# 1

# Introduction

## 1.1 INTRODUCTION

On 10 November 1988, the oil tanker *Odyssey* broke apart in the North Atlantic, 700 miles off the Canadian coast. The *Odyssey* was carrying 132,000 tons of crude oil, which was released into the marine environment – making the *Odyssey* one of the largest oil spills to have ever occurred. Since the spill occurred on the high seas and the released oil did not reach the shores of any state, no response actions were taken.[1] This is not to suggest that environmental harm did not occur. It most certainly did.[2] However, the spill did not trigger the same legal response as one which damages the marine environment in areas within the national jurisdiction of states. The different legal treatment arises for several reasons. First, the harm itself was to the environment *per se*, as opposed to impacting the economic interests of a particular state or private actor. Even if the environmental harm that arose could be quantified and recognized as compensable, it is not clear what legal entities would have the right to recover for the loss suffered. The ambiguity surrounding the issue of legal standing to pursue claims for harms in areas beyond national jurisdiction (ABNJ) is a function of the nature of global commons, such as the high seas, whereby the harm is in one sense suffered by all states, perhaps by all humankind. However, in the absence of some legal actor that is authorized to act on behalf of these collective interests, legal responsibility is not easily recognized.

The legal rules governing liability for environmental harm in ABNJ have often been bracketed or placed outside the boundaries of the more familiar terrain of inter-state liability rules and practices.[3] Emblematic of this gap is the lack of progress on realizing

[1] CEDRE, 'Odyssey – Spill Report', online <wwz.cedre.fr/en/Resources/Spills/Spills/Odyssey> accessed 15 October 2022.

[2] Advisory Committee on Marine Pollution of the Seas of the International Council for the Exploration of the Sea, *1990 Marine Pollution Yearbook* (Pergamon 1990) 9.

[3] For example, the civil liability rules and processes governing spills from oil transport explicitly exclude environmental harm to areas beyond national jurisdiction: see International Convention on Civil Liability for Oil Pollution Damage (adopted 29 November 1969, entered

the objective of Principle 13 of the Rio Declaration on Environment and Development, which states in part that '[s]tates shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction'.[4] Article 235 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) similarly calls on states to cooperate 'in the … further development of international law relating to responsibility and liability for the assessment of and compensation for damage' caused by pollution to the marine environment.[5] Yet, development of liability rules addressing areas beyond national jurisdiction very much remains unfinished business.

This book, in examining the existing, emerging and prospective international legal rules addressing liability for environmental harm to areas beyond national jurisdiction, takes as its starting point the increased salience of addressing the impacts on the environment in areas beyond the national jurisdiction of any state – many miles out to sea, in the ocean depths, or in the Antarctic.[6] This salience is a function of the expanding pressures on the environment in areas beyond national jurisdiction flowing from the increased intensity of ongoing economic activities in these areas and the emergence of new environmental risks from novel activities, such as deep seabed mining and marine geoengineering. Reports of the impacts of marine debris, overfishing and pollution from shipping and from offshore resource exploitation, amongst others, challenge policymakers to act effectively to prevent environmental harm and to restore ecosystems and ecosystem services when harm occurs. These challenges are compounded by climate change and widespread biodiversity loss, as well as increasing recognition of the fundamental role that oceans and the Antarctic play in maintaining earth systems.[7] Liability – by which

into force 19 June 1975) 973 UNTS 3 (1969 Oil Pollution Liability Convention), amended by the 1992 Protocol to Amend the 1969 International Convention on Civil Liability for Oil Pollution Damage (adopted 27 November 1992, entered into force 30 May 1996) 1956 UNTS 255 (1992 Oil Pollution Liability Convention) art II. The 1969 International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties only affirms the right of coastal states to take such measures on the high seas as may be necessary to prevent, mitigate or eliminate danger to its coastline or related interests from pollution by oil after a maritime casualty but does not address liability *per se*. See International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (adopted 29 November 1969, entered into force 6 May 1975) 970 UNTS 211 (Intervention Convention).

