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Allocation of Liability for Environmental Harm in Areas beyond National Jurisdiction

4.1 INTRODUCTION

A fundamental question that drafters of liability and compensation regimes for environmental harm must address is to whom and in what manner liability ought to be allocated. Questions of allocation raise two distinct types of issues. The first question is the extent to which the sufferer of harm ought to bear their loss themselves. This principally involves questions relating to the standard of liability, specifically whether an actor who causes harm will be required to provide compensation in the absence of fault – a determination of allocation between the victim and the perpetrator of harm. This question and related issues are addressed in Chapter 5. This chapter addresses a distinct set of issues that concern the allocation of liability amongst wrongdoers or other actors that may bear responsibility for the harm that has arisen.

Issues of allocation of liability are consequential for both the goals of ensuring prompt and adequate compensation and of environmental harm prevention. In relation to the former, allocation rules influence the availability of potential sources for compensation. Spreading legal responsibility amongst a range of actors can, for example, broaden the pool of available compensation for victims. Similarly, since the potential for liability impacts the incentives for actors to take steps to avoid environmental harm, the allocation of liability will influence standards of behaviour of both operational and oversight entities.

The allocation of liability for environmental harm in areas beyond national jurisdiction (ABNJ) is complicated by several factors relating to the nature of the activities undertaken and the nature of environmental harm itself. First, environmental harm in ABNJ can be the result of land-based or ocean-based activities (in any maritime zone) and may potentially involve a range of different actors. These include states, international organizations, corporations and individuals. Indeed, a typical maritime transportation operation can involve flag states, shipowners, parent

companies, charterers, ship managers, cargo owners, shipbuilders, classification societies and other maritime service providers. Moreover, these actors are involved in different capacities – they are either directly engaged in these activities, have some form of control over the actors carrying out these activities (for example, parent corporations) or are responsible for regulating the actors that conduct these activities. This is not a simple division between states and international organizations, on the one hand, and private actors, on the other, as states or state-related entities may be operators themselves, in addition to having oversight responsibilities. States may also choose to adopt the role of insurer, covering losses that other responsible entities may be unwilling or unable to address.[1] States may also act through international organizations and such organizations may also play a supervisory or regulatory role, such as regional fisheries management organizations (for fisheries) or the International Seabed Authority (ISA) (for deep seabed mining). A single activity or event resulting in environmental damage may therefore involve both multiple 'wrongdoers' who have in some shape or form 'contributed' to the damage, as well as multiple overseers, leading to questions on the extent to which each actor should be held liable.

Second, allocation of liability is further complicated by the presence of environmental harms that have been contributed to by multiple actors. This may be single incidents of environmental harm in which there are multiple actors possibly responsible or cumulative environmental damage, arising over a course of time either out of a connected or unconnected set of activities involving multiple actors or from external natural causes (for example, ocean acidification or plastics pollution). Cumulative environmental damage poses challenges related to causation in identifying who should be held liable for environmental damage particularly when it is difficult to separate the different sources of damage.

The sources of rules concerning the allocation of liability in ABNJ are diffuse and inchoate, involving general rules and principles of state responsibility and the responsibility of international organizations, as well as regime specific treaty rules on the liability of operators, and the structuring of liability amongst multiple responsible parties. Because causation is central to the allocation of liability, Section 4.2 of this chapter begins with a discussion of legal approaches to causation and the challenges that complex causal pathways may present in ABNJ. Section 4.3 then discusses the general approach to allocating responsibility to states and international organizations under international law and national law, followed by a discussion of the allocation of liability amongst operational entities, which focuses on the practice of channelling of liability to operational entities, which is the principal approach in sector-specific civil liability regimes. Section 4.4 then turns to the rules that structure

[1] See, for example, the nuclear liability regime – the role of the state as an insurer is addressed in greater detail in Chapter 8.

the allocation of liability amongst these actors in relation to specific ABNJ regimes and activities.

4.2 CAUSATION

Causation, both under national law and international law, is an essential element in the imposition of liability and in assessment of compensation – there must be a link between the activity and the damage suffered. Causation difficulties in environmental damage claims include the existence of scientific uncertainty in identifying the source of damage; there may be several concurrent or diffuse causes of the damage which itself can be linked to several defendants; cumulative environmental damage is caused over a duration of time and can be linked to an even larger number of defendants coupled with the requirement that the burden of proof is on the claimant to establish the causal link between the harm, the activity and the defendant.[2] These issues are amplified in the context of environmental harm in ABNJ where multiple actors operating in either areas under national jurisdiction or in ABNJ may be factually responsible either for one-off incidents or cumulative environmental harm.

Under domestic approaches to liability, the most commonly used approach towards causal inquiries is the two-stage test on factual and legal causation.[3] Factual causation is determined using the '*but-for test*' or '*sine-qua-non*' test. It must be shown that the damage or harmful outcome would not have occurred without the act or omission of the defendant. Legal causation is intended to delimit factual causation 'by requiring that any factual cause is legally relevant to the consequence'.[4] Tort law has developed doctrines such as proximate cause and foreseeability to limit the scope of liability arising from a potentially unlimited set of claims.[5]

However, these orthodox rules on causation pose challenges to the identification of the actor liable for environmental harm given the lack of scientific certainty in identifying the cause of damage when there are several concurrent or diffuse causes of damage which can be linked to several actors. There are also difficulties posed by

[2] Mark Wilde, *Civil Liability for Environmental Damage: A Comparative Analysis of Law and Policy in Europe and the United States* (Kluwer Law International 2004) 59–78. For issues related to scientific uncertainty in the context of climate change litigation, there is a growing field of science known as attribution science which analyses the relationship between anthropogenic emissions and specific extreme weather events which may be influential in evaluating causation issues in climate change litigation: See, for example, Sophie Marjanac and Lindene Patton, 'Extreme Weather Event Attribution Science and Climate Change Litigation: An Essential Step in the Causal Change' (2018) 36(3) J Energy Nat Resources Law 265–298.

[3] See, for example, VH Harpwood, *Modern Tort Law* (7th edn, Routledge-Cavendish 2008) 161–185; Keith N Hylton, *Tort Law: A Modern Perspective* (CUP 2016) 195–226.

[4] Martin Jarrett, *Contributory Fault and Investor Misconduct in Investment Arbitration* (CUP 2019) 45.

[5] Hylton (n 3) 195–226.

the plaintiff's burden of proof in establishing a causal link between the harm and the wrongdoer.[6] To ameliorate issues related to causal uncertainty in environmental damage that occur within national territory, Anglo-American courts have eschewed the '*but-for test*' for other tests such as whether the defendant made a 'material contribution' to the loss, or whether the defendant's activity 'materially increased' the risk.[7] Other tests also seek to address the deficiencies of the '*but-for test*' such as the substantial factor test and the necessary element of a set of conditions sufficient to bring about the event (NESS test) but none are free from problems and still place a considerable burden of proof on the victim.[8]

The approach to causation in international law is less clear and has been described as 'mostly rudimentary' and subject to minimal systematic analysis.[9] Causation is often not explicitly discussed as a distinct element of state responsibility.[10] Moreover, there is no specific test of causation prescribed by international law, although it is relevant to several areas of the law of state responsibility, including determining whether the action or omission of a state has resulted in injury or damage (if required by the primary rule); whether one state may have been involved in the wrongful act of another; whether certain circumstances precluding wrongfulness exist; and in the determination of reparation under international law (discussed in Chapter 3).[11] The International Law Commission's (ILC) 2001 Draft Articles on Responsibility of States for Internationally Wrongful Acts (ASR) address causation perfunctorily, merely noting that the 'responsible State is under an obligation to make full reparation for the injury *caused by* the internationally wrongful act'.[12] As observed in Chapter 3, the ASR note that the tests applicable to causation must be determined on a case-by-case basis and in light of the primary rule, which was a pragmatic decision on the ILC's part considering the divergent views of ILC members in the long course of preparing

[6] Michael Faure, 'Attribution of Liability: An Economic Analysis of Various Cases' (2016) 91(2) Chi-Kent L Rev 603, 623–624; Ilias Plakokefalos, 'Causation in the Law of State Responsibility and the Problem of Overdetermination: In Search of Clarity' (2015) 26(2) EJIL 471, 476.

[7] See *Bonnington Castings v Wardlow* [1956] AC 613; *McGhee v National Coal Board* [1972] 3 All ER 1008.

[8] The substantial factor test posits that a defendant can avoid liability for the plaintiff's injury if he can prove that his negligence was not a substantial factor: Hylton (n 3), 214. The NESS test posits that 'a particular condition is a cause of (contributed to) a specific result if and only if it was a necessary element of a set of antecedent actual conditions that was sufficient for the occurrence of the result': RW Wright, 'Causation, Responsibility, Risk, Probability, Naked Statistics and Proof: Pruning the Bramble Bush by Clarifying the Concepts' (1987–1988) 73 Iowa L Rev (1987–1988) 1001, 1019.

[9] Plakokefalos (n 6); Vladyslav Lanovoy, 'Causation in the Law of State Responsibility' (2022) British Yearbook Intl L 1, 4.

[10] Plakokefalos (n 6) 483–486.

[11] André Nollkaemper and others, 'Guiding Principles on Shared Responsibility in International Law' (2020) 31 EJIL 15, 23; Lanovoy (n 9) 19–42.

[12] International Law Commission (ILC), 'Draft Articles on the Responsibility of States for Internationally Wrongful Acts, with Commentaries' (53rd Session) (2001) UN Doc A/56/10 (ASR) art 31 (1), 91.

the ASR.[13] International courts and tribunals have employed varying standards of legal causation in the law of state responsibility including the standard of 'sufficiently direct and certain causal nexus' between the wrongful act and the injury suffered, and the standard of proximity, that is, whether the consequences are proximate or not too remote from the wrongful act.[14]

While it may be true that causation standards are necessarily dependent on the circumstances of the case and the nature of the breach, causation poses unique challenges in the context of environmental harm in ABNJ.[15] Reliance on the 'sufficiently direct and certain causal nexus' test, while ostensibly easy for the adjudicator, depends on a linear causal relationship and focuses on immediate harm which may not accurately reflect the true extent of environmental harm that may result.[16] The larger concern, beyond questions of doctrinal clarity, is that in ABNJ and in relation to environmental harm generally, the causal pathways may be complex and involve multiple parties whose acts singly may not result in significant (and therefore unlawful) harm, but their cumulative effect does result in such an effect. For example, a collapse in a fishing stock may not result from a single fishing operation but will occur due to multiple (poorly managed) fishery operations. The current focus of liability rules is on the harm from identifiable and often discrete pollution incidents, as opposed to long-term degradation from multiple actors and often multiple types of sources. On large-scale problems, such as marine plastics pollution or ocean acidification from greenhouse gas emissions, cumulative causation issues effectively insulate states and polluters from liability.

Issues associated with causation are by no means unique to ABNJ, and the approach to causation in the ABNJ context will be shaped by more general legal innovations. For example, national courts have grappled with the idea of probabilistic causation to address cases where a potential defendant has increased the risk of harm, but it is impossible to establish a factual connection between the defendant's behaviour and the plaintiff's harm.[17] This line of cases has relevance for circumstances like the impact of overfishing on stock collapse, since the act raises the risk of the environmental outcome, but the factual link between the wrongful act and the harm is difficult, if not impossible

[13] ibid commentary to art 31, 92, para 10; Lanovoy (n 9) 3–4.

[14] Lanovoy (n 9) 47.

[15] The International Court of Justice (ICJ), in relation to transboundary environmental harm, acknowledged that environmental damage may be due to several concurrent causes or the state of science regarding the causal link between the wrongful act and the damage may be uncertain but noted that these difficulties must be addressed as and when they arise in light of the facts of the case and evidence presented and that it was ultimately up to the Court to decide whether there is a sufficient causal nexus between the wrongful act and the injury suffered. See *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua), Compensation owed by the Republic of Nicaragua to the Republic of Costa Rica* [2018] ICJ Rep 15, para 34.

