

INTERNATIONAL ENERGY LAW AND THE PARIS AGREEMENT IN THE AFTERMATH OF THE COVID-19 PANDEMIC: CHALLENGES AND POSSIBILITIES

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I. INTRODUCTION

This essay is based on my presentation at the 2020 International Law Weekend, organized by the American Branch of the International Law Association (ABILA).¹ As such, this essay is not intended to be an exhaustive survey, but rather an overview of the main issues of interest. In addition, this work specifically discusses potential upcoming progress regarding international climate policies and potential setbacks.² Therefore,

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1. This essay is based on the author’s presentation titled *The Paris Agreement on Climate Change in the Aftermath of the Pandemic: Challenges and Possibilities*, which was presented on October 23, 2020 at the “COVID-19 and Climate Change: A Setback or Strengthening the Resolve to Move Forward?” panel.

2. Molly Bergen & Helen Mountford, *6 Signs of Progress Since the Adoption of the Paris Agreement*, WORLD RES. INST. (Dec. 8, 2020), <https://www.wri.org/blog/2020/12/paris-agreement-progress-climate-action>.

this essay advances current knowledge on international energy law and fosters its academic autonomy.

On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic.³ At the time, not much was known about the virus.⁴ Stringent measures imposing social distancing and closing all non-essential businesses were implemented around the globe in a joint effort to contain the virus, buying time for scientists, hospitals and medical workers to prepare.⁵ Against this background, an economic crisis started to develop based on a drop in oil prices, due to the price war between Russia and Saudi Arabia.⁶ This economic crisis and the draining of financial resources made the pandemic more severe.⁷ At the same time, comparisons between the pandemic and the climate crisis began to occur, with few paying attention to the urgency and stringency of the measures to be taken.⁸ The pandemic and climate crisis are also connected from a policy perspective because pollution, such as greenhouse gases (GHGs), adversely impacts the immune and respiratory systems, making individuals more vulnerable to the COVID-19 virus.⁹

3. Tedros Adhanom, Director General, Remarks at the Media Briefing on COVID-19 (Mar. 11, 2020).

4. James Gallagher, *Coronavirus: What we still don't know about Covid-19*, BBC (Mar. 29, 2020), <https://www.bbc.com/news/health-52006988>.

5. See generally *Policy Responses to COVID-19*, IMF, <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19> (last visited Jan. 14, 2021) (providing a compiled list of all of the stringent policies that have been implemented in response to COVID-19, such as social distancing and business closure).

6. *An unprecedented global health and economic crisis*, INT'L ENERGY AGENCY, <https://www.iea.org/topics/covid-19> (last visited on Jan. 11, 2021) (contending that global oil and gas markets were facing an unprecedented situation of collapsing demand with an already abundant supply that continues to increase because of the pandemic as well); Clifford Krauss & Stanley Reed, *Oil Prices Dive as Saudi Arabia Takes Aim at Russian Production*, N.Y. TIMES (Mar. 8, 2020), <https://www.nytimes.com/2020/03/08/business/saudi-arabia-oil-prices.html>.

7. REBECCA ENGBRETTEN, THE IMPACT OF CORONAVIRUS (COVID-19) AND THE GLOBAL OIL PRICE SHOCK ON THE FISCAL POSITION OF OIL-EXPORTING DEVELOPING COUNTRIES, OECD (Sept. 30, 2020), https://read.oecd-ilibrary.org/view/?ref=136_136801-aw9nps8afk&title=The-impact-of-Coronavirus-COVID-19-and-the-global-oil-price-shock-on-the-fiscal-position-of-oil-exporting-developing-countries.

8. Owen Jones, *Why Don't We Treat Climate Crisis with the Same Urgency as Coronavirus*, GUARDIAN (Mar. 5, 2020), <https://www.theguardian.com/commentisfree/2020/mar/05/governments-coronavirus-urgent-climate-crisis>. There were exceptions early on. While coronavirus is “understandably treated as an imminent danger, the climate crisis is still presented as an abstraction whose consequences are decades away. Unlike an illness, it is harder to visualize how climate breakdown will affect us each as individuals,” and society as a whole. *Id.* at 2.

9. JASON A. SCHWARTZ, INST. POL'Y INTEGRITY, WEAKING OUR DEFENSES: HOW THE TRUMP ADMINISTRATION'S DEREGULATORY PUSH HAS EXACERBATED THE COVID-19 PANDEMIC, 4–6

This essay focuses on the challenges that arose due to the pandemic and how policy makers may take advantage of the economic and health crises to rapidly advance a greener economy.¹⁰ Steering a transition from fossil fuels to non-carbon-based sources should be an important consideration after the COVID-19 pandemic, along with the pressing concerns of justice also triggered by the pandemic.¹¹ In this regard, this essay discusses the main treaties on international energy law.¹² These treaties are aligned with international commitments, most prominently the United Nations Sustainable Development Goals (SDG).¹³ Sustainable Development Goal 13 promotes the need for immediate and effective climate action (SDG 13).¹⁴ This is relevant as the synergistic nature of climate threats has not been fully assessed, and the outcomes are likely to be worse than the sum of the independent parts.¹⁵

On its own, the COVID-19 pandemic is unlikely to meaningfully reduce carbon emissions.¹⁶ The International Energy Agency (IEA) warns that, unless investments are made in “cleaner and more resilient energy infrastructure[s]”, total emissions may rebound, as has happened after previous economic crashes, to higher levels than before the crisis.¹⁷ Recent

(July 10, 2020), https://policyintegrity.org/files/publications/Weakening_Our_Defenses_Covid_Deregulation_Report.pdf; Ingmar Schumacher, *Perspectives on the Economics of the Environment in the Shadow of Coronavirus*, 76 ENV'T. RES. ECON. 465, 465 (2020); Jerry A. Nathanson, *Air Pollution, Major Air Pollutants: Greenhouse Gases*, ENCYC. BRITANNICA, <https://www.britannica.com/science/air-pollution> (last updated Oct. 19, 2020).

10. OECD, MAKING THE GREEN RECOVERY WORK FOR JOBS, INCOME, AND GROWTH 2 (2020).

11. KARL NIETVELT ET AL., S&P GLOBAL, THE ENERGY TRANSITION AND COVID-19: A PIVOTAL MOMENT FOR CLIMATE POLICIES AND ENERGY COMPANIES (2020).

12. Paris Agreement art. 1, Dec. 12, 2015, U.N. Doc. FCCC/CP/2015/L.9/Rev/ [hereinafter Paris Agreement]; Vienna Convention on the Law of Treaties art. 2(1)(a), May 23, 1969, 1155 U.N.T.S. 331 [hereinafter Vienna Convention].