4 Report of the United Nations Conference on Environment and Development (1992) UN Doc A/Conf.151/26/Rev.1, Annex I (1992 Rio Declaration), principle 13.

5 United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397 (UNCLOS) art 235.

6 ES Brondizio, J Settele, S Díaz and HT Ngo (eds), *Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (IPBES Secretariat 2019); Intergovernmental Panel on Climate Change (IPCC), *Special Report on the Ocean and Cryosphere in a Changing Climate* (CUP 2019).

7 IPCC, *Special Report* 2019 (n 6). See also Will Steffen and others, 'Planetary Boundaries: Guiding Human Development on a Changing Planet' (2015) 347 (6223) Science 736.

we mean to refer to the rules and procedures governing compensation to the international community, states or other affected persons for damage caused to environment – offers a crucial element for governing the global commons by strengthening legal accountability for environmental risks and providing resources for ecological restoration.

Liability for environmental damage has been addressed in a piecemeal fashion in international environmental law. Specific rules on state liability for environmental damage remain relatively underdeveloped, beyond the general rules on state responsibility. While rules on state responsibility apply as a matter of principle to wrongful acts occasioning significant environmental harm in areas beyond national jurisdiction, the legal framework of state responsibility provides an incomplete and uncertain response.[8] Numerous agreements have been adopted establishing civil liability regimes in respect of various sectoral activities and the principles governing compensation for environmental harm to areas within national jurisdiction under such agreements, such as those governing oil pollution from tankers, are well understood.[9] However, many of the civil liability regimes have not entered into force, and coverage of environmental damage outside of areas under national jurisdiction remains inadequate. The potential transposition of these rules to areas that are not subject to national jurisdiction, or the development of alternative approaches, raises a unique set of legal questions that has not previously been the subject of any extended analysis.[10]

Some commentators have questioned whether liability and compensation approaches are appropriate for the global commons,[11] or as a tool for environmental

[8] See Phoebe Okowa, 'Responsibility for Environmental Damage' in Malgosia Fitzmaurice, David M Ong, and Panos Merkouris (eds), *Research Handbook on International Environmental Law* (Edward Elgar 2010) 303; Alan E Boyle, 'Remedying Harm to International Common Spaces and Resources: Compensation and Other Approaches' in Peter Wetterstein (ed), *Harm to the Environment: The Right to Compensation and the Assessment of Damages* (OUP 1997) 83; and Katja Creutz, *State Responsibility in the International Legal Order: A Critical Appraisal* (CUP 2020) 19, 163–166.

[9] See Jan Albers, *Responsibility and Liability in the Context of Transboundary Movements of Hazardous Wastes by Sea* (Springer-Verlag 2015); Julian Barboza, *The Environment, Risk and Liability in International Law* (Brill 2011); Michael Faure (ed), *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (CUP 2016); Wu Chao, *Pollution from the Carriage of Oil by Sea: Liability and Compensation* (Kluwer Law International 1996).

[10] See Kathy Leigh, 'Liability for Damage to the Global Commons' (1992) 14 Aust YBIL 129; Meher Nigar, 'Environmental Liability and Global Commons: A Critical Study' (2018) 60(2) IJLMA 435; Xue Hanqin, *Transboundary Damage in International Law* (CUP 2003) 191–266; Malgosia Fitzmaurice, 'Liability for Environmental Damage Caused to the Global Commons' (1996) 5 RECIEL 305; Nicholas Gaskell, 'Liability and Compensation Regimes: Pollution of the High Seas' in Robert C Beckman, Millicent McCreath, J Ashley Roach and Zhen Sun (eds), *High Seas Governance: Gaps and Challenges* (Brill 2018) 229–272.

