

Hop on the Carbon Neutral Bandwagon: Amending the Paris Agreement to Require Short-Term Goals and Long-Term Carbon Neutral Goals for Nationally Determined Contributions

Johanna Adashek

Follow this and additional works at: <https://digitalcommons.law.umaryland.edu/mjil>



Part of the [Environmental Law Commons](#), and the [International Law Commons](#)

Recommended Citation

Johanna Adashek, *Hop on the Carbon Neutral Bandwagon: Amending the Paris Agreement to Require Short-Term Goals and Long-Term Carbon Neutral Goals for Nationally Determined Contributions*, 36 Md. J. Int'l L. 101 (2022).

Available at: <https://digitalcommons.law.umaryland.edu/mjil/vol36/iss1/9>

This Notes & Comments is brought to you for free and open access by the Academic Journals at DigitalCommons@UM Carey Law. It has been accepted for inclusion in Maryland Journal of International Law by an authorized editor of DigitalCommons@UM Carey Law. For more information, please contact smccarty@law.umaryland.edu.

Hop on the Carbon Neutral Bandwagon: Amending the Paris Agreement to Require Short-Term Goals and Long-Term Carbon Neutral Goals for Nationally Determined Contributions

JOHANNA ADASHEK[†]

I INTRODUCTION

Glasgow is coming. Now that the United States (“U.S.”) is once again part of the Paris Agreement,¹ the U.S. will have to submit its second Nationally Determined Contribution (“NDC”).² To date, the U.S. is the largest contributor to global emissions, accounting for a quarter of all emissions since the industrial revolution.³ China, having approximately four times the population of the U.S., only recently

© 2021 Johanna Adashek.

[†] J.D. Candidate (2022), University of Maryland Francis King Carey School of Law. This paper would not have been possible without Karen and Larry Adashek and Darcy Lord for their time spent with the author reviewing and editing and for their unconditional love and support. The author thanks Professor Robert Percival and Professor Randall Abate for their excellent instruction in environmental law. The author thanks the editors and the Executive Board at the Maryland Journal of International Law for their guidance and feedback. The author dedicates this paper to her friends and family for dealing with her nonstop discussion of, and obsession with, the environment (it’s worth it).

1. Jean Chemnick, *U.S. Officially Rejoins Paris Climate Agreement*, E&E NEWS (Feb. 19, 2021), <https://www.scientificamerican.com/article/u-s-officially-rejoins-paris-climate-agreement/>.

2. *Renewing U.S. Commitment to the Paris Climate Agreement*, HARV. ENV’T & ENERGY L. PROGRAM, <https://eelp.law.harvard.edu/portfolios/environmental-governance/restoring-environmental-regulation/renewing-us-commitment-to-the-paris-climate-agreement/> (last visited Apr. 18, 2021).

3. Hannah Ritchie, *Who has Contributed Most to Global CO2 Emissions*, OUR WORLD IN DATA (Oct. 1, 2019), <https://ourworldindata.org/contributed-most-global-co2>.

surpassed the U.S. as the largest annual emitter of carbon dioxide in 2007.⁴ However, the U.S.'s historical emissions roughly equate to the total emissions produced by all of Asia.⁵

Within the past year, both the U.S. and China have announced long-term goals of carbon neutrality by 2050 and 2060, respectively.⁶ They are joined by 110 other countries that recently announced carbon neutral pledges.⁷ Yet, the current mass of carbon neutral goals is not enough to keep warming below 1.5°C. Estimations accounting for the recent carbon neutral goals optimistically achieve 2.1°C.⁸ This paper argues that in order to achieve the Paris Agreement's objective—limiting temperature increase to 1.5°C above pre-industrial levels—the parties should amend the Paris Agreement to require both short-term and long-term goals. Stipulating a requirement for NDCs to contain short-term and long-term goals of carbon neutrality would ensure that short-term goals are ambitious enough to achieve the parties' long-term goals. Part II demonstrates the dire need for strong climate change action and the difference between 1.5°C and 2°C global warming.⁹ Part III overviews the Paris Agreement and the international mechanisms leading up to it.¹⁰ Part IV uses the Montreal Protocol as a model demonstrating the success of short-term increments with longer term goals and argues that the Paris Agreement should adopt this same structure to encourage stronger goals with ambitious but attainable targets.¹¹

