5

Standards of Liability

5.1 INTRODUCTION

A threshold question for designing liability rules in any legal system is the degree of fault required to impose liability. At the core of this question are both moral and distributive considerations in determining when a loss that is suffered by one person – or in the case of environmental harm, by the community as a whole – ought to be shifted to another, usually to the person who caused the harm. The moral dimensions concern the characterization and degree of blameworthy conduct that is required to justify shifting the loss. The distributive dimensions carry with them a range of policy implications concerning the relative utility of the activity posing a risk of harm as compared to the harm itself, the ability of parties involved to bear a particular loss and practical concerns respecting the efficient and effective implementation of loss allocation measures.

One result of the complex array of considerations at play in addressing the appropriate standard of liability is that any consideration of this question is necessarily influenced by the context of its application. Where attempts have been made to develop generalized rules of international law concerning the approach to liability for environmental harm, the result has been a degree of conceptual confusion and no shortage of debate.[1] As a consequence, the rules respecting environmental liability have not developed as a unitary body of law common to all activities, but rather on a regime by regime basis with different approaches to the standard and scope of liability that respond to the regulatory setting of the activity.

With this diversity in mind, this chapter identifies the policy considerations that underlie different approaches to the standard of liability before examining the rules

[1] See Alan E Boyle, 'State Responsibility and Liability for Injurious Consequences of Acts Not Prohibited by International Law: A Necessary Distinction?' (1990) 39 ICLQ 1; Günther Handl, 'Liability as an Obligation Established by a Primary Rule of International Law: Some Basic Reflections on the International Law Commission's Work' (1985) 16 NYIL 49.

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currently in place within the various global commons contexts. The approach to which entities are the main focus of liability is important to the issue of the standard chosen, as states and operators perform distinct functions in relation to the risk that bears on the justification for requiring fault, which has influenced state practice in this area.[2] As both approaches are used in the global commons contexts examined here, this chapter considers the rules that have developed in relation to both state responsibility and where liability is channelled to operators. Finally, this chapter examines the specific rules governing the standard of liability in the global commons.

In discussing the approach to liability, most legal systems distinguish between two main forms of liability: negligence, or fault-based liability, on the one hand, and strict liability, on the other.[3] Negligence regimes are defined as requiring a degree of fault, usually a breach of an identified standard of care, as well as a causal link between the activities undertaken by the subject of liability and the harm, in order to impose liability for environmental harm. The standard of care for negligence can be defined variably, but it is often identified as reasonably prudent or duly diligent behaviour, as evidenced by accepted standards of behaviour in the relevant area of activity. Extensive consideration is given in this chapter to the application of the due diligence standard to environmental harm prevention obligations on states. Strict liability, on the other hand, requires no proof of fault for a finding of liability in relation to harm, but does require causation. Strict liability may still allow certain defences or exceptions to the imposition of liability, such as acts of God, acts of war, necessity and third party or contributory negligence. Where there are no exceptions or very limited exceptions, the liability is often classified as being absolute in nature.[4] Given the limited application of absolute liability in international law,[5] this chapter focuses on the more binary distinction between fault and no-fault (strict) liability.

[2] For general discussions of standards of liability in international environmental law, see Louise de La Fayette, 'International Liability for Damage to the Environment' in Malgosia Fitzmaurice, David M Ong and Panos Merkouris (eds), *Research Handbook on International Environmental Law* (Edward Elgar 2010) 320; Alan Boyle, 'Globalising Environmental Liability: The Interplay of National and International Law' (2005) 17 JEL 3; Philippe Sands and Jacqueline Peel, *Principles of International Environmental Law* (4th edn, CUP 2018) 746–748.

[3] For a general discussion on liability approaches, see International Law Commission (ILC), 'Survey on Liability Regimes Relevant to the Topic International Liability for Injurious Consequences Arising Out of Acts Not Prohibited by International Law: Study Prepared by the Secretariat' (1995) II(1) ILC Yearbook 61.

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

[5] The Vienna Convention on Civil Liability for Nuclear Damage (adopted 21 May 1963, entered into force 12 November 1977) 1063 UNTS 265, amended by Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (adopted 12 September 1997, entered into force 4 October 2003) 2241 UNTS 270 (1997 Vienna Convention) art IV, is the only treaty that uses the term 'absolute', although the approach might better be described as strict, since it does allow for some limited exceptions.

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5.2 POLICY CONSIDERATIONS UNDERLYING STANDARDS OF LIABILITY

The basic theory behind requiring fault as an element of attributing liability is an ethical or justice-based idea that a person who causes harm should only be compelled to compensate the person who suffers an associated loss where the person who causes the harm has acted wrongly in some fashion.[6] Where the incident in question is purely accidental, there is no moral reason for loss shifting. The requirement for fault is not punitive, since the goal is not to make the defendant worse off than they were before the incident, but rather corrective in the sense that compensation is tied to the plaintiff's loss.[7] Wrongfulness, of course, lies at the heart of the law of state responsibility, but only in the thin sense of arising by virtue of a breach of an international obligation.[8] However, the requirement for fault in a subjective sense is a function of the obligation in question.[9]

The difficulty with subjective fault requirements, such as negligence, is that, in the absence of fault, there is no liability, but the victim remains harmed through no fault of their own. Thus, in the absence of fault, the policy question that arises is who should bear the loss as between two potentially non-culpable actors. Creation of risk is most often raised as a basis for imposing liability without a requirement of proof of fault.[10] As a consequence, activities with higher degrees of risk are often subjected to strict forms of liability in both international and domestic law.[11] The presence of risk underlies the law of strict liability in common law tort regimes,[12] as well as

[6] Xue notes that the requirement for subjective fault as a basis for liability was noted by Grotius: 'Pure misfortunes do not deserve punishment, nor do they obligate anyone to make good the damage. Wrong acts do both'. Hanqin Xue, *Transboundary Damage in International Law* (CUP 2003) 297.

[7] Ernest J Weinrib, 'Corrective Justice in a Nutshell' (2002) 52 UTLJ 349.

[8] ILC, 'Draft Articles on Responsibility of States for Internationally Wrongful Acts, with Commentaries' (2001) UN Doc A/56/10 (ASR) art 2.

[9] ibid commentary to art 2, 34, para 3 (the ILC refers to art II of the Genocide Convention, which requires 'intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such . . .' as a necessary element of the wrongful act, as an example of subjective fault; that is, the breach depends upon the intention or knowledge of the state organ or agent).

[10] de La Fayette (n 2) 3; 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 4, 78, para 13.

