9

Conclusion

9.1 INTRODUCTION

The puzzle that sits at the heart of liability for environmental harm in the global commons is that there is broad acceptance of the underlying principle that states and non-state actors that contribute directly or indirectly to environmental harm are legally responsible for the consequences of that harm. This principle is captured in broad strokes in the no-harm principle, and more specifically in Principle 13 of the Rio Declaration and article 235 of the 1982 UN Convention on the Law of the Sea (UNCLOS) – both of which call for the development of liability rules to address environmental harm in areas beyond national jurisdiction (ABNJ).[1] Yet the implementation of this principle has proven to be elusive. So much so that when the International Law Commission (ILC) started work on liability for environmental harm, it simply bracketed the issue of liability for environmental harm in the global commons. Forty years later, the issue of environmental harm to the ocean commons is widely acknowledged as a crisis;[2] prompting, amongst other things, the negotiation of a new treaty specifically addressing environmental protection of areas beyond national jurisdiction. Yet even within the context of this negotiation, there is little appetite amongst states to develop liability rules and procedures.

[1] United Nations General Assembly, 'Report of the United Nations Conference on Environment and Development' (3–14 June 1992) UN Doc A/Conf.151/26/Rev.1 (1992) Annex I (1992 Rio Declaration); United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397 (UNCLOS).

[2] Declaration of the 2022 United Nations Oceans Conference: Our Ocean our future, our responsibility, 17 June 2022, UN Doc. a/conf.230/2022/12, noting '[w]e are therefore deeply alarmed by the global emergency facing the ocean. Sea levels are rising, coastal erosion is worsening, and the ocean is warmer and more acidic. Marine pollution is increasing at an alarming rate, a third of fish stocks are overexploited, marine biodiversity continues to decrease and approximately half of all living coral has been lost, while alien invasive species pose a significant threat to marine ecosystems and resources'.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

The continuing reluctance of states to address liability suggests that the international community has made little progress over the past forty years towards realizing the goals of developing liability rules for ABNJ. Indeed, if one looks solely at the limited number of ABNJ specific liability regimes, and the explicit exclusion of ABNJ from other sector-specific civil liability regimes, there may be good reason to question whether liability is a useful tool to address environmental harm in ABNJ. This was the conclusion of Alan Boyle in 1997, who suggested that criminal responsibility may be a more realistic pathway than state responsibility or civil liability approaches.[3] Jutta Brunnée expressed similar reservations in 2004, noting that 'it seems unlikely that liability regimes will play a significant role as a tool for environmental protection'.[4]

Our conclusion on this threshold question is more optimistic but remains equivocal. There have been legal advances in approaches to damages and standing that provide important building blocks for the extension of liability to areas beyond national jurisdiction. In addition, the international community has developed some legal innovations within specific regimes that should have more general application to the ABNJ context. At the same time, there remain significant challenges that are scientific, legal and political in nature that must be overcome if liability is to meaningfully contribute to the environmental management of the global commons. In the discussion that follows we take stock of the key developments identified in the preceding chapters and the substantial challenges that remain. We then address what we believe are some potential pathways forward towards more effective liability rules in ABNJ.

9.2 KEY DEVELOPMENTS

9.2.1 *The Purpose of Liability Rules*

As a starting observation, we note that the demand for liability in ABNJ is likely, in the short- to medium-term, to relate more to the environmental protection and prevention goal of liability regimes, than the compensation and loss allocation goal.

[3] Alan 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 Assessment of Damages* (OUP 1997) 83–100. There is growing support for making serious breaches of environmental obligations an international crime. For example, a non-governmental Independent Expert Panel was established to develop the definition of ecocide and in 2021, the Panel defined it as 'unlawful or wanton acts committed with knowledge that there is substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts': See <www.stopecocide.earth/expert-drafting-panel> accessed 30 September 2022.

[4] Jutta Brunnée, 'Of Sense and Sensibility: Reflections on Environmental Liability Regimes as Tools for Environmental Protection' (2004) 53 ICLQ 351, 367 (addressing environmental harm generally, not simply to areas beyond national jurisdiction).