[11] Boyle (n 8) 99–100; Louise de La Fayette, 'The Concept of Environmental Damage in International Liability Regimes' in Michael Bowman and Alan Boyle (eds), *Environmental Damage in International and Comparative Law: Problems of Definition and Valuation* (OUP 2002) 149, 187–188.

protection.[12] As the legal response to the *Odyssey* oil spill suggests, applying liability rules to the global commons does raise complex questions concerning the kinds of harm that ought to be compensable and how any damages are to be calculated, the standards of behaviour that ought to attract legal responsibility and which entities have the standing to pursue legal remedies for harm to the commons environment. The emerging patterns of activities in the global commons such as deep seabed mining, bioprospecting and scientific research engage a diverse group of international, state and non-state actors, who could attract liability for their operational activities, but also for their failure to provide proper oversight of these activities. In addition to raising novel legal questions, liability rules implicate a range of practical concerns about how to ensure the availability of adequate funds for compensation (through insurance or compensation funds) and access to dispute settlement forums to resolve complex, multi-party incidents. It is these questions that this book sets out to address.

## 1.2 DEFINING THE GLOBAL COMMONS OR AREAS BEYOND NATIONAL JURISDICTION

The phrase 'commons' has its origins in medieval times when pastures were reserved for the joint use of villagers, and eventually were transferred to private ownership in various stages between the sixteenth and nineteenth centuries.[13] From a legal perspective, the 'commons' denotes an area or resources that are shared amongst a group and to which access cannot be denied to a member of the group. It has also been defined as 'a resource to which no single decision-making unit holds exclusive title' or as a 'resource domain in which common pool resources are found'.[14] Global commons are differentiated based on the identity of the relevant decision-making units, states and the scale of the system (involving all states). Thus, global commons have been defined as 'resource domains to which all nations have legal access'.[15] This definition focuses on the commons as a category of property. Our interest extends beyond the legal implications of ownership and includes questions of authority or jurisdiction. In other words, we are interested in the structure of liability rules in areas where no state has the exclusive right to exercise authority over the area or resources located in these areas which are also described as areas beyond national jurisdiction or ABNJ. We use the term 'global commons' in this book in the

[12] Jutta Brunnée, 'Of Sense and Sensibility: Reflections on International Liability Regimes as Tools for Environmental Protection' (2004) 53(2) ICLQ 351.
[13] Jerome Blum, *The End of the Old Order in Rural Europe* (Princeton University Press 1978) (describing transformation of common property through enclosures). But see Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (CUP 1990) ch 3 (describing enduring communal tenure systems).
[14] Susan Buck, *The Global Commons: An Introduction* (Island Press 2012) 5.
[15] ibid 5.

limited sense of the coverage of the book, and interchangeably with the term 'areas beyond national jurisdiction'.

The scholarly literature generally considers there to be four distinct global commons systems: Antarctica, the oceans, the atmosphere and outer space.[16] Our interest, and the focus of this book, is on two of these systems, the Antarctic and the oceans. We address the latter under the distinct legal regimes governing the high seas and deep seabed, owing to the unique status of each. The focus on these three interrelated global commons, that is, Antarctica, the deep seabed and the high seas, is deliberate. Each has a distinct legal regime governed by international law which addresses the legal nature of the various commons and their respective governance in unique ways. An underlying premise of this book is that examining these different contexts provides a more complete picture of how liability rules apply to areas beyond national jurisdiction, and allows for cross-regime comparison. This latter point allows the analysis to engage more deeply with questions of how the differing institutional and legal settings influence liability rules and procedures.

Because our interest is in examining how international law addresses liability for environmental harm to areas not under state jurisdiction, we exclude outer space and the atmosphere. The existing liability rules associated with space activity focus on impacts to state territory, and not to areas of the environment beyond state jurisdiction.[17] While a number of commentators have argued that the atmosphere is properly viewed as a form of commons, as a legal classification this view is contested.[18] In any event, for the purposes of addressing liability for environmental harm, it is the impact of climate change on the environment of commons areas that is of interest.[19] Thus, global atmospheric change is considered to the extent that certain impacts of climate change constitute a driver of environmental damage in the three global commons areas that are addressed.