[11] For a comparative analysis on domestic legal practices, see Elspeth Reid, 'Liability for Dangerous Activities: A Comparative Analysis' (1999) 48 ICLQ 731; ILC, 'Survey on Liability Regimes' (n 3); Monika Hinteregger, 'Environmental Liability' in Emma Lees and Jorge E Viñuales (eds), *Oxford Handbook of Comparative Environmental Law* (OUP 2019) 1025.

[12] See, for example, *Rylands v Fletcher* (1868) LR 3 HL 330 (UK) but see *Cambridge Water Co Ltd v Eastern Countries Leather plc* [1994] 1 All ER 53 (UK). In the United States, the approach is captured in the American Law Institute, *Restatement (Second) of Torts* § 46 (1965).

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influencing liability in civil law jurisdictions.[13] Risk has also been raised as a basis for imposing strict liability on states where they engage in or authorize hazardous or 'ultra-hazardous' activities.[14]

Subjecting nuclear power, marine transport of oil and hazardous substances and the movement of living modified organisms to strict liability regimes reflects the risk concerns associated with those activities.[15] Risk in this context is a function of both the probability of harm and the severity of harm. Goldie further expands on the concept of risk by linking it to concerns respecting the unforeseeability of harm associated with certain activities, and related difficulties in determining acceptable standards of due diligence.[16] Goldie was thinking specifically about the harms arising from new technologies such as nuclear power and outer space activities. In such instances, it may be impossible for operators to reduce risks to acceptable levels through the exercise of due care, but it may nevertheless be desirable for the activities to be pursued. Thus, for Goldie, strict liability has a facilitative function, insofar as it creates conditions (indemnification of those harmed) that allow for the undertaking of activities that might otherwise not be permitted. Moreover, in the event of harm from technologically advanced and complex activities, proving negligence imposes a high evidentiary burden on injured parties.

What is less clear is the degree of risk that is required to justify applying a standard of strict liability. Should, for example, no-fault liability be restricted to 'ultra-hazardous' activities only? [17] And, if so, what differentiates these activities from more

[13] Hinteregger notes that Germanic countries draw a clear distinction between fault and strict liability based on risk, but the distinction is less clear in some other civil law jurisdictions, such as France, which uses a notion of 'presumptive' fault for certain identified activities; see Hinteregger (n 11) 1029; see also Reid (n 11) 743 et seq.

[14] C Wilfred Jenks, 'The Scope and Nature of Ultra-Hazardous Liability in International Law' (1968) 117 Recueil de Cours 99; LFE Goldie, 'Liability for Damage and the Progressive Development of International Law' (1965) 14(4) ICLQ 1189; Kerryn Brent, 'Solar Radiation Management Geoengineering and Strict Liability for Ultrahazardous Activities' in Neil Craik, Cameron SG Jefferies, Sara L Seck and Tim Stephens (eds), *Global Environmental Change and Innovation in International Law* (CUP 2018) 161.

[15] 1997 Vienna Convention (n 5); 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); International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (adopted 3 May 1996) (1996) 35 International Legal Materials (ILM) 1415 (1996 HNS Convention); Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (adopted 15 October 2010, entered into force 5 March 2018) (2011) 50 ILM 105 (2010 Nagoya-Kuala Lumpur Supplementary Protocol).

[16] Goldie, 'Liability for Damage' (n 14) 1196–1197. See also Joni Charme, 'Transnational Injury and Ultra-hazardous Activity: An Emerging Norm of International Strict Liability' (1989) 4 J L & Tech 75.

[17] There is a degree of circularity in the definitions of ultrahazardous risk. Consider, for example, the following comment respect risk from the *Restatement (Second) of Torts*:

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pedestrian forms of risk? The approach of imposing strict liability for ultrahazardous activities is found across different municipal law systems, with a high degree of variance as to what activities attract strict liability.[18] The US Restatement on the Law of Torts (Second) identifies the following factors:

> § 520: In determining whether an activity is abnormally dangerous, the following factors are to be considered: (a) existence of a high degree of risk of some harm to the person, land, or chattels of others; (b) likelihood that the harm that results from it will be great; (c) inability to eliminate the risk by the exercise of reasonable care; (d) extent to which the activity is not a matter of common usage; (e) inappropriateness of the activity to the place where it is carried on; and (f) extent to which its value to the community is outweighed by its dangerous attributes.[19]

While these factors may have some purchase in explaining the adoption of strict liability approaches within civil liability treaties, there is no generalizable approach in international law. Indeed, sub-paragraph (f), above, indicates a contextual approach where risk must be weighed against wider considerations of social utility. Thus, the determination of the approach to liability within sector-specific international regimes is more a function of state and industry policy preferences, and less a principled consideration of risk.

There is a further aspect to imposing liability on the basis of risk exposure that relates to sovereign equality and consent: the act of exposing others to risk that they cannot be presumed to have accepted justifies the imposition of liability without fault. Goldie notes that, unlike municipal legal systems that have sufficient authority to prohibit excessively risky activities, international law 'is still largely a system of permissive and facultative norms', which in turn justifies the imposition of strict or absolute liability.[20] The reasoning here is that states should not be able to unilaterally impose high levels of risk on other (equally sovereign) states without their consent. Strict liability apportions that risk by making the source state or operator responsible for the harm occasioned by its choice. Goldie's approach is also influenced by distributive questions, particularly the degree to which the benefits from the activity are shared amongst states. Where activities involve socially beneficial outcomes, the utility structure favours the imposition of a fault-based, or at least a less stringent, approach, since there is a more balanced distribution of risks and

> The essential question is whether the risk created is so unusual, either because of its magnitude or because of circumstances surrounding it, as to justify the imposition of strict liability for the harm that results from it, even though it is carried on with all reasonable care. In other words, are its dangers and inappropriateness for the locality so great that, despite any usefulness it may have for the community, it should be required as a matter of law to pay for any harm it causes, without the need of a finding of negligence. (cited by Charme at 78) (American Law Institute, *Restatement (Second) of Torts* (1965)).

[18] For an overview of civil and common law approaches, see Hinteregger (n 11) 1025.
[19] *Restatement (Second) of Torts* (n 17).
[20] Goldie, 'Liability for Damage' (n 14) 1221.

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benefits.[21] Goldie analogizes the imposition of risk to a form of expropriation, suggesting the standard of liability is influenced by the nature of sovereign interests that affected states have in the impacted environment.[22] The preferred approach is a liability rule that allows the activity to be carried out, but with payment of compensation in the event that another state's sovereign interests are interfered with, as opposed to a rule that would prevent invasion of the interest without consent.[23]

These concerns permeated the approach taken by Quentin-Baxter and Barboza in their roles as special rapporteurs in the International Law Commission's (ILC) work on liability, where the approach was to impose liability without proof of fault, but to subject the allocation of losses to a form of equitable balancing.[24] In effect, the sovereign rights of both the source state – to engage in lawful but risky activities – and the affected state – to not be subjected to risk of harm without its consent – had to be reconciled, which in turn gives rise to the introduction of equity as a means of apportioning liability. While the approach was ultimately rejected as flawed and not supported by state practice, the concerns respecting exposure to risk and consent remain an important factor.