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

The emphasis on environmental protection is in keeping with the environmentally focused approach in the 1991 Antarctic Protocol and in article 235 of UNCLOS but is also supported by several conditions present in the ABNJ context. First, there is limited exposure for private losses in ABNJ.[5] This is a function of both the nature and intensity of activities currently being carried out in ABNJ, and the limited presence of private legal rights in ABNJ. These rights are not wholly absent. There are, for example, private rights in relation to deep seabed mining, submarine cables and in fisheries that may affect or be affected by environmental damage. Second, while there is scope for public losses that require compensation, for example, for reinstatement and restoration costs, these relate primarily to the environmental protection objective of liability.

The demand for liability rules and processes as an element of environmental prevention reflects the need to promote due care from both states and operators in connection with risky activities. Liability, if properly structured, can play an important role in providing incentives for environmentally sound behaviour. The identification, by the Seabed Disputes Chamber (SDC), of the state obligation to provide recourse under article 235 as an element of due diligence in relation to the duty to protect and preserve the marine environment indicates a recognition of liability as an integral element of environmental management.[6] This is an important finding that ought to be understood as forming part of the customary rules concerning environmental due diligence.

Liability rules are intended to play a crucial role in providing funds for the restoration of the environment. While the duty to prevent harm is prospective, this aspect of liability relates directly to the duty of responsible parties to restore the environment, which flows from the duty to make reparations.[7] As discussed in Chapters 2 and 3, the obligation to make reparations is qualified by a principle of proportionality. In the absence of reparations, environmental harm to ABNJ is externalized and borne by the international community as a whole and not by the responsible party, contrary to the polluter-pays principle.

There are several important implications that flow from the prioritization of the environmental protection goal of liability in ABNJ over the compensation goal. First, focusing on environmental purposes provides a stronger basis for strict liability, and operation of the polluter-pays principle, since the underlying goal is directed more to the question of remedying harm than to correcting (morally) wrongful acts.

[5] 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).

[6] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion of 1 February 2011) ITLOS Reports 2011 (*Activities in the Area* Advisory Opinion), paras 139–140.

[7] ILC, 'Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities, with Commentaries' (2006) UN Doc A/61/10 (Draft Principles) principle 3, commentary 2.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

This is reflected in the approach to operator liability under the Antarctic Liability Annex, but not under the current approach to contractor liability under the Exploration Regulations for deep seabed mining, which still requires a wrongful act.[8] Second, because the emphasis on liability in ABNJ is on the environment itself, irrespective of the identity of the victim, the approach to standing ought to reflect the community interests in the shared environmental resources and functions. Finally, focusing on the environment provides justification for a more inclusive approach to damages that includes damages to the environment *per se*, and not simply the instrumental value of environmental resources to identified victims.

Turning from the purposes of liability rules to their substance, we identified (in Chapter 2) several potential approaches to environmental liability that may be relevant to addressing environmental harm in ABNJ. The first of these is what we termed 'unharmonized domestic liability'. We identified numerous barriers, including standing and immunity, jurisdiction (subject matter and personal) and choice of law issues that indicate that domestic courts are poorly suited to adjudicate on liability for environmental harms arising in ABNJ. Given the near absence of private interests affected by environmental incidents in ABNJ, there has been little recourse to domestic courts. The predominance (at this time) of public interests in the ABNJ environment indicate that liability approaches in this context will require state cooperation through state responsibility or civil liability approaches.

9.2.2 *State Responsibility*

There have been several developments in the law of state responsibility that improve the prospects for state liability for environmental harm, although the limits of due diligence and the politics of state responsibility will likely render state responsibility a secondary approach. The first significant development is the elaboration of the due diligence obligation on states to protect and preserve the environment. The obligation for states to exercise reasonable care to prevent activities under its jurisdiction from harming the environment, including the environment in ABNJ, has a long pedigree in international environmental law. However, the Advisory Opinions in the *Activities in the Area* and *Sub-Regional Fisheries Commission* cases, and the decision in the *South China Sea Arbitration* clarify a number of critical points. First, these cases make it clear that states are under an obligation to 'exercise effective jurisdiction and control in administrative matters', which includes obligations to investigate and take necessary actions, if appropriate.[9] There is a clear emphasis on the

[8] See discussion Chapter 5, Section 5.4.2.