[16] Lanovoy (n 9) 53.

[17] See, for example, *McGhee v National Coal Board* [1973] 1 WLR 1 (QB). See also John G Fleming, 'Probabilistic Causation in Tort Law' (1989) 68(4) Can Bar Rev 661.

to establish. Similar legal innovations are being tested in a variety of climate litigation contexts drawing on scientific developments, such as probabilistic event attribution – which links the probability of climate-related events to emissions, which will shape cumulative harm issues in ABNJ.[18] The challenges here remain substantial, particularly in relation to large-scale problems, like marine plastics pollution, where contributions are so diffuse as to raise issues as to whether there are *de minimis* levels of contribution that are required to trigger legal responsibility.[19]

4.3 GENERAL APPROACHES TO THE ALLOCATION OF LIABILITY FOR ENVIRONMENTAL HARM

In considering the question of allocation, we are concerned with three distinct categories of actors: states, international organizations and operators usually tasked with the conduct of operations. Operators are the actors that are usually in direct control of an activity, consist of state-owned entities (such as state-owned enterprises carrying out commercial activities), as well as privately owned entities, and are typically subject to domestic law.[20] States and international organizations, on the other hand, are subject to international requirements relating to responsibility, and are less amenable to national laws. Consequently, the rules on allocation amongst these entities are somewhat fragmented between the law of state and international organization responsibility and requirements structuring liability amongst operators and may operate as parallel systems unless specifically addressed through treaties.

4.3.1 *State Responsibility*

4.3.1.1 International Law

Under the rules of state responsibility, states are responsible for damage arising out of their wrongful acts, that is, an act or omission that is attributable to that state under

[18] See, for example, Petra Minnerop and Otto Friederike, 'Climate Change and Causation: Joining Law and Climate Science on the Basis of Formal Logic' (2019) 27 Buff Env L J 49.

[19] For a discussion on potential liability and compensation regimes for marine plastics pollution that could be devised under current international efforts to address this problem, see Sandrine Maljean Dubois and Benoit Mayer, 'Liability and Compensation for Marine Plastic Pollution: Conceptual Issues and Possible Ways Forward' (2020) 114 AJIL Unbound 206.

[20] The ILC observes that while there is no general definition of 'operator' under international law, it is usually determined by a factual determination as to who has use, control and direction of the object at the relevant time: 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), commentary to principle 2 (g), 71, paras 31–32. A state-owned entity or enterprise has been defined as 'any enterprise owned, controlled or specifically designated by any level of government to pursue financial objectives by commercial means' see Albert Badia, *Piercing the Veil of State Enterprises in International Arbitration* (Wolters Kluwer 2014) 2.

international law and that constitutes a breach of an international obligation.[21] The responsible state is then under an obligation to make full reparation for the injury caused to another state (included espoused claims) by the internationally wrongful act.[22]

Attribution refers to the 'process by which international law establishes whether the conduct of a natural person or other such intermediary can be considered an "act of state" and thus be capable of giving rise to state responsibility'.[23] The commentary in the ASR observes, '[W]hat is crucial is that a given event is sufficiently connected to the conduct (whether an act or omission) which is attributable to the State . . .'.[24] The criteria determining the attribution of conduct to the state is based on international law and not on the mere recognition of a link of factual causality.[25] The need for a causal link is implicit in the attribution of conduct as there must be a causal link between the conduct and the consequences of the breach.[26] Given the potential for states to perform multiple roles in relation to activities affecting ABNJ and the fact that they may use a variety of direct and indirect means to perform those roles, attention must be paid to the conditions under which the resultant activities can be attributed to the state.

To the extent that states' activities in the oceans and in Antarctica are deemed the conduct of organs of government or of others who have acted under the direction, instigation or control of those organs as agents of the state and such conduct results in environmental harm in ABNJ, attribution of conduct to the state should not be difficult.[27] Determining whether an entity is an organ of the state will be determined by the status of the organ under the internal law of the state, and not by the nature of the activity in question.[28] For example, where a deep seabed mining entity is a state acting through a state organ, it is likely to be considered part of the state, notwithstanding that the activities have commercial purposes.[29] A state-owned entity, on the other hand, is likely to be considered distinct from the state.

The conduct of operators (i.e. state-owned entities or private entities) is only attributable to states in limited circumstances.[30] First, if a person or entity is empowered by a state's law to exercise elements of governmental authority, it is considered an act of the state under international law.[31] The commentary in the

[21] ASR (n 12) arts 1 & 2.
[22] ibid art 31.
[23] James Crawford, *State Responsibility* (CUP 2013) 113.
[24] ASR (n 12) commentary to art 2, 35, para 6.
[25] ibid 38–39, para 4.
[26] James D Fry, 'Attribution of Responsibility' in André Nollkaemper and Ilias Plakokefalos (eds), *Principles of Shared Responsibility in International Law* (CUP 2014) 98, 102.
[27] ASR (n 12) 38, para 2.
[28] ibid art 4 (2), 40.
[29] ibid commentary to art 4, 40–41, para 6.
[30] The ASR consider state-owned corporations or enterprises as separate from the state except where the 'corporate veil' is a mere device or a vehicle for fraud or evasion: ASR (n 12) commentary to art 8, 47–48, paras 1 and 6.
[31] ibid art 5, 42.

ASR acknowledges that the term 'entity' may include 'public corporations, semi-public agencies of various kinds and even in special cases, private companies, provided that in each case, the entity is empowered by the law of the state to exercise functions of a public character normally exercised by state organs, and the conduct of the entity related to the exercise of the governmental authority concerned'.[32] However, 'governmental authority' is not defined and is a narrow concept.[33] It is limited to entities which are empowered by internal law to exercise governmental authority; that is, the internal law must specifically authorize the conduct as involving the exercise of public authority and it is not sufficient that the internal law simply 'permits activity as part of the general regulation of the affairs of the community'.[34] The 'mere exercise of public functions or of tasks in the public interest does not lead to attribution'.[35] Thus, the activities of state-owned entities engaging in activities such as marine scientific research or marine geoengineering which are ostensibly for 'public interest' would not automatically be attributed to the state.

The second circumstance is if the 'person or group of persons is in fact acting on the instructions of, or under the direction or control of, that state in carrying out the conduct'.[36] The ASR do not specify the level of control required for attribution, stating that it is dependent on the circumstances.[37] Generally, the jurisprudence of international courts and tribunals has vacillated between an 'effective control' test and an 'overall control' test,[38] with the former being perceived as imposing a higher threshold for attributing the conduct of private actors to states. The effective control test requires the state or a state organ to give the instructions or provide the direction pursuant to which the perpetrators of the wrongful act acted, or to have effective control over the action during which the wrong was committed.[39] In other words, the effective control test essentially requires evidence of factual control over specific conduct.[40] This idea of control was also endorsed in the ILC's 2006 Draft Principles on Allocation of Loss (Draft Principles).[41] The Draft Principles, which emphasized

[32] ibid commentary to art 5, 43, para 2.
[33] ibid commentary to art 5, 43, para 7.
[34] ibid.
[35] Alexander Kees, 'Responsibility of States for Private Actors' in Rüdiger Wolfrum (ed), *Max Planck Encyclopedia of International Law Online* (2011) para 13.
[36] ASR (n 12) art 8, 47.
[37] ibid commentary to art 8, 48, para 5.
[38] For a discussion on the way the courts have utilized these two tests, please see Crawford (n 23) 147–150.
[39] *Case Concerning the Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosnia and Herzegovina v Serbia and Montenegro)* (Judgment) [2007] ICJ Rep 43 (Bosnian Genocide) 214, 257; see also *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v the United States of America)* (Judgment) [1986] ICJ Rep 14.
[40] Kristen E Boon, 'Are Control Tests Fit for the Future? The Spillage Problem in Attribution Doctrines' (2014) 15 MJIL 1, 9.
[41] Draft Principles (n 20).

the liability of the operator, acknowledged that 'liability need not always be placed on the operator of a hazardous or a risk-bearing activity and other entities could equally be designated by agreement or by law', which could in principle include states provided they are 'functionally in command or control or directs or exercises overall supervision and hence, as the beneficiary of the activity, may be held liable'.[42]

Both the 'governmental authority' and 'instructions, direction and control' test impose high thresholds in the context of activities causing environmental harm in ABNJ. The fact that states have jurisdiction and control over activities by virtue of being a coastal state, flag state or sponsoring state would not be sufficient to attribute harmful conduct to that state under either of these tests. State-owned entities or private entities involved in the operation of vessels either in areas under national jurisdiction or in ABNJ are not acting under the direct governmental authority or instructions of flag states *per se*. Flag states, in most cases, will not have such factual control over the specific conduct undertaken by non-state actors involved in the operation of vessels used in ocean activities. Governmental authority and/or instructions, direction or control may be easier to establish if the vessel is a warship or a government ship operated for non-commercial purposes, but these vessels have sovereign immunity in respect of breaches of the marine environment protection provisions in the 1982 United Nations Convention on the Law of the Sea (UNCLOS).[43]

Similarly, coastal states, pursuant to their sovereignty over territorial waters and sovereign rights over their exclusive economic zones (EEZs) and continental shelves, will typically license activities of non-state actors in these maritime zones.[44] However, it cannot be automatically assumed that the actions of these non-state actors are attributable to the coastal state simply because they licensed such activities. It is still necessary to establish governmental authority, instructions, direction or control. For states that sponsor state-owned entities and private entities (sponsored contractors) to conduct activities in the Area, the Seabed Disputes Chamber (SDC) in its 2011 Advisory Opinion also noted that the liability regime established in Annex III of UNCLOS and related instruments do not provide for the attribution of activities of sponsored contractors to sponsoring states.[45]

[42] ibid general commentary, 60, para 8.

[43] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397 (UNCLOS) arts 29, 31, 236. However, note UNCLOS art 31 which states that the flag state shall bear international responsibility for any loss or damage resulting from the non-compliance by a warship or other government ship operated for non-commercial purposes with the provisions of UNCLOS or other rules of international law.

[44] ibid arts 56, 77.

[45] *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, 10, para 182 (*Activities in the Area* Advisory Opinion).

Apart from the direct attribution of operators' conduct to states, the imposition of state responsibility for failure to prevent certain conduct resulting in environmental harm in ABNJ in contravention of its international obligations is also not straightforward.[46] The commentary to the ASR notes that a '[s]tate may be responsible for the effects of the conduct of private parties, if it failed to take necessary measures to prevent those effects'.[47] In the environmental context, the duty to prevent harm is reflected in states' obligations 'to ensure that activities within their jurisdiction and control respect the environment of other states, or of areas beyond national control' and is now part of the corpus of international law relating to the environment.[48] Obligations of prevention (in international environmental law or otherwise) are usually subject to 'best efforts obligations, requiring [s]tates to take all reasonable or necessary measures to prevent a given event from occurring but without warranting that the event will not occur',[49] commonly described as an obligation of due diligence. This is different from attribution of conduct where the state is being held liable for the conduct of private actors. In this case, the state is being held directly responsible for its own conduct. The specifics of due diligence are discussed in Chapter 5 on standards of liability.

4.3.1.2 National Law

States may be held liable under domestic law for environmental harm in ABNJ to which the state has contributed but allocating liability to them may face several obstacles.[50] Factors determining the likelihood of holding the state liable include whether domestic law automatically incorporates primary international law obligations relating to the environment in ABNJ, as well as the secondary obligations as reflected in the ASR, or needs specific implementing legislation, and whether national courts will decline to exercise jurisdiction on the basis of doctrines such as non-justiciability of the international legality of the conduct of a state before its

[46] Boon (n 40) 34–35.

[47] ASR (n 12) commentary to chapter II, 39, para 4. The example given in the commentary is as follows: '... a receiving State is not responsible, as such, for the acts of private individuals in seizing an embassy but it will be responsible, if it fails to take all necessary steps to protect the embassy from seizure or to regain control over it'.

