent with the purposes of the Fund...[s]ervices under this subsection shall not impose any obligation on a member without its consent.” The budget allocated to advisory powers (or capacity development) in FY 2020 was US\$305 million, over a

²⁴ *Conditionality in Fund-Supported Programs – Purposes, Modalities and Options for Reform*, IMF POLICY PAPERS (Jan. 30, 2009).

²⁵ *Id.* at 6.

²⁶ *Id.* at 8–9.

quarter of the Fund's total budget.²⁷ The Fund has used its technical services as a means of amplifying its financial and regulatory authority. Hence, the Fund's advisory authority can be impactful, that is, if the capacity development is executed efficiently and effectively.

For example, the IMF in 1999, as a result of financial crises in the 1990s, launched the Financial Sector Assessment Program (FSAP, joint-program with the World Bank, the "Bank"), which "provides a comprehensive framework through which assessors and authorities in participating countries can identify financial system vulnerabilities and develop appropriate policy responses."²⁸ The FSAP reflects a framework against international best practices ("standards and codes"), which adherence to was voluntary, but countries found that there were important incentives to do so. This technical assistance, in the form of "soft law," has had important implications in regard to international financial practice adherence, and in turn, creating international law principles which started as "soft law" into customary law. For example, a 2006 Report on the Evaluation of the Financial Sector Assessment Program by the IMF's Independent Evaluation Office (IEO), report found that overall "the FSAP represents a distinct improvement in the IMF's ability to conduct financial sector surveillance and in understanding the key linkages between financial sector vulnerabilities and macroeconomic stability."²⁹ Furthermore, the IEO found that the IMF's "understanding of the financial sector in specific countries, helped articulate policy recommendations, prompted better discussions with authorities, and helped support policy and institutional changes."³⁰ Since the latter assessment,

²⁷ *A Year Like No Other*, *supra* note 2, at 28.

²⁸ *The Financial Sector Assessment Program (FSAP)*, WORLD BANK, <https://www.worldbank.org/en/programs/financial-sector-assessment-program> (last visited Feb. 17, 2020).

²⁹ *Executive Summary*, IMF INDEPENDENT EVALUATION OFFICE, REPORT ON THE EVALUATION OF THE FINANCIAL SECTOR ASSESSMENT PROGRAM (Jan. 5, 2006).

³⁰ *Id.* at 6.

there has been an evolution to the program, especially since the post-2008 recession, and in “2010 assessments under the FSAP were made mandatory for a list of 25 jurisdictions judged to have systemically important financial sectors—formally recognizing FSAPs as a surveillance tool.”³¹

These and other changes occurred against the backdrop of global effort led by the FSB to overhaul the international financial regulatory architecture. In essence, the international community agreed on the following pillar of financial stability: “stress-testing, capital (via a relatively modest increase in required capital ratios), liquidity ratios, better bank resolution methods, and increased supervisory diligence, relative to the pre-crisis period, to keep financial systems safe, as well as on process-oriented improvements to regulation and supervision.”³² Thus, what started as a “soft law” program has evolved into “hard law” over the past two decades. For example, in September 2010, the Fund made it mandatory for 25 jurisdictions with systemically important financial sectors to undergo assessments under the FSAP every five years.³³ This reflects how soft law, after decades of evolution can create hard law in some crucial respects.

The Fund’s Climate Change Action

The Fund’s Current Climate Change Efforts

At the 2021 Climate Adaptation Summit, Kristalina Georgieva, the IMF’s Managing Director, a Bulgarian economist who previously worked at the World Bank, stated that the Fund has “embrace[d] the transition to the new climate economy — one that is low carbon and climate

³¹ Gerard Caprio, Jr., *Assessing the FSAP: Quality, Relevance, and Value Added*, IEO 3 (Dec. 14, 2018).

³² *Id.* at 4.

³³ See Press Release, IMF Expanding Surveillance to Require Mandatory Financial Stability Assessments of Countries with Systemically Important Financial Sectors (Sep. 27, 2010), <https://www.imf.org/en/News/Articles/2015/09/14/01/49/pr10357>.

resilient, that helps fight the causes of climate change and adapt to its consequences.”³⁴ The four key areas of action, according to Director Georgieva, for the Fund are:

1. First, integrating climate in our annual country economic assessments – our Article IV consultations. In highly vulnerable countries we focus on adaptation; and we are building up mitigation analysis, including carbon pricing, in our assessments of large emitters.
2. Second, including climate related financial stability risks in financial sector surveillance – through standardized disclosure of these risks, enhanced stress tests and assessments of supervisory frameworks.
3. Third, scaling up climate in capacity development to help equip finance ministries and central banks with the skills needed to take climate considerations into account.
4. Fourth, mainstreaming climate indicators in macroeconomic data. We will launch a Climate Change Dashboard this year—with indicators to track the economic impact of climate risks and the measures taken to mitigate them.³⁵

Director Georgieva, concluded “climate resilience is a critical priority...this is why we place it at the heart of what we do — this year, and in the years to come.”³⁶ Although, is this too strong of a statement given the Fund’s current efforts?