13. *Goal 13: Take urgent action to combat climate change and its impacts*, UNITED NATIONS, <https://www.un.org/sustainabledevelopment/sustainable-development-goals/> (last visited Jan. 15, 2021).

14. *Id.*

15. See O. Hoegh-Guldberg et al., *The Human Imperative of Stabilizing Global Climate Change at 1.5°C*, 365 SCI. 1, 1 (2019), <https://science.sciencemag.org/content/365/6459/eaaw6974>.

16. Piers M. Foster et al., *Current and Future Global Climate Impacts Resulting from COVID-19*, 10 NATURE CLIMATE CHANGE 913, 913 (2020), <https://www.nature.com/articles/s41558-020-0883-0> (emphasizing that, in the absence of long-term system-wide decarbonization of economies, major shifts in behavior are insufficient to achieve anything but modest reductions); see also Carolina Arlota, *The United States Climate Change Policies and COVID-19: Poisoning the Cure*, PACE L. REV. (forthcoming 2021).

17. GLOBAL ENERGY REVIEW 2020: THE IMPACTS OF THE COVID-19 CRISIS ON GLOBAL ENERGY DEMAND AND CO₂ EMISSIONS, INT'L ENERGY AGENCY (2020), <https://www.iea.org/reports/global-energy-review-2020>.

empirical studies show that the immediate climate effects of pandemic-related restrictions are close to negligible, and lasting effects, if any, will be dependent upon the recovery strategy that is adopted in the medium-term.¹⁸ Furthermore, carbon dioxide emissions are expected to quickly rebound.¹⁹

According to a recent report by the United Nations Environment Programme, carbon dioxide (CO₂) emissions will decrease in 2020.²⁰ Nonetheless, the “[r]esulting atmospheric concentrations of major GHGs (CO₂, methane (CH₄) and nitrous oxide (N₂O)) continued to increase in both 2019 and 2020.”²¹ To stabilize global warming, continuous reductions in emissions are required to achieve net-zero CO₂.²² Once such net-zero GHGs emissions are achieved, the planet will first experience a peak and only later will a decline in global warming occur.²³

In such a scenario, the need for the reduction of both carbon emissions and GHGs is extremely pressing.²⁴ There is an international set of treaties targeting such reductions.²⁵ For example, the United Nations Framework Convention on Climate Change (UNFCCC)²⁶ and its corollary, the Paris Agreement on Climate Change,²⁷ have the reduction of carbon emissions and GHGs as their main objectives.²⁸ In 2015, the Twenty-First Conference of

18. Corinne Le Quéré et al., *Temporary Reduction in Daily CO₂ Emissions during the COVID-19 forced Confinement*, 10 NATURE CLIMATE CHANGE 647, 647 (2020), <https://www.nature.com/articles/s41558-020-0797-x>.

19. *Id.* at 650.

20. U.N. Env’t Programme, *Emissions Gap Report 2020: Exec. Summary*, U.N. Doc. DEW/2310/NA, at 5 (2020), <https://wedocs.unep.org/bitstream/handle/20.500.11822/34438/EGR20ESE.pdf?sequence=8> [hereinafter *Emissions Gap Report 2020*].

21. *Id.*

22. *Id.*

23. *Id.*

24. *Id.* at 7.

25. Kyoto Protocol to the United Nations Framework Convention on Climate Change art. 2; Dec. 10, 1997, 2303 U.N.T.S. 162 [hereinafter *Kyoto Protocol*]; Montreal Protocol on Substances that Deplete the Ozone Layer art. 1, Sep. 16, 1987, 1522 U.N.T.S. 3 [hereinafter *Montreal Protocol*].

26. United Nations Framework Convention on Climate Change art. 2, Sept. 5, 1992, S. TREATY DOC NO. 102-38, 1771 U.N.T.S. 107 [hereinafter *United Nations Framework*]. The UNFCCC entered into force on March 21, 1994. The scientific consensus regarding the existence of climate change was a paramount consideration during UNFCCC negotiations. John Houghton, *Science and International Environmental Policy: The Intergovernmental Panel on Climate Change*, in ENV’T. L., THE ECONOMY AND SUSTAINABLE DEVELOPMENT 355–57 (Richard Revesz et al. eds., 2001).

27. See Paris Agreement, *supra* note 12, art. 2. The Paris Agreement, with its goal of reducing GHGs, was negotiated following the legal framework of the UNFCCC, a treaty with 196 state parties to which the Senate gave its advice and consent in 1992. Harold Hongju Koh, *The Trump Administration and International Law*, 56 WASHBURN L. J. 413, 435 (2019).

28. See Paris Agreement, *supra* note 12; see also United Nations Framework, *supra* note 26.

the Parties of the UNFCCC enacted the Paris Agreement,²⁹ an agreement that specifically aims to contain the rising global average temperature to well below 2°C above pre-industrial levels, while advancing efforts to cap the temperature increase to 1.5°C above pre-industrial levels.³⁰

The main international obligations of the parties to the Paris Agreement are their financial contributions to the Green Climate Fund³¹ and the fulfillment of each country's "nationally determined contributions."³² As the language of the treaty conveys, both are voluntarily established commitments determined by each country, exclusively.³³ Under international law, the Paris Agreement is unequivocally a treaty; as such, it requires signatories to comply with its terms.³⁴

II. THE IMPACT OF COVID-19 FOR INTERNATIONAL ENERGY LAW AND THE PARIS AGREEMENT ON CLIMATE CHANGE

This part discusses the consequences of the COVID-19 pandemic for international energy law and, more specifically, for the Paris Agreement. This part is based on the assumption that conflicts in international energy law, including climate policy, do not primarily occur because of the absence

29. See Paris Agreement, *supra* note 12. For an overview about the Paris Agreement, see, e.g., *The Paris Agreement, Summary*, CLIMATE FOCUS 1, 1 (Dec. 28, 2015), <https://www.climatefocus.com/sites/default/files/20151228%20COP%2021%20briefing%20FIN.pdf>; see also Houghton, *supra* note 26, at 355–57.

30. See Paris Agreement, *supra* note 12. Article 2 of the Paris Agreement states the following:

(1) This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by: (a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change. *Id.* art. 2.

31. Paris Agreement, *supra* note 12, art. 9 (“Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention. Other Parties are encouraged to provide or continue to provide such support voluntarily.”). *Id.*; *About GCF*, GREEN CLIMATE FUND, <https://www.greenclimate.fund/about> (last visited Jan. 28, 2021).