To situate the examination of the key elements of the liability rules and processes examined in this book, we provide a preliminary overview of each of the three key

[16] ibid; John Vogler, *The Global Commons: A Regime Analysis* (Wiley & Sons 1995).

[17] Convention on International Liability for Damage Caused by Space Objects (adopted 29 November 1971, entered into force 1 September 1972) 961 UNTS 187.

[18] See discussion in ILC, 'Second Report on the Protection of the Atmosphere, by Shinya Murase, Special Rapporteur' (2015) UN DocA/CN.4/681, para 56, noting that '[a]lthough the concept of the atmosphere, which is not area-based, does not conform to that of "areas beyond the limits of national jurisdiction", it is nonetheless clear that the atmosphere existing above those areas is now covered by principle 21 of the Stockholm Declaration'; the International Law Association Committee on Legal Principles relating to Climate Change referred to the 'global climate system' as a 'common natural resource' ILA Resolution 2/2014 *Declaration of Legal Principles Relating to Climate Change* <www.ila-hq.org/en/committees/the-legal-principles-relating-to-climate-change> accessed 12 October 2022.

[19] Boyle (n 8) 86 'in so far as we can point to "harm" in the context of climate change or loss of biological diversity this will of necessity either be harm which affects states, or, in the case of oceans and Antarctica, it will be harm to common spaces and their ecology. It is not plausible to conceive of "harm" to the climate or biodiversity which has no such impacts'.

commons regimes, addressing their respective legal status as global commons, institutional structures, the principal activities being undertaken that pose environmental risks and the principal treaty rules addressing responsibility and liability for environmental harm.

### 1.2.1 *Antarctic*

#### 1.2.1.1 Legal Status as Global Commons

Antarctica lies entirely within the South Pole and an ice sheet covers 98 per cent of the continent. It forms about 10 per cent of the earth's land surface. Since its initial discovery in the eighteenth century, seven states (Argentina, Australia, Chile, France, New Zealand, Norway and the United Kingdom) have asserted sovereignty over some portion of the Antarctic on various grounds including discovery, contiguity and occupation.[20]

Antarctica is governed by its own, relatively self-contained legal regime established under the Antarctic Treaty System, consisting of the 1959 Antarctic Treaty,[21] the 1972 Convention for the Conservation of Antarctic Seals,[22] the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR);[23] and the 1991 Protocol on Environmental Protection to the Antarctic Treaty (1991 Antarctic Protocol),[24] under which a series of Annexes has been adopted, including Annex VI addressing liability.[25] The preamble of the 1959 Antarctic Treaty recognizes that 'it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord'.[26] The Antarctic Treaty aimed to address the major concerns in the management of Antarctica, namely, the demilitarization of Antarctica, the promotion of scientific research

[20] Christopher C. Joyner, *Governing the Frozen Commons: The Antarctic Regime and Environmental Protection* (University of South Carolina Press 1998) 46.
[21] Antarctic Treaty (adopted 1 December 1959, entered into force 23 June 1961) 402 UNTS 71.
[22] 1972 Convention for the Conservation of Antarctic Seals (adopted 1 June 1972, in force 7 April 1982) 11 ILM 251. The 1972 Convention for the Conservation of Antarctic Seals is no longer operational as there is no more commercial sealing in the Antarctic. Commercial whaling has also been phased out in the Southern Ocean because of a moratorium adopted in 1982 under the International Convention for the Regulation of Whaling, although Japan has continued to whale, ostensibly for purposes of scientific research which is allowed under the ICRW.
[23] Convention on the Conservation of Antarctic Marine Living Resources (adopted 20 May 1980, entered into force 7 April 1982) 1329 UNTS 47 (CCAMLR).
[24] Protocol on Environmental Protection to the Antarctic Treaty (adopted 4 October 1991, entered into force 14 January 1998) (1991) 30 ILM 1461 (1991 Antarctic Protocol).
[25] Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty on Liability Arising from Environmental Emergencies (adopted 17 June 2005) (2006) 45 ILM 5 (Liability Annex).
[26] Antarctic Treaty 1959 (n 21) preamble.