Advisory Authority & Climate Change

As of now, most of the work by the Fund as it relates to climate change has been in the form of advisory power. The Fund’s role in helping its members address the challenges of climate change is related to “fiscal and macroeconomic policies,” it has published research on

³⁴ Kristalina Georgieva, Managing Director, International Monetary Fund, Remarks by IMF Managing Director at the Climate Adaptation Summit: The IMF is placing climate change at heart of its work (Jan. 25, 2021).

³⁵ *Id.*

³⁶ *Id.*

“economic implications of climate change and provides policy advice to our membership to help them capture the opportunities of low-carbon, resilient growth.”³⁷ Specifically, Fund’s policy guidance relates to: 1) mitigation, “including advice on measures to contain and reduce emissions through policies —such as increasing carbon taxes, reducing fuel subsidies and improving regulation—and providing tools to help countries achieve their Nationally Determined Contributions”; 2) adaptation, “including guidance on building financial and institutional resilience to natural disasters and extreme weather events, and infrastructure investments to cope with rising sea levels and other warming-related phenomena”; and 3) transition to a low-carbon economy, “including updates to financial sector regulation to cover climate risks and exposure to “brown” assets, as well as measures to help countries diversify economies away from carbon intensive industries while mitigating the social impact on affected communities.”³⁸ Other fronts that the Fund also work on include helping countries: price climate risks, provide incentives for climate-resilient investment, and integrate climate risks and adaptation spending into countries economic and fiscal plans.³⁹ Furthermore, the Fund also carries out stress testing of financial systems to assess their resilience to natural disasters as well as to climate-motivated policy changes, and when natural disasters strike the Fund’s “emergency lending facilities” have been designed to provide speedy assistance”.⁴⁰ Looking ahead, the Fund’s Deputy Managing Director Zhang said during a speech, the Fund “will be working more closely with central banks, which are looking at how climate-change risks could affect financial and price stability.”⁴¹

³⁷ *Climate Change*, THE INTERNATIONAL MONETARY FUND, <https://www.imf.org/en/Topics/climate-change> (last visited Feb. 17, 2021).

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ Tao Zhang, Deputy Managing Director, International Monetary Fund, Remarks by Deputy Managing Director at the Delphi Forum: Climate Change: From Awareness to Action (Jun. 9, 2020).

In short, and similarly to the NGFS and FSB work, the Fund has done a lot of analytical and policy work related to “helping countries understand” both mitigation and adaptation as it relates to climate change.⁴² The NGFS and FSB may not have much more than moral suasion, but so they stand as fundamental actors in the contemporary changes that are molding the new international monetary system.

While the soft law avenue, in this instance in the form of advisory assistance and policy research, is welcomed; there are still at least two avenues of the IMF’s authority—regulatory and financial—which could be deployed at full capacity within the Fund’s legal framework, in order to assist in reducing “emissions, offset what cannot be reduced, address the social and economic consequences, and seize the economic opportunities that a new greener economy can bring.”⁴³

Regulatory Authority & Climate Change

The Fund has the opportunity, if not the mandate, to help the world economy confront climate change within its regulatory framework. As explained earlier, the Fund’s regulatory power has come to be known as “conditionality.” Members’ domestic policies are of international concern as far as their impact on external stability goes, but the relevant obligations are of a “soft” nature, requiring efforts rather than the achievement of results. Thus, it could be argued that climate change risks and/or SDGs could be incorporated into those domestic policies “that members should take to the general obligation of collaboration,” although, “any such obligations would also need to be of a similarly soft nature.”⁴⁴ The Fund could incorporate the NGFS, the FSB and its own, findings into the “specific principles for the guidance of members with respect to those [exchange rate and domestic] policies” which make part of its annual

⁴² *Climate Change*, THE INTERNATIONAL MONETARY FUND, <https://www.imf.org/en/Topics/climate-change> (last visited Feb. 17, 2021).

⁴³ Tao Zhang, *supra* note 71.