[9] *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)* (Advisory Opinion of 2 April 2015) ITLOS Reports 2015 (SRFC Advisory Opinion), para119; *The South China Sea Arbitration (The Republic of Philippines v The People's Republic of China)* (Award) (2016) Oxford Reports on ICGJ 495 (PCA) (*South China Sea Arbitration*), paras 964–966.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

responsibility of states to actively oversee activities that are formally under their control, whether through sponsoring state or flag state jurisdiction. This was particularly evident in the *Activities in the Area* Advisory Opinion, where the SDC was not willing to lessen the responsibilities of sponsoring states considering the presence of the ISA or in light of the sponsoring state's development status. In the *South China Sea Arbitration* knowledge of illegal activities was an important factor,[10] although the due diligence standard generally suggests that wilful blindness cannot act as a defence. As the ICJ in the *Pulp Mills* case noted, a degree of active vigilance is required.[11]

This latter point is especially significant in the ABNJ context because of the remoteness of activities and their impacts. When considered in concert with the dicta in the *Activities in the Area* Advisory Opinion concerning the application of the precautionary principle to due diligence,[12] a rigorous standard of oversight of risky activities is clearly emerging in international law. This standard requires an appreciation of the risks involved in activities undertaken, and must account for scientifically uncertain, yet plausible, risks. The content of due diligence must account for scientific and technological advances, which, given the rapidly changing knowledge environment in ABNJ, suggests an obligation to incorporate new knowledge and new technologies that will improve oversight and monitoring of remote activities.

The second substantive legal development of relevance is the more inclusive and comprehensive approach to damages. There are two advances of note. First, the clear acceptance of 'pure environmental losses' as a compensable head of damage will more effectively capture the harm in ABNJ, which in many cases will not have a substantial economic component or be subject to restoration. As a matter of principle, these losses are real, and as detailed in Chapter 3, are increasingly understood as compensable. The practice of the International Oil Pollution Compensation Funds (IOPC Funds) of not compensating these losses is a policy decision that is out of step with the prevailing approaches in international law.[13] While valuation of pure environmental losses will remain a significant challenge, recognizing this form of environmental damage will facilitate methodologies and approaches that reflect the actual losses – the challenge is an evidentiary one, not a substantive legal barrier.

The impracticality or disproportionality of restoration and reinstatement measures presents a further bar to recovery. A second development that has potential to

[10] *South China Sea Arbitration*, para 962.

[11] See *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14, para 197 ('It is an obligation which entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement . . .').

[12] *Activities in the Area* Advisory Opinion (n 6), para 131.

[13] *Guidelines for Presenting Claims for Environmental Damage* (2018 edn, International Oil Pollution Compensation Funds, 2018), para 4.1; see also discussion, Chapter 3, Section 3.2.2.5.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

contribute to effectively addressing environmental losses is the acceptance of other proxies for valuing and addressing unremediated harms. For example, the approach under the Antarctic Liability Annex is to require operators to undertake response measures, but in the face of a failure to do, there is a further obligation to pay the equivalent costs of the response measure (not undertaken) into a fund. In effect, the estimated cost of restoration becomes a proxy for the loss to the environment. The funds are then available to address future environmental emergencies.