and to hold all claims to territorial sovereignty in abeyance.[27] These sovereignty claims are strongly contested[28] and, while the terms of the 1959 Antarctic Treaty do not displace these claims, they do not allow them to be asserted through acts or activities taking place while the Treaty remains in force.[29] Moreover, Argentina, Australia, Chile, France, New Zealand, Norway and the United Kingdom have made maritime claims, although these claims have not been accepted by the international community and are *prima facie* held in abeyance under the 1959 Antarctic Treaty.[30]

While much of the Antarctic remains subject to unresolved and contested claims of sovereignty,[31] the current approach to the governance of the Antarctic is to treat it as a form of commons. The commons status of the Antarctic is supported in practice by, *inter alia*, the approach to freedom of scientific research, and the designation of the Antarctic 'as a natural reserve, devoted to peace and science' under the 1991 Antarctic Protocol.[32] The 1959 Antarctic Treaty applies to the area south of 60 degrees South Latitude including all ice shelves but article VI provides that nothing should affect states' rights under international law with regard to the high seas (which would include UNCLOS and other rules of customary international law).[33]

#### 1.2.1.2 Institutional Arrangements

The Antarctic Treaty System is decentralized and there is no separate international organization with independent legal personality. Instead, the Antarctic Treaty provides for governance through periodic consultative meetings of the parties (Antarctic

[27] ibid arts I, III–IV.

[28] For example, Joyner argues that not all of Antarctica rests on *terra firma* and does not qualify as *terra nullius* in its entirety and invites the question as 'to whether frozen water can qualify as having the same legal status as land for purposes of acquiring valid claims to sovereign title over territory'. Further he contends that 'true and effective occupation, demonstrated through permanent settlement, remains to be convincingly demonstrated in Antarctica by any claimant government' and '[s]overeignty claims legally premised on Antarctica being *res nullius* are therefore questionable'. Joyner, *Governing the Frozen Commons* (n 20) 46.

[29] Antarctic Treaty (n 21) art IV. Despite the freezing of the claims, claimant states have sought to exercise their rights under UNCLOS to claim maritime entitlements from their territory and this has been objected to by other states on the basis that their sovereignty claims have no basis in international law: Karen N Scott and David VanderZwaag, 'Polar Oceans and Law of the Sea' in Donald Rothwell and others (eds), *The Oxford Handbook of the Law of the Sea* (OUP 2015) 724, 738–739.

[30] Both France and Australia have proclaimed an Exclusive Economic Zone off their Antarctic territories and all seven states have either submitted preliminary information, partial submissions or full submissions to extended continental shelf claims before the Commission on the Limits of the Continental Shelf: Scott and VanderZwaag (n 29).

[31] See, for example, Joyner, *Governing the Frozen Commons* (n 20) 46–47; Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (4th edn, CUP 2018) 12.

[32] 1991 Antarctic Protocol (n 24) art 2.

[33] 1959 Antarctic Treaty (n 21) art VI.

Treaty Consultative Meetings or ATCMs) and other informal arrangements. It established a two-tiered system of membership, the Antarctic Treaty Consultative Parties (ATCP) and non-consultative parties. The ATCP consist of the original twelve members plus additional states that demonstrate their interest in the region by conducting substantial scientific research activity there, such as the establishment of a scientific station or the dispatch of a scientific expedition.[34] There are presently twenty-nine ATCP members that are entitled to attend and participate in decision-making in annual ATCMs. Non-consultative parties, which now number twenty-five, are allowed to attend ATCMs but cannot vote at meetings. Decisions, Resolutions and Measures are adopted at the ATCM by consensus to implement both the Antarctic Treaty and the 1991 Antarctic Protocol but only Measures are legally binding on Consultative Parties once they have been approved by all Consultative Parties. The Committee on Environmental Protection was established under the 1991 Antarctic Protocol and meets concurrently with the ATCM to address matters relating to environmental protection and management and provide advice to the ATCM. The other relevant institutional body is the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR Commission) which is an international commission that establishes conservation measures for the use of marine living resources in the Antarctic.