⁴⁴ *Supra* note 15, at 22.

review and guidance.⁴⁵ In other words, the Fund could incorporate into its annual Article IV consultations with members, climate risks as part of the promotion of “a stable system of exchange rates.”⁴⁶ Specifically, guidance related to a green recovery can be linked to the conditionality that is imposed when a member seeks the Fund’s assistance. It is important to note that there are constraints and controversy which could create barriers of implementation, but nonetheless, an achievable goal within the Fund’s mandate. Furthermore, if climate risks are integrated into the Fund’s annual consultations, it would create a ripple effect that would be felt throughout the fiscal and monetary sectors globally. That is, integration of climate change risks into Article IV Consultations and other forms of Regulatory capacities of the Fund (e.g., FSAP), would be done with the intention to progressively integrate such considerations into eventual customary mechanisms of the international financial and monetary architecture.

Financial Authority & Climate Change:

A recent proposal (Akiki, 2019) highlighted by the 2019 Trade and Development Report (“TDR”), should be given attention as it proposes to “expand SDRs by linking them directly to environmental objectives that command a high degree of collective and multilateral support, and specifically to holding global warming at below 1.5C above pre-industrial levels.”⁴⁷ The TDR summarizes the proposal as follows:

Under this proposal, national authorities of participating countries, in cooperation with the IMF, would work out long-term environmental and country-specific adjustment plans, including preservation targets and emission reductions, as well as the required investments and budgets to meet these targets. While some countries may be able to self-finance these

⁴⁵ Articles of Agreement, *supra* note 4, art. IV, § 3(b).

⁴⁶ *Id.* § 1.

⁴⁷ *Trade and Development Report*, *supra* note 19, at 92.

plans, an IMF zero-interest loan funding facility would be put into place, in particular for developing countries. Maximum funding capacity would be measured using special environmental drawing rights (SEDRs) that represent an indefinite potential claim on the freely usable currencies for climate finance of the IMF. This proposal provides a flexible and, in principle, unlimited financing mechanism for long-standing calls, by UNCTAD and others, for a global environmental protection fund that can provide predictable and stable emergency funding without strict policy conditionalities or limiting eligibility criteria...But, more generally, an SDR-based global fund to leverage environmental reserve assets for environmental protection could provide a reliable and stable financing mechanism to also tackle the secondary and tertiary effects of climate change related shocks on debt sustainability in developing economies.⁴⁸

Deployment of the Fund's financial authority, in regard to green financing, has been lackluster at best. Thus, the above would represent an initial and monumental step towards sustainable development.

Conclusion

The remarks by then Undersecretary for International Affairs Timothy D. Adams, while speaking at the 2005 Conference on Reform of the International Monetary Fund, seem more relevant than ever. Undersecretary Adams's concluding remarks seem to encapsulate the crux of the IMF's contemporaneous dilemma, as he states:

When faced with calls for reform, the typical response of any institution is that it is already undertaking it. The IMF can legitimately say it has already begun its work. IMF Managing Director De Rato has laid out a vision for his Strategic Review that can incorporate these

⁴⁸ *Id.*

priorities. Yet UCLA basketball coaching legend John Wooden would warn us to never confuse activity with achievement. To achieve, the IMF needs to refocus and deliver. Ultimately, the IMF's relevance will be determined not by how much it broadens its mandate but how well it carries out its existing one.⁴⁹

Fast forward 16 years, and the question that resonates is: can the IMF legitimately say it has already begun its work to reform in order to achieve its needs by refocusing and delivering on its mandate under contemporary needs? We are facing unprecedented challenges during unprecedented times; the dual factor has effectively permeated society with uncertainty. Specifically, uncertainty as to what comes next? Could it be The Great Reset, as Director Kristalina Georgieva, remarked at the World Economic Forum this past June:

[N]ow is the time for all of us to define our own role. Will historians look back and say this was the moment of a Great Reversal? Today, we see very worrying signs. One hundred and seventy countries are going to finish this year with a smaller economy than at the start of the year, and we already project that there will be more debt, bigger deficits, and more unemployment. And there is a very high risk of more inequality and more poverty. Unless we act. So, what would it take for historians to look back at this crisis as the moment of a Great Reset?⁵⁰

Treaty provisions, such as the IMF's Articles of Agreements, are never carved in stone in international law. Article 31(3)(b) of the 1969 Vienna Convention on the Law of Treaties (part of customary international law) provides that in interpreting a treaty, together with the context, "any

⁴⁹ Timothy Adams, Under Secretary for International Affairs, U.S. Dep't of the Treasury, Remarks by Under Secretary for International Affairs Timothy D. Adams at Back to the Basics Institute for International Economics Conference on Reform of the International Monetary Fund (Sept. 23, 2005).