32. Paris Agreement, *supra* note 12, art. 4, ¶ 2. (“Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.”). *Id.*

33. According to articles 4 and 9 of the Paris Agreement. See Paris Agreement, *supra* note 12, arts. 4, ¶ 2, 9, ¶ 1.

34. According to international law, all written international agreements governed by international law are referred to as “treaties.” Vienna Convention, *supra* note 12, art. 2., ¶ 1(a); see also BARRY E. CARTER ET AL., INTERNATIONAL LAW 932 (7th ed. 2018).

of scientific facts or objective truth; instead, such disagreements are more likely to be motivated by conflicting “priorities, interests, and normative assumptions that create a number of subjective truths.”³⁵ This increases transaction costs for parties to reach an international energy law agreement.³⁶ Moreover, energy security planning is such a “complex and dynamic [process] that it is [very] difficult to unify perspectives,” even in a single country.³⁷ Examples abound³⁸—for instance, the so-called flip-flop of the United States’ position on the Paris Agreement is a major illustration of domestic tensions and politics being determinative of global outcomes.³⁹

Accordingly, any international agreement on climate change has to reconcile inherent tensions between domestic and international politics.⁴⁰ Those treaties also have to consider the different levels of countries’ growth and industrialization on a global scale.⁴¹ This part turns to two specific international principles contained in the Paris Agreement that may contribute to global action to combat the pandemic as well as to foster a greener economy.⁴² These principles are sustainable development and common but differentiated responsibilities.⁴³ This part concludes by examining the

35. Benjamin K. Sovacool & Marilyn Brown, *Deconstructing Facts and Frames in Energy Research: Maxims for Evaluating Contentious Problems*, 86 ENERGY POL’Y 36, 36–37 (2015).

36. *Id.* at 38.

37. See Benjamin K. Sovacool & Harry Saunders, *Competing Policy Packages and the Complexity of Energy Security*, 67 ENERGY 641, 641 (2014), emphasizing that,

The result is that important interdependencies and interconnections are sometimes missed, laying a faulty foundation that can give rise to more intractable energy problems down the road. The policymaker in India who seeks to improve access to electricity to mitigate the health damage caused by indoor combustion of firewood for cooking becomes an advocate of coal-fired power plants. A local problem is solved and a national dilemma is born.

38. Sovacool & Brown, *supra* note 35, at 38; Mark Cooper, *Governing the global climate commons: The political economy of state and local action, after the U.S. flip-flop on the Paris Agreement*, 118 ENERGY POL’Y 440, 440 (2018).

39. Cooper, *supra* note 38, at 440.

40. See generally Sovacool & Saunders, *supra* note 37, at 641.

41. *Id.*

42. Paris Agreement, *supra* note 12, at 1; *Climate & SDGS Synergy Conference*, U.N. DEP’T OF ECON. & SOC. AFFAIRS, <https://sdgs.un.org/events/climate-and-sdgs-synergy-conference-7569> (last visited Jan. 15, 2021); *Climate Action*, U.N., <https://www.un.org/sustainabledevelopment/climate-action/> (last visited Jan. 15, 2021).

43. Paris Agreement, *supra* note 12, at 1.

specific impact of the pandemic on international negotiations at the future Conference of the Parties (COP).⁴⁴

A. Sustainable Development

Sustainable development, with preliminary notions that date back to 1945, was conceptualized with more precision at the United Nations Conference on the Human Environment, in 1972.⁴⁵ However, this concept was not used until the 1980s, when the Brundtland Commission Report defined it as “development . . . that . . . meets the needs of the present without compromising the ability of future generations to meet their own needs.”⁴⁶ Later on, the Rio Declaration on Environment and Development framed it in a quite anthropocentric fashion, stating in Principle 1 that “[h]uman beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.”⁴⁷ World governments adopted sustainable development as the development paradigm in 1992, at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil.⁴⁸

As the concept of sustainable development has been significantly debated—with many questioning its legal force and whether it has some other normative value, even one of a non-legal or quasi-legal character⁴⁹—the dimensions considered in the Paris Agreement are open to debate.⁵⁰ There

44. *The Ambition*, CLIMATE AMBITION SUMMIT 2020, <https://www.climateambitionsummit2020.org/index.php#programme> (last visited Jan. 15, 2021) [hereinafter *The Ambition*]; *Climate Ambition Summit 2020*, IISD (Dec. 12, 2020), <https://sdg.iisd.org/events/5th-anniversary-of-the-paris-agreement/#:~:text=The%20Climate%20Ambition%20Summit%202020,Agreement%20and%20the%20multilateral%20process>.

45. U.N. Conference on the Human Environment, U.N. Doc. A/CONF.48/Rev.1, at 3 (June 5, 1972); *Promote Sustainable Development*, UNITED NATIONS, <https://www.un.org/en/sections/what-we-do/promote-sustainable-development/> (last visited Jan. 26, 2020); see also Bimal N. Patel & Ranita Nagar, *Introduction*, in *SUSTAINABLE DEVELOPMENT AND INDIA: CONVERGENCE OF LAW, ECONOMICS, SCIENCE, AND POLITICS* 1–10 (Bimal N. Patel & Ranita Nagar eds., 2018).

46. U.N. Secretary-General, *Our Common Future: Report of the World Commission on Environment and Development, From One Earth to Another*, pt. 1, § 3, ¶ 27, § 4, ¶ 81, U.N. Doc A/42/427 (Aug. 4, 1987); see also EDITH BROWN WEISS ET AL., *INTERNATIONAL LAW FOR THE ENVIRONMENT* 26, 184 (2016); Patel & Nagar, *supra* note 45, at 1.

47. Stephen Hammer & Stéphane Hallegatte, *Planning for the economic recovery from COVID-19: A sustainability checklist for policymakers*, WORLD BANK BLOGS (Apr. 14, 2020), <https://blogs.worldbank.org/climatechange/planning-economic-recovery-covid-19-coronavirus-sustainability-checklist-policymakers>.

48. *Id.*

49. Riccardo Pavoni & Dario Piselli, *The Sustainable Development Goals and International Environmental Law: Normative Value and Challenges for Implementation*, 13 VEREDAS DO DIREITO, BELO HORIZANTE 13, 15 (2016).