The use of proxies is also reflected in the emerging practice of using environmental offsets or equivalent ecosystem components as an alternative to restoration measures. The concept of offsets as a response to ecosystem losses has extensive recognition within biological diversity approaches and is acknowledged as a potential response by the ILC in its Draft Principles on Loss Allocation.[14] The practice of using offsets as an alternative to harm avoidance or mitigation in the planning stages of resource development is controversial, but in the context of liability offsets ought to be understood as a proportional response to a loss that has already occurred, even if they may not fully compensate losses. The use of proxies is facilitated by the presence of trust funds in the Antarctic Liability Annex and is also reflected in the structure of the proposed Environmental Compensation Fund (ECF) in the deep seabed mining regime.[15] Trust funds allow for a decoupling of compensation from the specific incident, which can be seen as an acceptance of the global commons environment as an indivisible whole, while allowing for a more flexible and pragmatic approach to restoration.

There have also been important developments in the law of standing that may broaden the use of state responsibility as an effective accountability tool in ABNJ. While there are no contentious cases explicitly endorsing the idea that obligations to protect the environment in ABNJ are obligations *erga omnes partes*, the concept has been the subject of increasing judicial recognition and would appear to underlie the rights of the applicant states in the *Whaling in the Antarctic* case and *South China Sea Arbitration*.[16] The difficulty with standing based on obligations *erga omnes* has less to do with establishing that the obligation protects a collective interest and more with who will have sufficient political interest to initiate such claims, the modalities of reparations as a remedy and the avoidance of what may appear to be windfall gains. Conferring the authority on the competent international organization (as is the case with the ISA), coupled with the establishment of trust funds or other collective mechanisms provide a potential avenue for satisfying the requirement

[14] Draft Principles (n 7) commentary to principle 3, 74, 7 ('Where restoration or reinstatement is not possible, it is reasonable to introduce the equivalent of those components into the environment').

[15] See Chapter 8.

[16] See Chapter 6.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

that the compensation sought is in the interest of the beneficiaries of the obligation that has been breached (see discussion in Section 9.2.4).[17]

Another significant development that bears on the issue of standing concerns the question of when a state or other actor may undertake response measures. In areas within national jurisdiction, the right of a state to respond to environmental harm and to seek compensation from those responsible is broadly accepted as a corollary of state sovereignty over its territory. In ABNJ, the right of a state to intervene to respond to environmental harm and to seek compensation is ambiguous. In the deep seabed mining context, the ISA Council has the ability to respond to emergencies that are 'necessary to prevent, contain and minimize' serious environmental harm where a contractor does not comply with an emergency order.[18] Under the Antarctic Liability Annex, parties have the ability to take response measures where an operator fails to take action, subject to notifying the party of the operator, and only in the face of imminent harm.[19] While the right for third party states or international institutions to take response measures is constrained, the acknowledgment of this ability is an important legal innovation as it is premised on the idea that states have an interest and corresponding right to protect the commons environment, and can be compensated for their reasonable actions. These treaty rules cannot be generalized, but they are consistent with existing international rules that provide that states are under a general obligation to protect and preserve the marine environment,[20] and are analogous to a line of domestic law cases providing recovery for 'necessitous interventions'.[21]

Our broader point here is not that the law of state responsibility provides a clear and effective approach to compensation. As we outline below, there remain numerous obstacles, and, notwithstanding those obstacles, state responsibility is at best a partial response. Nonetheless, states play a critically important role in the environmental management of ABNJ. State responsibility is a crucial element in promoting the accountability of states that engage in or have jurisdiction over risky activities in ABNJ.

9.2.3 *Civil Liability Approaches*

Turning to civil liability approaches, direct developments here are still emerging, but appear modest in their scope. There has been little progress in extending civil

[17] ILC, 'Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries' (2001) UN Doc A/56/10 (ASR), art 48, 126.

[18] International Seabed Authority, Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (2013) ISBA/19/C/17 (PMN), reg 33(7).

[19] 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) (not in force), art 5.

[20] UNCLOS (n 1) art 192.