[48] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 679, 226, para 29. *Gabčikovo-Nagymaros Project (Hungary v Slovakia)* (Judgment) [1997] ICJ Rep 7, para 140; *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14, paras 101 and 185; See, for example, UNCLOS (n 43) arts 192 and 193.

[49] ASR (n 12) commentary to art 14, 62, para 14. The ASR did not draw a distinction between obligations of conduct and obligations of result although it observed that the distinction may assist in ascertaining when a breach has occurred but that it is not exclusive and 'does not seem to bear specific or direct consequences as far as the present articles are concerned'. ASR, commentary to art 12, 56, para 11.

[50] See Chapter 7 for further discussion.

own courts.[51] There are, of course, domestic doctrines of state liability for tortious acts but at the same time, there are doctrines on public authority liability that may provide immunity to public authorities for certain kinds of governmental actions.[52] For example, where the state is acting in its capacity as a sovereign (*jure imperii*), it has broad immunities from the jurisdictional competences of other states. Such immunity does not apply to state activities of a commercial nature (*jure gestionis*), although the boundaries of this more restrictive approach remain contested.[53] In considering the potential role of states in ABNJ, states would typically be immune from domestic jurisdiction for regulatory oversight failures, as this is clearly an exercise of sovereign authority. But in their more direct, operational capacity, states may be subject to the jurisdictional reach of another state's legal system, if the activity has a commercial character. The distinction between acts *jure imperii* and *jure gestionis* in these contexts will not necessarily be clear. For example, a state-owned entity conducting activities in the Area could be engaged in commercial activity, but it could also be acquiring critical minerals for national security purposes. While not applying directly to ABNJ, the approach under the 1992 Oil Pollution Liability Convention is to explicitly subject state-owned ships used for commercial purposes to the jurisdiction of the state where recovery actions are brought, including a waiver of all defences based on the status of the defendant shipowner as a sovereign state.[54] While the international rules respecting state immunity govern these matters, their determination is very much a function of the approach taken to immunity in the state in question.

4.3.2 *International Organizations Responsibility*

4.3.2.1 International Law

International organizations are international legal persons with personality separate from the states that established them and are subject to a regime of responsibility in

[51] See generally André Nollkaemper, 'Internationally Wrongful Acts in Domestic Courts' (2007) 101(4) AJIL 760; Francesco Messineo, 'The Invocation of Member State Responsibility before National and International Courts' (2015) 12 Int Org Law Rev 484.

[52] See, for example, *Anns v Merton London Borough Council* [1977] UKHL 4, [1978] AC 728, setting out immunity for activities that arise under public authorities policy (as opposed to operational) functions. This distinction has been much criticized, see, for example, SH Bailey and MJ Bowman, 'The Policy/Operational Dichotomy – A Cuckoo in the Nest' (1986) 45(3) CLJ 430; and Bruce Feldthusen, 'Public Authority Immunity from Negligence Liability: Uncertain, Unnecessary, and Unjustified' (2014) 92(2) Can Bar Rev 211.

[53] See, for example, Xiaodong Yang, *State Immunity in International Law* (CUP 2012) 75–131.

[54] International Convention on Civil Liability for Oil Pollution Damage (adopted 29 November 1969, entered 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 XI.

the international legal order.[55] Insofar as international organizations have direct oversight responsibilities, or may be directly involved in environmentally risky activities, they may be the subject of liability claims. While the ILC's attempt to set out the responsibility of international organizations in the 2011 Draft Articles on the Responsibility of International Organizations (DARIO) was not met with the same level of acceptance as the ASR, it still has relevance in setting out the 'normative framework' for the responsibility of international organizations.[56] Modelled on the ASR, the DARIO are intended to be a default regime applicable to the extent that the international organization concerned has not adopted specific rules to address responsibility.[57] Accordingly, like the ASR, the DARIO set out the general principle that every internationally wrongful act of an international organization engages the responsibility of that organization.[58] Breaches of international obligations are based on any customary rule of international law, by a treaty or by a general principle applicable within the international legal order,[59] and have to be binding on the international organization concerned.[60]

There are a multitude of institutional bodies and/or arrangements that have mandates that cover ABNJ, usually sectoral based and sometimes with overlapping mandates/responsibilities.[61] These institutional bodies/arrangements vary in structure, functions, objectives, powers and membership, and include typical intergovernmental organizations such as the International Maritime Organization (IMO), and the ISA to regional fisheries management organizations (RFMOs) or arrangements (RFMAs) to conferences of parties (for example, like the Antarctic Treaty Consultative Meeting (ATCM)), and also include operational entities, such as the Enterprise – the mining arm of the ISA.

There are challenges in holding international organizations responsible and liable for environmental harm in ABNJ under the rules of international organization responsibility, which dramatically reduces the likelihood of liability being allocated to international organizations. First, not all institutional bodies or arrangements will fall within the formal legal definition of an 'international organization' which the DARIO define as 'an organization established by a treaty or other instrument governed by international law and possessing its own international legal

[55] Pierre Klein, 'Responsibility' in Jacob Katz Cogan, Ian Hurd and Ian Johnstone (eds), *The Oxford Handbook on International Organizations* (OUP 2016) 1026.

[56] ibid.

[57] ILC, 'Draft Articles on the Responsibility of International Organizations, with Commentaries' (2011) II (2) ILC Yearbook 1 (DARIO).

[58] ibid art 3, 52.

[59] ibid commentary to art 10, 63, para 2. Also see *Interpretation of the Agreement of 25 March 1951 between the WHO and Egypt* (Advisory Opinion) [1980] ICJ Rep 73, 89–90, para 37.

[60] DARIO (n 57) art 11, 64.

[61] See, for example, UNEP-WCMC, 'Governance of Areas beyond National Jurisdiction for Biodiversity Conservation and Sustainable Use: Institutional arrangements and cross-sectoral cooperation in the Western Indian Ocean and the Southeast Pacific' (UN Environment World Conservation Monitoring Centre 2017) 30–33.

personality'.[62] International legal personality is said to be a precondition to the attribution of responsibility to an international organization and whether they have international legal personality will depend on their constituent instrument.[63] To the extent that an RFMO has been established, it will usually have legal personality, although with limited powers and capacities.[64] Conferences or meetings of parties, such as those established under multilateral environmental agreements, are institutionalized but are generally not seen has having the requisite international legal personality.[65]

Second, except for the ISA (discussed in Section 4.4.2), international organizations, such as the IMO or RFMOs may not be directly engaging in activities they are supposed to regulate or conducting oversight activities and their main function is to establish rules and procedures intended to be implemented by member states. They may not have the requisite control to attract responsibility for lack of due diligence, where the standard of behaviour turns on the scope of their authority. This point lies at the heart of the policy question of under what conditions international organizations ought to be subject to liability rules, as it relates to the goal of ensuring that those entities that play an active role in environmental protection are held accountable where they fail to carry out their duties.

Third, establishing that an international organization has breached an international obligation to protect the environment in ABNJ requires that it is bound by that international obligation. Accordingly, a contentious issue in establishing international organization responsibility has been the applicability of international obligations to international organizations. It has been argued that 'the scope of the primary rules incumbent upon international organizations appears now to constitute the principal challenge to the implementation of a regime of international responsibility to international organizations'.[66] For example, international organizations can become party to UNCLOS, but presently only the European Union is a party (and its position is *sui generis*).[67] Prima facie, other international organizations are not bound by UNCLOS. International organizations may be bound by customary international law,[68] but it is not clear whether the marine environmental obligations in Part XII of UNCLOS in its

[62] DARIO (n 57) art 2 (a).

[63] ibid commentary to art 2, 49–50, paras 1–10. However, it has also been said that there is a 'strong presumption that once an organization is created, it will be a legal person for purposes of international law, but this presumption can be rebutted …' Jan Klabbers, 'Formal Intergovernmental Organizations' in Jacob Katz Cogan, Ian Hurd and Ian Johnstone (eds), *The Oxford Handbook on International Organizations* (OUP 2016) 142–143.

[64] James Harrison, 'Key Challenges Relating to the Governance of Regional Fisheries' in Richard Caddell and Erik J Molenaar (eds), *Strengthening International Fisheries Law in an Era of Changing Oceans* (Hart Publishing 2019) 84.

[65] Klabbers (n 63) 143.

[66] Klein (n 55) 1026.

[67] UNCLOS (n 43) art 305 (1)(f) and Annex XI.

[68] For a general discussion on this issue, see Kristina Daugirdas, 'How and Why International Law Binds International Organizations' (2016) 57 Harv Intl L J 325.

entirety are customary international law.[69] As discussed below in connection with the ISA, treaties can specifically impose primary obligations on international organizations, the breach of which can form the basis of liability claims.

Fourth, a further obstacle is addressing how international organizations would pay for environmental harm if found liable. The DARIO provide that the responsible international organization is obliged to make full reparation for the injury caused by the internationally wrongful act, and this includes restitution, compensation and satisfaction.[70] While there have been instances where international organizations have compensated for damage caused to third parties, the DARIO acknowledge a reality that it may be difficult for an international organization to make the required reparation which is 'linked to the inadequacy of the financial resources that are generally available to international organizations for meeting this type of expense'.[71] Notwithstanding this, the DARIO state that 'this inadequacy cannot exempt a responsible organization from the legal consequences resulting from its responsibility under international law'.[72] The DARIO also lay down the rule that while there is no subsidiary obligation of member states towards the injured party when a responsible organization is not in a position to make reparation, an international organization shall take all appropriate measures to ensure that its members provide it with means for effectively fulfilling its obligations to compensate.[73] This implies 'that the members of the organization should be requested to provide the necessary means'.[74]

Finally, finding a suitable international forum to prosecute claims against international organizations may not be easy, as addressed further in Chapter 7. The constituent instruments of international organizations may set out mechanisms for internal review of certain acts, but these instances are rare. For external review of an international organization's acts by international courts and tribunals, there must be a specific agreement either in the constitutive instrument of the international organization (for example, UNCLOS expressly recognizes that certain disputes to which the ISA is a party can be brought before UNCLOS courts and tribunals) or in the procedural rules of the international court or tribunal itself.[75]

[69] Some clearly have been found to be part of customary international law by international courts and tribunals or scholars, such as art 192 on the obligation to protect the marine environment; art 194 (2) on the obligation on states to ensure that activities under their jurisdiction or control respect the environment or areas beyond national control; and art 206 on the need to conduct environmental impact assessments, but others are not so clear-cut.

[70] DARIO (n 57) arts 31 and 34, 77, 79.

[71] ibid commentary to art 31, 77, para 4. Compensation has been paid by the United Nations, for example, to nations of Belgium, Greece, Italy, Luxembourg and Switzerland, arising out of UN operations in Congo: See discussion in DARIO (n 57) commentary to art 36, 79–80, paras 1–3.

[72] ibid commentary to art 31, 77, para 4.

[73] ibid commentary to art 40, 81–82, paras 2–3.

[74] ibid commentary to art 40, 82, para 3.

[75] See generally, Jan Wouters and Jed Odermatt, 'Assessing the Legality of Decisions' in Jacob Katz Cogan, Ian Hurd and Ian Johnstone (eds), *The Oxford Handbook on International Organizations* (OUP 2016) 1006–1025.