50. *Id.*; see generally Paris Agreement, *supra* note 12.

is, however, some consensus in interpreting sustainable development in that it requires analysis of the interplay between economic growth, social development, and environmental protection.⁵¹ In the aftermath of the pandemic, the emphasis on social development—including access to medical care, clean energy, education, and a healthy environment—will become crucial.⁵²

B. *Common but Differentiated Responsibilities*

The principle of common but differentiated responsibilities and respective capabilities (CBDRRC), referring specifically to different responsibilities allocated among countries,⁵³ has been controversial since its inception in the UNFCCC.⁵⁴ The principle appears, more recently, in the Paris Agreement.⁵⁵ According to this principle, responsibility for both current and historical emissions need to be considered.⁵⁶ The evidence is unambiguous: from 1850 to 2011, the developed world contributed 79% of GHG emissions.⁵⁷

As developing states have had a far lower impact on the current concentration of GHGs and the overall threshold on carbon saturation,⁵⁸ developed countries must provide climate financing to less developed

51. *Social Development for Sustainable Development*, UNITED NATIONS, <https://www.un.org/development/desa/dspd/2030agenda-sdgs.html> (last visited Jan. 30, 2021).

52. Hammer & Hallegatte, *supra* note 47.

53. United Nations Framework, *supra* note 26, art. 3, ¶ 1. (“The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”). *Id.*

54. David Freestone, *The United Nations Framework Convention on Climate Change—The Basis for the Climate Change Regime*, in THE OXFORD HANDBOOK OF INTERNATIONAL CLIMATE CHANGE LAW 99, 103 (Cinnamon P. Carlarne et al. eds., 2016) (explaining the differentiated treatment established under articles 4 and 12 of the UNFCCC, as Annex I parties encompass “all the developed states and states with economies in transition . . . [namely] . . . the members of the former Soviet Union[.]” while Annex II includes all the developed states which are expected to financially contribute. Developing countries are defined as non-Annex I in the Convention). *Id.*; see also United Nations Framework, *supra* note 26.

55. Paris Agreement, *supra* note 12, art. 2, ¶ 2. (“This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.”). *Id.* arts. 2, 9.

56. Daniel Bodansky et al., *International Environmental Law: Mapping the Field*, in THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 1, 11 (2008).

57. Jonah Busch, *Climate Change and Development in Three Charts*, CTR. FOR GLOB. DEV. (Aug. 18, 2015), <https://www.cgdev.org/blog/climate-change-and-development-three-charts>.

58. Ting Wei et al., *Developed and Developing World Contributions to Climate System Change Based on Carbon Dioxide, Methane and Nitrous Oxide Emissions*, 33 ADVANCES IN ATMOSPHERIC SCI. 632, 632 (2016); Bodansky et al., *supra* note 56, at 11 (noting article 3 of the UNFCCC refers to “respective capabilities,” which means that capacity to pay is relevant along historical responsibility). *Id.*

countries, as determined by international treaties.⁵⁹ Importantly, energy justice also fosters institutional action, which may minimize the impact of the so-called “curse” of natural resources for developing countries.⁶⁰ Institutional action, under the terms of the UNFCCC and the Paris Agreement, requires developed countries to take the lead in reducing emissions.⁶¹ The necessity of this leadership has been proven even more relevant in light of the pandemic and the economic crisis that has ensued.⁶² Likewise, the need to transfer funding and technology increased during the pandemic.⁶³ This exacerbates the international obligation of developed countries to not only invest in their own greener recovery, but also to steer efforts for such greener scenarios in developing nations.⁶⁴ This is why the legal framework of the Paris Agreement calls for financial contributions to the Green Climate Fund, which was established by the Conference of the Parties in 2010 (under the UNFCCC, and as part of the Convention’s financial mechanism).⁶⁵ More specifically, the Green Climate Fund aims to advance adaptation to the impact of climate change and reduce GHG emissions in the developing world.⁶⁶ Importantly, recent research contends that overreliance on technological innovation has jeopardized a significant reduction of GHG emissions at the expense of countries located in the Global South, as well as those more vulnerable populations in the future, globally.⁶⁷ Accordingly, more actions from developed countries are needed quickly.

59. Paris Agreement, *supra* note 12, art. 9; *see also* United Nations Framework, *supra* note 26, art. 3, ¶ 1.

60. Paris Agreement, *supra* note 12, art. 11; Stewart M. Patrick, *Why Natural Resources Are a Curse on Developing Countries and How to Fix It*, ATLANTIC (Apr. 30, 2012) <https://www.theatlantic.com/international/archive/2012/04/why-natural-resources-are-a-curse-on-developing-countries-and-how-to-fix-it/256508/>.

61. *See, e.g.*, United Nations Framework, *supra* note 26, arts. 3–4; Paris Agreement, *supra* note 12, art. 4.

62. U.N. GAOR, 31st Spec. Sess., 2nd Plen Mtg. U.N. Doc GA/12293 (Dec. 3, 2020).

63. *Id.*

64. *Id.*

65. The Green Climate Fund technically aims to finance equal amounts to mitigation as well as to adaptation initiatives under the UNFCCC. Its first mobilization dates back to 2014, and since the Paris Agreement (2015), the Fund has played an important role in advancing the objectives established in the Paris Agreement on Climate Change. *Overview, GREEN CLIMATE FUND*, <https://www.greenclimate.fund/about> (last visited Jan. 20, 2021); Paris Agreement, *supra* note 12, art. 9.

66. The Green Climate Fund focuses on the needs of those who are “highly vulnerable to the effects of climate change,” specifically in Least Developed Countries (LDCs), Small Island Developing States (SIDS), and African States. *Overview, supra* note 65.

67. Lancaster University, *Why relying on new technology won’t save the planet*, SCI. DAILY (APR. 20, 2020), <https://www.sciencedaily.com/releases/2020/04/200420125510.htm>.

Each novel promise not only competes with existing ideas, but also downplays any sense of urgency, enabling the repeated deferral of political deadlines for climate

C. *The Climate Ambition Summit: 2020*

The United Nations, France, and the United Kingdom, in partnership with Chile and Italy, jointly hosted the Climate Ambition Summit on December 12, 2020.⁶⁸ This virtual meeting gathered representatives of most Member States, indigenous peoples, civil society, non-governmental organizations, and other key actors in preparation for the next Conference of the Parties—COP 26, which was postponed to November 2021, due to the pandemic.⁶⁹ The goal was to discuss the implementation of “new and [more] ambitious commitments under the three pillars of the Paris Agreement: mitigation, adaptation and finance commitments.”⁷⁰

On the eve of the Climate Ambition Summit, the European Union reiterated its earlier commitment to reduce its GHG emissions by at least 55%, having the net carbon emissions measured in 1990 as its baseline.⁷¹ The increasing number of countries committing to net-zero emissions goals by 2050 is “the most significant and encouraging development in terms of climate policy in 2020.”⁷² Top polluters, such as the European Union, Japan, and China (committing to achieve net-neutrality by 2050 and 2060, respectively) have already explicitly embraced such goals, whereas in the United States, the Biden-Harris administration has already signaled its intention to follow suit.⁷³ Therefore, the pandemic has contributed to overall cooperation among different countries and an overall willingness for developed world nations to engage in more ambitious climate goals.⁷⁴ For developing nations, it is too early to make a judgment call.

action and undermining societal commitment to meaningful responses . . . but such promises can feed systemic 'moral corruption', in which current elites are enabled to pursue self-serving pathways, while passing off risk onto vulnerable people in the future and in the global South. *Id.*

68. *The Ambition*, *supra* note 44.

