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Climate Change, Regionalism, and Universalism: Elegy for the Arctic and the Antarctic?

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CLIMATE CHANGE, REGIONALISM, AND UNIVERSALISM: ELEGY FOR THE ARCTIC AND THE ANTARCTIC?

OTTAVIO QUIRICO*

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I. INTRODUCTION

The Arctic lays north of the Arctic Circle, at a minimum latitude of 66.33°, that is, the most northerly of the major circles of the Earth's latitude. The Arctic Circle is essentially an ocean surrounded by land; it includes portions of the territories of the United States, Canada, Denmark (notably Greenland), Norway, Sweden, Finland, and Russia, as well as parts of Iceland's continental shelf. Part of the Arctic territory is subject to temperatures that are permanently lower than the freezing point of water and thus constitutes the "permafrost."¹ To a large extent, ice covers the Arctic Ocean, halving in summer and expanding in fall and winter. Only 28 percent of the ice pack is multi-annual, with a thickness that is up to 3-4 meters and ridges up to 20 meters.²

The Antarctic Circle is situated 66.33° in the southern hemisphere as the most southern of the major circles of the Earth's latitude.³ The Antarctic Circle is a land mass surrounded by water, whereby Antarctica is a land covering most of the Circle, with an emerging surface of around 14 million square kilometers. Ice covers approximately 98 percent of this land, with an average thickness of 2,300 meters and a maximum thickness of 4,800 meters.⁴ The temperature varies between -68 °C on the plateau in winter and 0 °C at the coast in summer.⁵

Scientific evidence proves that climate change particularly impacts the Polar Regions to the extent that the World Meteorological Organization (WMO) estimates that both the Arctic and Antarctic are

1. See *Arctic*, NATIONAL GEOGRAPHIC (Oct. 6, 2016), <https://www.nationalgeographic.org/encyclopedia/arctic>; Troy Péwé, *Permafrost*, ENCYCLOPAEDIA BRITANNICA (Feb. 26, 2001), <https://www.britannica.com/science/permafrost>.

2. *All About Ice: Arctic vs. Antarctic*, NATIONAL SNOW AND ICE DATA CENTER, <https://nsidc.org/cryosphere/seaice/characteristics/difference.html> (last visited Jan. 12, 2020); see also *Arctic*, *supra* note 1.

3. *Antarctica*, WORLD ATLAS (Sept. 19, 2016), <https://www.worldatlas.com/webimage/countrys/an.htm>.

4. *Id.* at 2.

5. Melissa McDaniel et al., *Antarctica*, NATIONAL GEOGRAPHIC (Jan. 4, 2012), <https://www.nationalgeographic.org/encyclopedia/antarctica>.

warming twice as fast as the rest of the world.⁶ Notably, according to the Intergovernmental Panel on Climate Change (IPCC), global warming is affecting the Polar Regions at such a fast pace that some components cannot successfully adapt.⁷ Impressive satellite images immediately show ice shrinking, as compared to previous decades.⁸ The decay of sea ice in the Arctic is particularly evident in summer and similar trends emerge in some areas of Antarctica. This further entails the thawing of permafrost, which intensifies the release of methane and CO₂ induced by climate change: a new “Age of the Arctic” has commenced.⁹ For the time being, the Antarctic Treaty has “frozen” sovereign claims over the Antarctic.¹⁰ However, climate change arguably has the potential to unlock such claims, which entails the possibility of economic exploitation and further environmental pollution. The Polar Regions thus face a concrete risk of irreversible effects, with little room for adaptation strategies.

Research in the area mostly addresses climate change as part of the question of the governance of either the Antarctic or the Arctic, with a predominant emphasis on the Northern Region.¹¹ Such a focus follows a regional paradigm, which favours particular regulation,¹²

6. See *Year of Polar Prediction – From Research to Improved Environmental Safety*, WORLD METEOROLOGICAL ORGANIZATION (May 15, 2017), <https://public.wmo.int/en/media/press-release/year-of-polar-prediction-%E2%80%93-from-research-improved-environmental-safety>; see also SUSAN JOY HASSOL, ARCTIC CLIMATE IMPACT ASSESSMENT: IMPACTS OF A WARMING ARCTIC 20 (2004).

7. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY 1570 (2014).

8. *Sea Ice Extent Sinks to Record Lows at Both Poles*, NASA (Mar. 22, 2017) <https://www.nasa.gov/feature/goddard/2017/sea-ice-extent-sinks-to-record-lows-at-both-poles>.

9. Sebastian Keil & Kathrin Knecht, *Governing the Arctic as a Globally Embedded Space*, in GOVERNING ARCTIC CHANGE: GLOBAL PERSPECTIVES 302 (Sebastian Keil & Kathrin Knecht eds., 2017).

10. See John Hanessian, *The Antarctic Treaty 1959*, 9 INT’L & COMP. L. Q. 436, 468 (1960) (explaining that the Antarctic Treaty has preserved the Antarctic for scientific co-operation and exchange of data information while effectively banning militarization of the area).

11. Timo Koivurova, *How to Improve Arctic International Governance*, 6 U. C. IRV. L. REV. 83 (2016).

12. FREDRIK SÖDERBAUM, RETHINKING REGIONALISM 10 (2016).

according to the leading political approach to the Polar Regions.¹³ Within this framework, it has been proposed that States adopt a comprehensive treaty for the Arctic, along the lines of the Antarctic Treaty.¹⁴ Most scholars, however, have rejected the option in light of the different nature of the Arctic and Antarctic Regions, based on the respective ratio of water and land.¹⁵

This article integrates a regional focus with a universal standpoint, which endorses a more comprehensive approach to international regulation, according to “a global perspective that also takes into account regional particularities and contexts.”¹⁶ Against this background, the analysis addresses the relationship between the governance of the Polar Regions and global climate change regulation, assessing whether there should be a paradigm shift from a regional approach to global governance, and if the Arctic and the Antarctic should contribute to framing the U.N. Framework Convention on Climate Change (UNFCCC). Considering the possibility of harmonizing multiple regulatory frameworks, the research addresses first the governance of the Arctic and the Antarctic, from a regional perspective, and second the relationship between the Polar Regions and global regulation of climate change, taking on a universal standpoint. Along these lines, the analysis is divided into three sections. The first section considers sovereign claims over the Antarctic, their suspension under the Antarctic Treaty, and the potential of climate change to unlock such claims. The second section focuses on sovereign claims over the Arctic, particularly under the U.N. Convention on the Law of the Sea (UNCLOS),¹⁷ and the extension of those claims in light of global warming. The third section envisages possible regulatory options to protect the Polar Regions from the impact of climate change in the long term, considering the prospective legal status of the Arctic and the Antarctic and the

13. See Prime Minister's Office of Finland, *Finland's Strategy for the Arctic Region 2013* 44 (Aug. 23, 2013) (Fin.) (asserting that Finland's objective regarding the Arctic region is to establish consistent regulation).

14. Stefán Þór Hauksson, *A Legally Binding Regime for the Arctic* 23 (2009), https://skemman.is/bitstream/1946/3090/1/prentun_fixed.pdf.

15. Timo Koivurova, *Alternatives for an Arctic Treaty – Evaluation and a New Proposal* 17 RECIEL 14, 17–19 (2008).

16. SÖDERBAUM, *supra* note 12, at 10.

17. Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397.

possibility of integrating a regional approach with a global governance of the Polar Regions.

II. A LAND MASS SURROUNDED BY WATER: THE ANTARCTIC CIRCLE

A. “FROZEN” CUSTOMARY SOVEREIGN CLAIMS

Since Antarctica was discovered in 1773, Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom have advanced sovereign territorial claims over 85 percent of the continent.¹⁸ Some claims overlap, notably those of Chile, Argentina, and the United Kingdom. Under the Australian Antarctic Territory Acceptance Act 1933, Australia has submitted a claim covering 42 percent of the Antarctic territory. The 2016 Australian Antarctic Strategy and Twenty Year Action Plan claims to “preserve sovereignty over the Australian Antarctic Territory, including sovereign rights over adjacent offshore areas.”¹⁹ The United States and Russia have reserved to submit sovereign claims at a later point in time.²⁰

Claims to sovereignty over the Antarctic have different bases, such as discovery, exploration, historic rights, contiguity, and the sector principle. Specifically, in light of the sector principle, States assert sovereignty following straight lines of longitude converging to the Pole.²¹ These arguments alone, however, do not seem to (yet) have customary status in international law and occupation remains an

18. See Australian Antarctic Data Centre, *Antarctica and the Southern Ocean: Territorial Claims and CCMLR Statistical Reporting Subareas* (Map Catalogue No. 13111, Department of the Environment and Heritage: Australian Antarctic Division, Nov. 2004), http://www.antarctica.gov.au/_data/assets/pdf_file/0009/179883/Antarctic-Territorial-Claims-map-13111_300dpi.pdf [hereinafter *Antarctica and the Southern Ocean*] (illustrating sovereign territorial claims over Antarctica).

19. COMMONWEALTH OF AUSTRALIA, AUSTRALIAN ANTARCTIC STRATEGY AND 20 YEAR ACTION PLAN 17 (2016).

20. See Perry Carter et al., *Russia’s “Smart Power” Foreign Policy and Antarctica*, 6 POLAR J. 259, 264 (2016); Christopher C. Joyner, *United States Foreign Policy Interests in the Antarctic*, 1 POLAR J. 17, 21 (2011).

21. See *Antarctica and the Southern Ocean*, *supra* note 18.

essential element to prove sovereignty.²² In particular, the sector principle is based on a parallel approach to the Arctic, where States whose territory extends north of 66.33° should *ipso facto* acquire sovereignty. However, the theory itself is controversial, and no State territory extends south of 66.33°.²³ Thus, while the claimants have reciprocally recognized sovereign rights, other States have not.²⁴ Nonetheless, the validity of recognition cannot be absolutely excluded; in fact, the time necessary for the formation of a customary rule varies, and the sudden emergence of a customary practice is possible. For instance, the general norm that a State has no sovereignty over the space route followed by artificial satellites developed immediately after the launching of Sputnik 1.²⁵

In 1959, the United States convened an Antarctic Conference in Washington, including Belgium, Japan, South Africa, the Soviet Union, and the seven States advancing territorial claims over Antarctica.²⁶ The Conference adopted the Antarctic Treaty,²⁷ which is the central piece of the Antarctic Treaty System. The Antarctic Treaty is a short text of 14 articles that apply to the area south of 60° South Latitude (Article VI). The Preamble specifies that the Treaty aims to preserve the Antarctic for humankind, dedicating it to peaceful purposes (Preamble and Article I) and promoting freedom of scientific

22. See Thomas Willing Balch, *Arctic and Antarctic Regions and the Law of Nations*, 4 AM. J. INT'L L. 265, 271 (1910) (arguing that the claims are not valid as sovereign nations are merely claiming territories to prevent other nations from establishing themselves, which is temporary and symbolic rather than real and durable).

23. See Benedetto Conforti, *Territorial Claims in Antarctica: A Modern Way to Deal with an Old Problem*, 19 CORNELL INT'L L.J. 249, 253–54 (1986) (stating that there are no claimed territories beyond 60° South latitude).

24. See Joyner, *supra* note 20, at 22 (“[T]he sector areas must be occupied by a population that has permanently settled the claimed territory, a government must be in place to administer civil affairs, and there must be internationally recognized borders separating the claims.”); Jill Grob, *Antarctica’s Frozen Territorial Claims: A Meltdown Proposal*, 30 B. C. INT’L & COMP. L. REV. 461, 464 (2007) (“The United States and Soviet Union, however, abide by a ‘no claims’ principle, whereby they assert no claims and acknowledge no claims by others, while still reserving the right to make future claims.”).

25. See MALCOLM N. SHAW, *INTERNATIONAL LAW* 58 (8th ed. 2017).

26. See Letter from John Hanessian, Scott Polar Institute, to Richard Nolte, Exec. Dir., Institute of Current World Affairs (May 3, 1960) (on file with ICWA).