4.3.2.2 National Law

International organizations are generally granted privileges and immunities from state jurisdiction to the extent that such immunities are required for the international organizations' effective functioning.[76] Some international organizations are also granted absolute immunity except to the extent they have waived such immunity.[77] Justifications for such immunity include the need to preserve operational autonomy of international organizations by minimizing the interference or undue influence of member states, or arguments that they flow from the sovereignty of the organization's members.[78] However, certain national courts have restricted immunities of international organizations on various grounds, including on the basis that an international organization's acts did not fall within its functions; or due to the *jure gestionis–jure imperii* distinction borrowed from state immunity; or more recently on the basis that granting immunity to international organizations could violate the right to access to remedies in the event the applicant has no access to an alternative remedy.[79]

4.3.3 *Operator Responsibility*

The key issue for non-state actors such as state-owned entities or private entities, which for present purposes, will be described as 'operators', is not whether they can be made subject to liability rules, but rather how liability is allocated amongst the complex array of actors that may be involved in environmentally risky activities. International rules generally adopt two approaches to allocation of liability to operators, either (1) the channelling of legal liability exclusively to the operator or (2) the allocation of liability to a range of other actors engaged directly or indirectly in connected activities. An operational entity is most often a privately owned one, but states, whether directly or through state agencies or state-owned enterprises, may themselves be operators. The approach that is ultimately chosen will depend on a variety of factors including the number of actors involved in the activity, the nature

[76] See, for example, Charter of the United Nations (adopted 26 June 1945, entered into force 24 October 1945) 1 UNTS XVI art 105; see also General Convention on the Privileges and Immunities of the United Nations (adopted 13 February 1946, entered into force 17 September 1946) 1 UNTS 15, 90 UNTS 327 and the Convention on Privileges and Immunities of Specialized Agencies (adopted 21 November 1947, entered into force 2 December 1948) 33 UNTS 261; Niels Blokker, 'International Organizations: The Untouchables?' (2013) 10 Int Organ Law Rev 259.

[77] August Reinisch, 'Privileges and Immunities' in Jacob Katz Cogan, Ian Hurd and Ian Johnstone (eds), *The Oxford Handbook on International Organizations* (OUP 2016) 1048.

[78] Luca Pasquet, 'Litigating the Immunities of International Organizations in Europe: The "Alternative Remedy" Approach and Its Humanizing Function' (2021) 36(2) Utrecht J Int Eur Law 192.

[79] Reinisch (n 77) 1058–1059.

of the activity, the availability of insurance, as well as the availability of compensation funds.

The channelling of legal liability is where responsibility is ascribed to a particular person or enterprise 'who is deemed by the legal rule to be the origin of damage, independently of any proof of intentional conduct or of his or her fault'.[80] In typical tort cases in national courts (not brought pursuant to a civil liability regime), causation and the necessary evidence to establish a causal link is a complex undertaking for claimants and rules vary from jurisdiction to jurisdiction (see discussion in Section 4.2).[81] Channelling liability (coupled with strict liability) minimizes the issues related to establishing causation. The person or enterprise is usually the operator of that activity that has use, control and direction of the object at the relevant time or the 'one in actual, legal or economic control of the polluting activity'.[82] The ILC observed that control 'denotes power or authority to manage, direct, regulate, administer or oversee'[83] and this could cover a range of persons including persons with decisive power over technical functioning of an activity, the holder of a permit or authorization for such an activity or person registering or notifying such an activity, or a parent company, particularly if that company has actual control of the operation.[84]

Channelling of liability to the operator has been adopted in relation to nuclear liability,[85] maritime transport of oil,[86] the carriage of hazardous and noxious

[80] Guido Fernando Silva Soares and Everton Vieira Vargas, 'The Basel Liability Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal' (2001) 12(1) Yearbk Int Environ Law 69, 74.

[81] Draft Principles (n 20) commentary to principle 4, 79, para 16.

[82] ibid commentary to principle 2, 72, paras 32, 33.

[83] ibid commentary to principle 2, 72, para 33.

[84] ibid.

[85] The production of nuclear energy from the 1960s prompted the development of a specific legal framework for liability consisting of a series of conventions established under two different organizations, namely the Organization for Economic Co-operation and Development Nuclear Energy Agency (NEA) and the International Atomic Energy Agency (IAEA). The 1960 Paris Convention was adopted under the auspices of the NEA: 1960 Convention on Third Party Liability in the Field of Nuclear Energy (adopted 29 July 1960, entered into force 1 April 1968) 956 UNTS 251. The 1963 Vienna Convention on the Civil Liability for Nuclear Damage was adopted under the auspices of the IAEA: Vienna Convention on the Civil Liability for Nuclear Damage (adopted 21 May 1963, entered into force 12 November 1977) 1063 UNTS 265 (1963 Vienna Convention). Both set out the basic principles on nuclear liability law, supplemented by subsequent conventions. For a detailed history of nuclear liability law, see Michael Faure, Jing Liu and Hui Wang, 'Analysis of Existing Regimes' in Michael Faure (ed), *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (CUP 2016) 170–190.

[86] The civil liability regime for vessel-based cargo oil pollution damage currently consists of the (1) 1992 Oil Pollution Liability Convention (n 54); (2) 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (adopted 18 December 1971, entered into force 16 October 1978) 110 UNTS 57 amended by the 1992 Protocol on the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (adopted 27 November 1992, entered into force

substances,[87] removal of ship wrecks[88] and the carriage of passengers and luggage.[89] Channelling of liability is usually accompanied by the following elements: (1) liability of the operator is strict, that is, it is not necessary to establish the fault of the operator; (2) the operator may rely on certain exceptions to the imposition of strict liability such as armed conflict, civil war, natural disasters and so forth; (3) the operator may or may not have rights of recourse against third parties responsible for the damage; (4) the operator is usually allowed to limit its liability; (5) the operator is usually obliged to take out insurance or financial security, at least to the limits of its liability; (6) if limits are insufficient to provide adequate compensation, supplementary funds are established to complement compensation, which can either be funded by industry or states. Thus, while in principle, legal liability is channelled to one actor, in reality, the payment of compensation is shared amongst a number of actors, namely the operator, the insurance company, the industry supporting the supplementary funds and in certain cases, the state.[90]

The first-generation nuclear liability conventions initiated the trend of channelling liability back to the operator 'no matter how long the chain of causation, nor how novel the intervening factors (other than a very limited number of exculpatory ones)'.[91] While the formal justifications for channelling legal liability was to avoid the difficulties in identifying liable parties and to allow a concentration of insurance capacity, it was largely a result of interest group politics and particularly the unwillingness of American fuel suppliers to bear liability for potential nuclear accidents in Europe, and the desire of Western European governments to promote the peaceful use of nuclear energy.[92] 'Hold-harmless' clauses were adopted in bilateral contracts

30 May 1996) 1953 UNTS 330 (1992 Fund Convention); Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil (adopted 16 May 2003, entered into force 3 March 2005) 92FUND/A.8/4 Annex 1 (2003 Supplementary Fund Convention).

[87] International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, (adopted 3 May 1996, not yet entered into force) 35 ILM 1415 (1996 HNS Convention), as amended by the Protocol of 2010 to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (adopted 30 April 2010, not yet entered into force) (2010 HNS Convention).

[88] Nairobi International Convention on the Removal of Wrecks (adopted 18 May 2007, entered into force 14 April 2015) 46 ILM 2007.

[89] Protocol to the Athens Convention relating to the Carriage of Passengers and Their Luggage by Sea, Consolidated text of the 1974 Athens Convention relating to the Carriage of Passengers and their Luggage by Sea and the 2002 Protocol to the Convention (adopted 1 November 2002, entered into force 23 April 2014) Cmnd 8760.

[90] This is the case in the nuclear liability regime – for a more comprehensive discussion on this, see Chapter 8.

[91] LFE Goldie, 'Concepts of Strict and Absolute Liability and the Ranking of Liability in Terms of Relative Exposure to Risk' (1985) 16 NYIL 175, 196.

[92] Tom Vanden Borre, 'Shifts in Governance in Compensation for Nuclear Damage 20 Years after Chernobyl' in Michael Faure and Albert Verheij (eds), *Compensation for Environmental Damage* (Springer 2007) 262; Faure, 'Attribution of Liability' (n 6) 623–624.

between the United States and Europe which required European nuclear operators to indemnify American suppliers for all claims resulting from their activities.[93] The exclusive channelling of liability to the nuclear operators (coupled with a limitation of liability and compulsory insurance) was incorporated in a draft nuclear liability treaty.[94] The intention was to minimize the unpredictability of multiple claims against suppliers, builders, designers, carriers, operators and states.[95] The nuclear installation operator is exclusively liable for damage resulting from accidents at its installation or during the transport of nuclear substances to and from that installation.[96] No other party may be held liable for the damage, although several operators can be held joint and severally liable.[97] The operator, in principle, does not have any right of recourse against other parties, including nuclear suppliers.[98] The absence of a right of recourse is to prevent the need for suppliers to seek insurance thereby avoiding costly duplication of insurance.[99] Supplementary funds after liability limits are exceeded are provided by the installation states and/or the contracting state.[100]

Similarly, the channelling of liability for cargo oil pollution was shaped by shipping and oil interests. After the 1967 Torrey Canyon incident in the English Channel, the British government was faced with expensive clean-up costs. Discussions at the predecessor to the IMO on which actor should provide compensation focused on either the shipowner or the cargo owner being liable, and whether it should be based on strict liability or fault.[101] Imposing liability on the flag state of the oil-polluting vessel was not seriously discussed.[102] The impasse was resolved when the Belgian delegation proposed that an additional layer of compensation be contributed by the oil industry, and this was to be coupled with channelling and

[93] Faure, 'Attribution of Liability' (n 6) 623.

[94] Günther Doeker and Thomas Gehring, 'Private or International Liability for Transnational Environmental Damage – The Precedent of Conventional Liability Regimes' (1990) 2(1) JEL 1, 8–9.

[95] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (4th edn, OUP 2021) 439.

[96] 1960 Paris Convention (n 85) arts 3, 4 and 6; 1963 Vienna Convention (n 85) arts II and IV.

[97] See, for example, 1963 Vienna Convention (n 85) arts II (3) and (4).

[98] Both the 1960 Paris Convention and 1963 Vienna Conventions acknowledge that the installation operator shall have a right of recourse only if the damage results from an act or omission done with intent to cause damage against the individual acting or omitting to act with such intent or if it is expressly provided for in contract: 1960 Paris Convention (n 85) art 6 (f); 1963 Vienna Convention (n 85) art X.

[99] Exposes des Motifs, of the 1960 Paris Convention of Third-Party Liability in the Field of Nuclear Energy (n 85).

[100] For a more detailed discussion, see Chapter 8, Section 8.3.

[101] Faure and others, 'Analysis of Existing Regimes' (n 85) 74.

[102] Doeker and Gehring note that Liberia (a flag of convenience State) had requested that states should consider the possibility of multilateral governmental relief action instead of putting the burden on the shipping industry and that national relief funds be established but these proposals were ultimately unsuccessful: Doeker and Gehring (n 94) 5.

strict liability of the shipowner.[103] States did not consider that they should 'underwrite a guarantee of the financial contributions of the respective national oil industries under their control', in contrast to the position of states in the nuclear liability regime.[104]

The 1969 Oil Pollution Liability Convention imposes strict liability on the shipowner for incidents resulting in any oil pollution damage.[105] Channelling is exclusive, as no claims can be brought against the servants or agents of the owner.[106] The 1992 Oil Pollution Liability Convention (which amended the 1969 Oil Pollution Liability Convention) strengthened the channelling of liability to the shipowners in that it also excludes liability of not only the servants and agents of the owner, but also the pilot, or any other person who is not a crew member and performs services for the ship, any charterer, any person performing salvage with the consent of the owner or on the instructions of a competent public authority, any person taking preventive measures and their agents or servants.[107] The extension of the benefit of channelling to these actors was prompted by litigation in US courts after the *Amoco Cadiz* oil spill off the coast of France which found that the 1969 Oil Pollution Liability Convention channelling provisions would not bar proceedings against the registered shipowners' parent company as they were not the 'agents or servants' of the shipowner.[108] Unlike the nuclear liability conventions, the 1992 Oil Pollution Liability Convention does not prejudice any right of recourse of the owner against third parties.[109]

Civil liability regimes that have not adopted exclusive channelling provisions have taken this approach for a variety of reasons. For example, in the 1999 Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movement of Hazardous Wastes and Their Disposal (1999 Basel Liability Protocol)[110] to the 1989 Basel Convention on Transboundary Movements of Hazardous Wastes and Their Disposal (1989 Basel Convention),[111] waste

[103] Faure and others, 'Analysis of Existing Regimes' (n 85) 74. Oil companies had previously already agreed on a private 'Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution': See Doeker and Gehring (n 94).