II. THE DIRE NEED FOR STRONG ENVIRONMENTAL TARGETS AND IMPLEMENTATION

The Paris Agreement aims to maintain global temperatures well below 2°C and ideally limit the increase to 1.5°C above pre-industrial levels.¹² While the Earth will experience extreme consequences at

4. Nicola Jones, *China tops CO2 Emissions*, NATURE (June 20, 2007), <https://www.nature.com/news/2007/070618/full/070618-9.html>.

5. Ritchie, *supra* note 3.

6. *Paris Agreement Turning Point*, CLIMATE ACTION TRACKER (Dec. 2020), https://climateactiontracker.org/documents/829/CAT_2020-12-01_Briefing_GlobalUpdate_Paris5Years_Dec2020.pdf.

7. Maxime Pontoire, *The Race to Zero Emissions, and Why the World Depends on it*, UN NEWS (Dec. 2, 2020), <https://news.un.org/en/story/2020/12/1078612>.

8. *Paris Agreement Turning Point*, *supra* note 6.

9. *See infra* Part II.

10. *See infra* Part III.

11. *See infra* Part IV.

12. Paris Agreement to the United Nations Framework Convention on Climate Change,

both 1.5°C and 2°C warming, warming above 2°C will result in catastrophic changes to the Earth and its inhabitants.

At 1.5°C, approximately 14% of the global population will experience severe heatwaves at least once every five years.¹³ At 2°C, that approximation increases to 37% of the global population. Climate scientists estimate that the differences between 1.5°C warming and 2°C warming will be immense: 420 million more people will be exposed to extreme heatwaves; Arctic extreme cold temperatures would be 5.5°C warmer; 61 million more people would be exposed to severe drought; 180-270 million more people will experience increased water scarcity; 1.5–2.5 million more square kilometers of frozen permafrost soil will thaw; and global sea levels will rise 0.33 feet more by 2100.¹⁴ Furthermore, the factors that contribute to climate change also increase the risk of heat-related illness and death, along with increased deaths from zoonotic diseases.¹⁵ In order to prevent the consequences described above, it is vital to ensure that global temperatures do not rise more than 1.5°C above pre-industrial levels.

III. THE PARIS CLIMATE AGREEMENT

The foundational international mechanism directly targeting climate change is the United Nations Framework Convention on Climate Change (“UNFCCC”)¹⁶ In 1992, the UNFCCC was adopted at the Rio Earth Summit (the original Conference of the Parties (COP-0)) and officially entered into force in 1994.¹⁷ The UNFCCC has universal participation with 197 parties.¹⁸ However, the UNFCCC created no legally binding commitments;¹⁹ it only created a

opened for signature Apr. 22, 2016, U.N. Doc. FCCC/CP/2015/L.9 at art 2, § 1(a) (Dec. 12, 2015) [hereinafter “Paris Agreement”].

13. Alan Buis, *A Degree of Concern: Why Global Temperatures Matter*, NASA (June 19, 2019), <https://climate.nasa.gov/news/2865/a-degree-of-concern-why-global-temperatures-matter/>.

14. *Id.*

15. *Id.*

16. *United Nations Framework Convention on Climate Change*, SCI. DIRECT, <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/united-nations-framework-convention-on-climate-change> (last visited Apr. 18, 2021) (citing K.F. KUH, *ENCYCLOPEDIA OF THE ANTHROPOCENE* (2018)).

17. TSEMING YANG ET AL., *COMPARATIVE AND GLOBAL ENVIRONMENTAL LAW AND POLICY* 902 (2020).

18. *Id.* at 909.