69. *Id.*; Press Release, United Nations Climate Change, COP-26 Postponed, UN Climate Press Release (Apr. 1, 2020); Press Release, U.K. Gov., New Dates Agreed for COP26 United Nations Climate Change Conference (May 28, 2020).

70. *The Ambition*, *supra* note 44.

71. Monika Pronczuk, *E.U. Agrees to Slash Carbon Emissions by 2030*, N.Y. TIMES (Dec. 11, 2020), <https://www.nytimes.com/2020/12/11/world/europe/eu-climate-emissions.html> (discussing the new pledges of the European Union, who increased its original commitment in reducing net carbon emissions in at least 55% from its levels measured in 1990). The article also informs that this stringent target positions the European Union in the forefront of global climate fighting and strategically sets the bloc on its path to carbon neutrality by 2050. *Id.*; *Live: Climate Ambition Summit*, U.N. NEWS (Dec. 12, 2020), <https://news.un.org/en/story/2020/12/1079862>.

72. Emissions Gap Report 2020, *supra* note 20, at 7.

73. *Id.* at 7.

74. *Id.* at 4–5.

III. THE MAIN CHALLENGES REGARDING INTERNATIONAL ENERGY LAW AND THE FULFILLMENT OF THE PARIS AGREEMENT'S GOALS

This part focuses on the main challenges that policy makers will face in the field of international energy law as they aim to fulfill the goals of the Paris Agreement, namely, to limit the global increase in mean temperature to well below 2°C (35.6°F) compared to pre-industrial levels.⁷⁵

First, the pandemic is likely to increase emissions of GHGs, unless countries actively engage in investing in a greener economy.⁷⁶ The decline in green energy investments provoked by the pandemic may also contribute to a spike in carbon emissions.⁷⁷ The flexibilization of the enforcement concerning environmental regulations may also contribute to increased emissions.⁷⁸ Pandemic-related cleaning and disinfecting activities are also expected to have a negative environmental impact.⁷⁹

Second, the Biden-Harris administration is committed to fostering energy transition from fossil fuels to a greener economy but faces significant challenges with current policies.⁸⁰ Specifically, the Biden-Harris administration will have to undo numerous anti-climate policies implemented by the Trump administration.⁸¹ Key among them is the United States' withdrawal from the Paris Agreement, which occurred on November 4, 2020.⁸² The Paris Agreement is considered a historic breakthrough, as it

75. Paris Agreement, *supra* note 12, art. 2.

76. Emissions Gap Report 2020, *supra* note 20, at 6 (discussing the need for more stringent NDCs as well as specific policies to reduce GHGs emissions such as investments on research and the support for zero emissions). *Id.*

77. Kenneth T. Gillingham et al., *The Short-run and Long-run effects of COVID-19 on Energy and the Environment*, 4 *JOULE* 1337, 1338–1341 (2020).

78. Emissions Gap Report 2020, *supra* note 20, at 13; U.S. Env'tl. Prot. Agency, Memorandum on COVID-19 Implications for EPA's Enforcement and Compliance Assurance Program (Mar. 26, 2020), <https://www.epa.gov/sites/production/files/2020-03/documents/oecamemooncovid19implications.pdf>.

79. Mandred Lenzen et al., *Global Socio-Economic Losses and Environmental Gains from the Coronavirus Pandemic*, 15 *PLOS ONE* (July 9, 2020), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0235654>.

80. *The Biden Plan for a Clean Energy Revolution and Environmental Justice*, BIDENHARRIS, <https://joebiden.com/climate-plan/> (last visited Jan. 20, 2021); Tyler Clevenger & Dan Lashof, *7 Ways the Biden Administration Can Reverse Climate Rollbacks*, *WORLD RES. INST.* (Jan. 19, 2021), <https://www.wri.org/blog/2021/01/7-ways-biden-administration-can-reverse-climate-rollbacks>.

81. Clevenger & Lashof, *supra* note 80.

82. Art. 28 of the Paris Agreement, which determines the withdrawal procedure, does not authorize notice of withdrawal within the first three years that the Agreement has entered into force. Paris Agreement, *supra* note 12, art. 28. The United States served notice of the withdrawal on the first date possible under the Paris Agreement. Lisa Friedman, *Trump Serves Notice to Quit Paris Climate Agreement*, *N.Y. TIMES*, <https://www.nytimes.com/2019/11/04/climate/trump-paris-agreement-climate.html> (last updated Jan. 20, 2021).

marked the end of a decade long stalemate over the full integration of the United States and developing economies into the climate regime.⁸³

In such a context, the Biden-Harris administration deserves praise for advocating that the United States rejoin the Paris Agreement on its first day in office.⁸⁴ The Biden-Harris administration will have to address the ongoing economic, environmental, and health crises that were aggravated by the COVID-19 pandemic and the policy choices made by the Trump administration.⁸⁵ The attacks by President Trump on science, which are routinely referred to as a “war on science,” have undermined significant environmental protections and ultimately jeopardized the health and quality of life of the United States population.⁸⁶ Importantly, those with less financial resources have suffered the most.⁸⁷

Third, there is significant uncertainty concerning the level of United States engagement and leadership on urgent climate matters.⁸⁸ Despite reiterated commitments of the Biden-Harris administration, including the previously referenced rejoining of the United States to the Paris Agreement and the appointment of John Kerry as a special envoy for climate,⁸⁹ how effectively the new administration implements its climate goals remains to be seen.⁹⁰ Moreover, the world’s response to the United States as it is

83. Meinhard Doelle, *Assessment of Strengths and Weaknesses*, in *THE PARIS AGREEMENT ON CLIMATE CHANGE: ANALYSIS AND COMMENTARY* 387, 400 (Daniel Klein et al. eds., 2017).

84. The President-elect tweeted that his administration will rejoin the Paris Agreement. *See Joe Biden vows to rejoin the Paris climate deal on first day of office if elected*, CARBON BRIEF (Nov. 11, 2020), <https://www.carbonbrief.org/daily-brief/joe-biden-vows-to-rejoin-the-paris-climate-deal-on-first-day-of-office-if-elected> [hereinafter *Rejoin Paris climate deal*].