Considerations of the degree to which states may consent to activities and may benefit from those activities have some clear application to commons activities. Arguably, the sovereign interests affected in areas beyond national jurisdiction (ABNJ) are more attenuated and depend upon the characterization of the legal interest of states in the area or resource in question. In relation to activities on the high seas, which may be undertaken by states unilaterally, and the benefit of which accrues entirely to the state undertaking or authorizing the activity, the structure looks similar to transboundary harm, particularly if the interests of states in the global commons are viewed as sovereign amenities. For example, cable-laying is undertaken with little international oversight and is an activity that any state may engage in, subject to the due regard of other high seas freedoms and activities, yet may impose risks on states or on the international community as a whole, on which they have little say. Similarly, states have a wide margin of freedom to undertake scientific and tourism activities in the Antarctic, but in doing so impose risks of the

[21] Concern over the distributive tensions between socially desirable (or at least legally permissible) activities and the harmful consequences of those activities informed much of the earlier work on liability by the ILC, particularly the approach of Special Rapporteur Quentin-Baxter.

[22] Goldie, 'Liability for Damage' (n 14) 206–213.

[23] While Goldie does not frame it in quite these terms, the approach captures the distinction between types of entitlement rules (liability versus property) introduced by law and economic scholars, Guido Calabresi and A Douglas Melamed, 'Property Rules, Liability Rules, and Inalienability: One View of the Cathedral' (1972) 85 Harv L Rev 1089. (Goldie does not cite this paper but cites Calabresi throughout his 1985 paper on international liability.)

[24] These approaches are summarized by ILC, 'First Report on the Legal Regime for Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities, by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur' (2003) II(1) ILC Yearbook 71, paras 6–14 (describing the reliance by both Quentin-Baxter and Barboza on negotiation and a balancing of interests as a means to settle compensation arising from environmental harm).

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international community from those activities. The ILC notes, with reference to a survey undertaken on national liability regimes, that '[t]he case for strict liability is strengthened when the risk has been introduced unilaterally by the defendant'.[25]

The role of consent further complicates matters. For example, deep seabed mining is structured as a communally regulated activity, in which all parties to the 1982 United Nations Convention on the Law of the Sea (UNCLOS) have a degree of control over through their participation in the organs of the International Seabed Authority (ISA).[26] Not only are the risks of deep seabed mining not imposed unilaterally, but a portion of the benefits of the activity are to be equitably shared.[27] In this regard, the structure of the deep seabed mining regime may militate against the imposition of strict liability – at least on the basis that the allocation of risks and benefits justify shifting losses to the sponsoring state or operators under the sponsoring state's jurisdiction.

Risk is not only a function of the nature of the activity but is also affected by the nature of the receiving environment. Where the potentially affected environment is fragile or less resilient, the risks of harm posed by activities carried out in those areas are heightened. The absence of scientific knowledge respecting impacts may also be viewed as a source of risk since the environmental outcomes are more challenging to predict. In these circumstances, reasonable steps may be difficult to determine *ex ante*, providing further justification for strict liability approaches in environmental sensitive ecosystems or receiving environments characterized by high levels of uncertainty. Such concerns have been raised in connection with the deep seabed and the Antarctic environment.[28]

There is also an intergenerational element to risk allocation insofar as future generations neither consent to nor benefit (directly) from risky activities, but where unforeseeable or non-negligent environmental harm arises, the costs of addressing that harm is often borne by future generations through unremedied harm.[29] This may particularly be the case in relation to commons resources where the victim of

[25] Draft Principles (n 10) commentary to principle 4, 78, para 13.

[26] See Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (adopted 28 July 1994, entered into force 28 July 1996) 1836 UNTS 3 (1994 Implementation Agreement) Annex, s 3(11)(a) (requiring the ISA Council to authorize of Plans of Work for activities in the Area). See also discussion in Chapter 1.

[27] United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 397 (UNCLOS) art 140.

[28] See, for example, Lisa Levin and others, 'Defining "Serious Harm" to the Marine Environment in the Context of Deep-Seabed Mining' (2016) 74 Mar Pol'y 245; Peter Convey and Lloyd S Peck, 'Antarctic Environmental Change and Biological Responses' (2019) 5 Science Advances 11.

[29] Resolution on Responsibility and Liability under International Law for Environmental Damage (adopted 4 September 1997) (1998) 67(2) Annuaire de l'Institut de Droit International 486 art 25.

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the harm is the international community. The intergenerational dimensions of liability have been an emerging trend in atmospheric trust litigation.[30]

Standards of liability may also respond to other shared objectives in international law. Viewed in light of an environmental harm prevention objective, strict liability may be justified as a means to promote deterrence of risky behaviour by providing greater incentives for operators to take steps to prevent accidental damage. This rationale applies equally, if not more, to fault-based liability, since what is sought to be deterred most often is intentional, reckless or negligent behaviour. In a no-fault context, the rationale of deterrence focuses on the imposition of a higher standard of care than mere non-negligence in order to avoid harms that are viewed as socially undesirable. In the case of pollution, deterrence also reflects the notion that harm prevention is preferred to compensation, given that some environmental harms may be difficult or impossible to restore, and that the full measure of harm is not easily quantifiable. As a regulatory matter, operators are much better positioned to take risk minimization measures, and therefore placing a higher standard facilitates greater care, as the law requires that the operator take all steps to prevent harm, not just those that are reasonable. In the absence of strict liability, operators are able to externalize the costs of measures taken to protect the environment that go beyond mere negligence.

In relation to states in their oversight role, it may be argued that strict liability might result in more vigilant oversight of operators. However, accidents that are causally connected to weak oversight would likely result in liability under a due diligence standard, and a higher standard would not prevent unforeseen or purely accidental harm. Strict liability for states has some potential to make more funds available for addressing harm since the responsible state effectively becomes the insurer of the operator, but this would depend on the financial capabilities of the state in question, and there may be more effective ways, such as pooled insurance and compensation funds, to achieve that goal.[31]

As a matter of environmental protection, and as a reflection of economic efficiency, cost internalization is often cited as a desirable policy goal.[32] Cost internalization may promote more efficient methods of loss sharing through insurance or compensation schemes, which spread the risk amongst operators and better protect

[30] Described in Mary C Wood and Charles W Woodward IV, 'Atmospheric Trust Litigation and the Constitutional Right to a Healthy Climate System: Judicial Recognition at Last' (2016) 6 Wash J Envtl L & Pol'y 634.