19. RANDALL ABATE, *CLIMATE JUSTICE: CASE STUDIES IN GLOBAL AND REGIONAL GOVERNANCE CHALLENGES* 341 (2016).

framework for future cooperation.²⁰

The first amendment to the UNFCCC took form as the Kyoto Protocol in 1997 (COP-3).²¹ The Kyoto Protocol created binding commitments upon countries within the UNFCCC's 'Annex I,' which included the members of the Organization for Economic Cooperation and Development and the Economies in Transition, or the 41 'most developed' countries.²² This approach to Common but Differentiated Responsibilities ("CBDR")²³ did not include the BASIC²⁴ countries, thus not covering the fastest-growing carbon emitters.²⁵ However, this unequal approach posed a problem to the U.S. The U.S. refused to join the vast majority of UNFCCC participants and ratify the Kyoto Protocol.²⁶ Even with binding emission targets and most Annex I countries participating, Kyoto's undoing appeared in its overzealous value of CBDR. Because of this dedication to CBDR, as well as the U.S.'s antagonism to CBDR, the Kyoto Protocol only regulated approximately 18% of global emissions.²⁷ Global emissions were rising too quickly, proving that the solution lay elsewhere.²⁸

20. YANG, *supra* note 17, at 909.

21. *Id.* at 910.

22. *Id.* The number 41 comes from the UNFCCC's website filtered for Annex I and Kyoto Protocol. *Parties to the Convention*, UNITED NATIONS, https://unfccc.int/process/parties-non-party-stakeholders/parties-convention-and-observer-states?field_national_communications_target_id%5B515%5D=515&field_partys_partyto_target_id%5B512%5D=512 (last updated Aug. 7, 2018).

23. CBDR is the concept that some states have historically contributed more to climate change and should have a higher burden helping resolve climate change compared to those countries that contributed less. ABATE, *supra* note 19, at 341.

24. BASIC countries have emerging and rapidly growing economies. They include Brazil, India, China, and South Africa. They fall somewhere in between developed and developing countries because they did not contribute to climate change like developed countries but currently produce more emissions than developing countries. *Id.* at 25-28.

25. Lindsay Maizland, *Global Climate Agreements: Successes and Failures*, COUNCIL FOREIGN REL. (Jan. 25, 2021, 7:00 AM), <https://www.cfr.org/backgrounder/paris-global-climate-change-agreements>. For an analysis of the role BASIC countries play and CBDR in Multilateral Agreements, see ABATE, *supra* note 19.

26. YANG, *supra* note 17, at 910. For an in-depth look at how the Senate unanimously passed the Byrd-Hagel Act condemning any multilateral agreement setting binding emissions cuts for the U.S. without also mandating emissions for developing countries, see Krishna Prasad, Note & Comment: *The Truth Behind International Climate Agreements: Why They Fail and Why the Bottom-Up is the Way Forward. A Game Theory Analysis*, 28 COLO. NAT. RES. ENERGY & ENVTL. L. REV. 219, 236 (2017).

27. *Kyoto 1st Commitment Period (2008-12)*, EUR. COMM'N, https://ec.europa.eu/clima/policies/strategies/progress/kyoto_1_en#:~:text=In%20the%20first%20period%20of,the%20bloc%20as%20a%20whole. (last visited Mar. 5, 2021).

28. This is especially true since after the first commitment period ended in 2012, the Doha Amendment stipulated for new commitments from 2013–2020. But because of its

Then came Paris. Before the Paris Agreement, the world was on a trajectory to hit a 3.6°C increase above pre-industrial levels by 2100.²⁹ The result of this would be catastrophic.³⁰ In order to effectively and progressively respond to the urgent threat of climate change, the states created the Paris Agreement in 2015 (COP-21).³¹ In an attempt to succeed where the Kyoto Protocol did not, the Paris Agreement enacted near opposite mechanisms to achieve its goals. Where the Kyoto Protocol created binding emission reductions for parties, the Paris Agreement used nonbinding emission pledges.³² The only substantive binding obligation on parties in the Paris Agreement is the requirement to periodically set pledges, which is juxtaposed to the Kyoto Protocol, whereby parties chose to commit new pledges.³³ Where the Kyoto Protocol only set emission targets for Annex I Nations, the Paris Agreement applies emission targets to all participants.³⁴