85. *Impact of COVID-19 on people’s livelihoods, their health and our food systems*, WHO (Oct. 13, 2020), <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems>; Clevenger & Lashof, *supra* note 80.

86. Carolina Arlota, *How President Trump’s War on Science Undermines Cost-Benefit Analysis of Climate Policies*, 50 ENV’T L. REP. 10999, 11007–14 (2020).

87. *Id.*; Carmin Chappel, *Climate change in the US will hurt poor people the most, according to a bombshell federal report*, CNBC, <https://www.cnn.com/2018/11/26/climate-change-will-hurt-poor-people-the-most-federal-report.html> (last updated Nov. 26, 2018).

88. Carolyn Beeler, *Top US leadership is ‘missing ingredient’ in climate change action*, WORLD (Sept. 18, 2019), <https://www.pri.org/stories/2019-09-18/top-us-leadership-missing-ingredient-climate-change-action>.

89. *Rejoin Paris climate deal*, *supra* note 84; Lisa Friedman, *With John Kerry Pick, Biden selects a ‘Climate Envoy’ With Stature*, N.Y. TIMES, <https://www.nytimes.com/2020/11/23/climate/john-kerry-climate-change.html> (last updated Dec. 11, 2020) (emphasizing that the special climate envoy is a new cabinet-level position to be created under President-elect Biden’s presidency).

90. *See generally* Thomas Hale and Nathan Hultman, *‘All in’ Climate Diplomacy: How a Biden-Harris Administration can Leverage City, State, Business, and Community Climate Action*, BROOKINGS (Nov. 20, 2020), <https://www.brookings.edu/research/all-in-climate-diplomacy-how-a-biden-harris-administration-can-leverage-city-state-business-and-community-climate-action/> (discussing the administration’s various implementation strategies and what will be needed in order to successfully implement those strategies).

reclaiming its leadership on climate policies is unclear.⁹¹ After all, United States leadership in international matters has been jeopardized under President Trump due to his unpredictability and his agenda to undo all significant agreements made by his predecessor, President Obama.⁹² In the field of international energy law alone (and in addition to the country's withdrawal from the Paris Agreement), the United States denunciation of the Joint Comprehensive Plan of Action (or the "Iran deal"),⁹³ the Trans-Pacific Partnership,⁹⁴ and the Intermediate-Range Nuclear Forces Treaty⁹⁵ all serve as evidence of how the Trump administration decided in a rush and with little consideration for the international community as a whole.

Fourth, many countries have relinquished the opportunity brought by the pandemic to build a more environmentally conscious economy.⁹⁶ An

91. Lara Lázaro-Touza, *Biden-Harris Administration and Climate Change: Good News, Caveats and Warnings*, ELCANO ROYAL INST. (last updated Jan. 22, 2021), http://www.realinstitutoelcano.org/wps/portal/riecano_en/contenido?WCM_GLOBAL_CONTEXT=/elcano/elcano_in/zonas_in/ari9-2021-lazaro-biden-harris-administration-and-climate+change-good+news-caveats-and-warnings.

92. Press Release, Emmanuel Macron, Angela Merkel, and Paolo Gentiloni, Paris Agreement Cannot be Renegotiated (June 1, 2017) (on file with Ministère de L'Europe et des Affaires Étrangères). In a joint statement, French President Emmanuel Macron, German Chancellor Angela Merkel, and then Italian Prime Minister Paolo Gentiloni were vocal in stating that President Trump's decision was against ongoing progress and that the Agreement was solid and not open to renegotiation. Such leaders jointly declared: "We deem the momentum generated in Paris in December 2015 irreversible and we firmly believe that the Paris Agreement cannot be renegotiated, since it is a vital instrument for our planet, societies and economies." *Id.*; see Juliet Eilperin & Darla Cameron, *How Trump is Rolling Back Obama's Legacy*, WASH. POST (last updated Jan. 20, 2018), <https://www.washingtonpost.com/graphics/politics/trump-rolling-back-obama-rules/>; see also Carolina Arlota, *Does the United States' Withdrawal From the Paris Agreement Pass the Cost-Benefit Analysis Test?*, 41 U. PA. J. INT'L L. 881, 881 (2020) (criticizing the United States' climate policies under the Trump administration and its reduced leadership after its decision to withdraw from the Paris Agreement while continuing in the UNFCCC).

93. See Remarks on the Joint Comprehensive Plan of Action to Prevent Iran From Obtaining a Nuclear Weapon and an Exchange with Reporters, 2018 DAILY COMP. PRES. DOC. 2, (May 8, 2018).

94. Memorandum of Withdrawal of the U.S. from the Trans-Pacific Partnership Negotiations and Agreement, 2017 DAILY COMP. PRES. DOC. 1 (Jan. 23, 2017).

95. The Trump administration withdrew from this agreement with Russia, despite its previous praise for the treaty, which was signed by President Reagan. See C. Todd Lopez, *U.S. Withdraws From Intermediate-Range Nuclear Forces Treaty*, U.S. DEPT. DEF. (Aug. 2, 2019), <https://www.defense.gov/Explore/News/Article/Article/1924779/us-withdraws-from-intermediate-range-nuclear-forces-treaty/>. For a limited justification of the withdrawal, see Remarks in an Exchange with Reporters in Elko, Nevada, 2018 DAILY COMP. PRES. DOC. 3-4 (Oct. 20, 2018); see also Daryl Kimball & Kingston Reif, *The Intermediate-Range Nuclear Forces Treaty at a Glance*, ARMS CONTROL ASS'N., <https://www.armscontrol.org/factsheets/INFtreaty> (last reviewed Aug. 2019).

96. See OECD, GREEN BUDGETING AND TAX POLICY TOOLS TO SUPPORT A GREEN RECOVERY 1, 2-3 (2020), <http://www.oecd.org/coronavirus/policy-responses/green-budgeting-and-tax-policy-tools-to-support-a-green-recovery-bd02ea23/> (discussing what countries plan to do but have yet to do, in order to build a more environmentally conscious economy).

example of such an economy would be one based on the social cost of carbon.⁹⁷ Recent research by Princeton University advised the implementation of carbon pricing (whether as taxes or emissions trading) aimed at reducing the adverse impacts of climate change as economies “build back better.”⁹⁸ According to this research, the pandemic could be an opportunity to improve sustainability and maximize well-being around the globe as countries recover.⁹⁹ Therefore, international energy law policies aiming to implement the goals established by the Paris Agreement should be based on mitigation, as the World Bank has defined mitigation action as “the best insurance against an uncertain future.”¹⁰⁰ Mitigation, therefore, is the only way to effectively reduce carbon emissions.¹⁰¹

In such a context, leading emitters of GHGs, such as China, the United States, Japan, and India face difficult policy choices, as their emissions are based on large scale utilization of fossil fuels to produce energy for industry and transportation sectors.¹⁰² These countries’ emissions are considered more difficult to abate, as significant investments and technological innovation are required to achieve meaningful reductions.¹⁰³ Mitigation technologies, such as carbon capture and storage (CCS), are a feasible alternative for the reduction in the emission of CO₂, particularly in the energy sector.¹⁰⁴ Nonetheless, cost remains a significant challenge for CCS implementation.¹⁰⁵

97. *See id.* at 10–12.