27. Antarctic Treaty, Dec. 1, 1959, 12 U.S.T. 794, 402 U.N.T.S. 71.

research and cooperation (Articles II and III).²⁸ The Treaty is consistent with the application of the international law of the sea, but prevails as *lex specialis* (Article VI).²⁹

Institutionally, the Antarctic Treaty is administered via the Antarctic Treaty Consultative Meeting (ATCM), which recommends measures aiming at implementation to Governments.³⁰ According to Article IX of the Antarctic Treaty, there are three categories of State Parties. The first category includes the 12 original signatory States, who enjoy full rights and participate in decision-making within the ATCMs via appointed representatives under Antarctic Treaty Article IX(1).³¹ The second category is comprised of the 42 currently acceding States, including China, Germany, and Brazil, who prove their interest in the Antarctic by conducting substantial scientific research. They also may vote in the ATCMs under Antarctic Treaty Article IX(2),³² and ATCM measures become binding for them if approved by all consultative parties under Antarctic Treaty Article IX(1) and (4).³³ The final category includes the 25 currently non-consultative States, including Canada and Switzerland, who have participated in ATCMs since 1983 without voting rights.³⁴

Article IV(1)(a)-(b) of the Antarctic Treaty provides that the Parties do not renounce previously asserted rights of, or claims to, territorial sovereignty in Antarctica and their basis.³⁵ Under Article IV(1)(c), membership also does not prejudice the position of any Contracting Party concerning the recognition or non-recognition of any other State's rights of, or claim, or basis of claim to territorial sovereignty.³⁶ No new claim or enlargement of an existing claim to territorial

28. Antarctic Treaty, *supra* note 27, pmb., arts. 1–3.

29. Antarctic Treaty, *supra* note 27, art. 6.

30. See *ATCM and Other Meetings*, SECRETARIAT OF THE ANTARCTIC TREATY, <https://www.ats.aq/e/atcm.html> (last visited Nov. 16, 2019) (explaining that the purpose of the ATCM is to fulfill the principles and objectives of the Antarctic Treaty in order to comply with the obligations listed under Article IX of the Treaty).

31. Antarctic Treaty, *supra* note 27, art. 9.

32. *Id.*

33. *Id.*

34. See *Parties*, SECRETARIAT OF THE ANTARCTIC TREATY, <https://www.ats.aq/devAS/Parties?lang=e> (last visited Nov. 16, 2019).

35. Antarctic Treaty, *supra* note 27, art. 4.

36. *Id.*

sovereignty can be asserted, as long as the Antarctic Treaty is in force (Article IV(2)).³⁷ The Treaty therefore “freezes” territorial claims, “crystallizing” the legal situation existing at the time of its conclusion.³⁸ Other conventions within the Antarctic Treaty System support this regime. Notably, under Article IV of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR),³⁹ the Parties commit to abiding by the obligations under Article IV of the Antarctic Treaty.

On this basis, it is questionable whether States having frozen entitlements to territorial sovereignty may advance maritime claims over waters surrounding Antarctica. It is indeed disputed whether the Antarctic Continent can generate a territorial sea, contiguous zone, exclusive economic zone (EEZ), and continental shelf under international law. Notably, CCAMLR Article IV(2)(B) provides that the Convention does not prejudice “any right or claim or basis of claim to exercise coastal State jurisdiction under international law.”⁴⁰ This reference has triggered a “bifocal” interpretation, depending on whether it has a broader focus on the coasts of Antarctica, according to States advancing territorial claims, or a narrower one on a few islands under undisputed sovereignty south of 66.33°.⁴¹ The prevailing view is negative. Thus, Germany, India, Japan, the Netherlands, the Russian Federation, and the United States have excluded the possibility of claiming an extended continental shelf in the Antarctic. The United States clearly affirmed that it “does not recognize any State’s claim to territory in Antarctica,” or to “the seabed and subsoil of the submarine areas beyond and adjacent to the continent of Antarctica.”⁴² This approach assumes that the actual absence of

37. *Id.*

38. Douglas M. Zang, *Frozen in Time: The Antarctic Mineral Resource Convention*, 76 CORNELL L. REV. 722, 729 (1991).

39. Convention on the Conservation of Antarctic Marine Living Resources art. 4, May 20, 1980, 33 U.S.T. 3476; 1329 U.N.T.S. 48.

40. *Id.*

41. See Conforti, *supra* note 23, at 250–51.

42. U.S. Mission to the U.N., Diplomatic Note to the U.N. Secretary General on Australia’s Submission to the Commission on the Limits of the Continental Shelf (Dec. 3, 2004), https://www.un.org/depts/los/clcs_new/submissions_files/aus04/Reaction_by_States.pdf.

territorial sovereignty excludes claims over maritime areas.⁴³ Nonetheless, in light of its asserted sovereignty since 1973, Australia has claimed a territorial sea and an EEZ in the Antarctic under the Maritime Legislation Amendment Act 1994.⁴⁴ This approach is grounded in the idea that the Antarctic Treaty freezes sovereign claims over emerged land only.⁴⁵ In 2004, acting under UNCLOS Article 76(8), Australia requested the Commission on the Limits of the Continental Shelf (CLCS) “not to take any action for the time being with regard to the information” that “relates to the continental shelf appurtenant to Antarctica.”⁴⁶ Similarly, the United Kingdom and New Zealand have not renounced the possibility of submitting to the CLCS data on their extended Antarctic continental shelves.⁴⁷

Article XII(2)(a) of the Antarctic Treaty initially provided that any Party could call for a review conference after 30 years, but no Party exercised this right. Rather, in 1991 the Parties acknowledged the continuing relevance of the Treaty by adopting a declaration recording their determination to maintain and strengthen the Treaty and to dedicate Antarctica to environmental and scientific purposes.⁴⁸ Under Article 25(5) of the 1991 Environmental Protocol, which entered into

43. See Anna Horman, *Maritime Zones in Antarctica*, 20 AUSTL. & N.Z. MAR. L.J. 69, 72 (2006).

44. See *id.* at 74 (explaining that “Australia has been the most active claimant State” to assert rights over maritime space in the Antarctic Treaty area).

45. See *id.* at 71 (explaining how States are able to claim maritime zones in Antarctic waters).

46. Note from the Permanent Mission of Australia to the U.N. to the Secretary-General of the U.N. Accompanying its Submission, Note No. 89/2004 (Nov. 2004), https://www.un.org/depts/los/clcs_new/submissions_files/aus04/Documents/aus_doc_es_attachment.pdf.

47. Note from the New Zealand Permanent Mission to the U.N. to the U.N. Secretary-General on Its Submission to the Commission on the Limits of the Continental Shelf, Note No. NZ-CLCS-TPN-02 (Apr. 19, 2006), https://www.un.org/depts/los/clcs_new/submissions_files/nzl06/nzl_doc_es_attachment.pdf (indicating that N.Z. may make a later submission including areas of the continental shelf appurtenant to Antarctica); Note from the United Kingdom Mission to the U.N. Secretary-General on Its Submission to the Commission on the Limits of the Continental Shelf, note No. 168/08 (May 9, 2004), https://www.un.org/depts/los/clcs_new/submissions_files/gbr08/gbr_nv_9may2008.pdf (indicating that the U.K. retains the right to advance claims over areas of the continental shelf appurtenant to Antarctica in a later submission).

48. Final Act, Final Report of the Eleventh Antarctic Treaty Special Consultative Meeting, Madrid, October 3–4, 1991, at 109.

force in 1998, mining activities have been excluded in the Antarctic until 2048.

B. THE POTENTIAL OF CLIMATE CHANGE TO UNLOCK SOVEREIGNTY

The background against which the Antarctic Treaty must be considered is the jurisprudence of the Permanent Court of International Justice (PCIJ). As far as 1931, the Court held that permanent ice-covered lands like Greenland are capable of attracting territorial sovereignty. In *Legal Status of Eastern Greenland*, the Court adjudicated upon the validity of the declaration of occupation of Eastern Greenland between Carlsberg and Bessel Fjords by the King of Norway, since Denmark claimed sovereignty over the territories in question.⁴⁹ The Court considered that, for a claim of occupation to be effective, it is necessary that a State shows the intention to act as a sovereign and adequately exercises sovereignty. However, in the case of “claims to sovereignty over areas in thinly populated or unsettled countries,” the Court was satisfied with “very little in the way of the actual exercise of sovereign rights.”⁵⁰ Concerning “Arctic” and “inaccessible” territory, the Court thus required a minimal threshold of possession and low-intensity administration, such as legislation on fishing and scientific expeditions.⁵¹ Despite the contrary argument that, unlike Antarctica, Danish sovereignty over Eastern Greenland was uncontested,⁵² given that it is a vast land mass, there is a potentially valid ground to affirm that Antarctica may be subject to sovereign claims, even if its territory is not populated and administration is minimal.

Whereas the Antarctic Treaty has “frozen” sovereign claims for several years, the situation on the ground discloses actual disputes. In fact, the Treaty created a practice of “sovereignty watch,” defusing ownership but not removing the need for vigilance by States claiming

49. *Legal Status of Eastern Greenland (Den. v. Nor.)*, Judgment, 1933 P.C.I.J. (ser. A/B) No. 53, at 26 (Apr. 5).

50. *Id.* at 46.

51. *Id.* at 50–51, 62–63.

52. See Conforti, *supra* note 23, at 256 (explaining that the P.C.I.J. granted Danish sovereignty over the eastern part of Greenland because no State opposed Denmark's claims).

sovereignty.⁵³ Fighting for territory, States have torn down each other's flags and destroyed foreign scientific stations.⁵⁴ Countries have also constantly performed "ceremonies of possession," for instance, sending political leaders to the continent, issuing Antarctic stamps, drawing maps, and carefully recording discoveries.⁵⁵ In 1955, the United Kingdom went as far as to act in the ICJ against Argentina and Chile to obtain recognition of its claims, but action failed because of lack of consent to jurisdiction.⁵⁶

Several Antarctic stations seem to have been established to obtain consultative party status under the Antarctic Treaty System, including providing few personnel and developing limited scientific research, but rather aiming to display a practice of "effective occupation," whereby the United States and United Kingdom produce 41 percent of all Antarctic science.⁵⁷ The international community has thus succeeded in the effort of building an international station in outer space but not an international research base in Antarctica. It is therefore realistic to conclude that "the quest for sovereignty in Antarctica has never ceased" and "the continent's political future looks increasingly uncertain."⁵⁸

Article IV of the Antarctic Treaty is meaningfully considered the cornerstone of not only the Treaty itself but also of the third wave of "Antarctic imperialism," given that the provision has allowed the United States and Antarctic States to exercise incisive governance over the Antarctic.⁵⁹ Against this background, the impact of climate

53. Klaus J. Dodds, *Sovereignty Watch: Claimant States, Resources, and Territory in Contemporary Antarctica*, 47 POLAR REC. 231, 232 (2011) (identifying the geopolitical actions of States performed in order to maintain a veil of sovereignty over Antarctica).

54. See Doaa Abdel-Motaal, *Averting the Battle for Antarctica*, 12 YALE J. INT'L AFF. 1, 3 (2017) (describing the territorial battles fought over Antarctica).

55. See Dodds, *supra* note 53, at 233–34 (citing Patricia Seed's work on colonization and sovereign authority).

56. See *Antarctica Case* (U.K. v. Arg.), Order, 1956 I.C.J. 12–14 (Mar. 16); *Antarctica Case* (U.K. v. Chile), Order, 1956 I.C.J. 15–17 (Mar. 16).

57. See Indi Hodgson-Johnston, *Australian Politics and Antarctic Sovereignty: Themes, Protagonists and Antagonists*, 7 AUSTL. J. MAR. & OCEAN AFF. 183, 193 (2015) (explaining that Australian sovereignty in Antarctica is intertwined with its scientific presence on the continent).

58. Abdel-Motaal, *supra* note 54, at 6.

59. See Shirley V. Scott, *Ingenious and Innocuous? Article IV of the Antarctic*

change has not been frequently considered. Even the Australian Parliamentary debate has overlooked the question.⁶⁰ However, climate change has the potential to increase sovereign tensions; while it would make sense to keep “freezing” territorial claims in light of the exceptional environment of the Continent and its contribution to the global ecological balance, this argument no longer stands if the Antarctic ice-cap melts. Data suggest that Antarctic ice sheets are melting nearly six times faster than forty years ago, with an average loss of 252 billion tons per year, leaving large portions of ice in the continent in danger of collapse.⁶¹ The loss of Antarctic frozen environment would facilitate effective occupation and unlock territorial sovereignty.

Significantly, Chile and Argentina purposely established civilian settlements on the Antarctic Continent. In 1978, Argentina backed its sovereign claims by sending around ten families to the Esperanza base.⁶² In 1984, Chile managed to have a national, Juan Pablo Camocho, born at the Frei Montalva base on the South Shetland Islands of Antarctica.⁶³ These settlements have grown over time, and the Antarctic Treaty does not address them. It is thus arguable that, if temperatures keep rising, States will increasingly send people to live

Treaty as Imperialism, 1 POLAR J. 51, 60–61 (2011) (explaining that the Antarctic Treaty served U.S. interests by giving the United States legal access to the entire continent while quietly reducing effective sovereignty of other claimant States).

60. See Hodgson-Johnston, *supra* note 57, at 194–95 (highlighting the fact that, although climate change has often been debated, it is rarely explored in terms of sovereignty).