⁵⁰ Kristalina Georgieva, Managing Director, International Monetary Fund, Remarks to World Economic Forum: The Great Reset (Jun. 3, 2020).

subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation” shall be taken into account.⁵¹ Technically, the Vienna Convention as a treaty is not applicable to the Fund’s Articles, because the Bretton Woods Conference preceded the Convention. Nevertheless, like many of the Vienna Convention’s provisions, Article 31 is considered to be part of customary international law.⁵² Moreover, the Vienna Convention is applicable to “any treaty which is the constituent instrument of an international organization and to any treaty adopted within an international organization without prejudice to any relevant rules of the organization.”⁵³ The latter specification—without prejudice to any relevant rules of the organization—makes clear that the Vienna Convention’s application is of a subsidiary nature.⁵⁴ More specifically in the case of the Fund, the Articles vest all powers of authoritative interpretation in the Board of Executive Directors.⁵⁵ Thus, it is for the Fund’s own organs to decide whether a global climate change policy comes within the confines of its purposes as stated in its Articles of Agreement. For instance, by virtue of its interpretive powers under Article XXIX and by reference to the implied powers doctrine,⁵⁶ the Fund’s Board of Executive Directors can gradually expand the role of the Fund to take up a more relevant and proactive role in relation to climate change financing. In short, the Fund’s relevance will most likely be dictated by its current and future engagement with climate change and similar contemporary challenges.

⁵¹ Vienna Convention on the Law of Treaties art. 31(1), May 23, 1969, 1155 U.N.T.S. 331 [hereinafter VCLT].

⁵² *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, Report of the Study Group of the International Law Commission, A/CN.4/L.682, 89 (April 13, 2006).

⁵³ VCLT, *supra* note 51.

⁵⁴ See Kirsten Schmalenbach, *Article 5*, in VIENNA CONVENTION ON THE LAW OF TREATIES: A COMMENTARY (Oliver Dörr & Kirsten Schmalenbach eds., 2012).

⁵⁵ Articles of Agreement, *supra* note 4, art. XXIX(a).

⁵⁶ IMF, *The Fund’s Mandate—The Legal Framework*, IMF Legal Department (Feb. 22, 2010).

Such an effective and efficient engagement would require an understanding by the Fund that its Articles of Agreement are dynamic and living instruments.

E. Bank of Japan

Overview

Japan faces an immediate threat from climate change. In recent years, Japan has seen marked increases in coastal flooding, torrential rain, typhoons, and severe heat waves.¹ By one measure, in 2018, Japan was the world's most affected country by climate change.² The effects of climate change have also adversely impacted Japan's economy. According to Bank of Japan ("BOJ") Governor Haruhiko Kuroda, severe typhoons in late 2019 caused the Japanese economy to contract in the Fourth Quarter of 2019. For Japan, climate change is not just a long-term risk, it is a present and palpable drag on the Japanese economy, already plagued by decades of tepid growth.

The BOJ, tasked with maintaining the stability of Japan's financial and monetary conditions, has taken an interest in studying and analyzing the impact of climate change on Japan's long-term economic health. Theoretically, there is nothing in its legal authority stopping the BOJ from including climate consideration in its overall goals of securing the long-term health of Japan's economy.

¹ See generally, DAVID ECKSTEIN ET AL., GLOBAL CLIMATE RISK INDEX 2020 6, (Dec. 2019), https://germanwatch.org/sites/germanwatch.org/files/20-2-01e%20Global%20Climate%20Risk%20Index%202020_14.pdf; Motoko Rich, Makiko Inoue & Hisako Ueno, *Japan's Deadly Combination: Climate Change and a Changing Society*, N.Y. TIMES (July 9, 2020), <https://www.nytimes.com/2020/07/09/world/asia/japan-climate-change-rains-elderly.html>.

² GLOBAL CLIMATE RISK INDEX 2020, *supra* note 1, at 6.

Nevertheless, for the Bank, climate change is just one of a number of problematic structural conditions facing the Japanese economy. Japan has one of the world's oldest populations (second only to Monaco)³ and also the world's highest government debt to GDP ratio,⁴ the result of years of large-scale asset purchases supporting the BOJ's program of Quantitative Easing (QE). Thus, although the BOJ has expressed its concern over the potential effects of climate change to the Japanese economy and has the power to act on those concerns, the Bank has been hesitant to incorporate climate goals into its activities.