On November 4, 2020, the U.S. became the first nation in the world to withdraw from the Paris Agreement as a result of a decision announced by then President Donald Trump in June 2017.³⁵ On

framing, the Doha Amendments entered into force after three quarters (144) of the 192 parties to the Kyoto Protocol signed onto the Doha Amendments. Chloe Farand, *Nigeria, Jamaica Bring Closure to the Kyoto Protocol Era, in Last-Minute Dash*, CLIMATE HOME NEWS (Feb. 10, 2020, 12:44 PM), <https://www.climatechangenews.com/2020/10/02/nigeria-jamaica-bring-closure-kyoto-protocol-era-last-minute-dash/>. The tale of Doha is almost as symbolic as it is comedic. Doha became legally enforceable a day before it was due to expire. *Id.* The 37 countries legally required to reduce emissions to their target of 18% below 1990 levels by 2020 had already exceeded that by 2018. *Id.* The ratification of the Doha Amendments were mostly symbolic and more than anything provided closure to the Kyoto Protocol as the world moved on to the Paris Agreement. *Id.*

29. Renee Cho, *The U.S. is Back in the Paris Climate Agreement. Now What?*, EARTH INST. COLUM. UNIV. (Feb. 4, 2021), <https://blogs.ei.columbia.edu/2021/02/04/u-s-rejoins-paris-agreement/>.

30. Fiona Harvey, *World on Track for 3°C Warming Under Current Global Climate Pledges, Warns UN*, GUARDIAN (Nov. 3, 2016, 7:00 AM), <https://www.theguardian.com/environment/2016/nov/03/world-on-track-for-3c-of-warming-under-current-global-climate-pledges-warns-un>.

31. Melissa Denchak, *Paris Climate Agreement: Everything You Need to Know*, NRDC (Feb. 19, 2021), <https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know>.

32. YANG, *supra* note 17, at 917.

33. *Id.*

34. Martha Benduski, *Paris Agreement vs. Kyoto Protocol*, CARE ABOUT CLIMATE (Dec. 9, 2020), <https://www.careaboutclimate.org/blog/paris-agreement-vs-kyoto-protocol-comparison-chart>.

35. Matt McGrath, *Climate Change: US Formally Withdraws from the Paris Climate Agreement*, BBC (Nov. 4, 2020), <https://www.bbc.com/news/science-environment-54797743>.

January 20, 2021, President Joseph R. Biden took control of the executive branch and simultaneously signed a letter pledging to rejoin the Paris Agreement.³⁶ President Biden has further pledged that the U.S. will work to achieve net-neutral emissions by 2050.³⁷ This would mean that that the U.S.'s emissions of greenhouse gases ("GHGs") would be balanced out by carbon removal mechanisms so that the overall level of emissions equals zero.³⁸ President Biden announced a deadline to set 2030 Carbon Goals by Earth Day, April 22, 2021, giving the U.S. enough time to raise global ambitions and embody strong leadership for Biden's Earth Day Summit.³⁹

As a result of implemented policies, projections for 2100 are down from 3.6°C to 2.9°C from pre-industrial levels.⁴⁰ However, that encompasses countries' NDCs from 2015.⁴¹ With the new net-zero pledges by the U.S., China, Japan, and others, the world could see warming to only 2.1°C above pre-industrial levels.⁴² While this is a huge improvement upon previous projections, more is needed to avoid the vastly more detrimental consequences resulting from 2°C

36. Joseph R. Biden Jr., *Paris Climate Agreement*, WHITE HOUSE (Jan. 21, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/>. This was not well received by all. Senator Ted Cruz tweeted "[b]y rejoining the Paris Climate Agreement, President Biden indicates he's more interested in the views of the citizens of Paris than in the jobs of the citizens of Pittsburgh. This agreement will do little to affect the climate and will harm the livelihoods of Americans." Ted Cruz (@SenTedCruz), TWITTER (Jan. 20, 2021, 6:50 PM), <https://twitter.com/SenTedCruz/status/1352040800646029312>. See also Joel Shannon, *Why is it Called the Paris Agreement? The Name has Nothing to do With 'People of Paris' as GOP Politicians Suggest*, USA TODAY (Jan. 22, 2021, 10:59 AM), <https://www.usatoday.com/story/news/nation/2021/01/21/why-called-the-paris-agreement-ted-cruz-mocked-tweet/4243443001/>. His disappointing declaration represents reciprocal feelings in many Americans. Valerie Volcovici, *Republicans Call for Senate Review before U.S. Re-enters Paris Climate Deal*, REUTERS (Jan 20, 2021, 6:01 PM), <https://www.reuters.com/article/us-usa-biden-climate-republicans/republicans-call-for-senate-review-before-u-s-re-enters-paris-climate-deal-idUSKBN29P2WF> (explaining how some Republican Senators submitted a resolution that would prohibit the President from committing to an international treaty without a two-thirds vote from Congress).