[31] On the other hand, where the state is the operator, as may be the case in Antarctic research activities or where the state is undertaking seabed mining activities, the deterrence rationale may militate in favour of the imposition of a strict standard, particularly where non-state actors are subject to strict liability.

[32] See Organization for Economic Co-operation and Development (OECD), 'The Polluter-Pays Principle' (1992) OECD/GD(92)81. The appropriate standard of liability from an efficiency standpoint has been the subject of much attention by law and economics scholars, see Steven Shavell, 'Strict Liability versus Negligence' (1980) 9 JLS 1.

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against unfunded harm due to insufficient funds. No-fault regimes may also provide for simplified dispute settlement processes, since the claimant is relieved of the burden of proving fault and may therefore be preferred on efficiency grounds; a goal that might be seen as being present under international law in the requirement for 'prompt' compensation.[33]

Cost internalization is reflected in the inclusion of the polluter-pays principle in international declarations and treaties.[34] The polluter-pays principle has some clear purchase in the area of marine pollution,[35] and is identified as a relevant principle in relation to marine pollution from oil transport.[36] Outside the marine pollution area, it has been linked to strict liability under the Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment.[37] The polluter-pays principle has been referenced as a core principle in both the deep seabed mining regime and the negotiations of a new international legally binding instrument (ILBI) on marine biodiversity beyond national jurisdiction.[38] As an allocation rule, the polluter-pays principle favours placing costs associated with environmental harm on the operator, not the victim, and in this regard favours strict liability.[39] The principle reflects the goal of deterrence and harm prevention, as well as recognizing that responsibility should follow those actors who benefit from activity. The principle is not without qualification and provides room for policy choices respecting exceptions and limitations on liability.[40]

[33] UNCLOS (n 27) art 235(2).

[34] United Nations General Assembly 'Report of the United Nations Conference on Environment and Development' (3–14 June 1992) UN Doc A/Conf.151/26/Rev.1 (1992) Annex I (1992 Rio Declaration) principle 16. See also Priscilla Schwartz, 'Principle 16: The Polluter Pays Principle' in Jorge E Viñuales (ed), *The Rio Declaration on Environment and Development: A Commentary* (OUP 2015) 429; ILC, 'Third Report on the Legal Regime for the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities, by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur' (2006) II(1) ILC Yearbook 71, paras 27–30.

[35] Convention for the Protection of the Marine Environment of the North-East Atlantic (adopted 22 September 1992, entered into force 25 March 1998) 2354 UNTS 67 art 2(2)(b); Convention on the Protection of the Marine Environment of the Baltic Sea Area (adopted 9 April 1992, entered into force 17 January 2000) 2099 UNTS 195 art 3(4).

[36] Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment* (4th edn, OUP 2021) 341–342.

[37] Lugano Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment (adopted 21 June 1993) (1993) 32 ILM 1228 preamble ('Having regard to the desirability of providing for strict liability in this field taking into account the "Polluter-Pays Principle"').

[38] International Seabed Authority (ISA), 'Draft Regulations on Exploitation of Mineral Resources in the Area' (2019) ISBA/25/C/WP.1 (DER) reg 2; Further revised draft text of an 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, Note by the President UN Doc A/CONF.232/2022/5, 1 June 2022 (2022 Draft ILBI Text) art 5.

[39] Birnie and others (n 36) 343.

[40] ILC, 'Third Report on the Legal Regime for the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities' (n 34) para 30.

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5.3 APPROACHES TO STANDARDS OF LIABILITY IN INTERNATIONAL LAW

The two principal approaches to addressing liability for environmental harm in international law involve leaving states as the primary subjects of liability through rules of state responsibility, or by channelling liability directly to operators.[41] The approaches are not mutually exclusive. Where states opt to develop a civil liability regime, they may not necessarily divest themselves of responsibility, but rather make operators liable in the first instance.[42] The policy choice regarding which party shall be primarily responsible is severable from the decision respecting the standard of liability, but in practice, states have opted to couple strict liability with civil liability regimes that channel liability to the operator, while maintaining a requirement for wrongful activity (fault-based liability, at least in the sense of a breach of international obligation) in relation to state responsibility for environmental harm.

5.3.1 *State Responsibility*

The default rules for state liability for environmental harm combine two fundamental rules. The first establishes the primary obligation on states to prevent transboundary harm. This obligation applies to activities under state control and includes harm to both the territory of other states, as well as harm to areas or resources beyond national jurisdiction. The crucial feature of the no-harm rule for current purposes is that it is a rule of due diligence; that is, the standard of liability is negligence-based, not strict. The second is the basic rule of state responsibility that maintains that states are responsible for the harm that flows from breaches of their international obligations. Thus, this rule requires the responsible state to make reparations for the injury caused by wrongful acts that are attributable to the state.[43] Reparations include restitution and compensation by way of damages.[44]

The due diligence obligation to prevent harm is well established in international law. The rule has been recognized in numerous decisions of international courts and tribunals,[45] and finds expression in numerous treaties,[46] as well as in Principle

[41] Discussed in Chapter 2.

[42] See discussion in Chapter 3. Although, the effect of channelling liability may foreclose the ability of victims of harm to pursue claims against third parties, including states.

[43] ASR (n 8) art 31, 91.

[44] ibid art 34, 95.

[45] *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226, 241–242, para 29; *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14; *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica)* (Judgment) [2015] ICJ Rep 665; *Iron Rhine Arbitration (Belgium v Netherlands)* (Award) Oxford Reports on ICGJ 373 (PCA 2005) para 222.

[46] Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79 art 3; United Nations Framework Convention on Climate Change

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21 of the 1972 Stockholm Declaration and Principle 2 of the 1992 Rio Declaration.[47] Ultimately, after consideration of state practice, the ILC adopted a due diligence standard in relation to the obligation of states to prevent transboundary harm,[48] while leaving the precise contours of liability to be determined in accordance with the obligation to provide recourse for victims of harm through domestic or other agreed upon mechanisms.[49]

The extension of the no harm principle to areas beyond national jurisdiction is explicitly recognized in Principle 21 and Principle 2, and is reflected in treaty commitments concerning commons resources, such as the deep seabed,[50] the high seas,[51] as well as the Antarctic environment.[52] The Seabed Disputes Chamber (SDC) considered the nature of the due diligence obligations owed by sponsoring states in the context of mining activities in the Area. The SDC described the nature of the sponsoring states obligations flowing from the specific provisions within Part XI of UNCLOS as follows:

> The sponsoring State's obligation 'to ensure' is not an obligation to achieve, in each and every case, the result that the sponsored contractor complies with the aforementioned obligations. Rather, it is an obligation to deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result. To utilize the terminology current in international law, this obligation may be characterized as an obligation 'of conduct' and not 'of result', and as an obligation of 'due diligence'.[53]

The reasoning of the SDC concerning due diligence was subsequently adopted by the International Tribunal for the Law of the Sea (ITLOS) and applied to the obligations of flag states in relation to fisheries activities in the exclusive economic zone, and more broadly to obligations to conserve living resources with the marine environment.[54]

(adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107 preamble, para 8; Convention on the Law of the Non-Navigational Uses of International Watercourses (adopted 21 May 1997, entered into force 17 August 2014) (1997) 36 ILM 700 art 7; Convention on Environmental Impact Assessment in a Transboundary Context (adopted 25 February 1991, entered into force 10 September 1997) 1989 UNTS 309 art 2.