Sources of Authority

The BOJ was established by the Bank of Japan Act of 1882 as part of Japan's modernizing reforms during the Meiji Restoration period (1868-1912).⁵ Although Japan had initially experimented with the American model of multiple independent issuing banks, this led to pervasive financial instability and inflation, leading Japan to base the Bank of Japan on the European model of a single, semi-public, centralized national bank.⁶ Although the Bank of Japan functioned with some success in the period after its founding, it came under significant pressure from the Great Depression and the exigencies of World War II. In order to respond to financial pressures instigated by the war, the Bank of Japan Act of 1942 reorganized the BOJ as a state entity responsible to the Ministry of Finance ("MOF"). The reorganized BOJ played a crucial role in fueling Japan's explosive post-war growth, but ran aground once again during the 1990s,

³ *Country Comparison: Median Age*, CIA WORLD FACTBOOK (last visited Aug. 13, 2020), <https://www.cia.gov/library/publications/the-world-factbook/fields/343rank.html>.

⁴ *General Government Debt: Percent of GDP*, INTERNATIONAL MONETARY FUND, https://www.imf.org/external/datamapper/GG_DEBT_GDP@GDD/SWE/JPN (last visited Aug. 12, 2020).

⁵ Masato Shizume, *A History of the Bank of Japan 1882–2016* 8 (WINPEC Working Paper Series No. E1719, 2017), <https://www.waseda.jp/fpse/winpec/assets/uploads/2014/05/No.E1719.pdf>.

⁶ *Id.* at 6–9.

first with the popping of Japan's asset price bubble in 1991 and then again in 1997 with the Asian financial crisis.

The stagnation of Japan's "lost decade" (1991-2001) led to yet another overhaul of the Bank in 1998 with a comprehensive revision to the Bank of Japan Act of 1942. The revision sought to grant the BOJ independence from the MOF, which had come under criticism for mismanaging Japan's economy.⁷ The new Act enshrined the BOJ's Policy Board (akin to the Federal Reserve Bank's Board of Governors) as the Bank's highest decision-making body and insulated it from outside political influence. The 1998 revision also laid out the BOJ's mandate to (1) issue banknotes, (2) carry out currency and monetary control, and (3) ensure smooth settlement of funds.⁸ The underlying goals of these roles are "contributing to the maintenance of stability of the financial system,"⁹ maintaining price stability,¹⁰ and promoting "the sound development of the national economy."¹¹

Since the 1998 reorganization, the BOJ has focused its efforts into breathing life into Japan's economy, which faces deep structural challenges due to a prolonged period of stagnated growth and a heavily aging population. However, the BOJ has struggled since the 1990s to propel the Japanese economy out of its torpor. Since 2001, the BOJ has pursued on-again, off-again quantitative easing (QE), spending trillions of Yen on asset purchases in order to drive interest rates below zero. Despite its pioneering efforts in deploying unconventional monetary policy, the BOJ's efforts have netted few results beyond the world highest Government debt to

⁷ Jennifer Holt Dwyer, *Explaining the Politicization of Monetary Policy in Japan*, 15 SOC. SCIENCE JAPAN J. 181 (2012).

⁸ Nippon Ginkō-hō [BOJ Act], Act No. 89 of 1997, art. 1 §§ (1)–(2) [hereinafter BOJ Act].

⁹ *Id.*

¹⁰ *Id.* art. 2.

¹¹ *Id.*

GDP ratio, currently sitting at over 230%.¹² The failure of years of below-zero interest rates to stimulate the Japanese economy may indicate deeper structural issues in Japan's economic base, issues that climate change will likely exacerbate.

Legal Basis for Taking Climate Action

Under the Bank of Japan Act of 1942 (as revised in 1998), the BOJ's core mandate is to issue bank notes, carry out currency and monetary control, and ensure smooth settlement of funds.¹³ Read narrowly, the statute seems to provide little room for innovative policy aimed at climate change.

However, the BOJ Policy Board, the bank's main decision making body, has broad latitude to determine its own guidelines for how to carry out its core mandate. Under Article 15 of the Bank of Japan Act, the Policy Board has the power of:

- (iv) Determining or altering the guidelines for financial market control . . . through such measures as the buying and selling of negotiable instruments, bonds, or electronically recorded claims . . . as well as determining or altering the types, conditions, and other matters of negotiable instruments, bonds, or electronically recorded claims pertaining to the said financial market control;
- (v) Determining or altering other guidelines for currency and monetary control;
- (vi) Determining or altering the Bank of Japan's view on currency and monetary control, including its basic view on economic and monetary conditions which provides the basis for matters listed in the preceding items.¹⁴

¹² *General Government Debt: Percent of GDP*, *supra* note 4.

¹³ BOJ Act, art. I.

¹⁴ *Id.* art. 15-1 §§(iv)–(vi).