#### 1.2.1.3 Resources, Activities and Risks

From a resource perspective, the Antarctic continent itself does not contain many readily exploitable resources due to its inhospitable conditions. That said, it is estimated that about three-quarters of the world's total supply of fresh water is trapped in the polar ice caps and may present a future exploitable resource.[35] The most promising economic resources lie in the Antarctic Ocean, home to an abundance of marine living resources such as krill, seals, whales and squid.[36] While the 1959 Antarctic Treaty preserves freedoms of the high seas, including freedom of fishing (in other words, an open-access regime), marine living resources are governed by CCAMLR and the conservation measures issued by the CCAMLR Commission.

There have been reports of minerals and hydrocarbon resources in the Antarctic Ocean but their existence and extent has been subject to much debate.[37] Indeed, developing states mooted the idea that the common heritage of humankind principle (discussed in Section 1.2.2) should also be applied to resources in

[34] ibid art IX(2).
[35] John Vogler, *The Global Commons: Environmental and Technological Governance* (2nd edn, Wiley 2000) 76.
[36] Christopher C Joyner, 'The Antarctic Legal Regime: An Introduction' in Christopher C Joyner and Sudhir K Chopra (eds), *The Antarctic Legal Regime* (Martinus Nijhoff 1988) 2.
[37] ibid 2; Vogler, *The Global Commons: Environmental and Technological Governance* (n 35) 76.

Antarctica.[38] However, it was agreed that Antarctica would be excluded from negotiations in the Third UN Conference on the Law of the Sea (UNCLOS III) provided that it would be discussed by the ATCPs after UNCLOS III was concluded.[39] In 1988, the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA), which provided a regime for the exploration and exploitation of mineral resources, was adopted.[40] CRAMRA, however, never entered into force, due to opposition from environmental non-governmental organizations (NGOs) and states, such as France and Australia, bolstered by a renewed emphasis on the importance of conservation of the Antarctic. CRAMRA was ultimately displaced by the 1991 Antarctic Protocol which, amongst other things, prohibits any activity relating to mineral and oil resources other than scientific research within the fifty years initial timeframe of the Agreement.[41] Until 2048, the 1991 Antarctic Protocol can only be modified by unanimous agreement of all the Consultative Parties of the Antarctic Treaty and the prohibition of mineral resource activities can only be removed if a binding legal regime on Antarctic mineral resources is in force.[42]

Other activities that take place in Antarctica not directly related to resource exploration and exploitation include scientific research and small-scale, but growing, tourist activities. In relation to scientific research, there has been developing interest in bioprospecting for genetic resources in Antarctica.[43] It is important to note that the Antarctic Treaty Regime affirms the rights of both state and non-state operators to conduct activities in Antarctica. Notwithstanding, the moratorium on mining activities and limitation of activities, there remain risks to the Antarctic environment, chiefly from the operation of scientific research stations, associated flights and, increasingly, tourism-related shipping which raises risks relating to fuel oil spills, a risk which was manifested in 1989 when the *Bahia Paraiso*, an oil tanker ran aground three kilometres from Palmer Station with 810 tons of diesel oil aboard.[44] There may also be risks related to fisheries and associated ship traffic. There are, of course, much broader risks to the Antarctic environment arising from climate change.[45]

[38] See, for example, statement of President of Malaysia, Mahathir Bin-Mohammad, in the United Nations General Assembly that there was a strong case for Antarctica to be the common heritage of mankind: United Nations General Assembly Official Records, 37th Session, U.N. Doc/A/37/P.V. 10 (1982) 17–20 (Statement of Mahathir Bin-Mohammad).