47 Declaration of the United Nations Conference on the Human Environment (1972) UN Doc A/Conf.48/14/Rev.1 (1972 Stockholm Declaration); 1992 Rio Declaration (n 34).

48 ILC, Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, with Commentaries, UN Doc a/56/10 (Draft Articles on Prevention of Transboundary Harm) art 3.

49 Draft Principles (n 10) principle 4, 76.

50 UNCLOS (n 27) art 145.

51 ibid arts 192 and 117 (duty to take measures to conserve living resources of the high seas).

52 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) arts 2–3.

53 *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion of 1 February 2011) International Tribunal for the Law of the Sea (ITLOS) Reports 2011, 10 (*Activities in the Area* Advisory Opinion) para 110.

54 *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)* (Advisory Opinion of 2 April 2015) ITLOS Reports 2015, 4 (SRFC Advisory Opinion) paras 125–139.

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As discussed earlier, a number of commentators, inside and outside the ILC's work on 'international liability for injurious consequences arising out of acts not prohibited by international law', have argued in favour of imposing a no-fault standard in relation to those activities that can be classed as ultrahazardous in nature.[55] The principal justification relates to the role of the source state in authorizing the risk. In such circumstances, the source state voluntarily creates a risk, which is involuntarily borne by the affected state. Despite the broad acceptance of the underlying logic, the support for such a principle in international law is weak. The regimes respecting nuclear facilities, oil pollution and other hazardous activities have all channelled liability to the operator, and thus, do not speak to state liability. The only example of strict liability imposed directly on states is the 1972 Convention on International Liability for Damage Caused by Space Objects,[56] and the Cosmos 954 claim that was filed under that treaty.[57]

The approach taken in relation to space objects can be distinguished from other state activities in the commons on the basis of the role of the state in the activity in question. Unlike the placement of space objects, which may be understood as an activity (at least until recently) requiring direct state involvement, in other commons activities, such as fisheries or deep seabed mining, the sponsoring state is only involved in the activity in its oversight role. Thus, the issue of control, which is fundamental to the deterrence justification,[58] is indirect. Liability for oversight activities is unquestionably fault-based. Where states are acting as operators, for example as contractors in relation to activities in the Area, they will typically be subject to the same liability requirements applicable to other (non-state) operators. This is also evident in the Liability Annex adopted under the Antarctic Treaty system, where state and non-state operators are subject to strict requirements to respond to environmental emergencies, albeit with each subject to different procedural requirements.[59]

The issue of risk was addressed by the 2011 *Activities in the Area* Advisory Opinion, where in the context of considering the content of due diligence, the SDC notes:

> The content of 'due diligence' obligations may not easily be described in precise terms. . . . It may change over time as measures considered sufficiently diligent at a

[55] See Jenks (n 14); Goldie, 'Liability for Damage' (n 14); See also the Resolution on Responsibility and Liability under International Law for Environmental Damage (n 29) art 4.

[56] Convention on International Liability for Damage Caused by Space Objects (adopted 29 March 1972, entered into force 1 September 1972) 961 UNTS 187 art II.

[57] Protocol between the Government of Canada and the Government of the USSR (entered into force 2 April 1981) (1981) 20 ILM 689.

[58] de La Fayette (n 2) 327.

[59] 2005 Annex VI to the Environmental Protocol on Environmental Protection to the Antarctic Treaty on Liability Arising from Environmental Emergencies (adopted 17 June 2005, not yet entered into force) (2006) 45 ILM 5 (Liability Annex) art 6.

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> certain moment may become not diligent enough in light, for instance, of new scientific or technological knowledge. It may also change in relation to the risks involved in the activity. As regards activities in the Area, it seems reasonable to state that prospecting is, generally speaking, less risky than exploration activities which, in turn, entail less risk than exploitation. . . . The standard of due diligence has to be more severe for the riskier activities.[60]

The approach to risk, therefore, is not to alter the standard of liability, but to vary the content of due diligence. States may be held to a high standard of vigilance in relation to riskier activities, but the basis of liability will be the failure of the state to meet the standards of conduct that the particular context requires, and not causation alone. The SDC also considers the relationship between due diligence and the precautionary principle,[61] noting that precaution is 'an integral part of the general obligation of due diligence'.[62] This then requires that the sponsoring state incorporates prudential risk assessment in exercising due diligence. Consistent with the approach cited above, the precaution does not operate to alter the standard of liability, but rather informs the content of the standard of care.

5.3.2 *Civil Liability*

5.3.2.1 Approach to Liability

While international law does not support strict liability for states in connection with transboundary (including impacts to areas beyond national jurisdiction) environmental harm, states are under an obligation to take measures to ensure prompt and adequate compensation in the event of harm occurring.[63] These measures may be taken in their domestic legal systems or through collective measures, such as sector-specific civil liability regimes.[64] The current sectors where civil liability regimes have been negotiated include nuclear facilities,[65] oil pollution, carriage of

[60] *Activities in the Area* Advisory Opinion (n 53) 117.

[61] The Exploration Regulations for Nodules and Sulphides both require the sponsoring state and the Authority to 'apply the precautionary principle, as reflected in Principle 15 of the Rio Declaration'; ISA, 'Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area' (2013) ISBA/19/C/17 (PMN) reg 31(2); ISA, 'Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area' (2010) ISBA/16/A/12/Rev.1 (PMS) reg 33(2).

[62] *Activities in the Area* Advisory Opinion (n 53) para 131.

[63] Draft Principles (n 10) principle 4, 76.

[64] See discussion in Chapter 2.

[65] Convention on Third Party Liability in the Field of Nuclear Energy (adopted 29 July 1960, entered into force 1 April 1968) 956 UNTS 251 (amended by 1964 and 1982 Protocols) (Convention on Third Party Liability); 1997 Vienna Convention (n 5); Convention on Supplementary Compensation for Nuclear Damage (adopted 12 September 1997, in force 15 April 2015) (1997) 36 ILM 1473.