Under this authority, there is little preventing the BOJ from incorporating climate goals into its program of currency and monetary control. The BOJ Policy Board may, for instance, alter the Bank’s “basic view on economic and monetary conditions” and its “guidelines for currency and monetary control” to include climate change as a basis of its program of “buying and selling [. . .] negotiable instruments, bonds, or electronically recorded claims.” Theoretically therefore, the BOJ has the legal mandate to “green” its program of currency and monetary control.

Tempered Expectations for BOJ Climate Action

The BOJ has maintained an active interest in studying the potential effects of climate change on the Japanese economy. The BOJ has joined the Network for Greening the Financial System, a grouping of over sixty Central Banks and monetary authorities devoted to studying climate-related risks to the global economy.¹⁵ The BOJ’s Governor, Haruhiko Kuroda, has acknowledged the potential risks to the global financial system posed by climate change.¹⁶ Indeed, at a meeting of the World Economic Forum in Davos, Governor Kuroda revealed that climate change has already created adverse impacts on Japan’s economy: Japanese GDP likely shrunk in the fourth quarter of 2019 due to a series of particularly strong typhoons that hit the country.¹⁷

Nevertheless, despite expressing a willingness to discuss and study climate issues, the BOJ has been hesitant to embrace central banking tools as a method of addressing climate

¹⁵ Ayai Tomisawa & Toru Fujioka, *Bank of Japan Appears Reluctant to Embrace Green Bonds Despite Climate Fears*, BLOOMBERG (Jan. 9, 2020), <https://www.bloomberg.com/news/articles/2020-01-09/boj-seen-reluctant-to-embrace-green-bonds-despite-climate-fears>.

¹⁶ Haruhiko Kuroda, *For Sustainable Development of Emerging Economies*, Remarks at the 2019 Global Meeting of the Emerging Markets Forum, Lansdowne, Va., (Oct. 20, 2019), https://www.boj.or.jp/en/announcements/press/koen_2019/data/ko191021a.pdf.

¹⁷ Balazs Koranyi, *BOJ's Kuroda says Japan Economy Likely Contracted Q4 Last Year on Typhoons*, REUTERS (January 24, 2020), <https://de.reuters.com/article/davos-meeting-kuroda/update-1-davos-bojs-kuroda-says-japan-economy-likely-contracted-q4-last-year-on-typhoons-idUKL4N29T21I>.

change. In practice, the BOJ has hewed closely to its core mandate of issuing banknotes, carrying out currency and monetary control, and ensuring the smooth settlement of funds.

Publicly, the BOJ has rejected the possibility of dealing in green bonds.¹⁸ Governor Kuroda has also stated that he does not believe central banks should shoulder the burden of addressing climate change. Although the BOJ should “thoroughly investigate and analyze the impact of climate-related risk,” climate change is “better addressed by government with fiscal policy and structural policies.”¹⁹

The hesitancy to use central banking tools to address climate change may be, in part, a function of the myriad problems the BOJ is already facing. The BOJ has struggled to stimulate the Japanese economy, having failed to meet its 2% inflation target for seven consecutive years.²⁰ For the BOJ, adding on a climate mandate to an already complicated program of unconventional monetary policy may simply be too much for the Bank to handle at once.

Conclusion

Unlike its counterparts at the European Central Bank and the Bank of England, the Bank of Japan has been loath to integrate climate change into its broader mandate of currency and monetary control. Although the BOJ recognizes the threat posed by climate change and has broad statutory authority to redefine the goals of its core mandate to respond to the threat, the Bank’s leadership has ruled out such action, at least for the time being.

The BOJ’s decision seems to reflect two determinations. First, that monetary policy is not the appropriate avenue for addressing climate change, which is more appropriately dealt with

¹⁸ Tomisawa & Fujioka, *supra* note 15.

¹⁹ *Bank of Japan Gov. Haruhiko Kuroda Backs Fiscal Spending but Warns of Climate Change Risks*, JAPAN TIMES (Nov. 28, 2019), <https://www.japantimes.co.jp/news/2019/11/28/business/bank-japans-kuroda-offers-endorsement-fiscal-spending-warns-climate-change-risks/>.

²⁰ Tomisawa & Fujioka, *supra* note 15.

through fiscal and structural policies carried out by the elected government. Second, that given the formidable responsibilities shouldered by the BOJ, adding climate change to the Bank's list of priorities may detract from the Bank's core mandate. For these reasons, it is unlikely that the BOJ will emerge as a leader on climate issues.

CLOSING THOUGHTS AND RECOMMENDATIONS

The table below summarizes this piece’s findings on the interrelated roles of four groups—activists, international organizations, markets, and central banks—in overcoming legal barriers to climate change solutions. Included in each subgroup are recommendations for how relevant actors can better contribute to climate-change-responsive law and policy.