98. Kian Mintz-Woo et al., *Carbon Pricing and COVID-19*, CLIMATE POL’Y. 1, 2 (Nov. 15, 2020), <https://www.tandfonline.com/doi/full/10.1080/14693062.2020.1831432?scroll=top&needAccess=true>.

99. *Id.* at 7.

100. WORLD BANK, TURN DOWN THE HEAT: WHY A 4°C WARMER WORLD MUST BE AVOIDED 1, 2 (2012), <http://documents.worldbank.org/curated/en/865571468149107611/pdf/NonAsciiFileName0.pdf>.

101. *See id.* at 25.

102. *Each Country’s Share of CO₂ Emissions*, UNION CONCERNED SCIENTISTS, <https://www.ucsusa.org/resources/each-country-s-share-co2-emissions> (last updated Aug. 12, 2020); Melissa Denchak, *Fossil Fuels: The Dirty Facts*, NAT. RES. DEF. COUNCIL (Jun. 8, 2018), <https://www.nrdc.org/stories/fossil-fuels-dirty-facts>. The concept of “hard to abate emissions” is defined by the Energy Transition Commission (ETC). *See Mission Possible: Reaching Net-Zero Carbon Emissions from Harder-to-Abate Sectors by Mid-Century*, ENERGY TRANSITIONS COMM’N (Nov. 2018), http://www.energy-transitions.org/sites/default/files/ETC_MissionPossible_FullReport.pdf [hereinafter *Reaching Net-Zero Carbon Emissions*]. Such “harder-to-abate” emissions comprise those of sectors in heavy industry (in particular cement, steel and chemicals) and heavy-duty transport (heavy-duty road transport, shipping and aviation). *Id.* at 11. These sectors currently account for 10Gt (30%) of total global CO₂ emissions. *Id.* at 11.

103. *Reaching Net-Zero Carbon Emissions*, *supra* note 102, at 75.

104. *The Global Status of CCS: 2017*, GLOBAL CCS INST. 43 (2017), <https://www.globalccsinstitute.com/wp-content/uploads/2018/12/2017-Global-Status-Report.pdf>.

105. *See id.* at 19.

Accordingly, investments in mitigation efforts need to include a diverse portfolio of financing sources, including a combination of public funds, carbon market finance, and concessional financing.¹⁰⁶ Moreover, financing a greener economy is likely to be a challenge on its own, due to the resources spent during the pandemic as well as the need for economic relief to those who lost their jobs.¹⁰⁷ A recent study by the Guardian revealed that countries are pouring money into the fossil fuel economy to reduce the economic impact of the pandemic, including its severe recession.¹⁰⁸ Therefore, the pandemic increased the competition for funding.¹⁰⁹

Such competition is also likely to have an adverse impact on renewables.¹¹⁰ On the one hand, as countries commit to more stringent targets under the Paris Agreement, renewable resources are expected to rise again.¹¹¹ This is relevant as renewables require investment on research and dissemination as well as implementation.¹¹² On the other hand, major obstacles regarding renewable energy sources remain, such as affordability and the need for grid updates.¹¹³

Fluctuation of energy supply prices also increased the competition for credit.¹¹⁴ Oil hit record low prices in March 2020, stranding financial

106. Sujata Gupta et. al., *Cross-cutting Investment and Finance Issues*, CLIMATE CHANGE 2014: MITIGATION OF CLIMATE CHANGE. CONTRIBUTION OF WORKING GROUP III TO THE FIFTH ASSESSMENT REPORT OF THE INTER-GOVERNMENTAL PANEL ON CLIMATE CHANGE 1207, 1227 (2014), https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter16.pdf.

107. See Fiona Harvey, *Revealed: Covid recovery plans threaten global climate hopes*, GUARDIAN (Nov. 9, 2020), <https://www.theguardian.com/environment/2020/nov/09/revealed-covid-recovery-plans-threaten-global-climate-hopes>.

108. *Id.*

109. *See id.*

110. *See id.*

111. Kieran Mulvaney, *Climate change report card: These countries are reaching targets*, NAT'L GEOGRAPHIC, <https://www.nationalgeographic.co.uk/environment-and-conservation/2019/09/climate-change-report-card-these-countries-are-reaching> (last updated Nov. 5, 2020); *Global Energy Review 2020, The Impacts of the COVID-19 Crisis on Global Energy Demand and CO2 Emissions*, INT'L ENERGY AGENCY (Apr. 2020), <https://www.iea.org/reports/global-energy-review-2020/renewables>.

112. Kesavan Srinivasan & Srinivas Guarazada, *Investing in a more suitable world during COVID-19 recovery*, WORLD BANK BLOGS (June 24, 2020), <https://blogs.worldbank.org/governance/investing-more-sustainable-world-during-covid-19-recovery>; U.S. DEP'T ENERGY, RENEWABLE ENERGY INTEGRATION (2021).

113. *Easy to Say, Difficult to Achieve: Experts Discuss Forging a Fair, Green Economy*, IISD (Aug. 22, 2019), <https://sdg.iisd.org/news/easy-to-say-difficult-to-achieve-experts-discuss-forging-a-fair-green-economy/>; Aaron Larson, *Electric Transmission Grid Problems and Solutions*, POWER (Aug. 3, 2020), <https://www.powermag.com/electric-transmission-grid-problems-and-solutions/>.

114. *See* ICIS Editorial, *Coronavirus Impact on Energy Markets*, INDEP. COMMODITY INTELLIGENCE SERV., <https://www.icis.com/explore/resources/news/2020/03/19/10482507/topic-page-coronavirus-impact-on-energy-markets> (last updated Nov. 13, 2020).

resources.¹¹⁵ With such diversified demand, funding to investments is changing¹¹⁶ while the need for significant greener investments is increasing under international treaties, as previously discussed.¹¹⁷ Furthermore, there are increasing concerns regarding environmental protection and climate change, both internationally¹¹⁸ and in the United States.¹¹⁹ This may lead to progress. However, as of today, all of the challenges discussed are relevant.¹²⁰ The manner in which countries decide to address these challenges will be determinative of the future of the Paris Agreement and the fulfillment of its goals.¹²¹ The task is tremendously difficult, and the pandemic may have aggravated it.¹²² There are no definitive answers for now, as matters are still in flux.