[104] Doeker and Gehring (n 94) 6.

[105] 1969 Oil Pollution Liability Convention (n 54) art III.

[106] ibid art III (4).

[107] 1992 Oil Pollution Liability Convention (n 54) art III (4). However, if it can be shown that the damage resulted from their personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would result, these actors will be held liable.

[108] Sarah Gahlen, *Civil Liability for Accidents at Sea* (Springer-Verlag 2015) 108–110.

[109] 1992 Oil Pollution Liability Convention (n 54) art III (5).

[110] Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal (adopted 9 December 1999, not yet entered into force, UNTS 120 2005) art 4 (1999 Basel Liability Protocol).

[111] Basel Convention on Transboundary Movements of Hazardous Wastes and Their Disposal (adopted 22 March 1989, entered into force 5 May 1992, 28 ILM No. 657) (1989 Basel Convention).

generators, exporters, importers and disposers are potentially liable at different stages in the transit of waste. One single operation of a transboundary movement of hazardous waste and its disposal could involve several different entities and the 'determination of an individual or of an enterprise to whom liability could be channeled is not an easy task'.[112] Channelling liability to only one person would create 'a disincentive in the other persons involved to exercise the best possible care in order to prevent the occurrence of damage'.[113] Each occurrence of damage can be attributed to the sphere of responsibility of one person, depending on which stage the damage occurs.

Another reason for not adopting exclusive channelling provisions is the lack of availability of supplementary funding from industry or states. For example, the 2001 Bunker Oil Convention is modelled on the 1992 Oil Pollution Liability Convention for cargo oil pollution but adopts a different approach to exclusive channelling of liability.[114] Unlike the 1992 Oil Pollution Liability Convention where the shipowner is confined to the registered owner, the 2001 Bunker Oil Convention defines the shipowner as 'the owner, including the registered owner, bareboat charterer, manager and operator of the ship'.[115] Liability is attributed not only to the person formally registered as the owner of the ship but also to persons typically having control over the operation of the ship, that is, the bareboat charterer, manager and operator of the ship.[116] However, only the registered owner is required to carry compulsory insurance or financial security.[117] There is no secondary tier of compensation, as there is no other industry other than the shipowners which could contribute to compensation – by 'providing a vast number of defendants to possible victims, the negotiating parties apparently hoped to mitigate this shortcoming in material compensation'.[118]

There are advantages and disadvantages to exclusive channelling of liability. First, channelling of legal liability (coupled with strict liability) facilitates adequate and prompt compensation to the victim. Victims do not have to identify the person liable (and the evidentiary complexities that entails) and it avoids uncertainties in cases where there is more than one party at fault. This limits the potential problems arising from the concurrence of lawsuits and decreases administrative costs.[119] This

[112] Soares and Vargas (n 80) 86.
[113] ibid.
[114] International Convention on Civil Liability for Bunker Oil Pollution Damage (adopted 23 March 2001, entered into force 21 November 2008) IMO LEG/CONF.12/19, OJ L 256/7 (2001 Bunker Oil Convention).
[115] ibid art 1 (3).
[116] Gahlen (n 108) 179.
[117] 2001 Bunker Oil Convention (n 114) art 7.
[118] Gahlen (n 108) 180.
[119] Michael Faure and Tom Vanden Borre, 'Compensating Nuclear Damage: A Comparative Economic Analysis of the US and International Liability Schemes' (2008) 33 Wm & Mary Envtl L & Pol'y Rev 219, 264.

is a non-trivial factor in ABNJ, where responsible parties could arise in multiple jurisdictions, all with varying rules affecting recovery. Second, channelling may facilitate the availability of insurance as it reduces the number of persons required to obtain insurance coverage and avoids overlapping insurance coverage.[120] That said, it has also been argued that the insurability justification often used to rationalize exclusive channelling to the operator is 'simplistic and to some extent even incorrect'. The existence of several potentially liable parties that need insurance coverage does not necessarily mean that total insurance costs will increase.[121] Further, because the insurer will also have to cover losses in cases where the losses may not have been theoretically caused by the insured but by a third party, channelling actually creates a greater risk exposure and, consequently, uncertainty for the insurer.[122] Third, it is said that channelling liability to the operator is appropriate because the operator is usually in the best position to exercise effective control over the activity.[123] However, the event that may have led to the damage could have occurred before the operator exercised control over the activity. Fourth, another related rationale for channelling of liability is that the operator is the one 'who created high risks seeking economic benefit' and 'must bear the burden any adverse consequences of controlling the activity'.[124] Most activities both in areas under jurisdiction and in ABNJ involve a complex web of actors, all of whom could be said to create the risk and reap the benefit. Thus, channelling of liability to one party is inefficient from an economic point of view as it 'negatively affects the incentives to take care more particularly by all other parties who could have equally influenced the accident risk',[125] thus undermining the deterrence goals of liability regimes.

Finally, it is argued that to concentrate liability on an actor that may not have caused the damage is a deviation from ordinary rules on liability and hence unjust.[126] Indeed, it is questionable whether channelling of liability is an implementation of the 'polluter-pays' principle. In most civil liability regimes that adopt channelling to the operator (or shipowner), loss is borne by the operator and the industry or state concerned, so there is some form of shared responsibility for cost of

[120] Jan Albers, *Responsibility and Liability in the Context of Transboundary Movements of Hazardous Wastes by Sea* (Springer-Verlag 2015) 200; Faure, 'Attribution of Liability' (n 6) 623; Kristel de Smedt, Hui Wang and Michael Faure, 'Towards Optimal Liability and Compensation for Offshore Oil and Gas Activities' in Michael Faure (ed), *Civil Liability and Financial Security for Offshore Oil and Gas Activities* (CUP 2016) 313–314.

[121] Faure, 'Attribution of Liability' (n 6) 629.

[122] ibid.

[123] Birnie and others (n 95) 443.

[124] Draft Principles (n 20) commentary to art 4, 78, para 11.

[125] de Smedt and others (n 120) 314.

[126] Evelyne M Ameye, 'United States and India: Two Nuclear States with Legislation that Truly Holds Responsible Parties Liable in Case of a Nuclear Accident' (2015) 18(8) J Risk Res 1070, 1073–1074.

pollution damage, and they are arguably jointly treated as polluters.[127] However, the contributors of the funds may not have any direct responsibility for the pollution and 'there is no forensic analysis of responsibility and the allocation of liability and the activation of the secondary layer of compensation are based purely on pre-prescribed formulae'.[128] Thus, channelling of liability does not implement the polluter-pays principle *per se*. National courts deciding on oil pollution claims have occasionally rejected channelling provisions and found other entities apart from the registered shipowner liable because they have contributed to the risk of the incident, reflecting a desire to hold responsible parties excluded by the international regime accountable for exposing the marine environment to risk.[129]

The upshot of this discussion is that there is no general overarching rule or approach that necessitates the adoption of channelling of liability to the operator, although there is an increasing trend to do so in many civil liability regimes. Channelling is usually a policy choice dictated by extra-legal considerations, including the specific industry and the availability of insurance and supplementary funding. If there is a discernible pattern, it is towards limiting the exposure of the state through restricted attribution rules, due diligence and channelling of liability to operators, a trend that is likely to also characterize allocation of liability in ABNJ, as demonstrated by the lack of appetite to extend the civil liability regimes to the high seas.

4.3.4 *Allocating Liability amongst Several Responsible Actors*

There are several scenarios in which environmental harm is the result of the actions of multiple actors and/or causes. In a one-off incident or series of connected activities leading to environmental harm, multiple international actors (states and international organizations) and private entities may have contributed to environmental harm. Such environmental harm may also be worsened by natural causes or cumulative environmental harm that has occurred over a period. In another scenario, cumulative environmental harm can arise over a course of time either out of a connected or unconnected set of activities involving multiple actors or from external natural causes. In the absence of channelling which directs responsibility to one actor, liability rules need to address the allocation of liability when there are potentially multiple responsible actors.

Under general rules of tort, tortfeasors are presumptively liable in equal shares, unless the court allocates liability based on some other criterion such as relative fault – an approach referred to as *several liability*.[130] Under *joint and several liability*,

[127] Birnie and others (n 95) 344.
[128] Julie Adshead, 'The Application and Development of the Polluter-Pays Principle across Jurisdictions in Liability for Marine Oil Pollution: The Tales of the "Erika" and the "Prestige"' (2018) 30 JEL 425, 435.
[129] ibid 443–451.
[130] Hylton (n 3) 180.

any one of the tortfeasors may be held liable for the entire damage vis-à-vis the victim.[131] Joint and several liability usually arises when various tortfeasors have knowingly acted in concert to produce the injury.[132] If the tortfeasors acted independently of each other, joint and several liability is found if it can be demonstrated that each defendant contributed to the injury or if it can be demonstrated that each defendant contributed to part of the injury and it is impossible to allocate respective fault.[133] The primary advantage of joint and several liability is that it relieves the burden on the victim to demonstrate how responsibility amongst multiple tortfeasors should be allocated, as victims can collect the entire damage from one of the contributing tortfeasors who, in turn, could claim recourse against the other liable tortfeasors in proportion to their comparative responsibility for the loss based on relative causal contribution and fault.[134] It places the risk of insolvency on the defendants rather than the victim, gives the victim incentive to sue and reduces administrative costs.[135] It is also said to provide incentives for mutual monitoring between tortfeasors and to promote the exercise of reasonable care.[136] Accordingly, civil liability rules regimes generally recognize that when more than one operator/owner is liable and damage is not reasonably separable, liability will be joint and severable.[137] However, joint and several liability has also been critiqued as unfair to insurers and the defendant with deeper pockets who may only be responsible for a small proportion of damage in comparison to the other defendant.[138] This is particularly problematic when one of the defendants is insolvent resulting in a situation where only the solvent tortfeasor is held liable for damage, encouraging litigation against tortfeasors or insurers with the most funds.[139] In response to this, certain jurisdictions have adopted *proportionate liability* whereby liability for damage is apportioned between all the concurrent tortfeasors according to their respective responsibility.[140]

The rules of state and international organization responsibility start from the premise that states and international organizations are individually and independently responsible for their own conduct that is attributable to them (known as individual responsibility).[141] The ASR explicitly address the 'plurality of responsible states', that is, the situation where there are multiple wrongdoing states and stipulates

[131] ibid.
[132] Faure, 'Attribution of Liability' (n 6) 607.
[133] ibid; Hylton (n 3) 183–185.
[134] de Smedt and others (n 120) 316.
[135] Faure, 'Attribution of Liability' (n 6) 609–615.
[136] ibid 614.
[137] Paris Convention (n 85) art 5 (b); Vienna Convention (n 85) art II (3); 1992 Oil Pollution Liability Convention (n 54) art IV; 2001 Bunker Oil Convention (n 114) art V.
[138] See, for example, *AWA Ltd v Daniels t/as Deloitte, Haskins and Sells* (1992) 7 ACSR 759 at 877.
[139] Faure, 'Attribution of Liability' (n 6) 617.
[140] ibid 608.
[141] ASR (n 12) art 1, 32.

that where multiple states are responsible for the same internationally wrongful act, each state is separately responsible for the conduct attributable to it.[142] In the DARIO, it states that 'when an international organization and one or more States or other international organizations are responsible for the same internationally wrongful act, the responsibility of each State or international organization may be invoked in relation to that act'.[143] However, the current framework on state and international organization responsibility is said to, in principle at least, accommodate multiple actors in that the same conduct can be attributed to more than one subject of international law at the same time and multiple states and/or international organizations can therefore be found independently responsible and liable for the same damage.[144]

That said, there are limitations to independent responsibility, particularly in complicated situations of multiple wrongdoers, including the fact that it provides no basis for the apportionment of responsibility and reparation. This is also linked to the complexities in developing appropriate causation tests in cases of 'causal overdetermination'.[145] The ASR conclude, 'international practice and the decisions of international tribunals do not support the reduction or attenuation of reparation for concurrent causes except in cases of contributory fault' and a state will be held responsible for all consequences (not being too remote) of its wrongful conduct unless the injury can be shown to be severable in causal terms from that attributed to the responsible state.[146] The ASR 'neither recognizes a general rule of joint and several responsibility nor does it exclude the possibility that two or more States will be responsible for the internationally wrongful act'.[147] International courts and tribunals have also taken different approaches.[148] For example, in the *Certain Phosphate Lands in Nauru Case*, the International Court of Justice (ICJ) found that the conduct of the Administering Authority of Nauru that damaged phosphate lands was attributable to each of the states that had established the Administering Authority, namely, Australia, New Zealand and the United Kingdom, even though Nauru had only brought a claim against Australia.[149] The United Nations Claims

[142] ibid art 47, 124.
[143] DARIO (n 57) art 48 (1), 88.
[144] André Nollkaemper and Dov Jacobs, 'Shared Responsibility in International Law: A Conceptual Framework' (2013) 34 Mich J Intl L 359, 389–393.
[145] Plakokefalos has defined overdetermination as 'the existence of multiple causes [multiple wrongdoers, external natural causes, contribution to the injury by the victim and so on] contributing to a harmful outcome': See Plakokefalos (n 6) 472.
[146] ASR (n 12) commentary to art 31, 93–94, paras 12 and 13.
[147] ibid commentary to art 47, 125, para 6. The Special Rapporteur, James Crawford, has cautioned against drawing from private law analogies such as the doctrine of joint and several liability and has argued that there is no evidence that joint and several liability has been accepted in international law: Crawford (n 23) 328–332.
[148] Lanovoy (n 9) 69–74.
[149] *Certain Phosphate Lands in Nauru (Nauru v Australia)*, Preliminary Objections, [1992] ICJ Rep 240, paras 45–47.