61. See Alex Fox, *East Antarctica's Ice Is Melting at an Unexpectedly Rapid Clip, New Study Suggests* (Jan. 14, 2019), <https://www.sciencemag.org/news/2019/01/east-antarctica-s-ice-melting-unexpectedly-rapid-clip-new-study-suggests> (noting that six times more Antarctic ice flows are currently sent into the ocean each year than in 1979); Aylin Woodward, *One of Antarctica's Biggest Glaciers Will Soon Reach a Point of Irreversible Melting That Would Cause Sea Levels to Rise at Least 1.6 Feet*, BUSINESS INSIDER (July 9, 2019), <https://www.businessinsider.com/antarctic-glacier-on-way-to-irreversible-melt-2019-7>.

62. See Abdel-Motaal, *supra* note 54, at 5–6 (explaining that Argentina and Chile purposely established civilian settlements in Antarctica to strengthen their claims of sovereignty).

63. See *id.* at 6 (stating that Juan Pablo Camocho's birth was a response to Argentinian Emilio Marcos Palma becoming the first person born in Antarctica).

on the Continent.⁶⁴

In practice, warming in the Antarctic has recently disclosed tensions over sovereignty that might undermine the consensus underpinning the Antarctic Treaty. States may be less willing to sacrifice sovereign claims if climate change and technological advances make mining a profitable business.⁶⁵ Prior to the 2017 ATCM, China released a white paper on its expanding Antarctic activities, allotting more money to scientific research and reaffirming aversion to the commercial exploitation of Antarctic resources.⁶⁶ At the 41st ATCM, in 2018 China officially presented plans for establishing a new Antarctic research station in the Ross Sea.⁶⁷ Observers underscored the effort to increase the Chinese influence on Antarctic governance and others States, for instance, the United States and New Zealand, are concerned that China engages in undeclared mineral resource exploration and military activities on the Continent.⁶⁸ The Lowy Institute for International Policy encouraged Australia to begin diplomatic preparations for the 2048 review of the Antarctic Treaty, considering that the question of recovering mineral resources from the Antarctic will undoubtedly

64. See *id.* at 7 (recognizing that, as temperatures rise and Antarctica becomes more habitable, States will feel more pressure to exploit the continent by establishing a local population).

65. See Jeffrey Loan, *The Common Heritage of Mankind in Antarctica: An Analysis in Light of the Threats Posed by Climate Change*, 1 N.Z. Y.B. OF INT'L L. 149, 159–60, 180–81 (2004) (explaining that the Antarctic Treaty System may be strengthened by strategic planning over mining resources).

66. Antarctic Treaty Consultative Meeting, Report of the Informal Discussion for the Intersessional Period of 2016/17 on the Proposal for a New Antarctic Specially Managed Area at Chinese Antarctic Kunlun Station, Dome A, 3, WP 35 (July 4, 2017); Antarctic Treaty Consultative Meeting, Report of the 2015/15 Intersessional Informal Discussions on the Proposal for a New Antarctic Specially Managed Area at Chinese Antarctic Kunlun Station, Dome A and the Follow-up Work, 6, WP 29 (Nov. 4, 2016).

67. Secretariat of the Antarctic Treaty, *Report of the Twenty-First Meeting of the Committee for Environmental Protection (CEP XXI), in Final Report of the Forty-First Antarctic Treaty Consultative Meeting*, at 67 (vol. 1) (2018).

68. See Anne-Marie Brady, *China's Rise in Antarctica?*, 50 ASIAN SURV. 759, 768 (2010); see also Anne-Marie Brady, *China's Expanding Antarctic Interests: Implications for New Zealand*, SMALL STATES AND THE NEW SECURITY ENVIRONMENT (June 2017), <https://www.canterbury.ac.nz/media/documents/research/China%27s-expanding-Antarctic-interests.pdf>. (claiming that China has never stopped exploring Antarctic mineral resources despite environmental protection protocols).

resurface, together with claims to common management of the region,⁶⁹ along the lines of Malaysia's submissions to the United Nations in the 1980s.⁷⁰ This has the potential to reignite unresolved competitive tensions, as well as "military-infused displays of power projection."⁷¹

The validity of sovereign claims should be determined in light of the status of Antarctica as either *terra nullius* or *res communis omnium*.⁷² If Antarctica is *terra nullius*, nothing prevents occupation. In this case, arguably occupation has thus far been prevented, *inter alia*, by prohibitive living conditions. If temperatures increase and ice melts, it is difficult to see why occupation should not take place. If some States establish sovereignty over Antarctica, coastal States will have the right to claim a territorial sea, EEZ and continental shelf, possibly extended, under UNCLOS. Climate change will have a decisive impact on maritime delimitation, particularly in light of the fact that the definition of baselines is disputed in Antarctica, depending on whether ice is stable enough to meet territorial features

69. See Ellie Fogarty, *Antarctica: Assessing and Protecting Australia's National Interests*, LOWY INSTITUTE FOR INTERNATIONAL POLICY, 10 (Aug. 3, 2011), <https://www.lowyinstitute.org/publications/antarctica-assessing-and-protecting-australia-national-interests> (recommending that Australia begin diplomatic consultations with other claimant States in order to develop a response to the idea of preserving Antarctica as common heritage of mankind).

70. See U.N. GAOR, 37th Sess., 10th plen. mtg. at 129, 132, U.N. Doc. A/37/PV.10, ¶¶ 1, 36 (Sept. 29, 1982) [hereinafter UNGA 37th Session] (arguing that the resources in the Antarctic should be divided among the nations of the world, not just the discoverers); see also *infra* Section IV. B; Moritaka Hayashi, *The Antarctica Question in the United Nations*, 19 CORNELL INT'L L.J. 275, 276–77 (1986) (explaining that Malaysia requested the U.N.G.A. to take up the question of Antarctica).

71. See Jemilla Raphael, *South of South – Australia and Its Influence in the Antarctic*, 12 BULL. OF THE CENT. FOR E.-W. CULTURAL & ECON. STUD. 23, 29–30 (2018) (hypothesizing that revising the Antarctica Treaty to delineate surveillance and signalling for military purposes as opposed to scientific purposes could lead to provocation).

72. *Terra Nullius*, BLACK'S LAW DICTIONARY (11th ed. 2019) ("A territory not belonging to any particular country."); John H. Currie, PUBLIC INTERNATIONAL LAW (2d ed. 2008) ("*Res communes* - Areas beyond, and not subject to incorporation into, State territory; thus available for unilateral use and exploitation by all States; examples include the high seas"); Alexandre Kiss, *The Common Heritage of Mankind: Utopia or Reality?*, 40 INT'L J. 423, 425, 428 (1985); W. Lakhtine, *Rights Over the Arctic*, 24 AM. J. INT'L L. 703, 704 (1930).

rather than being classified as sea.⁷³ By contrast, the status of Antarctica as *res communis* would prevent occupation. However, the reason for a land mass to have the status of *res communis* must be distinguishing with respect to other land masses. This can be found in the unique environment of Antarctica, which is covered with ice and critical to the ecological balance of the planet. If the ice pack melts, the specific environment of Antarctica is likely to radically change, and loss of uniqueness is likely to trigger sovereign claims over land mass and adjacent sea.

III. AN OCEAN SURROUNDED BY LAND: THE ARCTIC CIRCLE

A. EFFECTIVE SOVEREIGN CLAIMS UNDER THE LAW OF THE SEA

Unlike Antarctica, the Arctic is an ocean surrounded by land, hence it is largely governed by UNCLOS, as the 2008 Ilulissat Declaration recognizes.⁷⁴ The continent is prospectively rich in onshore and offshore hydrocarbons, minerals, fisheries, bio resources and freshwater.⁷⁵ Within this framework, States dispute sovereignty over a few territories. For instance, since 1973, while delimiting the continental shelf between Greenland and Canada, Denmark and Canada have contended sovereignty over Hans Island, a tiny land between Greenland and Canada's Ellesmere Island.⁷⁶ In 1920, the United States, United Kingdom, Denmark, France, Italy, Japan,

73. See Joan E. Moore, *The Polar Regions and the Law of the Sea*, 8 CASE W. RES. J. INT'L L. 204, 206 (1976) (explaining that ice occurs in three different forms in Antarctica, and not all are stable enough to resemble land).

74. Ilulissat Declaration, Arctic Ocean Conference, May 28, 2008, 48 I.L.M. 382 (2009) (recognizing that the law of the sea provides an extensive international legal framework for the Arctic Ocean).

75. See, e.g., *Antarctica*, ENCYCLOPEDIA BRITANNICA (Nov. 1, 2019), <https://www.britannica.com/place/Antarctica> (explaining that there is a high degree of certainty that Antarctica is minerally rich, both on- and off-shore).

76. Agreement between the Government of the Kingdom of Denmark and the Government of Canada Relating to the Delimitation of the Continental Shelf between Greenland and Canada, Can.-Den., art. 1, Dec. 17, 1973, 950 U.N.T.S. 152-54; see also BUREAU OF INTELLIGENCE & RESEARCH, U.S. DEP'T OF STATE, No. 72, CONTINENTAL SHELF BOUNDARY: CANADA-GREENLAND 7 (1976) (explaining that Hans island was discounted in the delimitation of the continental shelf boundary between Canada and Denmark).

Norway, the Netherlands, and Sweden concluded a Treaty acknowledging Norwegian sovereignty over the Svalbard Archipelago (Article 1), subject to the right of the other States to develop commercial activities in the area (Articles 3 ff).⁷⁷ Later on, the U.S.S.R. acknowledged Norwegian sovereignty by means of diplomatic correspondence.⁷⁸ The U.S.S.R. has also advanced claims to sovereignty over a relatively stable ice pack in the Arctic.⁷⁹ The majority view is that the Arctic ice pack is part of the sea,⁸⁰ but a different approach might be considered in light of the uncertain debate over the status of Antarctic ice.⁸¹

The main controversies concern coastal States' continental shelves and EEZs. The geographic North Pole is situated around 400 nautical miles north of any emerged land. This raises the possibility of overlapping claims to extended continental shelves.⁸² Under UNCLOS Article 6(8), Russia, Norway, Iceland, Denmark, Canada, and the United States have indeed made submissions on the extension of their continental shelves to the CLCS, but they need to reach an agreement on delimitation under UNCLOS Article 83 to issue exploitation licenses. In 2008, Arctic coastal States committed to a peaceful resolution of controversies via the Ilulissat Declaration, but Russia and Denmark have advanced claims extending the outer limit of their continental shelves to the North Pole and beyond, and the Canadian government is working on a similar hypothesis.⁸³

77. Treaty concerning the Archipelago of Spitsbergen, arts. 1, 3, Feb. 9, 1920, 43 U.S.T. 1892, 2 L.N.T.S. 7.

78. See Lakhtine, *supra* note 72, at 709 (explaining that, while in the 1920s the U.S.S.R. was not a party to the Spitzbergen Treaty, it recognized Norway's claims by establishing diplomatic relations with Norway).

79. See *id.* at 712 (citing a Soviet concept of including ice blocks in legal Polar territory).

80. See Balch, *supra* note 22, at 266 (explaining that the Arctic ice pack is continually moving and therefore territorially precarious).

81. See *supra* Section II. B.

82. See Markus Kröger, *The Global Land Rush and the Arctic*, in *THE GLOBAL ARCTIC HANDBOOK* 28, 31–32 (Matthias Finger & Lassi Heininen eds., 2019) (noting States' intentions to increase development in the Arctic region and predicting increased exploitation of forest and mineral sources owing to commodity super cycles).

83. Ragnhild Groenning, *Exploring Continental Shelf Claims in the Arctic*, *THE ARCTIC INSTITUTE* (June 27, 2017) <https://www.thearcticinstitute.org/continental-shelf-claims-arctic-infographic> (providing further details on claims advanced by

Northeast of the border between Alaska and the Yukon Territory, Canada and the United States claim a 21,436 km² pie-shaped sector in the Beaufort Sea. The controversy is based on a Convention concluded in 1825 by Great Britain and Russia, which then held title over Alaska and Canada, addressing the Limits of their Respective Possessions on the North-West Coast of America and the Navigation of the Pacific Ocean.⁸⁴ Canada argues that the maritime boundary should follow the 141° western meridian straight north. By contrast, the United States demands that any points of the boundary have equal distance from adjacent coasts, based on equity.⁸⁵ Canada also contends with Denmark a fisheries zone in the Lincoln Sea, within the context of the delimitation of the continental shelf and EEZ to the north of Greenland and Ellesmere Island, based on equidistance between adjacent coasts. Denmark, instead, draws baselines including Beaumont Island as a reference point, moving the equidistance line westward.⁸⁶

Norway and Russia contend the extent of their EEZs and continental shelves in the Barents Sea, where Statoil and Gazprom operate.⁸⁷

Russia, Denmark, and Canada to extend their continental shelves, corresponding to ice melt in the Arctic); Daniel Brownstein, *Arctic Circles*, MUSINGS ON MAPS (Dec. 25, 2014), <https://dabrownstein.com/tag/mapping-polar-sovereignty> (noting that melting Arctic ice is prompting Canada to make a claim outside the jurisdictional limits of its EEZ); Ilulissat Declaration, *supra* note 74 (expressing the Arctic States' intent to follow the international legal framework under the Law of the Sea for governance over the Arctic and to work with the International Maritime Organization to address pollution issues).