Table 1. Summary of findings and recommendations for more effective legal solutions to climate change

Actor	Subgroup	Key Findings	Recommendations
<i>Climate Activists</i>	Climate migrants	<ul style="list-style-type: none"> - The exclusion of migrant voices from climate change activism and discourse impairs larger efforts to combat climate change - Rights-based measures do not resolve the paradoxical reality of <i>nationhood</i> in the absence of <i>statehood</i> - A variety of medium-term investments (five to ten years) could create more resilience to the effects of climate change 	<ul style="list-style-type: none"> - Include climate migrants’ voices in climate change agreements - Protect Indigenous communities in climate change agreements through provisions for humanitarian assistance and funding to create artificial lands, as was done in the Maldives - Research the best way to improve the migratory process itself—be it increasing migration monitors, providing safer modes of transport, or consolidating and expanding destination country integration resources. - Create a single fund dedicated to curbing the migration impact of climate change
	People in occupied lands: Palestine	<ul style="list-style-type: none"> - The international community and NGOs perpetuate the occupation and related climate change impacts in Palestine - Palestinians are resisting the “NGO-industrial complex” by building international solidarity movements and returning to traditional agricultural methods to adapt to climate change - Until the occupation comes to an end, climate change adaptation strategies will have little impact. 	<ul style="list-style-type: none"> - End the occupation, which requires the international community to exert pressure on Israel to end its occupation and human rights abuses in the West Bank and Gaza Strip.

	Religious minorities	<ul style="list-style-type: none"> - Across the globe, organized and indigenous faiths contain deep wells of teaching surrounding climate change's intersections with the impoverished and poor, peaceful coexistence with nature, and a responsibility to steward the creator's gifts. 	<ul style="list-style-type: none"> - Seek support for climate change measures from religious leadership by invoking the ethical imperatives for climate change action.
	Women of racial and sexual diversity	<ul style="list-style-type: none"> - Far from mere victims of climate change, womxn are competent activists uniquely equipped to contribute to and lead climate resilience initiatives -Increasing womxn's participation in decision-making is critical to curbing climate change -Womxn climate activists in both Fiji and Senegal are pressing their governments to take gender-responsive action on climate change. -Despite these efforts, neither country has developed clearly gender-responsive climate change laws, policies, or targets. 	<ul style="list-style-type: none"> - Fiji and Senegal can look to other countries with gender-responsive measures, such as Peru, for inspiration in developing their own plans specific to the needs of womxn within their borders.
International Organizations			
	U.N. Declaration on the Rights of Indigenous Peoples	<ul style="list-style-type: none"> -UNDRIP offers a powerful framework for addressing climate change and its effects on indigenous peoples' right to self determination. -However, FPIC and UNDRIP are not legally binding in international law -The substantive property and cultural rights of indigenous people in the United States and Canada create a conundrum for understanding the legal force of the Declaration in these nations. - The principles of self-determination and state consultation underlying the FPIC doctrine in the declaration should provide adequate legal remedies for indigenous communities impacted by climate change. 	<ul style="list-style-type: none"> -Even if UNDRIP does not have force of law in the U.S. and Canada, advocates should try to rely on the enforceability underlying the provisions of the declaration, particularly FPIC as it relates to indigenous peoples' legal right in the United States and Canada. - Create domestic legislation modeled after international norms to ensure UNDRIP provides indigenous voices a platform for climate-change activism.
	World Heritage Convention	<ul style="list-style-type: none"> -The WHC does not provide a substantive, precautionary 	<ul style="list-style-type: none"> -The World Heritage Committee should adopt a

		<p>framework for addressing climate change.</p> <ul style="list-style-type: none"> -States Parties and the World Heritage Committee have preferred to address climate change through a “risk management” approach that has had a mixed track record of remedying climate threats to heritage properties. -The WHC does offer substantive protections to properties, encourages adaptation within climate-adverse industries, and focuses public attention on the effects, pace, and consequences of unchecked climate change - The precautionary principle would allow for enforceability and higher accountability for the long-term preservation of our world’s natural and cultural heritage. 	<p>precautionary principle approach to world heritage to counter flaws with its current risk management approach.</p>
	U.N. measures on gender and climate change	<ul style="list-style-type: none"> - Numerous non-legally-binding U.N. instruments recognize the gendered impacts of climate change, including the fifth Sustainable Development goal. -There are also legally binding instruments related to gender and climate change, such as the U.N. Security Council Resolution mandating that states develop National Action Plans - Perhaps the United Nation’s most direct approach to addressing gender and climate is the UNFCCC’s three interrelated, non-legally-binding instruments on gender and climate change: the Lima Work Programme on Gender, the Gender Action Plan, and the Enhanced Lima Work Programme on Gender and its Gender Action Plan. -Progress in achieving the Gender Action Plan goals is thus far moderate. 	<ul style="list-style-type: none"> -Pay attention to future reviews and gender composition reports to determine whether the Gender Action Plans can effectively remedy the underrepresentation of womxn in climate change decision-making bodies and help train womxn to be effective advocates.
	Convention on the Rights of the Child	<ul style="list-style-type: none"> - Although the CRC lays a modest foundation in recognizing children’s environmental rights, it does 	<ul style="list-style-type: none"> - Recognize children as stakeholders in States’ actions - Children and their advocates should use the CRC to