Commission (UNCC) also considered concurrent causes of harm and found that where damage directly resulted from an act but that other factors have contributed to the damage, 'due account is taken of the contribution from such other factors in order to determine the level of compensation that is appropriate for the portion of damage which is directly attributable' to the act for which compensation is being claimed.[150]

In situations where two or more *international actors* are responsible for environmental harm in ABNJ the question will arise as to what portion of the harm caused to a third party the actors are responsible for and lack of clarity on this issue may result in too much or too little responsibility for a given individual state or international organization.[151] As observed by some scholars, it could also result in blame shifting between the actors involved.[152] The upshot is that there is no satisfactory solution to issues of causation and shared responsibility under international law.[153]

4.4 SPECIFIC RULES ON ALLOCATION OF LIABILITY IN ABNJ

4.4.1 *Antarctic*

The activities taking place in Antarctica consist mostly of fishing, scientific research and tourism.[154] The actors conducting such activities consist of state operators and non-state operators. There is presently no liability regime in force and allocation for liability for environmental harm, the primary obligations of which are found in the 1959 Antarctic Treaty and the 1991 Protocol on Environmental Protection to the Antarctic Treaty (1991 Antarctic Protocol), will be determined by the default rules on state responsibility discussed in Section 4.3.1.[155] There are no international organizations specific to the Antarctic that possess the requisite legal personality to be subject to legal actions. The ATCM is *prima facie* a conference of parties, and while it has been argued that it is functionally equivalent to an international organization, its status has been intentionally ambiguous and is not considered an actor to which international responsibility can be attributed.[156]

[150] UNCC S/AC.26/20003/31, 18 Dec 2003, para 39; Lanovoy (n 9) 70–72.
[151] Nollkaemper and Jacobs, 'Shared Responsibility in International Law' (n 144) 391.
[152] ibid 392.
[153] See generally Nollkaemper and others, 'Guiding Principles' (n 11).
[154] See discussion in Chapter 1.
[155] Antarctic Treaty (adopted 1 December 1959, entered into force 23 June 1961) 402 UNTS 71; 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).
[156] During the negotiations for the Secretariat in 2002–2003, there had been debate on whether the Antarctic Treaty Consultative Meeting (ATCM) is an international organization–some ATCPs considered it to be an international organization while others did not. Ultimately, the Secretariat was created with legal personality and capacity only under Argentine domestic law, and the exact status of the ATCM was left intentionally ambiguous. On the other hand, the Chair of the ATCM signed the Headquarters Agreement for the Secretariat on behalf of the

However, it is instructive to examine how allocation of liability is addressed in instruments which have been negotiated but are currently not in force, namely the 1988 Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA)[157] and the 2005 Annex VI to the Environmental Protocol on Liability Arising from Environmental Emergencies (Liability Annex).[158] Both allocate liability to the 'operator' which includes state operators and non-state operators and envisage some form of liability for states parties.

Although CRAMRA did not contain a complete liability scheme and is unlikely to ever come into force given the moratorium on exploitation activities in Antarctica, it contains provisions on liability which are worth examining.[159] The basic structure of the CRAMRA liability regime mirrors the central features of civil liability treaties, with operators being strictly liable for several categories of damages, including failure to take 'necessary and timely response action, including prevention, containment, clean-up and removal measures, if the activity results or threatens to result in damage to the Antarctic environment or dependent or associated ecosystems' (similar to administrative approaches to liability),[160] and the establishment of a Fund when the operator is financially incapable of meeting its obligations in full or when damage exceeds limitation of liability or where the damage is of an undetermined origin.[161] However, unlike traditional civil liability regimes, there is a role for states by providing for a limited form of residual state liability. While this approach was met with strong opposition,[162] CRAMRA ultimately recognized that the sponsoring state was responsible and consequently liable for damage which would not have occurred or continued if the sponsoring state had carried out its obligations under the Convention and that state was only liable for that portion of liability not satisfied by the operator.[163] The approach, while linking state liability to unsatisfied damages, still requires a breach and causal connection to

ATCM which has led some scholars to suggest that it is an entity separate from its members: Jill Barrett, 'The Antarctic Treaty System' in Karen N Scott and David L VanderZwaag (eds), *Research Handbook on Polar Law* (Edward Elgar 2020) 40, 53–54.

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

[158] Annex VI to Protocol on Environmental Protection to the Antarctic Treaty on Liability Arising from Environmental Emergencies (adopted 17 June 2005, not yet entered into force) 45 ILM 5 (Liability Annex).

[159] Art VIII of CRAMRA set out the liability scheme, although it was not complete.

[160] Liability Annex (n 158) art 8(1).

[161] The issue of whether there should be limits to liability for environmental damage to the Antarctic was contentious and it was therefore decided to defer the issue to the prospective Protocol and art VIII(7) provides that the Protocol may contain appropriate limits on liability, where such limits can be justified.

[162] Henry C Burmester, 'Liability for Damage from Antarctic Mineral Resource Activities' (1989) 29 Va J Int'l L 621, 649.

[163] CRAMRA (n 157) art VIII (3)(a). The 'sponsoring state' of a juridical has been defined in art XII of CRAMRA.

the loss.[164] CRAMRA also envisages the establishment of a Fund which would first be financed by operators but which may also require states to ensure 'permanent liquidity and mandatory supplementation thereof in the event of insufficiency',[165] although the ultimate means of financing a Fund would be left to the negotiations of a protocol. This latter requirement signals an intention to address liability gaps, and the potential responsibility of states to ensure sufficiency of coverage.

The Liability Annex combines elements of civil liability and administrative approaches. The objectives of the Liability Annex are quite different from CRAMRA, which was intended to regulate the liability of corporations engaged in mineral extraction and was based on the assumption that these corporations would finance any liability arising out of their activities.[166] In contrast, the Liability Annex was negotiated against the overarching objective to comprehensively 'protect the Antarctic environment and dependent and associated ecosystems'.[167] Further, the most common activity in the Antarctic Treaty area is scientific research or small-scale tourist activities which were presumed not to pose the same level of environmental risk as mineral extraction activities.[168] It was also implicitly understood that scientific research should not be unduly restrained by onerous liability provisions.[169]

The Liability Annex defines 'operator' as 'any natural or juridical person, whether governmental or non-governmental, which organizes activities to be carried out in the Antarctic Treaty Area', and includes both non-state operators and state operators.[170] Unlike traditional civil liability regimes and even CRAMRA, the Liability Annex adopts a regulatory or administrative approach by obliging states parties to require its operators to take prompt and effective response action to environmental emergencies if the emergencies arise from the activities of those operators. If an operator fails to do so, states parties of that operator or other states parties are encouraged to take such action. Article 6 states that if an operator fails to take prompt and effective response action to environmental emergencies, it shall be liable to pay the costs of response action taken by parties.[171] However, the Liability Annex differentiates between the liability of state operators and non-state operators.

When a state operator fails to take prompt and effective response action and no response action was taken by any state party, the state operator is liable to *pay the costs of the response action* which should have been undertaken into a fund to be

[164] In this regard the approach follows a state responsibility model, but recovery is not limited to other states, as it is under customary international law.
[165] CRAMRA (n 157) art 8(7).
[166] Alan D Hemmings, 'Liability Postponed: The Failure to Bring Annex VI of the Madrid Protocol into Force' (2018) 8(2) Polar J 315, 322.
[167] 1991 Antarctic Protocol (n 155), art 2, 16.
[168] Hemmings (n 166) 322.
[169] ibid.
[170] Liability Annex (n 158) art 1(c),
[171] ibid art 6(1).

administered by the Secretariat.[172] The amount to be paid is to be determined by the ATCM by means of a decision.[173] However, decisions can only be adopted if there are no objections by a consultative party, which means that a consultative party who is also a state operator can determine or veto the amount.[174] Further, the liability of state operators shall be resolved only by the ATCM and if the question is unresolved, it is to be resolved by the dispute settlement procedure of the Protocol (articles 18, 19, 20), that is, by negotiation, inquiry, mediation, conciliation and lastly arbitration.[175] Unlike, the deep seabed mining regime in UNCLOS (Section 4.4.2) or CRAMRA, state operators are afforded much greater protection from liability claims, notwithstanding the operational nature of the activity.

When a non-state operator fails to take prompt and effective response action and no response action was taken by any state party, the non-state operator shall be liable to pay an *amount of money that reflects as much as possible the costs of the response action* that should have been taken.[176] This amount of money should be paid directly to the fund, or to the state party of that operator or to the party that is obliged to establish that there is a mechanism in place under its domestic law for enforcement against the non-state operator.[177] A state party receiving such money shall *make best efforts* to make a contribution to the fund which at least equals the money received by the operator. An action can be brought against the non-state operator in the courts of a party where the operator is incorporated or has its principal place of business or his habitual place of residence.[178]

With regard to state liability for the failure of non-state operators to undertake emergency response actions (separate from a state operator's liability), there is no sponsoring state liability *per se* but activities by non-state actors must either be subject to the authorization of states parties or if there is no formal authorization process, non-state operator's activities are subject to a comparable regulatory process by that state party.[179] The Liability Annex does not impose residual liability on states if non-state operators fail to take response action, and only encourages states parties of the operator and other states parties to take action.[180] Article 10 provides, however, that a state party shall not be liable for the failure of a non-state operator

[172] ibid art 6(2) (a), read with art 12.
[173] ibid art 7(5).
[174] This clause was highly debated with some states suggesting that the state party of the operator should be excluded from the decision-making process, but no consensus could be reached on this. See Silja Vönecky, 'The Liability Annex to the Protocol on Environmental Protection to the Antarctic Treaty' in Doris König, Peter-Tobias Stoll, Volker Röben and Nele Matz-Lück (eds), *International Law Today: New Challenges and the Need for Reform?* (Springer 2007) 186.
[175] Liability Annex (n 158) art 7(4).
[176] ibid art 6(2)(b).
[177] ibid.
[178] ibid art 7(1).
[179] ibid art 1(d).
[180] ibid art 5(2).

to take response action except to the extent that the state party did not take appropriate measures within its competence (i.e. adoption of laws and regulations, administrative actions and enforcement measures) to ensure compliance with the Annex, that is, in effect a due diligence obligation.[181]

4.4.2 *Deep Seabed*

There are potentially a range of actors whose actions may result in damage to the marine environment, including the contractor, the ISA, the sponsoring state, the Enterprise (currently non-operational), manufacturers of equipment, the owner or operator of vessels, installations and equipment used for deep seabed mining, the flag state of the vessel engaged in deep seabed mining (to the extent a vessel is used and not an installation), the parent companies of non-state contractors and the home states of parent companies.