84. Convention between Great Britain and Russia, Gr. Brit.-Russ., arts. 3–4, Feb. 28, 1825, British and Foreign State Papers (1824–1825).

85. See James S. Baker & Michael Byers, *Crossed Lines: The Curious Case of the Beaufort Sea Maritime Boundary Dispute*, 43 OCEAN DEV. & INT'L L. 70, 71–72 (2012) (noting the United States' position that current maritime delimitation methods apply beyond the coastline and, since the area in question tilts east-southeast, the equidistant line would place the maritime boundary east of Canada's claimed 141° W meridian).

86. See Tullio Scovazzi, *Sovereignty over Land and Sea in the Arctic Area*, 34 AGENDA INT'L 169, 184–87 (2016) (“A number of boundaries have still to be settled, including [. . .] the boundary between Canada and Denmark in the Lincoln Sea, as regards North Greenland and the Queen Elizabeth Islands.”).

87. See Daniel Fjærtøft et al., *Unitization of Petroleum Fields in the Barents Sea: Towards a Common Understanding?*, 9 ARCTIC REV. ON L. & POL. 72, 73 (2018) (recounting Russia and Norway's historical claims dispute in the Barents Sea and resolution by way of treaty); Arild Moe et al., *Space and Timing: Why Was the Barents Sea Delimitation Dispute Resolved in 2010?*, 34 POLAR GEOGRAPHY 145,

Norway has consistently invoked a boundary based on a median line. In light of UNCLOS Articles 74 and 83 and the ICJ stance in the *North Sea Continental Shelf* cases, the U.S.S.R. first and Russia as a successor State have invoked “relevant circumstances,”⁸⁸ such as the shape and length of the Russian coast, and have drawn the maritime boundary along the 32° 4' 35" eastern meridian. In 2010, Russia and Norway adopted the Treaty on Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean,⁸⁹ drawing an equal boundary for part of the disputed area based on eight points. Annex II to the Treaty prompts cooperation on transboundary hydrocarbon resources and discloses the possibility of heavy oil drilling.⁹⁰

At the conjunction between the Atlantic Ocean and the Arctic Sea, the Norwegian island of Jan Mayen has given rise to controversy. Since 1929, Norway has occupied the island, which was then *terra nullius*, using it for scientific and military purposes.⁹¹ This proves that

145–46, 149–50 (2011) (noting the positive impact of resolving fisheries management and oil development controversies on the resolution of jurisdictional disputes).

88. See *North Sea Continental Shelf* (Fed. Republic of Ger. v. Den.; Fed. Republic of Ger. v. Neth.), Judgment, 1969 I.C.J. 3, ¶ 101 (Feb. 20) (requiring delimitation to take into account all relevant circumstances to ensure that each party’s maritime boundaries represent the full area of its territory without extending into the territory of the other).

89. Treaty concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean, Nor.-Russ., art. 1, Sept. 15, 2010, https://www.regjeringen.no/en/topics/foreign-affairs/international-law/innsikt_delelinje/treaty/id614006/.

90. See Treaty concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean, Nor.-Russ., Annex II, art. 1, Sept. 15, 2010, https://www.regjeringen.no/en/topics/foreign-affairs/international-law/innsikt_delelinje/treaty/id614006/ (obligating each party to exploit the area as a unit in accordance with the unitization agreement and prohibiting the parties from withholding permits for the drilling of wells for people lawfully allowed to explore and exploit the area on their respective sides); see also Anatoli Bourmistrov et al., *Driving Forces for Norwegian-Russian Petroleum B2B Cooperation*, in INTERNATIONAL ARCTIC PETROLEUM COOPERATION: BARENTS SEA SCENARIOS 79, 82–83 (Anatoli Bourmistrov et al. eds., 2015) (explaining that obligations under the Treaty only allow joint development of the area and require each party to report and enter into unitization agreements for fields found on one party’s side but extending into the other’s).

91. See Odd Gunnar Skagestad, NATO Advanced Research Workshop, Joint International Scientific Observation Facility on Jan Mayen Island, Address on the

settlement is not necessary for exercising territorial sovereignty. In 1981, following the recommendations of a Conciliation Commission,⁹² a bilateral Treaty defined a common maritime boundary for the continental shelves of Jan Mayen and Iceland,⁹³ giving Iceland a continental shelf of 200 nautical miles, following the previously established EEZ, and defining a straddling joint area for exploiting resources. In 1988, Denmark acted against Norway in the ICJ.⁹⁴ The Court adopted a median line as the point of departure but shifted it towards Jan Mayen in light of relevant circumstances, attributing to Norway and Denmark respectively 57 and 43 percent of the disputed area.⁹⁵ Norway and Denmark further adopted a treaty in 2008 governing joint exploration and exploitation of transboundary hydrocarbons.⁹⁶

B. EXPANDING SOVEREIGNTY AS A CONSEQUENCE OF CLIMATE CHANGE

Climate change is severely impacting the Arctic region, actually more than any other regions of the world, particularly owing to the phenomenon of “feedback loop.”⁹⁷ Given that it is light-colored, ice

Scope for Norwegian Commitments Related to International Research Operations on Jan Mayen Island, 5–6 (Nov. 13, 2003) (effecting annexation by Royal resolution and establishing a meteorological station in 1921).

92. Conciliation Commission on the Continental Shelf area between Iceland and Jan Mayen: Report and Recommendations to the Governments of Iceland and Norway, 27 R.I.A.A. 3, 30, 32 (1981).

93. See Agreement on the Continental Shelf, Ice.–Nor., art. 2, Oct. 22, 1981, 2124 U.N.T.S. 247 (the provisions in Articles 3 to 9 apply in an area defined by the following coordinates: Latitude N Longitude W 70x35' 10x30' 68x00' 6x30').

94. See *Maritime Delimitation in the Area Between Greenland and Jan Mayen* (Den. v. Nor.), Judgement, 1993 I.C.J. 38, ¶ 1 (June 14) (filing an Application to institute proceedings against Norway on 16 August 1988).

95. See *id.* at ¶¶ 87, 90, 93 (establishing coordinate reference points of new boundaries); *Maritime Delimitation in the Area Between Greenland and Jan Mayen* (Den v. Nor.), Judgment, 1993 I.C.J. 41, 309 (June 14).

96. See Agreement concerning Transboundary Hydrocarbon Deposits, Ice.–Nor., arts. 1–2, Nov. 3, 2008, 2888 U.N.T.S. 13 (“Neither Party can begin exploitation of any hydrocarbon deposit which extends to the continental shelf of the other Party until agreement on the exploitation of the deposit as a unit is reached between the Parties.”).

97. See David M. Lawrence et al., *Accelerated Arctic Land Warming and Permafrost Degradation during Rapid Sea Ice Loss*, 35 GEOPHYSICAL RES. LETTERS 1, 1, 5 (2008) (arguing that positive feedback loops could amplify already “increased

reflects sunlight back to space; ice-melting uncovers underlying darker-colored water, which absorbs more sun light, accelerating warming and ice-melting. The 2004 Arctic Climate Impact Assessment reports that average annual temperatures have augmented by about 2 to 3 °C since the 1950s and by up to 4 °C in winter.⁹⁸ In the 1970s, the Arctic ice-cap covered most of the Arctic Circle, spanning from the coast of Alaska to Canada and Russia. Currently, the ice-cap is sensibly reduced and a large portion of the Arctic Ocean is free from ice. In 2018, the extension of the Arctic ice-cap reached its sixth minimum extension in the 40-year satellite record.⁹⁹

The Arctic is rich in hydrocarbons; reportedly, the region contains 83 billion barrels of oil and 44 trillion cubic meters of natural gas.¹⁰⁰ Projected reserves are mostly located in waters that are less than 500 meters deep. While it is not easy to exploit such resources, owing to the difficult environmental conditions of the Arctic, increasing temperatures and accelerated ice melting facilitate exploitation.¹⁰¹ Global warming is therefore a critical factor triggering claims to extended continental shelves by Arctic coastal States, which increases sovereign tensions, economic exploitation, and environmental degradation. The European Union has gone as far as to impose economic constraints on the U.S.S.R. as a response to economic exploitation of the Arctic by Russian companies.¹⁰² The race to Arctic

shrubbliness, longer growing seasons, advancing treelines, shifting migratory bird ranges, and declining caribou herd health”).

98. See HASSOL, *supra* note 6, at 23 (noting that annual average temperatures in Alaska and Siberia have increased by 2-3° Celsius, while winter temperatures in Alaska and Western Canada have increased by as much as 3-4° Celsius since 1953).

99. See *Arctic Sea Ice Extent Arrives at Its Minimum*, NAT'L SNOW AND ICE DATA CTR. (Sept. 27, 2018), <http://nsidc.org/arcticseaicenews/2018/09/> (noting that ice in the Arctic Sea reached a 4.59 million square kilometers minimum extent).

100. See E. Allison & B. Mandler, *Oil and Gas in the U.S. Arctic: Managing Resources in an Oil- and Gas-Rich but Harsh and Fragile Environment*, AM. GEOSCIENCES INST. (2018), <https://www.americangeosciences.org/geoscience-currents/oil-and-gas-us-arctic> (representing sixteen percent of the global total in oil and thirty-eight percent of the global total in natural gas).

101. See Kathrin Keil, *The Arctic in a Global Energy Picture: International Determinants of Arctic Oil and Gas Development*, in *GOVERNING ARCTIC CHANGE: GLOBAL PERSPECTIVES*, 279, 279–80 (Kathrin Keil & Sebastian Knecht eds., 2017) (finding that rapid warming referred to as “Arctic amplification” has increased temperatures in the Arctic at nearly “twice the rate as the rest of the world.”).

102. See *EU Sanctions: A Key Foreign and Security Policy Instrument*, EUR.

resources triggered by global warming puts UNCLOS in uncharted waters. In fact, it is possible that, if not satisfied by the CLCS in their request to extended continental shelves, Arctic coastal States become reluctant to comply with the Convention.¹⁰³ Furthermore, the United States is not a party to UNCLOS.

Ice melting also discloses the navigability of Arctic waters. When a complete melt-out of sea-ice occurs, Arctic waters will become navigable all year long. On the Russian side of the Arctic Ocean, cargo vessels already navigate the Northern Sea Route, which connects the Pacific and Atlantic Oceans and is shorter than the route via the Suez Canal.¹⁰⁴ According to Russia, the Northern Sea Route is part of its internal waters and no vessel has ever challenged such views. However, the United States argues that the Northern Sea Route along the Russian coast is an international strait, hence subject to the regime of transit passage, given that the Arctic connects one part of the high seas or EEZ to another part of the high seas or EEZ.¹⁰⁵ On the other side of the Arctic Ocean, the Northwest Passage offers several shipping routes that are significantly shorter than the route via the Panama Canal. In light of the decision of the ICJ in the *Corfu Channel* case,¹⁰⁶ according to Canada the Passage is subject to Canadian

PARL. DOC. (PE 621.870) 3 (2018) (restricting EU exports of technology and services to Russia, hindering its ability to develop the Arctic oil reserves); see also Natalie Dobson & Seline Trevisanut, *Climate Change and Energy in the Arctic—The Role of the European Union*, 33 INT’L J. OF MARINE AND COASTAL L. 380, 381–82, 401–02 (2018) (characterizing the E.U.’s policy regarding the Arctic as focusing on climate adaptation and sustainability rather than geo-political interests).

103. See Parker Clote, *Implications of Global Warming on State Sovereignty and Arctic Resources under the United Nations Convention on the Law of the Sea: How the Arctic is no Longer Communis Omnium Naturali Jure*, 8 RICH. J. GLOB. L. & BUS. 195, 246–48 (2008) (arguing that wealth present in the Arctic may outweigh the economic costs of non-compliance with UNCLOS).

104. See Emmanuel Guy & Frédéric Lasserre, *Commercial Shipping in the Arctic: New Perspectives, Challenges and Regulations*, 52 POLAR REC. 294, 297 (2016) (noting that ice melt has created new sea routes for Arctic States that are shorter than “routes through Panama or Suez and Malacca”).

105. See Margaret Blunden, *Geopolitics and the Northern Sea Route*, 88 INT’L AFF. 115, 116 (2012) (explaining the dispute between Russia, the United States, and the European Union, and noting Russia’s de facto control through its military presence in the region).