37. Reuter's Staff, *Biden Says U.S., Canada to Work Toward Achieving Net Zero Emissions by 2050*, REUTERS (Feb 24, 2021, 9:31 AM), <https://www.reuters.com/article/us-canada-meeting-climate/biden-says-us-canada-to-work-toward-achieving-net-zero-emissions-by-2050-idUSW1N2KA00V>; *Biden Announces Plan to Reach Net Zero Emissions by 2050*, WASH. POST (Feb. 23, 2021, 6:48 PM), https://www.washingtonpost.com/video/politics/biden-announces-plan-to-reach-net-zero-emissions-by-2050/2021/02/23/04812110-2c5e-4178-af1f-104a8235a989_video.html.

38. Cho, *supra* note 29.

39. *Id.*

40. *Paris Agreement Turning Point*, *supra* note 6.

41. *Id.*

42. *Id.*

2021] HOP ON THE CARBON NEUTRAL BANDWAGON 107

warming compared to 1.5°C warming, as demonstrated in Part II.

Why are all of these net-zero pledges and ambitious goals so important right now? While 2020 was the first time since the enactment of the Paris Agreement that all parties to the Agreement were required to submit new NDCs, COVID-19 halted many countries' capabilities to submit NDCs, so countries have been asked to submit their new NDCs as soon as possible.⁴³ COP-26 was originally set for November of 2020, five years after COP-21 in Paris, however, the global pandemic pushed COP-26 to November 2021 in Glasgow.⁴⁴ Glasgow is also imperative because COP-25 in Chile/Madrid produced more disappointment than results.⁴⁵ Parties could not reach a consensus on market and non-market mechanisms for mitigating greenhouse gases under Article 6, long term finance goals, and many other important issues that were anticipated to be resolved.

IV. A SOLUTION: AMENDING THE PARIS AGREEMENT TO REQUIRE SHORT-TERM GOALS AND LONG-TERM CARBON NEUTRAL GOALS

The current NDCs are inadequate to limit global temperatures below even 2°C.⁴⁶ The NDCs themselves are not ambitious enough in their goals and allow too much time to reach said subpar goals.⁴⁷ If every country participating in the Paris Agreement were to achieve their original NDCs, future warming would reach at least 3°C above pre-industrial levels.⁴⁸

As of December 2020, more than 110 countries have pledged to be carbon neutral by 2050.⁴⁹ This includes the entire European Union and the U.S. Additionally, in a surprising announcement, President

43. *What is COP-26?*, UNIV. OF EDINBURGH (Nov. 11, 2020), <https://www.ed.ac.uk/sustainability/cop26/what-is-cop26>; *Greater Climate Ambition Urged as Initial NDC Synthesis Report is Published*, UNFCCC (Feb. 26, 2021), <https://unfccc.int/news/greater-climate-ambition-urged-as-initial-ndc-synthesis-report-is-published>.

44. *Id.*

45. *Chile/Madrid Climate Change Conference Closes with Limited Ambition*, IISD (Dec. 19, 2019), <https://sdg.iisd.org/news/chilemadrid-climate-change-conference-closes-with-limited-ambition/>.

46. Maizland, *supra* note 25.

47. *Id.*

48. UNITED NATIONS ENV'T PROGRAMME, ADAPTATION GAP REPORT 2020 6 (Jan. 14, 2021), <https://www.unep.org/resources/adaptation-gap-report-2020>.