UNCLOS allocates liability for damage arising out of activities in the Area (including damage to the marine environment) to the contractor (i.e. either the state, the state-owned entity or the private entity provided the latter two are sponsored by a sponsoring state), the ISA and the sponsoring state.[182] During the negotiations of UNCLOS, the Group of 77, which represented the interests of developing states, proposed that liability and risk arising out of the conduct of operations would lie solely with the contractor but it was eventually recognized that both the contractor and the ISA would be responsible for damage arising out of their wrongful conduct.[183] Moreover, state responsibility for activities carried out by governmental agencies and non-governmental entities or persons acting under its jurisdiction was always contemplated even as early as the 1970 Declaration of Principles.[184] It is clear the intention was to place responsibility on all three actors either because they were directly conducting activities or had supervisory responsibilities over the contractors.

Accordingly, article 22 of Annex III of UNCLOS provides that the contractor and the ISA shall have responsibility or liability for any damage arising out of its wrongful acts in the conduct of its operations and exercise of its powers and functions

[181] This was inspired by UNCLOS (n 43) art 139, read with Annex III, art 4(4).

[182] UNCLOS (n 43) art 139; Annex III, art 22.

[183] Third United Nations Conference on the Law of the Sea, *Text on Conditions of Exploration and Exploitation Prepared by the Group of Seventy-Seven*, A/CONF.62/C.1/L.7, vol 3; the text prepared in 1974 stated, 'Any responsibility, liability or risk arising out of the conduct of operations shall lie only with the person, natural or juridical, entering into a contract with the Authority' (ibid at para 13). The records do not reveal detailed reasons as to why the ISA was also added as a potentially liable party: Satya N Nandan, Michael W Lodge and Shabtai Rosenne (eds), *United Nations Convention on the Law of the Sea 1982: A Commentary*, vol VI (Brill 2002) 753.

[184] Declaration of Principles Governing the Sea-Bed and Ocean Floor and the Subsoil Thereof, Beyond the Limits of National Jurisdiction, UNGA Res 2749 (XXV) (17 December 1970).

respectively, account being taken of contributory acts or omissions by the contractor or the ISA, as the case may be. The Exploration Regulations build upon the distribution of responsibility and liability between the contractor and the ISA which is also mirrored in the latest version (as of writing) of the Draft Exploitation Regulations (DER).[185] The liability of the sponsoring state is set out in article 139. This distribution of liability (as opposed to exclusively placing liability on the contractors) may have also been motivated by the fact that contractors were not just confined to privately owned corporations (which was what initially pushed for by the industrialized countries), but also states and their state-owned entities which are traditionally reluctant to accept liability. This allocation of liability between the contractors, the ISA and the sponsoring state and the SDC's elaboration on this allocation in its 2011 Advisory Opinion raises several interesting issues.

With the exception of the exclusive channelling of liability to contractors, which is not present under the deep seabed regime, both the existing liability framework and developing liability framework for activities in the Area contain elements commonly found in civil liability regimes. For example, the contractor is liable for the wrongful acts or omissions of its employees, subcontractors, agents and all persons engaged in, working or acting for them in the conduct of its operations under the contract.[186] Both the Exploration Regulations and DER place obligations on the contractors to take out insurance.[187] The SDC's Advisory Opinion suggested the establishment of a trust fund to compensate for damage that was not caused by any of the actors or that exceeded what the contractor was able to compensate. Funds are a key element of civil liability regimes and the DER envisages the establishment of an Environmental Compensation Fund, with funding coming out of fees and penalties paid to the ISA, amounts received as a result of legal proceedings arising out of a violation of the terms of the exploitation contract, any monies paid into the Fund at the direction of the Council and any income received by the Fund from the investment of monies belonging to the Fund.[188]

Further, there are also signs that under the existing framework, liability for damage will be placed on the contractors if not *de jure*, at least *de facto*. For example, several sponsoring states' national legislation provide that a sponsored contractor shall at all times keep the sponsoring state indemnified against all actions,

[185] See, for example, International Seabed Authority's (ISA) Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (2013) ISBA/19/C/17 (PMN), Annex IV, s 16; 'Draft Regulations on Exploitation of Mineral Resources in the Area, prepared by the Legal and Technical Commission' (2019), ISBA/25/C/WP.1 (LTC), Annex X, s 12 (DER).

[186] See, for example, PMN (n 185) Annex IV, s 16(1). The extent to which other actors engaged in deep seabed mining such as the flag states, the vessel owner/operator, the manufacturer, the parent companies of non-state contractors will fall within the definition of 'employees, subcontractors, agents and all persons engaged in, working or acting for them in the conduct of its operations under the contract' is not clear.

[187] PMN (n 185) Annex IV, s 16(5); DER (n 185) reg 36.

[188] DER (n 185) reg 56; see also discussion in Chapter 8.

proceedings, costs, charges, claims and demands which may be or brought by any third party in relation to activities in the Area.[189] Similarly, the current version of the DER also requires the contractors to include the ISA as an additional assured and oblige the underwriters to waive any rights of recourse including subrogation rights against the ISA in relation to exploitation.[190] This would suggest that in the event that damage is caused by some failure of due diligence on either part of the ISA and the sponsoring state, they could escape liability through contractual means.

Channelling legal liability to the contractor, to the exclusion of sponsoring states and the ISA, appears to derogate from the intention of the negotiators of UNCLOS on the allocation of liability and may undermine the incentive of the sponsoring state and the ISA to exercise reasonable care in the exercise of their obligations. It is also not clear whether the ISA has the authority to fundamentally change the allocation of liability set out in UNCLOS.[191] While an indemnity under domestic law cannot alter the international legal obligations of sponsoring states, the effect is to allow the sponsoring state to contract out of their responsibilities under UNCLOS.

There are several scenarios where the conduct of the ISA could cause damage, including failing to ensure sufficient supervision of activities in the Area or even in the conduct of its inspections.[192] Article 22 of Annex III provides that along with the contractor, the ISA shall 'have responsibility or liability for any damage arising out of wrongful acts in the exercise of its powers and functions, including violations under article 168, paragraph 2, account being taken of contributory acts or omissions by the contractor. Liability in every case shall be for the actual amount of damage'.[193] The Exploration Regulations build upon this. UNCLOS, the Exploration Regulations and the DER place obligations on the ISA and its organs in relation to the exercise of its powers and functions, and failure to exercise due diligence that results in damage to the marine environment will incur liability. This is consistent with the responsibility of international organizations under the DARIO.

[189] Kiribati's Seabed Minerals Act 2017 s 92(3); also see 'Code Project: Template National Sponsorship Law for Seabed Mining beyond National Jurisdiction', (Pew Charitable Trusts, October 2020) s 27 available at <www.pewtrusts.org/-/media/assets/2020/09/seabed_mining_white_paper.pdf>.

[190] DER (n 185) reg 36.

[191] The ISA has express powers under UNCLOS as well as 'such incidental powers ... as are implicit in and necessary for the exercise of those powers and functions with respect to activities in the Area': UNCLOS (n 43) art 157(2). The SDC noted that the ISA Regulations are instruments subordinate to UNCLOS and if not in conformity, should be interpreted to ensure consistency with its provisions but at the same time acknowledged that further rules could be developed in the context of deep seabed mining: *Activities in the Area* Advisory Opinion (n 45) paras 93 and 211.

[192] UNCLOS (n 43) art 153(5).

[193] UNCLOS (n 43) Annex III, art 22. art 168 (2) mandates that the Secretary-General and the staff shall have no financial interest in any activity relating to activities in the Area and are subject to confidentiality requirements in respect of industrial secrets, proprietary data and other confidential information.

However, several issues remain. First, while article 22 of UNCLOS does not limit the type of damage for which the ISA can be held liable for, the Exploration Regulations provide that the ISA shall be liable for the 'actual amount of any damage *to the Contractor*' which appears to assume that the ISA will only be held liable for damage suffered by the contractor. This is in contrast to the contractor's liability in the Exploration Regulations which states that the contractor is liable for 'the actual amount of any damage, *including damage to the marine environment*, arising out of its wrongful acts or omissions . . .'.[194] The Exploration Regulations suggest that the only claimant that can bring a claim against the ISA is the contractor, who may seek to bring a contributory claim against the ISA. UNCLOS states parties are the only other entities that could bring a claim against the ISA. The ISA will also most likely have immunity in national courts.[195]

Second, from a practical perspective, it is also not clear how the ISA, if it were held liable, would be able to pay for any compensation given that its operations are funded by assessed contributions from states and from the fees paid by the contractors. As acknowledged in the DARIO, the member states of the ISA may be required to step in if the ISA is unable to compensate. This may also be why the DER requires the contractors to include the ISA as an additional assured and that the underwriters waive any rights of recourse including subrogation rights against the ISA in relation to exploitation.[196]

Other issues concern the liability of the sponsoring state. The SDC found that the sponsoring state would only be found liable if (1) its sponsored contractor's actions resulted in damage; (2) the sponsored contractor failed to pay the actual amount of damage; (3) the sponsoring state failed to carry out its responsibilities under UNCLOS and the failure to carry out these responsibilities was causally linked to the damage caused by the sponsored Contractor.[197] The SDC observed that under article 153 (4) of UNCLOS, the sponsoring state has the obligation to 'assist' the ISA in ensuring compliance with UNCLOS and related instruments and that the 'subordinate role of the sponsoring State is reflected in Annex III, Article 22 of the Convention, in which the liability of the contractor and the Authority is mentioned while that of the sponsoring State is not'.[198] In this connection, the SDC went on to say that the 'main liability for a wrongful act committed in the conduct of the contractor's operations or in the exercise of the Authority's powers and functions rests with the contractor and the Authority, respectively, rather than with the sponsoring State'. This 'reflects the distribution of responsibilities for deep seabed mining activities between the contractor, the Authority and the sponsoring State'.[199]

[194] PMN (n 185) s 16.1.
[195] UNCLOS (n 43) arts 177, 178; see also discussion in Section 4.3.2.2.
[196] DER (n 185) reg 36.
[197] *Activities in the Area* Advisory Opinion (n 45) paras 181–182, 202.
[198] ibid para 102.
[199] ibid para 200.

Accordingly, the SDC found that the liability of the sponsoring state and the contractor exists in parallel and that UNCLOS and related instruments leave no room for residual liability.[200]

While non-residual liability of states is arguably consistent with general trends in international law, the SDC's reasoning as to why deserves further examination.[201] 'Subordinate' suggests a less important position or role and could imply that the sponsoring state's role is secondary or subsidiary to that of the ISA in terms of regulating the contractor. A plain reading of the text does not support this. The absence of reference to the sponsoring state in article 22 of Annex III does not warrant a description of the sponsoring state's role as 'subordinate' given that article 139 of UNCLOS specifically mentions state responsibility and liability. The fact that the sponsoring state is to assist the ISA in ensuring the contractor's compliance with UNCLOS and relevant instruments also seems like a weak justification for imposing a 'subordinate' role on the sponsoring state. The obligation of the sponsoring state to 'assist' the ISA in ensuring that activities in the Area are carried out in conformity with UNCLOS and related instruments are manifested in its obligation to adopt necessary measures within its national legal system – it does not necessarily mean that greater responsibility is placed on the ISA in regulating the contractor. Indeed, the subordinate role of the sponsoring state seems at odds with the overarching purpose of the sponsoring state laid out by the SDC which is to contribute 'to the realization of the common interest of all States in the proper application of the principle of the common heritage of mankind which requires faithful compliance with the obligations set out in Part XI'.[202] It also does not make sense, considering that both the ISA and the sponsoring state have similar supervisory roles vis-à-vis the contractors and this creates uncertainty in the allocation of primary obligations between the ISA and the sponsoring state.