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hazardous and noxious substances by sea,[66] bunker oil,[67] hazardous waste,[68] transboundary movement of living modified organisms[69] and Antarctic activities.[70] The standard of liability for operators under these civil liability regimes is strict but not absolute.[71] The standard of strict liability is implemented through a provision that indicates that the responsible party 'shall be liable for any pollution damage' caused by the activity in question.[72] In order to recover damages, the claimant need only prove a causal link between the activity and the damage.

The policy justifications for imposing strict liability, as discussed above, include the objective to ensure prompt and adequate compensation, including available compensation for remediation and reinstatement of environmental harm; the desire to encourage a high standard of care and deter pollution; the polluter-pays principle; the recognition of the fairness of having the creator of risks (as opposed to the victim) bear losses associated with that activity; and the greater efficiency of providing for compensation without proof of fault. As the entity that directly controls the activity, the policy justification for a strict standard is stronger for operators than for states. Similarly, the polluter-pays principle is more clearly applicable to operators (who are directly causally responsible for harm).

The exclusion of environmental damage to areas beyond national jurisdiction under civil liability regimes is a reflection of the uncertainty of standing to recover for harm in areas beyond national jurisdiction, but also points to the incompleteness of civil liability regimes in responding to the preventive and remedial aims of compensation.[73] The 2001 Bunker Oil Convention, for example, cites both articles 194 and 235 of UNCLOS in its preamble, indicating an intent to address 'all damage caused by pollution of the marine environment', but goes on to exclude damages in areas beyond national jurisdiction.[74]

While states have adopted a consistent approach to operator liability in international civil liability regimes, it remains an open question whether the duty to take measures to ensure prompt and adequate compensation requires the adoption of a strict liability standard in all cases involving hazardous or ultrahazardous activities.

[66] Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movement of Hazardous Wastes and their Disposal (adopted 10 December 1999) UNEP/CHW.1/WG/1/9/2 (1999 Basel Liability Protocol).

[67] International Convention on Civil Liability for Bunker Oil Pollution Damage (adopted 23 March 2001, entered into force 21 November 2008) UNTS No 47 (2012) (2001 Bunker Oil Convention).

[68] 1999 Basel Liability Protocol (n 66).

[69] 2010 Nagoya-Kuala Lumpur Supplementary Protocol (n 15).

[70] Liability Annex (n 59).

[71] But see 1997 Vienna Convention (n 5).

[72] 1992 Oil Pollution Liability Convention (n 15) art III(1); see also 1996 HNS Convention (n 15) art 7; Convention on Third Party Liability (n 65) art 3.

[73] 1992 Oil Pollution Liability Convention (n 15) art II; 1996 HNS Convention (n 15) art 3; 1999 Basel Liability Protocol (n 66) art 3(a).

[74] 2001 Bunker Oil Convention (n 67) preamble and art 2.

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The argument is different from the discussion above on whether states are themselves strictly liable for ultrahazardous activities under their jurisdiction or control, as the subject of liability here is the operator not the state itself, and therefore flows indirectly from the obligation to provide prompt and adequate compensation. This is the approach of the ILC in the Draft Principles,[75] although the ILC's position appears to reflect more of a policy preference than a recognition of an established or emerging requirement in international law.[76]

Generalizing from the practice derived from civil liability regimes is challenging because each regime reflects the particular constellation of interests amongst the states, operators and providers of financial assurance, as reflected in a variety of approaches to exceptions and liability caps. Nonetheless, the consistent imposition of strict liability on operators indicates a high degree of consensus amongst states that strict liability best serves the multiple objectives of liability regimes, and, as such, creates a high burden of justification on states that seek to use a fault-based approach. While the civil liability conventions tend to exclude harm to the commons as compensable damage, the considerations that have informed the preference for strict liability approaches apply equally to harm in areas beyond national jurisdiction.

5.3.2.2 Exceptions to Liability

Liability is said to be strict, not absolute, because each civil liability regime contains exceptions to the imposition of liability, which range in their breadth.[77] Even the 1997 Vienna Convention, which identifies the imposed standard as 'absolute',[78] contains a narrow set of exonerating circumstances, namely incidents due to armed conflict and 'a grave natural disaster of an exceptional character'.[79] More typically, treaties contain a longer list of exceptions,[80] which include:

[75] Draft Principles (n 10) principle 4(2). The Resolution on Responsibility and Liability under International Law for Environmental Damage (n 29) adopts a similar position.

[76] Methodologically, the ILC does not review state practice, but rather notes the approach taken towards liability for environmental harm in different legal systems and emphasizes the consistency of strict liability with the underlying purposes of compensation set out in principle 3. See Draft Principles (n 10) commentary to principle 3, 74–76, paras 12–18.

[77] 1992 Oil Pollution Liability Convention (n 15) art III(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) 1110 UNTS 57 (amended by the 1992 Protocol on the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 27 November 1992) (1992 Fund Convention) art 4(2); 1991 Antarctic Protocol (n 52) Annex VI art 8; 2010 Nagoya-Kuala Lumpur Supplementary Protocol (n 15) art 6; 1996 HNS Convention (n 15) art 4(2)(3); 1999 Basel Liability Protocol (n 66) art 4(5).

[78] 1997 Vienna Convention (n 5) art IV(1).

[79] ibid art IV(3).

[80] For example, 1992 Oil Pollution Liability Convention (n 15) art III(2); 1996 HNS Convention (n 15) art 7(2).

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- Armed conflict;
- Intentional damage by a third party;
- Contributory negligence (the incident resulted from the intentional or negligent actions of the claimant);
- Damage caused by government negligence;
- The result of 'a natural phenomena of exceptional, inevitable, unforeseeable and irresistible character'; or[81]
- Damage caused as a result of compliance with a compulsory measure of a public authority.[82]

The presence of exceptions moves away from a rigid application of polluter-pays and appears to be largely driven by issues of fairness and control. For example, exonerations based on governmental contributory negligence or compliance with governmental measures respond to the inequities of imposing liability on an operator where the fault lies elsewhere. The natural phenomena exception can be justified on the basis that the exonerating circumstances are limited to those instances where the event is unforeseeable and the resulting damage cannot be guarded against. Given that the liabilities are typically insured against as part of the scheme, the exceptions may also reflect the unwillingness of insurers to cover wholly unforeseeable events.