[21] John McCamus, 'Necessitous Intervention: The Altruistic Intermeddler and the Law of Restitution' (1979) 11 Ottawa L Rev 297; discussed in Chapter 3, Section 3.2.2.3.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

liability structures to ABNJ generally. A key difference between the deep seabed and Antarctic, on the one hand, and the high seas, on the other, is the discrete and contained nature of activities in the former, as compared to the highly heterogeneous nature of high seas activities. The sector-specific nature of most civil liability regimes, which allows for a degree of risk sharing (in the case of funds) and requirements, such as exclusions, caps and insurance that can be tailored to specific risk profiles, suggests that there is unlikely to be a general civil liability structure for the high seas. The absence of civil liability rules in the high seas may also be a function of demand. Much of the international movement on civil liability, for example, in oil pollution and nuclear facilities, was preceded by very visible incidents that influenced public and state perceptions of risk. The environmental risks in ABNJ, especially marine areas, are less visible and less direct.

Another possibility would be to extend the existing civil liability regimes, particularly for shipping related activities, to the high seas areas.[22] There appears little interest in such a reformation, which would require addressing a range of issues, including reconsideration of the approach to damages, clarity on the right of states or other actors to undertake response measures on the high seas and addressing choice of law and forum issues. It is worth recalling that one response to tanker accidents in areas within national jurisdiction is to tow the ship further away from shore, often into the high seas, to mitigate harm. This practice may be sensible as a harm minimization measure, but it also speaks to the economic and state-centric bias of existing civil liability structures that make them poorly suited to addressing the more ecological interests at stake in ABNJ.

The Antarctic Liability Annex, should it come into effect, contains many of the key elements of civil liability regimes, such as channelling, strict liability and insurance requirements, although the scope of the regime is limited to environmental emergencies. At present, the deep seabed mining regime does not contemplate a stand-alone liability regime but would address contractor liability through insurance and the development of an environmental compensation fund through the Exploitation Regulations.[23] Unlike the Antarctic Liability Annex, the deep seabed mining liability structure is directed to both private economic harms and public losses, although there is an indication that the coverage may exclude pure environmental losses, which would serve to limit the scope of available compensation.[24] Neither the Antarctic nor the deep seabed mining regimes exclude the possibility of state liability. Instead, the approach to channelling is, in principle,

[22] See Nicholas Gaskell, 'Liability and Compensation Regimes: Pollution of the High Seas' in Robert Beckman and others (eds), *High Seas Governance: Gaps and Challenges* (Brill Nijhoff 2019) 229.

[23] ISA, 'Draft Regulations on Exploitation of Mineral Resources in the Area' (2019) ISBA/25/C/WP.1 (DER).

[24] ISA, 'Study on an Environmental Compensation Fund for Activities in the Area' (2021) ISA Technical Study No 27, p. 37.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

non-exclusive. This speaks to the important role that states continue to play in overseeing activities in the commons.

9.2.4 *Institutional Mechanisms*

On the key issues of defining harm and structuring rules of standing, these liability regimes provide different avenues for recovery. The Antarctic, with its focus on remediation, places primary responsibility on operators to address emergencies, with oversight falling to the state of the operator, but ultimately empowering all parties to take action. The Antarctic treaty bodies play an important but secondary role in collectively determining the liability of state operators, through the Antarctic Treaty Consultative Meeting (ATCM) or through the Antarctic dispute settlement processes. Non-state operator liability is addressed through domestic processes. The deep seabed mining regime has two distinct institutional advantages. First, the presence of the ISA, which is empowered to take enforcement actions, can potentially simplify liability proceedings, at least in relation to some remediation efforts, through administrative (emergency) orders.[25] Administrative orders allow the ISA to address remediation directly and with a degree of precision that is not readily available through compensation mechanisms. In addition, the ISA may be empowered to undertake some restoration actions on its own, providing a clearer mechanism for standing to pursue claims against contractors.[26] The ability of individual states to initiate response actions or to pursue claims for environmental harm to ABNJ arising from deep seabed mining is much more ambiguous, as there is no direct authority for states to undertake response actions arising from the actions of third parties. Second, the deep seabed mining regime benefits from the presence of the mandatory dispute settlement mechanisms, which encompass the ISA, states parties and contractors, albeit in a complicated matrix of jurisdictional competences.[27]