106. See *Corfu Channel* (U.K. v. Albania), Judgment, 1949 I.C.J. 4, 36 (Apr. 9) (considering that “by reason of the acts of the British Navy in Albanian waters in the

sovereignty as part of its internal waters or of the territorial sea. The United States, nonetheless, claims that the Northwest Passage is an international strait, regardless of shipping traffic.¹⁰⁷

As underscored by the Arctic Council, increased navigation by ships transporting oil and gas as well as exploitation of energy resources entail risks of spill, which is a major threat to the fragile Arctic ecosystem.¹⁰⁸ Furthermore, the Arctic is more inhabited than the Antarctic. Notably, the Inuit are an indigenous population that lives in the Northern Russian Federation, Northern and Western Alaska, Northern Canada, and Greenland.¹⁰⁹ Inuit traditional knowledge of physical surroundings, including ice and climate, results from experience accumulated over several generations, and is vital for economic survival, culture, and identity. Climate change has an adverse impact on the traditional everyday life and survival of the Inuit, since it makes lands less accessible, valuable, and more unfamiliar, harming property, subsistence harvest, travels, health, and education.¹¹⁰

IV. FROM THE REALITY OF REGIONALISM TO THE UTOPIA OF UNIVERSALISM? HARMONIZATION AS A WAY FORWARD

course of the Operation of November 12th and 13th, 1946, the United Kingdom violated the sovereignty of the People's Republic of Albania, and that this declaration by the Court constitutes in itself appropriate satisfaction.”).

107. See James Kraska, *The Law of the Sea Convention and the Northwest Passage*, 22 INT'L J. MARINE & COASTAL L. 257, 267–68 (2007) (noting former Ambassador David Wilkins's statement that it is the longstanding position of the United States that “the passage is an international strait.”).

108. See ARCTIC COUNCIL, ARCTIC MARINE SHIPPING ASSESSMENT REP. 4, 5 (2009) (finding that emissions from ships navigating in the Arctic will increase ice melt and have other environmental consequences for the Arctic).

109. See Makivik Corp., *The Inuit Circumpolar Region*, https://www.makivik.org/wp-content/uploads/2013/02/circumpolar_region.gif (last visited Jan. 14, 2020) (providing geographical data on locations of the Inuit and other Arctic peoples).

110. See HASSOL, *supra* note 6, at 16–17 (explaining the impacts of a warming climate on, *inter alia*, availability of game through habitat degradation and disease, condition of sanitation infrastructure, and transportation rounds owing to thawing ground).

A. HARMONIZING THE REGULATION OF THE ARCTIC AND THE ANTARCTIC

In light of the fact that climate change has fostered Arctic littoral States' claims to extended continental shelves, the World Wildlife Fund (WWF) has underscored that UNCLOS does not provide an adequate framework to govern the region: “[t]he political and symbolic gestures of recent expeditions asserting territorial claims and rights to unrestricted exploitation lead to nowhere and could revive conflicts that have affected the region in the past.”¹¹¹ Hence, a new regional approach, including “thinking about a solid Arctic Treaty and a multilateral governance body” is considered “the only way to ensure the implementation of sustainable development regimes and help the Arctic adapt to the severe impact of climate change and ultimately stabilize the world’s climate.”¹¹²

Similarly, scholars have invoked a hard law approach for the governance of the Arctic,¹¹³ including “appropriate institutional arrangements and substantive rules, perhaps similar to those applied in the Antarctic.”¹¹⁴ In 2008, the European Community proposed that the European Commission prepare to pursue the opening of international negotiations for the “adoption of an international treaty for the protection of the Arctic, having as its inspiration the Antarctic Treaty, as supplemented by the Madrid Protocol signed in 1991,” which, “as a minimum starting-point” should “cover the unpopulated and unclaimed area at the center of the Arctic Ocean.”¹¹⁵ Some legal commentators invite to avoid “simplistic comparisons between the

111. See World Wildlife Fund, *New Rules Needed for the Arctic* (Aug. 17, 2007), <http://wwf.panda.org/?111440/New-rules-needed> (believing that something more is required for successful governance of the vast resources and new shipping routes created by ice melt).

112. See *id.* (quoting concern of WWF’s Director of the WWF International Arctic Programme).

113. See Molly Watson, *An Arctic Treaty: A Solution to the International Dispute over the Polar Region*, 14 OCEAN & COASTAL L. J. 307, 319–20 (2009) (arguing that it is necessary to decide if UNCLOS is controlling customary international law that would bind parties and non-parties alike).

114. See Hauksson, *supra* note 14, at 23 (doubting the utility of using the Antarctic Treaty in the Arctic because of sovereignty concerns, but offering it as a useful foil).

115. European Parliament Resolution on Arctic Governance, P6_TA(2008)0474, ¶ N(15).

prospects for international cooperation in the Arctic region.”¹¹⁶ According to Timo Koivurova, “[t]he presence of territorial sovereigns in the Arctic does not allow much room to develop a collective model like the one in the Antarctic Treaty System, since it is precisely the non-presence of territorial sovereigns in the Antarctic that has enabled the creation of the present Antarctic Treaty System.”¹¹⁷

Theoretically, an Arctic Treaty based on the model of the Antarctic Treaty is a suitable solution in the short term with regard to the fundamental problem of sovereignty. In fact, a Treaty freezing sovereign claims over the Arctic would be a desirable outcome to protect the region from expanding sovereign claims and to attempt to preserve its ice-cap before melting becomes irreversible. This is a typical case where a global factor can trigger a reshaping of regional governance.¹¹⁸ In the long term, however, this approach would be insufficient to safeguard the exceptional environment of the Arctic because a regional convention is inadequate to constrain the conduct of global actors.¹¹⁹ Climate change should thus trigger a shift in the scale of governance, from the regional to the global level.¹²⁰ In fact, Young underscores that plans for triggering a process leading to a regional legally binding agreement should be overcome by global

116. GAIL OSHERENKO & ORAN YOUNG, *THE AGE OF THE ARCTIC: HOT CONFLICTS AND COLD REALITIES* 244 (1989).

117. See Koivurova, *How to Improve Arctic International Governance*, *supra* note 11, at 94–95 (arguing that the Antarctic Treaty System’s success in keeping the Antarctic region “as a region for peace, science, and environmental protection” stems from the fact that “there are no active territorial sovereigns,” unlike the eight territorial sovereigns in the Arctic).

118. See SÖDERBAUM, *supra* note 12, at 127–29 (arguing that traditional transboundary resource management has failed to create the necessary governance to protect transboundary resources and noting shifts of governance in regional organizations from environmental to administrative bodies).

119. See Keil & Knecht, *supra* note 9, at 304–05 (noting that any legally binding Arctic agreement would be binding on Arctic States only and would thus not effectively regulate activity by non-Arctic States).

120. See SÖDERBAUM, *supra* note 12, at 127–31, 196–20, 221–22 (arguing that complexities in global security governance are pushing States toward global governance because they lack capacity to handle challenges to national interests and are becoming more reliant on regional and global governing bodies to resolve disputes).

issue-specific regimes.¹²¹

In practice, the idea of an Arctic Treaty based on the Antarctic model is quite optimistic, given that eight coastal States protect and seek to extend their sovereign areas in the Arctic.¹²² This is certainly a realistic observation, which is quite troubling; in fact, if coastal States' sovereign claims over the Arctic are seen as legitimate, there should be no reason why sovereign claims over the Antarctic should not.¹²³ Indeed, if it is true that sovereign claims over the Antarctic are less firmly established than those over the Arctic, it is difficult to see why land should not be subject to appropriation when sea is, particularly if ice melting is not halted and the Polar Regions lose their exceptional environmental value.¹²⁴

B. OUTLINING A GLOBAL STATUS FOR THE POLAR REGIONS

According to some prospective models, the current Antarctic Treaty System should naturally evolve into a regime of restricted sovereignty, under a situation of "condominium."¹²⁵ This is seen as a progressive process of improved cooperation and cession of power from core Antarctic States to a regime of cooperative governance.¹²⁶ Whereas this approach is sufficient to address regional environmental issues, such as oil spill accidents, the global nature of climate change should shift the debate towards a more comprehensive and universal answer.

121. See Oran Young, *Whither the Arctic? Conflict and Cooperation in the Circumpolar North*, 45 POLAR REC. 73, 80–81 (2009) (arguing that a variety of human activities will take place in the Arctic that cannot be successfully managed by a single regional agreement, and thus specific-issue regimes need to be in place for issues such as haze, fishing, and hydrocarbon extraction).

122. See Koivurova, *How to Improve Arctic International Governance*, *supra* note 11, at 94–95 (arguing that lack of sovereign disputes in the Antarctic has contributed to the success of the Antarctic Treaty System).

123. See Andrew Blackie, *Sovereignty on Ice: The Status of Antarctica in International Law*, 16–08 U. OF N.S.W. L.J. STUDENT SERIES 1, 15 (2016), <http://classic.austlii.edu.au/au/journals/UNSWLawJlStuS/2016/8.html> (describing the mechanisms of the Antarctic Treaty System and the validity of territorial claims in the region).

124. See *infra* Section II.A.

125. See Wygene Chong, *Thawing the Ice: A Contemporary Solution to Antarctic Sovereignty*, 53 POLAR REC. 436, 445 (2017) (explaining how the rise of the Antarctic Treaty System could lead to a shift towards international condominium).

126. See *id.* at 437 (arguing that the Antarctic Treaty System has led to improved international cooperation).

More incisively, because of their exceptional natural features, in the long-term the Polar Regions should be recognized as *res communes omnium*, hence not subject to sovereign appropriation. In light of their key role for the preservation of the global environment, the Polar Regions should belong to everyone. Arguably, a common governance regime would ensure “much-needed democratization of management and increased legitimacy.”¹²⁷ This approach follows the “decolonization” of Antarctica proposed by developing countries;¹²⁸ absent effective possession by States, the Polar Regions should be considered a “common possession of all of the family of nations.”¹²⁹ The argument is viable, to the extent that the Polar ice caps have not yet reached the point where their complete melting is irreversible. In fact, the Polar Regions should be recognized as global commons,¹³⁰ in light of the fact that disruption entails a high potential for environmental damage, with negative effects for the entire international community. Furthermore, to ensure the highest level of environmental protection given the disruptive effects of climate change, the Polar Regions should be considered common heritage of mankind. This notion aims at minimizing the depletion of a resource, as use must be in the common interest of humanity.¹³¹

While all areas currently declared world heritage of mankind are *res communes omnium*, it is unclear whether the concepts of “*res communes omnium*” and “world heritage of mankind” thoroughly

127. Loan, *supra* note 65, at 181.

128. See UNGA 37th Session, *supra* note 70, at 132 (affirming that uninhabited lands do not legally belong to the discoverer); see also Hayashi, *supra* note 70, at 280 (explaining that developing countries objected to Antarctic territorial claims on the basis of decolonization); Conforti, *supra* note 23, at 257 (laying out the basis of the decolonization principle).

129. Balch, *supra* note 22, at 275; see also Conforti, *supra* note 23, at 251–52 (stating that the Antarctic Treaty System has the potential to establish a system of lawful appropriation of natural resources amongst all nations).

130. See Grob, *supra* note 24, at 465 (arguing that Antarctica should be owned by all nations, rather than any one).

131. See Hayashi, *supra* note 70, at 287–88 (defining the notion of “common interest of mankind”); Conforti, *supra* note 23, at 257 (explaining that under the common heritage principle, States have a duty to pursue the interest of the entire international community); see also *China’s Arctic Policy*, at III and IV.2 (Jan. 2018), http://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm (stating that China’s goal in the Arctic is to safeguard the common interests of all countries).

overlap or not; only some scholars answer the question positively.¹³² The regime of *res communes omnium* would facilitate monitoring implementation of the status of the Polar Regions as common heritage of mankind because all States of the international community would be involved in protection. Establishing the Polar Regions as *res communes omnium* would thus ensure a much more compelling framework for the protection of their environment, particularly in light of climate change, which is a transboundary global phenomenon. By contrast, considering the Polar Regions common heritage of mankind, but subject to sovereignty would compel Arctic and Antarctic sovereign States alone to preserve the uniqueness of their environment, outlining a weaker standard of protection in contrast with the global nature of climate change. This is a critical point in favor of the establishment of the Polar Regions as *res communes omnium*, shifting governance from a regional scale to a global one.

The status of the Arctic and the Antarctic as common heritage of mankind should be declared in a treaty governing the Polar Regions. The Antarctic Treaty System already sketches this trajectory. In fact, the Preamble to the Antarctic Treaty clearly states the importance of the Arctic for humanity. Along these lines, the Eleventh ATCM emphasised that, dealing with the question of mineral resources in Antarctica, the Consultative Parties “should not prejudice the *interests of all mankind in Antarctica*.”¹³³ Furthermore, the Madrid Protocol on Environmental Protection underscores that “the development of a comprehensive regime for the protection of the Antarctic environment and dependent and associated ecosystems is in the *interest of mankind as a whole*.”¹³⁴

132. Compare Loan, *supra* note 65, at 152–53 (explaining that common heritage of mankind confers only the right to use an area, not the right to property, and is essential to international agreements), with Rudiger Wolfrum, *Common Heritage of Mankind*, MAX PLANCK ENCYCLOPEDIA OF PUB. INT’L L. ¶ 28 (2009) (arguing that modern international agreements rarely include elements of common heritage of mankind).