5.3.2.3 Liability Caps under Civil Liability Regimes

The other common feature of civil liability regimes is the practice of limiting liability to identified compensation caps on a per incident basis. The presence of liability caps responds to the practicality of insurance and pooled compensation funds, since insurers and funds cannot take on limitless liability.[83] The approach is a further derogation from the application of the polluter-pays principle, as it may result in victims of environmental harms having to bear some of the losses themselves. Coupling liability caps with strict liability approaches reflects the greater acceptability from an ethical standpoint of relieving a non-negligent, but causally responsible, party from the obligation to provide full compensation. Of course, the absence of a fault requirement does not necessarily mean that the responsible party did not act without requisite care. However, the efficiencies associated with a more simple, strict liability approach counterbalance the desirability of holding negligent parties fully responsible. However, the 1999 Basel Liability Protocol provides for unlimited liability where the harm is a result of 'wrongful intentional, reckless or

[81] 1999 Basel Liability Protocol (n 66) art 4(5).
[82] ibid.
[83] Discussed in Chapter 8.

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negligent acts or omissions',[84] which is consistent with imposing a higher degree of responsibility (in terms of compensation) for morally wrongful acts.

The amount and structure of the caps is highly variable, but there are some evident attempts to match the amounts to reasonably anticipated claims. For example, where the maximum liability amounts in the nuclear regime appeared insufficient following the Chernobyl incident, the amounts were raised.[85] A similar reaction has been seen in the oil pollution regime where severe incidents led to concerns about unfunded damages, which in turn led to higher overall ceilings. Thus, despite the practical considerations surrounding insurability, there remains an evident desire to prevent loss shifting to victims of harm.

5.4 STANDARDS OF LIABILITY IN ABNJ

5.4.1 *Antarctic*

While not in force, the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) provides a useful example of the structure of liability rules in the Antarctic in the face of risky activities. CRAMRA, which sets out the rules and procedures governing mineral resource exploitation in the Antarctic, contains specific liability rules that impose strict liability on the operator for broadly defined environmental harms and economic losses arising from its resource activities.[86] The operator's liability is subject to very narrow exceptions, namely damage caused by 'a natural disaster of an exceptional character' and armed conflict.[87] The liability rules are incomplete, and a further protocol was contemplated (but never negotiated), which may have contained further provisions placing limits on liability, in conjunction with financial assurances and the establishment of a fund.[88] The liability provision of CRAMRA also addresses state liability in article 8(3) which provides for sponsoring state liability, where the sponsoring state's failure to carry out its oversight obligations under the Convention contributed (from a causation standpoint) to compensable damage.[89] The distinction between operators and sponsoring states is functional in that states, when involved directly as resource operators, will be subject to the strict standard of liability. Fault-based liability will apply to states in their oversight capacity.

[84] 1999 Basel Liability Protocol (n 66) art 5.
[85] See the amendments made by the Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage (adopted 12 September 1997, entered into force 4 October 2003) 2241 UNTS 270 (n 5).
[86] Convention on the Regulation of Antarctic Mineral Resource Activities (adopted 2 June 1988, not yet entered into force) (1988) 27 ILM 868 (CRAMRA).
[87] ibid art 8(4).
[88] ibid art 8(6).
[89] ibid art 8(3). Liability is residual, in the sense that the state is only liable for that portion of the damages not satisfied by the operator.

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The subsequent negotiation of the 1991 Protocol on Environmental Protection to the Antarctic Treaty (1991 Antarctic Protocol) prohibits extractive activities in the Antarctic in accordance with the objective to prioritize the conservation and protection of the Antarctic environment, effectively denouncing the objectives of the CRAMRA.[90] The structure of the principal obligations respecting environmental protection under the 1991 Antarctic Protocol are conduct, not result, based.[91] Liability rules and procedures are governed by a separate Annex, the negotiation of which was anticipated under the 1991 Antarctic Protocol.[92] As discussed in Chapter 2, the approach has an administrative posture in that the primary obligation in the face of an environmental emergency is a 'response action'. Liability flows from the failure to take appropriate response actions, and damages are related to the costs actually incurred or estimated for the response action.[93] Operator liability is strict but subject to exceptions and liability caps.[94] Although, the liability caps do not apply to damage arising from acts that are committed with intention to cause an emergency or recklessness.[95] The state liability provision adopts a fault-based standard, with states only being held liable for the failure of an operator to take response actions where the state failed to take 'appropriate measures within its competence, including the adoption of law and regulations, administrative actions and enforcement measures, to ensure compliance with the Annex'.[96] The content of due diligence will reflect the obligations on states to protect the Antarctic environment as specified in the 1991 Antarctic Protocol such as carrying out environmental assessments, and monitoring activities,[97] but also reflects general customary legal requirements respecting harm prevention.

5.4.2 *Deep Seabed*

The rules governing liability from activities in the Area are a combination of general provisions within UNCLOS, provisions dealing with deep seabed mining specifically found within Part XI and Annex III of UNCLOS, and requirements found within the regulations enacted by the ISA. There is no special liability regime that has been developed by the ISA to date, although the need for such rules has been

[90] 1991 Antarctic Protocol (n 52) art 7.
[91] ibid art 3.
[92] ibid art 16.
[93] Liability Annex (n 59) art 6 (where no response action is taken, the operator is liable for the estimated costs of the response action that should have been taken. The money is paid into a fund created under the Liability Annex.)
[94] ibid arts 8–9.
[95] ibid art 9(3).
[96] ibid art 10.
[97] 1991 Antarctic Protocol (n 52) art 8 and Annex I (setting out specific requirements for environmental impact assessments, including monitoring; see Annex I, art 5).

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acknowledged by the ISA.[98] In keeping with other sector-specific liability regimes, the liability rules for deep seabed mining distinguish between the liability of contractors (operators) and of sponsoring states. UNCLOS also recognizes that the ISA, which shares oversight duties with sponsoring states, may also be liable for damages arising from its own activities.[99]

For contractors, liability for damage arising from their activities in the Area is addressed in Annex III, article 22, which provides that 'contractors shall have responsibility or liability for any damages arising out of wrongful acts in the conduct of its operations …'.[100] The phrase 'wrongful act' should not be interpreted as requiring fault-based liability. 'Wrongful' in this context should be taken to mean that liability will flow from a breach of legal requirements to which the contractor is subjected to. Article 22 of Annex III is analogous to the basic rule of state responsibility that recognizes that liability flows from breaches of international law attributable to the state.[101] The requirements for fault will be determined by the specific requirements imposed on contractors by UNCLOS and the rules enacted by the ISA.