The presence of institutions in the Antarctic and deep seabed mining liability regimes is crucial, as is their nature and functions. Where those institutions have legal personality and a broad remedial mandate, as is the case with the ISA, they can intervene directly on behalf of collective interests. The ISA and the ATCM are anticipated to play important roles in managing compensation funds, which are key elements in both regimes that allow for more flexible responses and add credibility by addressing liability gaps or insufficiencies in first tier sources of compensation (for example, insurance). The IOPC Funds play a similar indispensable role in under the oil pollution and HNS Conventions. The existing high seas institutions, such as regional fisheries management organizations or regional seas commissions are poorly suited to contribute to enhanced liability. The prospects of new institutions playing

[25] UNCLOS (n 1), art 162(2)(w).
[26] PMN (n 18), reg 33(7).
[27] See Chapter 7.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

this role in the context of the recent agreement on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (2023 BBNJ Agreement) are diminished by the exclusion of express liability provisions in the agreement, apart from a reference to responsibility and liability in the preamble.

9.3 CHALLENGES

The most far-reaching and difficult to overcome challenge to addressing liability in ABNJ is the substantial tension between the environmental risks that many activities in or affecting ABNJ pose, which are long-term, cumulative and uncertain, and the practicalities of applying liability rules, which require a degree of immediacy, clear attribution and predictability. Principally, this is an issue of the nature of the major threats to the global commons environment, such as ocean acidification, plastics pollution and illegal, unreported and unregulated fishing which have multiple, and difficult to attribute, sources. Liability rules, at their centre, concern individualized responsibility, but much of the harm to the commons environment is collective in nature. These are not entirely novel issues. For example, some forms of widespread environmental harm have been addressed in domestic legal settings through innovative approaches to causation, such as probabilistic harm.[28] But the scale of global environmental harms from cumulative sources makes the adaptation of these approaches to ABNJ unlikely, if not impossible.

Another major source of potential harm from activities in ABNJ comes from operational harm, as opposed to accidents. This is best exemplified by deep seabed mining, where much of the concern is related less to accidents, such as unintended releases (from ships or mining equipment), and more from when intended operational activities result in higher than predicted environmental harm.[29] For example, it is anticipated that there will be an acceptable level of harm to the marine environment (presumably below the threshold of significance) from authorized deep seabed mining activities. Operators that comply with regulatory standards are typically not held liable for anticipated levels of harm, but the approach is complicated by cumulative effects and unpredicted harms. The harm that arises under these conditions may be unforeseeable and may be as much a result of the regulator's deficiencies or lack of precaution as that of the operator. The presence of uncertainty militates in favour of a strict approach to liability – indeed foreseeability concerns were at the heart of Goldie's original analysis of standards of liability in international law.[30] Yet, operational harms raise difficult questions about the extent to which operators may reasonably rely on international and national approval

[28] See Chapter 4, Section 4.2.

[29] Lisa Levin, Diva J Amon and Hannah Lily, 'Challenges to the Sustainability of Deep-Seabed Mining' (2020) 3 (10) Nature Sustainability 784.

[30] LFE Goldie, 'Liability for Damage and the Progressive Development of International Law' (1965) 14(4) ICLQ 1189; discussed in Chapter 5, Section 5.2.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

authorities and collectively agreed upon standards, which is as much a question of allocation, as it is one of the appropriate standard of liability.

A second challenge concerns the central role of institutions in liability structures for ABNJ. The juridical aspect of this challenge relates to the ability of interested parties, whether state or non-state, to access forums for relief. Domestic forums face a host of limitations in adjudicating over claims in the global commons.[31] Agreements on reciprocal access, such as those found in the Antarctic Liability Annex, may address some of these constraints, but may need to be supplemented by further rules addressing standing, choice of law and enforcement of judgments. International courts and tribunals, particularly if they are clothed with mandatory jurisdiction over key actors, provide opportunities to extend standing and access to remedies to states and international organizations. However, as the complicated jurisdictional rules of Part XI of the UNCLOS show, providing forums that can adjudicate complex, multi-party claims remains exceptional in international law.