133. *Report of the Eleventh Antarctic Treaty Consultative Meeting*, 20 POLAR REC. 585, 591 (1981) (emphasis added).

134. Protocol on Environmental Protection to the Antarctic Treaty, pmbl., Oct. 4, 1991, T.I.A.S. 98–114 (emphasis added).

C. HARMONIZING THE POLAR REGIONS AND THE UNFCCC

For the time being, the Madrid Protocol to the Antarctic Treaty requires States to only consider the environmental effect of their actions when activities take place within the Antarctic Treaty area (Article 3).¹³⁵ At the same time, legal instruments and political decisions under the UNFCCC reveal a complete absence of references to the Polar Regions. The Polar Regions are only considered indirectly in UNFCCC documents, for instance, in the context of studies on indigenous people.¹³⁶ This is due to several factors.

International regulation of climate change had already developed when Polar institutions commenced to develop mitigation and adaptation policies, making it complex to influence an already organized agenda.¹³⁷ Scientists have actually mentioned the Polar Regions in U.N. climate talks, but the Arctic and the Antarctic have not been considered from a legal standpoint. The United Nations has thus far addressed the effects of climate change with an emphasis on the vulnerabilities and adaptation needs of developing countries and low-lying island States. By contrast, the United Nations assumes that the Arctic is mostly a domestic policy issue, within the sphere of the competence of industrialized circumpolar countries.¹³⁸ However, these considerations should only partially apply to the Antarctic, which also includes sovereign claims advanced by Chile and Argentina.

Starting in 1989, the Arctic States have cooperated via the Arctic Environmental Protection Strategy (AEPS),¹³⁹ committing to

135. See *id.* at art. 3 (explaining the goals and limitations of environmental protections in the region).

136. See Query for “Polar Regions,” UNFCCC Database, <https://www4.unfccc.int/sites/NWPStaging/Pages/Polar-Regions.aspx> (last visited Jan. 14, 2020) (demonstrating a lack of documents on the Polar Region in the UNFCCC database).

137. See Henrik Selin, *Global Environmental Governance and Treaty-Making: The Arctic’s Fragmented Voice*, in GOVERNING ARCTIC CHANGE: GLOBAL PERSPECTIVES 101, 115 (Kathrin Keil & Sebastian Knecht eds., 2017) (discussing how international climate change law had already developed before the rise of institutions like the Arctic Council).

138. See *id.* (pointing out that international climate change treaties often fail to address the Arctic).

139. See Arctic Environmental Protection Strategy: Declaration on the Protection of the Arctic Environment, Jun. 14, 1991, at 1,

measuring the impact of anthropogenic pollutants, adopting pre-emptive measures and the tightest standards of protection established under international conventions.¹⁴⁰ Within this framework, the Arctic Monitoring and Assessment Programme (AMAP)¹⁴¹ produced the Arctic Climate Impact Assessment, considering Arctic climate change and its regional and global implications.¹⁴² The establishment of the Arctic Council in 1996 has facilitated coordinating the programmes established under the AEPS. However, the Arctic Council is a regional forum that addresses climate change as a circumpolar issue, excluding the influence of other States, rather than including the Arctic in UNFCCC negotiations.¹⁴³ The Council also does not have observer status at the UNFCCC, and the United States particularly underscored that, owing to its uncertain international legal personality, the Council cannot claim such a status, consequently limiting the possibility of contributing to the UNFCCC regulatory process. Following a similar approach, State Parties to the Antarctic Treaty have consistently rejected requests for governing Antarctic issues at the U.N. level.¹⁴⁴

The Polar countries have also not specifically referred to the Polar Regions in their written submissions under the UNFCCC. The ministerial statements of some States, such as Finland and Sweden, include references to the Polar Regions, while those of others, such as the United States and Russia, do not. Input by the Inuit Circumpolar Conference has thus far faced strong resistance within climate negotiations; the message of indigenous peoples has not been accepted

http://library.arcticportal.org/1542/1/artic_environment.pdf (describing the history of cooperation amongst the Arctic States).

140. See *id.* at 9 (describing the goals of the AEPS as protecting and preserving the environment).

141. Arctic Monitoring & Assessment Programme, *Organisational Structure*, <https://www.amap.no/about/organisational-structure> (last visited Jan. 14, 2020).

142. See HASSOL, *supra* note 6, at 34 (explaining the massive impact the Arctic will have on climate change across the globe).

143. See David L. VanderZwaag and Hai Dang Vu, *Regional Cooperation in the South China Sea and the Arctic: Lessons to Be Learned?*, in *THE REGULATION OF INTERNATIONAL SHIPPING: INTERNATIONAL AND COMPARATIVE PERSPECTIVES* 171, 200–01 (Aldo Chircop et al. eds., 2012) (explaining the structure of the Arctic Council and the influence exerted by Member States).

144. See Hayashi, *supra* note 70, at 288 (explaining that some nations view the Antarctic as being under their own sovereign control).

on the same footing as that of scientists.¹⁴⁵ Consequently, Arctic indigenous organizations have not been able to convey effectively their message among the multitude of voices and communities represented at U.N. annual climate conferences.

The Polar countries are also divided on commitment to global greenhouse gas (GHG) emissions. The European Union, including Arctic and Antarctic States, supports legally binding commitments based on the principle of common but differentiated responsibility. By contrast, Canada, Russia, and the United States are favorable to non-binding targets as eventually established in the Paris Agreement.¹⁴⁶ Polar countries effectively have different GHG emission trends, whereby Denmark, Sweden, Finland, and Russia display decreasing emissions, while Australia, Norway, Iceland, Canada, and the United States display increasing trends.¹⁴⁷ Per capita emissions also differ, with Australia, Canada, and the United States displaying higher concentrations than Finland, Denmark, Iceland, Norway, Russia, and Sweden.¹⁴⁸

In the long term, the Polar Regions should not be considered isolated regimes within the international legal system, but as integrated elements, whereby regionalism is an essential component of the global legal system. While the international nature of the UNFCCC process arguably “limits the opportunity to address regional

145. See JESSICA SHADIAN, *THE POLITICS OF ARCTIC SOVEREIGNTY: OIL, ICE AND INUIT GOVERNANCE*, 187–88 (2014) (describing how the Arctic Council has failed to include traditional indigenous knowledge about climate change); see also SHEILA WATT-CLOUTIER, *THE RIGHT TO BE COLD: ONE WOMAN’S FIGHT TO PROTECT THE ARCTIC AND SAVE THE PLANET FROM CLIMATE CHANGE* 296 (2015) (narrating the history of the struggle against climate change for the Inuit and other indigenous peoples).

146. See U.N. Framework Convention on Climate Change, *Annual Report 2017*, 42–43 (2017), <https://unfccc.int/resource/annualreport/media/UN-Climate-AR17.pdf> (describing the impact of the Paris Agreement on climate change).

147. See U.N. Environment Programme, *Emissions Gap Report 2018*, 4 (2018), http://wedocs.unep.org/bitstream/handle/20.500.11822/26895/EGR2018_FullReport_EN.pdf?sequence=1&isAllowed=y (listing emission trends for several countries); Hannah Ritchie & Max Roser, *CO2 and Greenhouse Gas Emissions*, OUR WORLD IN DATA (last updated Oct. 2018), <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions> (displaying emissions data by income level).

148. *CO2 Emissions (Metric Tons per Capita)*, WORLD BANK, <https://databank.worldbank.org/reports.aspx?source=2&series=EN.ATM.CO2E.PC&country=#> (last visited Nov. 26, 2019).

specificities,”¹⁴⁹ according to the International Law Commission (ILC), regionalism is “a privileged forum for international law-making.”¹⁵⁰ Since the ecosystems of the Polar Regions transcend national boundaries, it is indispensable to adequately include them in the UNFCCC and related regulatory instruments. The Polar Regions produce very few pollutants and cannot alone reverse the melting of the Polar ice caps, rising sea levels, and disruption of ocean currents. The melting of the Polar ice caps is largely grounded in external factors and can only be addressed by halting the use of hydrocarbons, first and foremost coal,¹⁵¹ and by limiting atmospheric pollutants.¹⁵² The UNFCCC establishes the objective of stabilizing GHG concentrations in the atmosphere to “prevent dangerous anthropogenic interference with the climate system” (Article 2).¹⁵³ Based on emission levels in 1990, the 1997 Kyoto Protocol outlined reduction targets for industrialized countries by 2012. Up to 2020, some industrial States extended Kyoto commitments, while others agreed on voluntary measures under the Copenhagen Accord.¹⁵⁴ The Paris Agreement introduced a system of nationally-determined contributions aiming at “[h]olding the increase in the global average temperature to well below 2 °C above pre-industrial levels” and “to pursue efforts to limit

149. Sébastien Duyck, Briefing Note, *What Role for the Arctic in the UN Paris Climate Conference (COP-21)?*, ARCTIC YEARBOOK, 2015, 3, https://arcticyearbook.com/images/yearbook/2015/Briefing_Notes/1.BN_Duyck.pdf.

150. Int’l Law Comm’n, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, Rep. on the Work of Its Fifty-Eighth Session, U.N. Doc. A/CN.4/L.682, ¶ 205 (Apr. 13, 2006).

151. See Ritchie & Roser, *supra* note 147 (explaining how different economies create different emissions and how different hydrocarbons have different impacts on the environment).

152. See Ken Coates & Carin Holroyd, *Non-Arctic States and Their Stake in Arctic Sustainability*, in GOVERNING ARCTIC CHANGE: GLOBAL PERSPECTIVES, 207, 221 (Kathrin Keil & Sebastian Knecht eds., 2017) (stating that the rapid melting of the Polar Ice Caps is driven mostly by forces outside the Arctic, the majority of which are pollutants from more Southern nations).

153. U.N. Framework Convention on Climate Change, art. 2, Mar. 21, 1994, 1771 U.N.T.S. 107, 169.

154. See Copenhagen Accord (Dec. 18, 2009) in U.N.F.C.C.C., Rep. of the Conference of the Parties on Its Fifteenth Session, Addendum, at 6, U.N. Doc. FCCC/CP/2009/11/Add.1 (Mar. 30, 2010) (describing mandatory and voluntary measures taken by developed nations to reduce emission levels).

the temperature increase to 1.5 °C” (Article 2).¹⁵⁵ The U.N. Climate Change Secretariat considers the limits established under the Paris Agreement “a defense line set at the global level.”¹⁵⁶ However, limiting global warming to 1.5 °C rather than 2 °C has critical implications for the Polar Regions.¹⁵⁷ It is therefore essential to lower the acceptable compulsory threshold of temperature increase under the UNFCCC to preserve the ecosystems of the Arctic and the Antarctic.

Scholars consider that a global extension of the obligation to take into account the environmental protection of Antarctica “would undoubtedly be beneficial for the preservation of the continent, and subsequently for those States threatened by rising sea levels.”¹⁵⁸ Similarly, it is assumed that, “[i]f the Arctic region is to avoid further environmental deterioration and if there is to be a mitigation of existing damage” it is necessary to establish “a sustainability connection between Arctic and non-Arctic States,” particularly “in global forums of environmental governance, such as the United Nations Framework Convention on Climate Change and the work of the International Panel on Climate Change.”¹⁵⁹ Thus, “[t]he manifold and complex interdependencies between Arctic and non-Arctic spaces, systems and processes necessitate the outlook of the Arctic as a ‘globally embedded space.’”¹⁶⁰ In this context, the distinction between “Arctic” and “non-Arctic” States and issues should ideally no

155. Paris Agreement, art. 2(1)(a) (Dec. 13, 2015), in U.N.F.C.C.C., Rep. of the Conference of the Parties on its Twenty-First Session, Addendum, at 22, U.N. Doc. FCCC/CP/2015/10/Add.1 (Jan. 29, 2016).

156. *Id.* at art. 2(1)(a).

157. See Intergovernmental Panel on Climate Change [IPCC], *Global Warming of 1.5 °C*, ¶ B.4, (2018), https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf (explaining that rising ocean temperatures have a more dire impact in the Polar Regions compared to the rest of the Earth, owing to higher levels of acidity and biodiversity).

158. Loan, *supra* note 65, at 178.

159. See Coates & Holroyd, *supra* note 152, at 222 (stating the importance of cooperation between Arctic and non-Arctic States to combat climate change); see also Duncan French & Karen Scott, *International Legal Implications of Climate Change for the Polar Regions: Too Much, Too Little, Too Late*, 10 MELBOURNE J. INT'L L. 631, 653–54 (2009) (laying out the necessity for both regional and global responses to the climate crisis in the Polar Regions).