The issue of shared responsibility, that is, instances where a multiplicity of actors contribute to a single harmful outcome by breaching either the same or different obligations is not explicitly addressed in UNCLOS or the Exploration Regulations.[203] There are various permutations where several of the actors identified above may be responsible for damage arising from activities in the Area, that is, either multiple contractors; multiple sponsoring states; the contractor and the ISA; the contractor and the sponsoring state; and the ISA and the sponsoring state.

[200] ibid para 204.

[201] For arguments on why the sponsoring state should have residual liability, please see Donald Anton, 'The Principle of Residual Liability in the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea: The Advisory Opinion on Responsibility and Liability for International Seabed Mining (ITLOS Case No. 17)' (2012) 7 (2) JSDLP-RDPDD 241.

[202] *Activities in the Area* Advisory Opinion (n 45) para 76.

[203] Ilias Plakokefalos, 'Environmental Protection of the Deep Seabed' in André Nollkaemper and Ilias Plakokefalos (eds), *The Practice of Shared Responsibility in International Law* (CUP 2017) 380, 380–381.

The SDC only addressed two scenarios where multiple actors may be responsible. First, where there are multiple sponsoring states, the SDC observed that neither article 139(2) nor article 4(4) of Annex III indicates how sponsoring states are to share their liability, and do not differentiate between single and multiple sponsorship. Accordingly, the SDC opined that 'in the event of multiple sponsorship, liability is joint and several unless otherwise provided in the Regulations issued by the Authority'.[204] Second, where both the sponsoring state and contractor have contributed to the same damage, the SDC held that the sponsoring state and the contractor are not to be held joint and severally liable. This is because 'the liability of the sponsoring State arises from its own failure to carry out its responsibilities, whereas the contractor's liability arises from its own non-compliance' and as a result, both 'forms of liability exist in parallel'.[205] The sponsoring state is not responsible for the damage caused by the sponsored contractor. Thus, the SDC suggests that if the contractor has compensated for the actual amount of damage, claims cannot be brought against the sponsoring state. However, separating fault and corresponding compensation due to the sponsoring state's lack of due diligence from those arising from the contractor's misfeasance would be a challenge.

The wording of article 139 has given rise to questions about the potential liability of parent companies and the home state of parent companies. Specifically, article 139 states that parties have oversight responsibilities for activities in the Area carried by state entities and 'natural or juridical persons who possess the nationality of States Parties or are *effectively controlled* by them or their nationals'.[206] The term effective control could be interpreted as having a narrow regulatory meaning, which would restrict responsibility to the sponsoring state. Alternatively, if effective control is interpreted as having an economic element, through corporate ownership, then the home state of the parent company may bear some responsibility, which in turn influences the allocation of liability. The economic approach reflects the realities of corporate decision-making and has support in some national and international approaches to parent company and home state responsibility for environmental and social issues.[207] In the deep seabed mining context, there is no definitive approach, although the issue has been the subject of analysis by the ISA Secretariat, which favoured the narrow, regulatory approach.[208]

Finally, the Enterprise, as an organ of the ISA that would carry out activities in the Area, would also be subject to liability. While the activities of the Enterprise are

[204] *Activities in the Area* Advisory Opinion (n 45) paras 190–192.
[205] ibid para 201.
[206] UNCLOS (n 43) art 139(1) (emphasis added).
[207] For an overview, see Andrés Sebastián Rojas and Freedom-Kai Philips, 'Effective Control and Deep Seabed Mining: Toward a Definition' Centre for International Governance Innovation, Liability Issues for Deep Seabed Mining Series, Paper No. 7, February 2019.
[208] ISA Legal and Technical Commission, Note by the Secretariat: Analysis of Regulation 11.2 of the Regulations on Prospecting and Exploration for Polymetallic Nodules and Polymetallic Sulphides in the Area. 20th Sess, ISBA/20/LTC/10 (2014).

currently in abeyance, the statute of the Enterprise clearly contemplates the ability for persons harmed by the Enterprise's activities to be able to bring actions in domestic courts.[209]

4.4.3 *High Seas*

There are no specific provisions in either UNCLOS or the newly agreed upon agreement on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (2023 BBNJ Agreement) on the allocation of liability. State liability for activities resulting in environmental harm in the high seas will be determined by the default rules on state responsibility discussed in Section 4.3.1.[210] However, as already discussed, to the extent that such activities are carried out by non-state actors, that is, state-owned entities or private entities, the wrongful conduct will only be attributed to states if the state concerned exercised some form of 'governmental authority' or issued 'instructions, directions or control' over the non-state actor's conduct or activity that led to the damage. Such conduct must have been specifically authorized by the state in question or that the state had actual factual control over the specific conduct which led to the damage. This is a high threshold, and typical commercial activities on the oceans conducted by vessels cannot be attributed to flag states. The fact that flag states, coastal states or sponsoring states exercise supervisory jurisdiction over non-state actors is not sufficient to warrant a finding that the conduct of non-state actors can be attributed to those states. However, it remains available for victims of harm to use the failure of states to exercise due diligence over non-state actors under their jurisdiction and control to establish the responsibility and liability of states (provided that the resultant environmental harm was caused by this failure to exercise due diligence).

With regard to international organizations, as mentioned in Section 4.3.2, there are a multitude of international organizations that have mandates that may cover the high seas but allocating responsibility and consequent liability to them may be an uphill task that is dependent on various factors, including whether the international organization has the requisite legal personality to be allocated responsibility; the nature of its role or authority in relation to the activity potentially resulting in harm (supervisory versus standard setting); whether they are bound by primary obligations to protect the marine environment, the breach of which would incur responsibility and liability; how such international organizations would fund any compensation; and last, in which forum would they be held liable given that international courts and tribunals may not have personal jurisdiction over them and their immunities in national courts. In this regard, it is noteworthy that the 2023 BBNJ Agreement has adopted similar institutional mechanisms found in multilateral environmental

[209] UNCLOS (n 43) Annex IV, art 13(3).
[210] See generally Chapter 1, Section 1.2.3.4.

agreements, consisting of a conference of parties, a scientific and technical body, clearing-house mechanisms and a secretariat,[211] and are unlikely to have the requisite international legal personality to attract responsibility and liability.

Apart from allocating liability to states and international organizations, and given that there is presently no civil liability regime that covers environmental harm in the high seas, non-state actors can potentially be held liable for environmental damage that occurs in the high seas in national courts. Article 235 (2) of UNCLOS obliges states to ensure that recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief in respect of damage caused by pollution of the marine environment by natural or juridical persons under their jurisdiction. There is thus a primary obligation on states parties to UNCLOS to ensure adequate recourse in national systems for pollution to the marine environment by non-state actors under their jurisdiction, which would at least apply to companies registered in that state party. However, as explained in Chapters 2 and 7, litigants may face a range of obstacles in pursuing claims for damage to the marine environment of the high seas including a lack of access to national procedures; a lack of clear jurisdictional provisions that allow courts to hear claims that occur outside of territory; and choice of law issues.

As previously mentioned, one response to the patchwork approach to liability claims for environmental harm in the high seas under unharmonized domestic liability approaches is to develop harmonized rules and procedures through civil liability regimes. There have been proposals to extend the application of existing civil liability regimes to the high seas through a high seas protocol but, as noted by some scholars, this would not be a holistic approach and could result in damage from certain activities being compensated and others not.[212] Channelling of liability to an operator would not work in a single multilateral civil liability regime that covers all activities resulting to damage in the high seas as it would be impossible to treat all operators potentially undertaking activities (i.e. shipowners, rig operators, etc.) equally, particularly if separate insurance rules for different types of activities were needed.[213] The more likely scenario is the development of sector-specific regimes, with potential recourse to channelling as activities in ABNJ develop, but much will depend on the character of the sector.

[211] Draft agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, Advance, Unedited text, 4 March 2023 ('BBNJ Agreement'), Part VI; David S Berry, 'Unity or Fragmentation in the Deep Blue: Choices in Institutional Design for Marine Biological Diversity in Areas beyond National Jurisdiction' (2021) 8 Front Mar Sci 1, 7–11.

[212] Nicholas Gaskell, 'Liability and Compensation Regimes: Pollution of the High Seas' in Robert Beckman, Millicent McCreath, J Ashley Roach and Zhen Sun (eds), *High Seas Governance: Gaps and Challenges* (Brill 2019) 229, 248.

[213] ibid 249.

4.5 CONCLUSIONS

The central questions raised in this chapter concern which actors should bear the losses associated with risky activities. The approach taken up in connection with many of the existing civil liability regimes is to focus liability on the operators. Channelling liability in this manner simplifies claims for potential harm sufferers by relieving them of the burden of identifying defendants and having to pursue multiple parties, and in this regard can be viewed as supporting the goal of prompt and adequate compensation. Channelling also reflects the lack of willingness of states to share in the burdens of risky activities, preferring instead to focus responsibility for harms on those actors most directly involved – an approach that is arguably in line with the polluter-pays principle. The channelling of liability runs the risk of reducing the range of available actors that can provide compensation if the primary responsible party is unable to do so. However, this risk is mitigated by the presence of robust insurance and compensation fund requirements. Relieving potentially responsible actors of liability (through channelling) may have indirect effects on the incentives of these actors to maintain high standards of care. Thus, for activities, such as the movement of hazardous waste, involving multiple phases and different risk creating actors, liability is more diffusely allocated. These concerns over incentives ought to be seen as being germane to regulatory actors, with attention being paid to conditions that will best promote high standards of regulatory oversight.

In the ABNJ context, there is no overarching approach to the allocation of liability. The approach under the Antarctic Liability Annex focuses on operators and de-emphasizes the responsibility of states in their capacity as regulators of Antarctic activities. The deep seabed mining regime must contend with the relative responsibilities of contractors, sponsoring states and the ISA, all of whom are identified in Part XI of UNCLOS as having key roles in protecting the marine environment and responding to incidents. The ISA's position is singular in international law and, as such, raises unique legal, political and practical questions concerning its position as a subject of liability. The SDC in its analysis confirmed the oversight responsibility of both the ISA and sponsoring states and connected these responsibilities to potential liability for harms arising from failures of due diligence. It is perhaps noteworthy that under the CRAMRA liability structure, states of mining entities bore some responsibility to ensure the compensation fund system was sufficient. No such role for sponsoring states of sponsored contractors under the deep seabed mining regime has been identified.

The allocation of liability will, of course, be strongly influenced by questions of causation. The approach to causation in international law has not received much attention from jurists and remains ambiguous on points that have been the source of contention in domestic environmental litigation. The larger concern, beyond questions of doctrinal clarity, is that in ABNJ and in relation to environmental harm generally, the causal pathways are often complex and involve multiple parties whose

acts singly may not result in significant (and therefore unlawful) harm, but their cumulative effect does result in such an effect. The current focus of liability rules is on the harm from identifiable and often discrete pollution incidents, as opposed to long-term degradation from multiple actors and often multiple types of sources.

On very large-scale problems, such as ocean plastics pollution or ocean acidification from greenhouse gas emissions, the inability of legal doctrine to address cumulative causation issues effectively insulates states, international organizations and operators from liability. Loss and damage approaches may provide an alternative to cumulative causation problems as they do not focus on allocating liability to an identifiable actor but instead recognize that there is collective responsibility for certain environmental harms like climate change. Loss and damage approaches may still identify responsible parties, but could shift liability towards a looser coupling of specific wrongful acts and remedies.[214] For example, extreme weather events and slow onset events, identified in article 8 of the Paris Agreement, may be analogous to some of the diffuse and cumulative harms affecting the marine environment, such as oceans plastics pollution.[215]

[214] Meinhard Doelle and Sara Seck, 'Introducing Loss and Damage' in Meinhard Doelle and Sara Seck (eds), *Research Handbook on Climate Change Loss and Damage* (Edward Elgar 2021) 1.
[215] Maljean Dubois and Mayer (n 19).