[39] Buck (n 14) 62.

[40] Convention on the Regulation of Antarctic Mineral Resource Activity, 2 June 1988 27 ILM 868 (not yet entered into force) (CRAMRA).

[41] 1991 Antarctic Protocol (n 24) arts 7, 25 (5).

[42] ibid art 25(5).

[43] Dagmar Lohan and Sam Johnston, *Bioprospecting in Antarctica* (UNU-IAS, 2005), online <www.cbd.int/financial/bensharing/g-absantarctic.pdf> accessed 14 October 2022.

[44] CEDRE, 'Bahia Paraiso – Spill report', online <wwz.cedre.fr/en/Resources/Spills/Spills/Bahia-Paraiso> accessed 13 October 2022.

[45] Intergovernmental Panel on Climate Change, *Special Report on the Ocean and Cryosphere in a Changing Climate* (CUP 2022) <www.ipcc.ch/srocc/> accessed 13 October 2022. ATCM XLIV – CEP XXIV Report Volume I, Resolution 4 (2022) Antarctic Climate Change and the

#### 1.2.1.4 Existing Environmental Protection and Liability Framework

The 1959 Antarctic Treaty contains no provisions on the protection of the terrestrial or marine environment in Antarctica. However, the ATCM created a vast array of recommendations which included regulation of the environment, although these were non-binding and prompted concerns about compliance.[46] In the mid-1970s, in line with increasing global awareness of the environment and the use of Antarctic tourist activities and mineral resource surveys, the idea of Antarctica as a 'world park' was mooted by countries such as New Zealand and by NGOs.[47] The 'world park' agenda of conservation played an instrumental role in shifting focus from exploitation to environmental protection and also led to the rejection of CRAMRA. This provided the catalyst for negotiations of the 1991 Antarctic Protocol.

The 1991 Antarctic Protocol marked a 'qualitative change in the approach to environmental issues in the Antarctic and replaces the [previous] ad hoc and unwieldy network of measures'.[48] In addition to designating 'Antarctica as a natural reserve, devoted to peace and science', it obliges states to commit to 'comprehensive protection of the Antarctic Environment and dependent and associated ecosystems'.[49] Article 3 (1) states,

> The protection of the Antarctic environment and dependent and associated ecosystems and the intrinsic value of Antarctica, including its wilderness and aesthetic values and its values as an area for the conduct of scientific research, in particular research essential to the understanding of the global environment, shall be fundamental considerations in the planning and conduct of all activities in the Antarctic Treaty area.

The Protocol takes an ecosystem approach, and requires parties to cooperate in planning and conducting activities in the Antarctic Treaty Area, undertake environmental impact assessments (EIAs) for potentially harmful activities according to detailed requirements as well as contingency planning for emergencies.[50] It also establishes the Committee for Environmental Protection (CEP) as an expert advisory body to provide advice and formulate recommendations to the ATCM.[51] The Protocol has six annexes: Annex I (EIA), Annex II (Flora and Fauna), Annex III (Waste Disposal), Annex IV (Marine Pollution), Annex V (Protected Areas) and Annex VI (Liability Annex). Activities are subject to environmental scrutiny, largely

Environment: A Decadal Synopsis and Recommendations for Action Report <https://documents.ats.aq/ATCM44/fr/ATCM44_fr011_e.pdf>.

[46] Vogler, *The Global Commons: Environmental and Technological Governance* (n 35) 85.

[47] ibid 82.

[48] L Elliot, *International Environmental Politics: Protecting the Antarctic* (Palgrave MacMillan 1994) 196.

[49] 1991 Antarctic Protocol (n 24) art 2.

[50] ibid arts 8 and 15; Annex I (EIAs).

[51] ibid arts 11, 12, 15.