115. *An Unprecedented Global Health and Economic Crisis*, *supra* note 6; KEVIN L. CAMP ET AL., U.S. BUREAU STAT., FROM THE BARREL TO THE PUMP: THE IMPACT OF THE COVID-19 PANDEMIC ON PRICES FOR PETROLEUM PRODUCTS (2020), <https://www.bls.gov/opub/mlr/2020/article/from-the-barrel-to-the-pump.htm>.

116. This issue is of increased importance, as the European Investment Bank announced that it will stop funding fossil fuels projects after 2021. Emanuela Barbiroglio, *European Investment Bank will Stop Financing New Fossil Fuels Projects*, FORBES (Nov. 15, 2019), <https://www.forbes.com/sites/emanuelabarbiroglio/2019/11/15/european-investment-bank-will-stop-financing-new-fossil-fuels-projects/#42cedd5b9253>.

117. Kyoto Protocol, *supra* note 25; Montreal Protocol, *supra* note 25.

118. See also Stephen Castle, *U.K. to Halt Subsidies for Fossil Fuel Projects Abroad*, N.Y. TIMES, <https://www.nytimes.com/2020/12/11/world/europe/UK-fossil-fuel-subsidies.html> (last updated Dec. 14, 2020) (highlighting that the Organization for Economic Cooperation and Development and the International Energy Agency have urged countries to reduce or cut government subsidies for fossil fuels).

119. Jeanna Smialek, *Fed Joins Climate Network, to Applause from the Left*, N.Y. TIMES (Dec. 15, 2020), <https://www.nytimes.com/2020/12/15/business/economy/fed-climate-network.html?action=click&module=Latest&pgtype=Homepage> (noting that the Federal Reserve board in Washington “voted unanimously to become a member of the Network of Central Banks and Supervisors for Greening the Financial System” and that the Fed began participating in the group more than a year ago, but “Republicans have eyed warily” the Fed’s formal membership while Democrats have been fighting for it).

120. Stephen Leahy, *Most countries aren't hitting 2030 climate goals, and everyone will pay the price*, NAT’L GEOGRAPHIC (Nov. 5, 2019), <https://www.nationalgeographic.com/science/2019/11/nations-miss-paris-targets-climate-driven-weather-events-cost-billions/>.

121. *Id.*

122. Amy Lieberman, *Despite pandemic slowdown, climate change continues to worsen*, DEVEX (Sept. 10, 2020), <https://www.devex.com/news/despite-pandemic-slowdown-climate-change-continues-to-worsen-98053>.

IV. CONCLUSION

As we move forward, the disruption to our long standing way of life will fade away.¹²³ The main challenge moving forward is to learn the lesson on the importance of cooperation among countries, among scientists, and civil society sectors.¹²⁴ The pandemic was a significant reminder that international order exists to advance the protection of the human dignity.¹²⁵ In addition, the role and necessity of governmental regulation was clearly evidenced by the pandemic, because of different factors such as the necessity of a national mandate on masks, the issuance of ban on international travels, and coordination of resources to secure research and effective vaccination.¹²⁶

[W]hen we get past this crisis—which we will—we will face a choice. We can go back to the world as it was before or deal decisively with those issues that make us all unnecessarily vulnerable to crises . . . The recovery from the COVID-19 crisis must lead to a different economy. Everything we do during and after this crisis must be with a strong focus on building more equal, inclusive and sustainable economies and societies that are more resilient in the face of pandemics, climate change and the many other global challenges we face.¹²⁷

In the aftermath of the COVID-19 pandemic and its related economic crisis, it remains to be seen if foreign leaders will use the disruption caused by such crises to steer a greener economy.¹²⁸ Let's hope countries do their homework and engage in specific policies effectively considering the social

123. See, e.g., Press Release, UN Secretary-General, 'We are Only as Strong as the Weakest,' Secretary-General Stresses, at Launch of Economic Report on COVID-19 Pandemic, U.N. Press Release SG/SM/20029 (Mar. 31, 2020), <https://www.un.org/press/en/2020/sgsm20029.doc.htm> [hereinafter Economic Report on COVID-19].

124. *Id.*

125. Human Rights Dimensions of COVID-19 Response, Human Rts. Watch (Mar. 19, 2020), <https://www.hrw.org/news/2020/03/19/human-rights-dimensions-covid-19-response>; Patricia Park, International Law for Energy and the Environment 26 (2013) (discussing the main goal of international law, in general).

126. REGULATORY QUALITY AND COVID-19: THE USE OF REGULATORY MANAGEMENT TOOLS IN A TIME OF CRISIS (2020), https://read.oecd-ilibrary.org/view/?ref=136_136858-iv4xb9i639&title=Regulatory-quality-and-COVID-19-The-use-of-regulatory-management-tools-in-a-time-of-crisis; RESPONSES TO COVID-19 IN THE UNITED STATES, <https://www.loc.gov/law/help/covid-19-responses/us.php> (last updated Dec. 30, 2020).

127. Economic Report on COVID-19, *supra* note 123.

128. Megan Rowling, *World leaders urged to learn from pandemic in adapting to climate change*, REUTERS, <https://www.reuters.com/article/climate-change-coronavirus-politics/world-leaders-urged-to-learn-from-pandemic-in-adapting-to-climate-change-idUSL8N2JX4Y6> (last updated Jan. 22, 2021).

cost of carbon and the divestment from fossil fuels, while being more attentive to climate justice.¹²⁹ The Paris Agreement has instruments to steer such policies.¹³⁰ The open-ended question is if countries are fully committed to such Agreement. Therefore, the next five years are of particular interest for the Paris Agreement on Climate Change and more broadly, International Energy Law.¹³¹

129. Janice Ng, *The Social Cost of CalPERS' Carbon Investments: \$41.73 Billion in 2018*, FOSSIL FREE CAL. (July 16, 2020), <https://fossilfreeca.org/2020/07/16/calpers-portfolio-contributes-to-societys-costs-from-carbon-emissions/>.

130. *See generally* Paris Agreement, *supra* note 12.

131. *Paris Climate Agreement Q&A*, CTR. FOR CLIMATE & ENERGY SOLUTIONS, <https://www.c2es.org/content/paris-climate-agreement-qa/> (last visited Jan. 29, 2021).