Fundamentally, the nature of rights in the commons requires the creation of a collective body to act on behalf of the shared environmental interests. As such, institutions with administrative powers are the lynchpin of international liability structures. There is, however, a political aspect to this challenge insofar as there appears to be limited willingness on the part of states to create institutions that are able to constrain state activities in ABNJ.[32] The ISA, which is unique in international law, may be a product of a particular political moment that resulted in the common heritage status of the seabed.[33] Even accounting for this, states maintain a high level of control through the ISA Council (and its voting chambers) and the ISA Assembly. Decisions to pursue actions against contractors, many of whom have close ties to their sponsoring state, are subject to political control. This may result in the ability of a state that is itself, or through a sponsored contractor, subject to potential liability exposure, being able to vote on, and possibly block decisions.[34] A similar degree of control arises under the Antarctic Liability Annex, where decisions about state operator liability are made by the ATCM on the basis of consensus.[35]

This points to a final challenge to effective liability structures in international law, which is the complex politics of state responsibility in the global commons. States are imperfect protectors of the global commons, as they benefit from risk-based activities under their jurisdiction, and even in circumstances where pursuing damages against another state may be appealing, states must weigh the costs of such actions in the context of broader state interdependencies. Despite broad recognition of the growing

[31] See Chapter 7.

[32] On a wider scale, the tensions surrounding institutional empowerment have been evident in the negotiations on the treaty structures under the new international legally binding instrument for marine biodiversity beyond national jurisdiction.

[33] Surabhi Ranganathan, 'Global Commons' (2016) 27 EJIL 693.

[34] See Chapter 6, Section 6.3.2.1.

[35] See Chapter 7.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

environmental crisis facing areas beyond national jurisdiction, cooperative forms of environmental management, such as the approaches favoured by states in the 2023 BBNJ Agreement (for example, environmental impact assessment, area-based management tools and capacity building), remain preferred over the more confrontational approach inherent to liability processes. Privatizing liability through channelling responsibility to operators has been the preferred avenue to avoid interstate disputes, but these opportunities are more limited in the global commons.

9.4 MOVING FORWARD

Reflecting on these challenges, it is important to be realistic about the limitations of liability structures to address collective harms in ABNJ. Liability as an approach to environmental protection remains centred on individuated legal responsibility that links victims to those responsible for the harm in question. Problems such as ocean acidification or ocean-based plastics pollution may be so diffuse in their origins as to make traditional liability approaches ill-suited to achieving the aims of compensation and environmental protection. Alternative approaches, such as the loss and damage provision found in Article 8 of the Paris Agreement under the UN Framework Convention on Climate Change, may provide for more efficient and effective mechanisms to remedy certain environmental harms. Looking ahead, an important task will be to identify areas of collective responsibility that may best be addressed through alternative remedial mechanisms and differentiating these areas from circumstances that demand the direct form of legal accountability that liability structures provide. In this regard, it is critical to identify areas better suited to alternatives to liability provisionally and without prejudice to future legal and scientific developments that could overcome the existing barriers to effective liability regimes. In drawing this distinction, we do not want to suggest a binary approach. Indeed, there are some elements of modern liability structures, such as insurance products and trust funds that provide a basis for collective responsibility. The particular advantage of loss and damage approaches is that they allow for environmental harm to be treated as legally significant notwithstanding the inability to attribute that harm to a specific defendant.