160. Keil & Knecht, *Governing the Arctic as a Globally Embedded Space*, *supra* note 9, at 302.

longer make sense.¹⁶¹ In sum, there is “a two-way street involving feedback loops and interdependencies” between the Polar Regions and “global systems and processes in multiple ways and directions.”¹⁶²

In practice, the inclusion of the protection of the Polar Regions into the UNFCCC would be “vitaly important”¹⁶³ but quite contentious.¹⁶⁴ However, the Arctic Council has declared the intention “to enhance its action on climate change in the context of sustainable development in the Arctic.”¹⁶⁵ The UNFCCC Secretariat has underscored the necessity of “an unprecedented level of cooperation including regional cooperation” via institutions such as the Arctic Council.¹⁶⁶ The inclusion of non-Arctic States, such as China and India, in the Arctic Council and extended participation to the Antarctic Treaty are right steps in globalizing the protection of the Polar Regions from the effects of climate change.¹⁶⁷ Nonetheless, collective commitments under the Paris Agreement are short of efforts necessary to achieve even a maximum 2 °C increase in global warming.¹⁶⁸

If integrating the Polar Regions into UNFCCC negotiations proves complicated, it would be appropriate to require that regulation on the

161. See *id.* at 308 (explaining that, since the Arctic is so heavily influenced by external factors, it is impractical to only rely on Arctic States to fight climate change in the region).

162. Keil, *The Arctic in a Global Energy Picture: International Determinants of Arctic Oil and Gas Development*, *supra* note 101, at 280.

163. Coates & Holroyd, *supra* note 152, at 223.

164. See Loan, *supra* note 65, at 178 (describing how the need for a treaty to bring Antarctica into the common heritage of mankind to combat climate change will certainly be contentious).

165. See U.N. Climate Change, *Arctic Council Contribution to the Impact of the Paris Agreement* (Mar. 21, 2016), <https://unfccc.int/news/arctic-council-contribution-to-the-impact-of-the-paris-agreement> (reporting the Arctic Council’s commitment to sustainable development in the Arctic by reducing black carbon and methane and by building resilience to the impacts of climate change).

166. Halldór Thorgeirsson, UNFCCC Dir. for Strategy, Address at Arctic Council Ministerial Meeting (Mar. 15-17, 2016) (available in U.N. Climate Change, *Arctic Council Contribution to the Impact of the Paris Agreement* (Mar. 21, 2016), <https://unfccc.int/news/arctic-council-contribution-to-the-impact-of-the-paris-agreement>).

167. See Coates & Holroyd, *supra* note 152, at 225 (indicating that the extension of the Arctic Council to diverse nation States is one of the most promising efforts to develop practical solutions).

168. See Ritchie & Roser, *supra* note 147 (predicting future emission scenarios).

Polar Regions includes binding GHG reduction targets beyond those currently developed under the UNFCCC and the Paris Agreement. This approach has been put forward with respect to regulation concerning the protection of cultural heritage.¹⁶⁹ However, increasing global GHG reduction targets under the World Heritage Convention¹⁷⁰ exceeds the scope of the Treaty and is likely to trigger a fundamental change of circumstances that would undermine its aim, according to Article 62 of the Vienna Convention on the Law of Treaties (VCLT). By contrast, improving global GHG reduction targets under UNCLOS and the Antarctic Treaty might not exceed the scope of conventional obligations, given that environmental protection is an essential aim of these treaties. Acknowledging the status of the Polar Regions as common heritage of mankind would facilitate the universal implementation of these measures.¹⁷¹

D. GLOBALLY PROTECTING THE POLAR REGIONS VIA CONSISTENT CASE LAW

In a Petition submitted to the Inter-American Commission on Human Rights (IACCommHR) in 2005,¹⁷² the Inuit raised the problem of the justiciability of excessive GHG emissions. All Inuit groups share a common culture based on adaptation to Arctic conditions, including subsistence harvesting and traveling on ice; cold is essential to the Inuit. The loss of thickness and lifespan of sea ice and the

169. See Erika J. Thorson, *On Thin Ice: The Failure of the United States and the World Heritage Committee to Take Climate Change Mitigation Pursuant to the World Heritage Convention Seriously*, 38 ENVTL. L. 139, 160 (2008) (arguing that Article 6 of the World Heritage Convention requires State Parties to limit their GHG emissions); see also William C.G. Burns, *Belt and Suspenders? The World Heritage Convention's Role in Confronting Climate Change*, 18 RECIEL 148, 161 (2009) (suggesting that just one large GHG-emitting State that fails to limit GHG emissions could be severely sanctioned by the World Heritage Committee).

170. See generally Convention for the Protection of the World Cultural and Natural Heritage, Nov. 16, 1972, 1037 U.N.T.S. 151.

171. See Section IV.B.

172. See generally Sheila Watt-Cloutier, *Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States*, CENTER FOR INTERNATIONAL ENVIRONMENTAL LAW, at 70 (Dec. 7, 2005), http://www.ciel.org/Publications/ICC_Petition_7Dec05.pdf (claiming that the "effects of global warming constitute violations of Inuit human rights for which the United States is responsible").

increased unpredictability of weather have affected Inuit traditional knowledge.¹⁷³ The Arctic Climate Impact Assessment indicates that increasing temperatures can go as far as to extinguish the Inuit lifestyle,¹⁷⁴ in breach of the right to culture and several other fundamental rights, including, *inter alia*, the rights to property, health, life, residence, and movement.

Based on the American Declaration of the Rights and Duties of Men, the 1966 Covenants on human rights and the UNFCCC,¹⁷⁵ the Inuit acted in the IACommHR against the United States for failing to mitigate GHG emissions, considering that the country is responsible for around 20 percent of the global amount of GHGs, and is thus one of the main emitters in the world.¹⁷⁶ Hence, the Inuit invoked a decision recommending that the United States cap GHG emissions and contribute to the efforts of the international community to limit emissions.¹⁷⁷ The IACommHR dismissed the petition, assuming that the information provided did not “enable to determine whether the alleged facts would tend to characterize a violation of rights.”¹⁷⁸ Arguably, the dismissal is grounded in the impossibility of proving a causal nexus between GHG emissions in the United States and environmental damage in the Arctic, notably in light of the absence of a justiciable right to a healthy environment under the American Convention on Human Rights.¹⁷⁹ It is indeed complex to prove that

173. See *id.* at 2 (explaining that traditional practices are becoming more dangerous and difficult, owing to the loss of thickness, extent, and duration of the sea ice, removing the need for traditional sea ice knowledge); see also Hari M. Osofsky, *The Inuit Petition as a Bridge? Beyond Dialectics of Climate Change and Indigenous Peoples' Rights*, 31 AM. INDIAN L. REV. 675, 685 (2007) (describing the negative results of inadequately regulated emissions on the Inuit).

174. See HASSOL, *supra* note 6, at 16 (warning that the Inuit's hunting culture is likely to be destroyed by reduced sea ice).

175. See Watt-Cloutier, *supra* note 172, at 73, 93 (claiming that, since international law protects the special ties that indigenous people have to their environment, the Inuit have the “right to their own means of subsistence”).

176. See *id.* at 98 (quoting President Bush's statement that the U.S. is the world's largest emitter of man-made GHG).

177. See *id.* at 7 (proposing that violations included in the petition can be remedied by adopting mandatory measures to limit U.S.'s GHG emissions).

178. Letter from Ariel E. Dulitzky, Assistant Exec. Sec'y, Inter-American Comm'n on Human Rights, to Paul Crowley, Barrister and Solicitor (Nov. 16, 2006), <http://graphics8.nytimes.com/packages/pdf/science/16commissionletter.pdf>.

179. See generally American Convention on Human Rights: “The Pact of San

GHGs emitted in the United States cause specific damage to the Inuit, in breach, for instance, of the right to culture.¹⁸⁰

Domestic courts worldwide have progressively eroded the negative regional approach taken by the IACommHR in the *Inuit* case. Notably, in *Urgenda* a District Court in The Hague upheld the responsibility of the Netherlands for excessive GHG emissions, based on a general duty of care. The Court considered that, since “the current global emissions and reduction targets of the signatories to the U.N. Climate Change Convention are insufficient to realize the 2 °C target,” the Netherlands “is obliged [by a duty of care] to take measures in its own territory to prevent dangerous climate change.”¹⁸¹ By inverting the *onus probandi*, this approach excludes the necessity for the plaintiff of demonstrating a causal nexus between GHG emissions in the Netherlands and specific damage, excluding the “drop in the ocean” argument. This paves the way to domestic actions aiming to reduce GHG emissions not only against the State but also against private legal persons, based on conflict of laws principles. From the standpoint of public international law, this should trigger the possibility of interstate action in international fora, such as the International Court of Justice, based on the no-harm rule, subject to the principle of mutual consent.

On October 9, 2018, the Appeals Court of the Hague upheld the decision of the District Court in *Urgenda*, confirming the obligation of the Netherlands to reduce its GHG emissions by at least 25 percent by 2020 with respect to 1990 levels.¹⁸² Unlike the first instance

José,” Nov. 22, 1969, 1144 U.N.T.S. 143; see also Megan S. Chapman, *Climate Change and the Regional Human Rights Systems*, 10 SUSTAINABLE DEV. L. & POL’Y 37, 38 (2010) (noting that the petition faced the “tremendous burden of proving legally sufficient causation between the harm resulting from climate change and the acts and omissions of the U.S. government”).

180. See Hum. Rts. Council, Rep. on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, U.N. Doc. A/HRC/31/52, at 9–10 (Feb. 1, 2016) (explaining that, since the adverse effects of global warming are often projections about future impacts rather than actual harm, proof of human rights violations will be difficult to establish).

181. See Judgment of 24 May 2015, *Urgenda Foundation v The State of The Netherlands*, HA ZA 13–1396, EU:C:09:456689, ¶ 4.65 (establishing that the State of the Netherlands had a “serious duty of care” to prevent the “high risk of hazardous climate change”).

182. See Judgment of 9 October 2018, *The State of The Netherlands v Urgenda Foundation*, NL:GHDHA:2018:2610, ¶ 73 (holding that the State of the Netherlands

decision, however, the Appeal decision focuses essentially on the rights to life and to private and family life under Articles 2 and 8 of the European Convention on Human Rights (ECHR).¹⁸³ Crucially, according to the judgment, in light of the UNFCCC commitment to limiting global warming to 2 °C maximum, the ECHR creates an “obligation to protect the right to home and private life,” which “applies to all activities, public and non-public” based on a precautionary approach.¹⁸⁴ The Court seems to assume that excessive GHG emissions directly breach the right to private life, disregarding the need to prove specific damage. Within this context, the Court interestingly excludes that adaptation measures are sufficient to address the problem of climate change, given that it is not “clear or plausible that the potentially disastrous consequences of excessive global warming can be adequately prevented with adaptation.”¹⁸⁵ This approach significantly extends the remedies available against excessive GHG emissions, including human rights procedures. A State could indeed act in the European Court of Human Rights against an Arctic country that is a Party to the ECHR and does not adopt adequate GHG reduction policies, thus also constraining expansive policies in the Polar Regions.

The decisions in the *Urgenda* case triggered a significant shift in the climate policy of the Netherlands. Following general elections in 2017, climate change was fundamental in the negotiating process that led to the constitution of a new coalition Government. In May 2018, the Government announced that coal-fired power plants would be banned as of 2030.¹⁸⁶ In June 2018, a Climate Bill was introduced into

failed to meet its duty of care in “not wanting to reduce emissions by 25%”).

183. See *id.* ¶¶ 40–43 (elaborating on the interest protected by Articles 2 and 8 of the ECHR, including the rights to life and to private and family life); see also Jonathan Verschuuren, *The State of the Netherlands v Urgenda Foundation: The Hague Court of Appeal Upholds Judgment Requiring the Netherlands to Further Reduce Its Greenhouse Gas Emissions*, 28 RECIEL 94, 95 (2019) (indicating that the Court of Appeal relied almost entirely on Articles 2 and 8 of the ECHR).

184. See Netherlands, *supra* note 182, ¶ 43 (stating that the Court assessed climate dangers in light of a State’s obligation to protect the lives of citizens under Article 2 of the ECHR).

185. See *id.* ¶ 59 (rejecting the State of the Netherlands’s argument that its adaptation measures will clearly or plausibly prevent the “disastrous consequences of excessive global warming”).

186. See Eric Wiebes, *Uitfaseren van het gebruik van kolen voor*

Parliament, triggering negotiations for a National Climate Act.¹⁸⁷ The aim is to reduce GHG emissions by 49 percent by 2030, compared to 1990, and by 95 percent in 2050, including a thoroughly CO₂-neutral production of electricity.¹⁸⁸ Implementation is envisaged via cyclical five-year climate plans, ensuring compliance with the *Urgenda* decision.¹⁸⁹ If climate plans prove inadequate to achieve set reduction targets, statutes will provide a further and specific basis for action in court.