49. Pontoire, *supra* note 7.

Xi Jinping announced that China—the largest current emitter in the world—aims to be carbon neutral by 2060.⁵⁰ Even these formidable goals, if achieved, are not enough to limit global temperatures to 1.5°C.⁵¹ On the optimistic side, follow through on the recent net-zero pledges equates to 2.1°C warming above pre-industrial levels by 2100.⁵² Unfortunately, China’s recent five-year development plan and refusal to halt coal reliance, which scientists say was necessary by 2020 in order to reach carbon neutrality by 2060, demonstrates that carbon neutrality by 2060 will be an extremely difficult task for China.⁵³

In order to keep global warming to 1.5°C, the world needs to respond to climate change with the drive and intensity with which the world addressed ozone. The Montreal Protocol is considered the most successful multilateral, environmental treaty.⁵⁴ The science was staggering: a single chlorine atom in the stratosphere could eliminate over one hundred thousand ozone molecules.⁵⁵ Chlorofluorocarbons (“CFCs”) were used as common refrigerants and aerosol propellants, and had many practical uses, but snowballed into environmental destruction when they strayed into the atmosphere breaking down into chlorine and traumatically damaging the ozone protecting the Earth.⁵⁶ CFCs became widely infamous for causing a “hole” in the

50. Dennis Normile, *Can China, the World’s Biggest Coal Consumer, Become Carbon Neutral by 2060?*, SCIENCE (Sept. 29, 2020, 4:50 PM), <https://www.sciencemag.org/news/2020/09/can-china-worlds-bigger-coal-consumer-become-carbon-neutral-2060>.

51. *Paris Agreement Turning Point*, *supra* note 6.

52. *Id.*

53. Chloe Farand, *China Makes no Shift Away From Coal in Five-Year-Plan as it ‘Crawls’ to Carbon Neutrality*, CLIMATE HOME NEWS (May 3, 2021, 1:01 PM), <https://www.climatechangenews.com/2021/03/05/china-makes-no-shift-away-coal-five-year-plan-crawls-carbon-neutrality/>. Many others have expressed ambivalence/doubt towards China’s achievement of carbon neutrality by 2060, *see* Echo Xie, *China Wants to be Carbon Neutral by 2060, but can its Provinces Manage it?*, S. CHINA MORNING POST (Feb. 17, 2021, 5:00 AM), <https://www.scmp.com/news/china/politics/article/3121901/china-wants-be-carbon-neutral-2060-can-its-provinces-manage-it>; Lili Pike, *China Aims to be Carbon Neutral by 2060. Its New 5-Year-Plan Won’t Cut it.*, VOX (Mar. 5, 2021, 12:50 PM), <https://www.vox.com/22313871/china-energy-climate-change-five-year-plan-wind-solar-coal-oil-gas>; Normile, *supra* note 50. For a comprehensive analysis of China’s current prospects and future requirements in order to reach carbon neutrality by 2060, *see* China, CLIMATE ACTION TRACKER, <https://climateactiontracker.org/countries/china/> (last updated Sept. 21, 2021).

54. ROBERT V. PERCIVAL, ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 1224 (2018).

55. *Basic Ozone Layer Science*, ENV’T PROT. AGENCY, <https://www.epa.gov/ozone-layer-protection/basic-ozone-layer-science> (last visited Mar. 7, 2021).

56. *Id.*

stratospheric ozone over the Arctic.⁵⁷

The Montreal Protocol was the first treaty ratified by all 197 United Nation member states.⁵⁸ It excelled in every aspect: binding and incentivizing countries to create and adopt better technologies, promoting climate justice by establishing a fund from developed to developing countries, and illustrating the effectiveness of taxing harmful particles.⁵⁹ The Montreal Protocol also required decreases of CFCs with yearly short-term goals and longer-term end goals.⁶⁰ The long-term goals coalesced with a complete ban on producing substances that damage the ozone, including CFCs.⁶¹ To date, the protocol has eliminated an estimated 99% of CFCs.⁶² As most ozone depleting substances are greenhouse gases, by eliminating ozone depleting substances, in twenty years, the world avoided approximately 135,000,000,000 tons of CO₂.⁶³ Further, the Kigali Amendment in 2016 had 197 parties agreeing to reduce hydrofluorocarbons, furthering the efficacy of the Montreal Protocol.⁶⁴