Despite these limitations, there are opportunities to strengthen the rules and practices respecting compensation for environmental harm within liability structures. A sensible starting point would be the extension of the ILC Draft Principles on Loss Allocation to include areas beyond national jurisdiction. The original justification for excluding ABNJ from the ILC's work on liability, which was based on the uncertain nature of states' rights and the cumulative nature of environmental impacts in the global commons,[36] ought to be revisited in light of the developments on standing and damage discussed above. Extending the ILC's work to include

[36] ILC, 'First Report on Prevention of Transboundary Damage from Hazardous Activities, by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur' (1998) UN Doc A/CN.4/487, paras 106–110;

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

ABNJ would recognize and solidify existing legal developments and provide guidance to states in relation to future legal developments.[37] This is a modest and incremental suggestion as extending the Draft Principles to ABNJ largely reflects existing customary law on the duty to provide adequate and prompt compensation (Principle 4) and access to remedies (Principle 6).[38]

One particular benefit of extending the Draft Principles is in broadening the scope of Principle 5 on response measures. In its current (transboundary) context, the right of the affected state to mitigate damages in its own territory is clear. In the commons context, this would best be extended as a right of any state or competent international organization to take appropriate response measures, subject to consultation, in the face of imminent harm. Such an approach would place states and competent international organizations in the same position of Parties under the Antarctic Liability Annex. Extending Principle 5 in this manner would reflect the legal interest that all states have in the ABNJ environment; an interest that has been implicitly accepted in the emerging approach to standing to seek remedies for breaches of obligations *erga omnes*. Principle 5 does not expressly include a right for states that undertake response measures to seek compensation, but such a right is assumed in the commentaries.[39]

A final area of considerable promise that falls outside the Draft Principles is the use of trust funds or related concepts as a collective basis for recovery. As discussed in Chapter 6, the concept of trusteeship has received increasing attention in relation to the global commons, including the climate. As a specific domestic legal concept, the notion of public trusteeship is tied to sovereign authority, which limits its direct application in ABNJ. However, the concept has a wider history as a general principle of international law and has specific application in underlying the relationship of commons institutions like the ISA towards the beneficiaries of shared environmental resources. Trust-like structures can be created by states to direct compensation towards environmental restoration of commons resources, overcoming windfall concerns and allowing for collective decision-making. The indication by the ISA of the creation of an environmental compensation fund is a promising development that has potential to facilitate the harm prevention and restoration goals of international liability structures.[40]

see also ILC, 'Report of the International Law Commission on the Work of Its Forty-Second Session' (1 May–20 July 1990) UN Doc A/45/10. Discussed in c 2, Section 9.3.1.

[37] Draft Principles (n 7), general commentary, 59, para 5 (describing the intent of the Principles as being 'intended to contribute to the process of development of international law … by providing appropriate guidance to States in respect of hazardous activities not covered by specific agreements and by indicating the matters that should be dealt with in such agreements').

[38] In fact, the ILC cites UNCLOS, art 235 in support of principle 4.

[39] Draft Principles (n 7), commentary to principle 5, 85, 10.

[40] ISA, Technical Study No 27 (n 24); Another relevant model is the funding mechanism to address loss and damage under the Paris Agreement, Decision - CP.27, -/CMA.4, 'Funding arrangements for responding to loss and damage associated with the adverse effects of climate change, including a focus on addressing loss and damage', 20 November 2022.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011

Of course, the concept of trusts carries with it the question of the identity of the beneficiaries. There are multiple and competing understandings of who ought to be the beneficiaries of the commons environment. The unique status of the seabed as the common heritage of mankind presents a non-statist understanding of the commons, but this approach has not been adopted outside of the deep seabed context, and even there, states remain at the political centre. Liability, as a legal tool to preserve and protect the environment, is interesting because it forces courts and decision-makers to focus on who has suffered a loss. There has been a historic tendency of international law to treat environmental losses in the global commons as a nullity, but this legal understanding is increasingly at odds with our scientific understanding of the commons environment. However, the legal recognition of environmental losses within state territory signals a closing of the gap between the legal and scientific understanding of environmental damage. It is not tenable, scientifically or legally, that this gap will continue to exist in the global commons. Thus, we are hopeful that as our understanding of the global commons environment and the impact of human activities on its functions develops, the international law of liability will follow.

Downloaded from https://www.cambridge.org/core. UNIVERSIDAD AUTONOMA METROPOLITANA, on 14 Nov 2026 at 17:05:38, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781108866477.011