In the case of *Barragán v. Colombia* from April 2018, the Supreme Court of Columbia reversed a first instance decision and ruled in favour of 25 plaintiffs acting against Colombian authorities and private corporations for depleting the Amazonian rainforest and increasing CO₂ emissions.¹⁹⁰ Holding the State and private corporations in breach of the fundamental right to a safe environment, the Court ordered Colombia to adopt an Intergenerational Agreement and private corporations to adopt an action plan to safeguard the

elektriciteitsproductie (Phasing out the use of coal for electricity production), May 18, 2018, at 1, <https://www.rijksoverheid.nl/binaries/rijksoverheid/documenten/kamerstukken/2018/05/18/kamerbrief-over-uitfaseren-van-het-gebruik-van-kolen-voor-elektriciteitsproductie/kamerbrief-over-uitfaseren-van-het-gebruik-van-kolen-voor-elektriciteitsproductie.pdf> (stating that coal used for producing electricity will not be permitted past January 1, 2030 and a transition period until December 31, 2024 for two of the oldest plants); see also Bart H. Meijer, *Netherlands to Ban Coal-Fired Power Plants in Blow to RWE*, REUTERS, May 18, 2018, <https://www.reuters.com/article/us-netherlands-energy-coal-idUSKCN1I1PI> (reporting the Netherlands' law shutting all coal-fired plants by 2030).

187. *Climate Agreement Timeline*, CLIMATE POLICY, www.government.nl/topics/climate-change/climate-policy (last visited Mar. 6, 2020).

188. See Eric Wiebes, Letter to the House of Representatives about the Proposal for a National Climate Agreement (Jun. 28, 2019), 1, 16, <https://www.government.nl/binaries/government/documents/parliamentary-documents/2019/06/28/letter-to-the-house-of-representatives-about-the-proposal-for-a-national-climate-agreement/Letter+to+the+House+of+Representatives+about+the+proposal+for+a+National+Climate+Agreement.pdf> (characterizing the Netherlands' goal as an "ambitious climate target").

189. See *id.* at 21–22 (establishing the adoption of the Climate Plan for the first time in 2019 and readoption at least once every five years).

190. Corte Suprema de Justicia [C.S.J.] [Supreme Court], Sala. Casación Civil, abril 5, 2019, M.P. Luis Armando Tolosa Villabona, STC4360-2018, 48 (Colom.).

rainforest and reduce GHG emissions, in accordance with international regulation.¹⁹¹

In *Juliana v. U.S.*, the U.S. Court for the District of Oregon rejected a motion to dismiss a claim asserting the U.S. Government's failure to take sufficient action to limit GHG emissions.¹⁹² The Court indeed assumed that "the right to a climate system capable of sustaining human life is fundamental to a free and ordered society."¹⁹³ On this basis, the Court considered that it can "make findings that define the contours of plaintiffs' constitutional rights to life and a habitable atmosphere and climate" and "declare the levels of atmospheric CO₂s which will violate their rights," so as to "direct the federal defendants to prepare and implement a national plan which would stabilize the climate system and remedy the violation of plaintiff's rights."¹⁹⁴ This action, however, is littered with hurdles. On November 21, 2018 the District Court of Oregon stayed the case, following an order by the U.S. Supreme Court to vacate the trial in light of a defendant's petition for a writ of mandamus in the Ninth Circuit Court of Appeals.¹⁹⁵ On February 7, 2019, the plaintiffs sought an injunction to prevent fossil fuel developments by the U.S. Government.¹⁹⁶ Several organizations have filed *amicus curiae* briefs to support the stance of the plaintiffs and the rights of future generations.¹⁹⁷

Other actions have been unsuccessful. In *Berth v. Secretary of State for Business, Energy and Industrial Strategy*, the Queen's Bench Division Administrative Court of the High Court of Justice considered U.K. legislation sufficient to achieve prospective GHG reduction targets by 2050, in accordance with the Paris Agreement.¹⁹⁸ In

191. C.S.J., Sala. Casación Civil abril 5, 2019, STC4360–2018, 49–50 (Colom.).

192. *Juliana v. United States*, 217 F. Supp. 3d. 1224, 1263 (D. Or. 2016).

193. *Id.* at 1250.

194. *Juliana v. United States*, 217 F. Supp. 3d. 1224, at 8 (D. Or. 2016) (No. 6:15-cv-01517-TC) (Findings & Recommendations).

195. *Juliana v. United States*, 217 F. Supp. 3d. 1224, at 1, 6 (D. Or. 2016) (No. 6:15-cv-01517-TC) (Order).

196. See Urgent Motion under Cir. Rule 27-3(b) for Preliminary Injunction at 1, *Juliana v. United States*, No. 18-36082 (9th Cir. Feb. 7, 2019) (Twenty-one children and youth filed an urgent motion for preliminary injunction).

197. See generally Brief for Juliana et al. as *Amicus Curiae* Supporting Plaintiffs-Appellees, 21, *Juliana v. United States*, No. 18-36082 (9th Cir. Feb. 7, 2019).

198. But see *Plan B Earth v. Sec'y of State for Bus. Energy, & Indus. Strategy*,

Greenpeace Nordic Association and Nature and Youth v. Ministry of Petroleum and Energy, a District Court in Oslo assessed the lawfulness of an oil exploitation concession in the Barents Sea by the Norwegian Government in light of Article 112 of the Norwegian Constitution, which establishes an intergenerational right to a healthy environment.¹⁹⁹ Besides the risk of spills in the Arctic environment, which was considered limited and duly assessed,²⁰⁰ the Court considered environmental damage arising out of CO₂ emissions. While GHGs due to combustion of exported oil and gas were regarded as irrelevant to determining Norwegian emissions,²⁰¹ the Court held that Norwegian CO₂ only constitutes 0.15 percent of the world emissions and an isolated marginal increase would not determine the unlawfulness of the concession.²⁰² This case is under appeal, but essentially demonstrates that judicial action addressing residual GHG emissions, rather than comprehensive policies or specific high-emission policies, is likely to fail.

In the *People's Climate Case*, in May 2015, the Court of Justice of the European Union rejected the request of ten families to compel the European Union to reduce GHG emissions beyond the set target of 40% by 2030, with respect to 1990 levels, in light of the rights of life, health, occupation, and property.²⁰³ On procedural grounds, the Court

[2018] EWHC 1892 (Admin), ¶¶ 42, 49 (deferring to the Secretary of State's discretion).

199. See generally *Föreningen Greenpeace Norden v. The Government of Norway Ministry of Petroleum & Energy*, No. 16-166674TVI-OTIR/06, Judgement, Oslo District, ¶ 1 (Jan. 4, 2018), <https://secured-static.greenpeace.org/norway/Global/norway/Arktis/Dokumenter/2018/Judgement%20-%204.%20jan%202017%20-%20Oslo%20District%20Court%20stamped%20version.pdf>.

200. See *id.* at 24–25 (“The impact assessment shows that a major sudden spill may have a serious environmental effect, but based on experience from Norwegian petroleum activities in other areas, the probability for such a spill is deemed low.”).

201. See *id.* at 21, 23–24, 45 (stating that the court assessed air emissions from petroleum as marginal contributions to total emissions).

202. See *id.* at 23–24 (noting that 28% of the Norwegian emissions stem from the petroleum industry); *id.* at 25 (considering consultation statements from the Norwegian Polar Institute and the Norwegian Environment Agency).

203. See Case T-330/18, *Carvalho v. European Parliament*, ECLI:EU:T:2019:324, <http://curia.europa.eu/juris/document/document.jsf?text=&docid=214164&pageIndex=0&doclang=en&mode=lst&dir=&occ=first&part=1&cid=3747108> (last visited

considered that the plaintiffs failed to demonstrate sufficient and direct damage.²⁰⁴ This approach contrasts with the decision of the Court of Appeal in *Urgenda*, whereby excessive GHG emissions entail a direct violation of the right to private life. The outcome could have been different, had action been brought under the right to a safe environment according to Articles 11 of the Treaty on the Functioning of the E.U. and 37 of the Charter of Fundamental Rights of the E.U., which are directly breached by excessive GHG emissions.

In sum, global jurisprudential developments reverse the initial regional jurisprudence of the IACoMHR in the *Inuit* case. Courts are progressively holding State and non-State legal persons responsible for not adequately implementing comprehensive climate policies in line with internationally set targets, notably based on the duty of care and the fundamental right to a healthy environment.²⁰⁵ A regional situation has thus prompted a global change that has critical potential to improve environmental protection in the Polar Regions, whereby regional and global governance reshape one another. In a context where international law-making is the result of interaction between domestic and international law,²⁰⁶ in January 2018 the Special Rapporteur on Human Rights and the Environment prompted the U.N. Human Rights Council (HRC) to consider the possibility of acknowledging the “human right to a healthy environment” in “a global instrument.”²⁰⁷ The step is particularly meaningful in the

Nov. 23, 2019) (stating that the applicants sought an injunction under contractual liability under Articles 268 and 340 of the TFEU).

204. *See id.* (declaring the relief sought by the plaintiffs inadmissible because they lacked *locus standi*).

205. *See generally* NON-U.S. CLIMATE CHANGE LITIGATION: HUMAN RIGHTS, <http://climatecasechart.com/non-us-case-category/human-rights/> (last visited Nov. 23, 2019) (for a comprehensive list of cases); *see also* Thomas A. Mensah, *Using Judicial Bodies for the Implementation and Enforcement of International Environmental Law*, in INTERNATIONAL LAW BETWEEN UNIVERSALISM AND FRAGMENTATION: FESTSCHRIFT IN HONOUR OF GERHARD HAFNER 797, 800, 807–08 (Isabelle Buffard et al. eds., 2008) (providing examples of courts accepting effective implementation and enforcement of international environmental law and expanding the scope of standing in environmental protection suits).

206. René Uruña, *Law-Making through Comparative International Law?: Rethinking the Role of Domestic Law in the International Legal System*, in INTERNATIONAL LAW-MAKING: ESSAYS IN HONOUR OF JAN KLABBERS, 161, 164 (Rain Liivoja & Jarna Petman eds., 2014).

207. Hum. Rts. Council, *Rep. on the Issue of Human Rights Obligations Relating*

context of general international law because it would allow action by individuals and groups against the State in fora, such as the HRC itself, that would be otherwise precluded, as the *Inuit* case demonstrates.

V. CONCLUSION

Predominant political practice and scholarly views address the Arctic and the Antarctic from a regional perspective, resisting a universal approach. Arguably, these paradigms are not necessarily exclusive but can rather complement and influence one another, whereby global governance takes regional peculiarities into account. Given the significant impact of climate change on the Arctic and the Antarctic, notably the fast melting of their ice caps, it is suggested that regulatory action should be underpinned by the principle of harmonization. Along the lines of a fundamental tenet recognized in VCLT Article 31 and of the systemically integrated approach proposed by the ILC, climate change should prompt a more universal approach to the governance of the Polar Regions. Fragmented regulation is indeed inefficient to preserve the exceptional natural environment of the Arctic and the Antarctic as well as its influence on the global environmental balance; a comprehensive approach is required.

Harmonization should take place at different levels. First, in the short term, the regulation of the Antarctic could provide a model for the Arctic, thus harmonizing the regulation applicable to both the Polar Regions. Arguably, the adoption of a comprehensive treaty for the Arctic based on the Antarctic model is a suitable solution that would allow sovereign claims to be “frozen” in the short term. Both Regions are indeed “Polar;” therefore, they are covered by ice and essential to preserving the global ecological balance. Second, in the long term, the Arctic and the Antarctic should be recognized as common heritage of mankind, which would allow environmental protection against climate change to be strengthened via global action. Third, the Polar Regions should be specifically harmonized with the UNFCCC and related agreements, including *ad hoc* provisions, as currently there is no adequate integration. Fourth, following the development of consistent

to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, ¶ 14, U.N. Doc. A/HRC/37/59 (Jan. 24, 2018).

case law addressing States and private entities emitting excessive GHGs, States should recognize the fundamental nature of the no-harm rule as a human right under international law, thus expanding available implementation mechanisms.

Considering the current status of international relations, it is not easy to implement a universal approach at the law-making level, but there are signs that such harmonization is not absolutely utopic. The Polar Regions, specifically the Inuit petition to the IACoMHR, triggered consistent case law on excessive GHG emissions, which has a turning point in *Urgenda*. Building on secondary rules, a process is progressively developing that is spreading throughout different jurisdictions worldwide, starting with The Netherlands, and is prompting an inclusive implementation of sustainability at the law-making level. Within such a context, it is of critical importance to acknowledge the key relevance of the Polar Regions from the standpoint of primary rules, immediately shifting the focus of the Paris Agreement towards a minimum and binding commitment not to exceed a 1.5 °C increase in global warming. Time is of the essence, but while the quick formation of a customary rule on sovereignty over the Antarctic cannot be absolutely excluded, political hurdles make it quite improbable that States will suddenly achieve consensus on a binding minimum 1.5 °C target to avoid irreversible damage to the Polar Regions and the global environment.