Aside from the large, and likely insurmountable transformations that could be attempted at Glasgow, like setting a cap on carbon or binding obligations for parties, there are smaller, more feasible amendments that can be undertaken to further accountability and hasten progress. Stipulating a requirement for NDCs to contain long-term goals of carbon neutrality would ensure that parties' short-term goals are ambitious enough to achieve their long-term goals. For example, the U.S. has set a long-term goal of carbon neutrality by 2050. In order to make sure the U.S. can actually achieve their long-term goal, the U.S. should set intermittent short-term goals in increments of five or ten years. This ensures accountability for meeting long-term goals. This model and its effectiveness is demonstrated by the Montreal Protocol's use of long-term goals and

57. *Id.*

58. PERCIVAL, *supra* note 54, at 1224.

59. *Id.*

60. *See, e.g.*, Montreal Protocol on Substances that Deplete the Ozone Layer, opened for signature Sept. 16, 1987, 1522 U.N.T.S. 29 2A-2F (entered into force Jan. 1, 1989) [hereinafter "Montreal Protocol"].

61. Maizland, *supra* note 25.

62. *Id.*

63. PERCIVAL, *supra* note 54, at 1226.

64. Maizland, *supra* note 25.

intermittent shorter-term goals.⁶⁵

Current NDCs vary widely and reflect little uniformity. The U.S.'s first NDC only set a short term goal for emissions by 2025.⁶⁶ China set emission reduction goals for 2020 and slightly longer term goals for 2030.⁶⁷ South Africa set multiple goals to be completed between 2020 and 2030.⁶⁸ The European Union originally set a short-term goal for 2030 and a loose long-term goal for 2050.⁶⁹ However, in December 2020, the European Union updated their first NDC to reflect higher ambitions for 2030 and their new carbon neutral goal for 2050.⁷⁰ More than 110 countries have made carbon neutrality a long term goal illustrating a clear trend for setting long-term goals. Since this is not enough to keep warming below 1.5°C or 2°C,⁷¹ the rest of the world will need to follow suit and set long term goals, preferably for carbon neutrality.

V. CONCLUSION

Global average temperatures are warming and to avoid numerous catastrophic consequences, warming cannot rise above 1.5°C.⁷² This goal is reflected in the Paris Agreement.⁷³ Currently, the Paris Agreement does not stipulate a requirement for both short-term and long-term goals. In order to achieve strong climate action and maintain global temperatures below 1.5°C, all parties should adopt both short-term and long-term goals in their NDCs. As soon as possible, the parties to the Paris Agreement should amend the

65. See, e.g., Montreal Protocol, *supra* note 60.

66. NDC Registry, UNFCCC, <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/United%20States%20of%20America%20First/U.S.A.%20First%20NDC%20Submission.pdf> (last visited Mar. 8, 2021).

67. NDC Registry, UNFCCC (June 30, 2015), <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/China%20First/China%27s%20First%20NDC%20Submission.pdf>.

68. NDC Registry, UNFCCC, <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/South%20Africa%20First/South%20Africa.pdf> (last visited Mar. 8, 2021).

69. NDC Registry, UNFCCC (Mar. 6, 2015), [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/European%20Union%20First/LV-03-06-EU%20INDC\(Archived\).pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/European%20Union%20First/LV-03-06-EU%20INDC(Archived).pdf).

70. NDC Registry, UNFCCC (Dec. 17, 2020), https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/European%20Union%20First/EU_NDC_Submission_December%202020.pdf.

71. Pontoire, *supra* note 7; *Paris Agreement Turning Point*, *supra* note 6.

72. See *supra* Part II.

73. See *supra* Part III.

2021] HOP ON THE CARBON NEUTRAL BANDWAGON 111

Agreement to adopt this structure to encourage stronger short-term goals with ambitious but attainable long-term targets for carbon neutrality.