		not include a punishment mechanism that forces States to address environmental issues -States' political will to recognize and combat climate change both domestically and through coordinated international efforts is essential to safeguard children's environmental rights	highlight children's rights issues before a U.N. monitoring body, including through a direct petition by children, thus putting pressure on their governments to effectuate change
Markets			
	U.S.	The United States has been slow to implement a legal framework, due to factors such as political forces and constraints on the SEC's legal power.	The SEC should adopt the TCFD disclosure recommendations as binding requirements for issuers.
	U.K.	The U.K. has implemented a regime quite close to the TCFD's recommendations, though both stop short of requiring mandatory disclosure	The U.K. should adopt the TCFD disclosure recommendations as binding requirements for issuers.
	E.U.	The E.U. has presented a plethora of voluntary disclosure options--perhaps too many for investors to navigate successfully.	The E.U. should trim its voluntary disclosure system and adopt the TCFD disclosure recommendations as uniform binding requirements for issuers and other EU financial market participants.
	Hong Kong	Hong Kong has implemented a regime quite close to the TCFD's recommendations, though both stop short of requiring mandatory disclosure	Hong Kong should adopt the TCFD disclosure recommendations as binding requirements for issuers.
	China & Japan	Japan and Mainland China are slowly but surely making progress. Japan has begun efforts of government and private sector collaboration to encourage these standards, while the Mainland has worked in partnership with the UK to explore disclosures and consistently reiterated its goal to eventually implement them.	Both jurisdictions should adopt the TCFD disclosure recommendations as binding requirements for issuers.
Central Banks & IMF			
	The Federal Reserve	Under President Biden and a Democrat-controlled Congress, the Fed may have more room to maneuver and take bolder action on climate change.	The Fed should use its statutory authority under Section 165 of Dodd-Frank or through its position on the

		Nevertheless, at present, the Fed appears to be proceeding cautiously, and whether or not it will assume a leading role in the fight against climate change remains to be seen.	FSOC to address climate change.
	The Bank of England	The Bank of England (the “BoE”) has been a fairly progressive actor in terms of recently attempting to take certain meaningful steps towards acknowledging the potentially devastating effect of climate change on the world, and more specifically the financial world. Through its regulatory authority under the PRA (Prudential Regulatory Authority), the BoE has released supervisory statements regarding the risks of climate change and plans to undertake “stress tests” on financial and insurance companies to assess their preparedness for a shock due to climate change.	The BoE should consider implementing climate-related criteria for assets purchased by the bank in its Corporate Bond Purchase Scheme (CBPS), as could be implemented by the Monetary Policy Committee (MPC).
	The European Central Bank	The ECB is playing a unique role on the world stage as the first central bank to act as a leader that is not only actively combatting climate change but attempting to reverse it. The use of the ECB’s bank funds, as supported by Article 282 of the TFEU, demonstrates that the ECB is attempting to reduce its carbon footprint while also encouraging the development of the green market. The ECB’s use of monetary policy instruments highlights that the ECB is working creatively within its legal mandate to further the green market and fight climate change.	The ECB should continue its bold strategy of using its various powers to combat climate change.
	The Bank of Japan	The Bank of Japan has been loath to integrate climate change into its broader mandate of currency and monetary control. Although the BOJ recognizes the threat posed by climate change and has broad statutory authority to redefine the goals of its core mandate to respond to the	The Bank of Japan should reconsider its rejection of dealing in green bonds and declining to prioritize climate issues more broadly.

		threat, the Bank’s leadership has ruled out such action, at least for the time being.	
	International Monetary Fund	In addition to its advisory function, by virtue of its interpretive powers under Article XXIX and by reference to the implied powers doctrine, the Fund’s Board of Executive Directors can gradually expand the role of the Fund to take up a more relevant and proactive role in relation to climate change financing.	The fund should use its advisory power to encourage green financing and consider expanding its role even further.