The obligation on contractors to prevent environmental harm in relation to exploration activities is set out in the ISA's regulations. As it stands under the Exploration Regulations,[102] the standard of liability imposed on contractors requires a failure of due diligence. Regulation 31(5) of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (PMN) is framed as a duty of conduct to take 'necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the area *as far as reasonably possible*, applying a precautionary approach and best environmental practices'.[103] Accidental damages that arise despite all reasonable measures being taken or damages that are unforeseen are not currently 'wrongful', and therefore, not compensable under the ISA's rules. Although, where the failure to comply with a direct, primary obligation results in harm – for example, failing to comply with an emergency order – non-compliance ought to be viewed as wrongful, with liability consequences flowing from the non-compliance.[104] It is open for the ISA to impose a strict liability standard on contractors through the enactment of further rules that entail obligations of result. The potential for the development of rules further specifying compensation obligations is expressly contemplated in UNCLOS.[105] The ISA's Draft Exploitation Regulations (DER) takes a similar administratively

[98] ISA, 'Report of the Chair of the Legal and Technical Commission' (22nd Session, 11–22 July 2016) (2016) ISBA/22/C/17.
[99] UNCLOS (n 27) Annex III art 22.
[100] ibid.
[101] ASR (n 8) commentary to art 2, 35, para 7.
[102] PMN (n 61) reg 31(5).
[103] ibid reg 31(5) (emphasis added).
[104] ibid reg 30 and Annex IV s 16.
[105] UNCLOS (n 27) arts 235(3) and 304.

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oriented approach, whereby contractor liability flows from its wrongful acts, which could include obligations of conduct and result.[106]

The liability of sponsoring states was addressed comprehensively by the SDC in its 2011 Advisory Opinion.[107] The principal obligations on sponsoring states are contained in article 139(1) and article 4(4) of Annex III of UNCLOS, both of which impose a 'responsibility to ensure' that mining activities are carried out in accordance with the requirements of Part XI.[108] The focus of these provisions is on the oversight functions of the sponsoring states; although to be clear, the wording of article 139 is directed towards all states parties, not just sponsoring states. These obligations were characterized by the SDC as being those requiring adherence to standards of conduct, namely 'due diligence'.[109]

The content of due diligence is driven by the treaty language and context, but also appears to be influenced by more general customary rules governing state obligations to prevent environmental harm. The primary requirements of due diligence require states to adopt 'reasonably appropriate' laws and regulations and to take measures to secure compliance.[110] The SDC enumerates a set of further obligations that must be complied with as a measure of due diligence:

- The obligation to assist the Authority in the exercise of control over activities in the Area;
- The obligation to apply a precautionary approach;
- The obligation to apply best environmental practices;
- The obligation to take measures to ensure the provision of guarantees in the event of an emergency order by the Authority for protection of the marine environment;
- The obligation to ensure the availability of recourse for compensation in respect of damage caused by pollution; and
- The obligation to conduct environmental impact assessments.[111]

The relationship between these obligations and due diligence is complex. As noted, they are constituent factors that contribute to the state's general obligation to take reasonable steps to prevent harm to the marine environment. However, these obligations are separate or direct obligations on the sponsoring state (each of which is identified under the rules applicable to deep seabed mining), and as such, states

[106] At the time of writing, the Legal and Technical Commission (LTC) has prepared a set of Draft Exploitation Regulations: ISA, DER (n 38).
[107] *Activities in the Area* Advisory Opinion (n 53).
[108] ibid para 105 ('rules, regulations and procedures of the Authority, and the contracts').
[109] ibid para 110.
[110] ibid paras 117–118, relying on Annex III art 4(4).
[111] ibid para 122.

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are required to comply with each of these obligations independently from their general obligation to ensure contractor compliance.[112]

The SDC also considered the question of whether the development status of the sponsoring state is a relevant factor in determining the reasonableness of the oversight steps taken by the sponsoring state. In holding that the obligations apply equally to all states regardless of development status, the SDC relies on the specific wording of Part XI, which discloses no intent to differentiate oversight obligations on the basis of development status.[113] The SDC also observes that, were responsibilities to be differentiated between developing states and developed states, there may be incentives for contractors to seek sponsorship from states that are subject to a lesser set of oversight obligations, linking the uniform content of due diligence to 'the highest standards of protection of the marine environment, the safe development of activities in the Area and the protection of the common heritage of mankind'.[114]

The obligation on sponsoring states to provide recourse for victims of harm within their domestic legal systems under article 235 is also viewed as part of that state's due diligence obligations. This obligation requires states assure 'prompt and adequate compensation'. As discussed above, the standard of 'prompt and adequate compensation' supports, but does not require, the imposition of strict liability. The SDC points out that article 235(2) ensures that the contractor can live up to its obligation to provide reparation for damages caused by its wrongful acts. It appears open for the sponsoring state to impose domestic rules that provide for strict liability, regardless of the approach taken by the ISA, although this may turn on whether imposing a strict standard is seen as being 'inconsistent with Part XI'.[115] This provision does allow sponsoring states to adopt rules that are 'more stringent' than those adopted by the Authority, which may provide greater latitude for sponsoring states to impose a strict liability standard.[116] Article 235(3) recognizes that states may also address this objective through the development of a specialized international (civil) liability regime, which could include compulsory insurance or compensation funds.[117]

As the first of the enumerated direct obligations indicates, sponsoring states do not have sole responsibility for oversight of mining operators. These responsibilities are

[112] See *Certain Activities* (n 45) (debating whether an environmental impact assessment is a distinct customary obligation from due diligence), but in the context of deep seabed mining, these constituent elements are independently identified obligations contained in UNCLOS and the ISA Exploration Regulations and the DER. Moreover, due diligence, or reasonableness is likely the measure by which these distinct obligations will be assessed.

[113] *Activities in the Area* Advisory Opinion (n 53) para 158.

[114] ibid para 159.

[115] UNCLOS (n 27) Annex III art 21(3).

[116] ibid art 209 frames the duty to adopt laws and regulations 'no less effective than international rules' to control pollution from activities in the Area under a state's jurisdiction as a requirement.

[117] UNCLOS (n 27) art 235(3); the important role that such funds could play in avoiding gaps in liability coverage was noted by the SDC in its Advisory Opinion: *Activities in the Area* Advisory Opinion (n 53) paras 205 and 208.

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shared with the ISA. Consequently, the ISA is also liable for damages arising out of its own wrongful conduct.[118] The standard of liability for the ISA is not addressed in the SDC's 2011 Advisory Opinion, but flows from its obligations in article 153 to 'exercise such control over Activities in the Area as is necessary for the purpose of securing compliance with the provisions of this Part'.[119] While the wording of the obligations of the ISA does not match with that of sponsoring states ('responsibility to ensure'), the thrust of the obligation to oversee is the same, and, ought, therefore, to be understood as requiring due diligence.

5.4.3 *High Seas*

The standard of liability for activities causing harm within the high seas area will again be a function of the specific obligations to prevent harm. The nature of the commitments within UNCLOS to protect the marine environment and its resources was the subject of the *Sub-Regional Fisheries Commission Advisory Opinion* (SRFC Advisory Opinion) issued by the ITLOS in 2015,[120] as well as the *South China Sea Arbitration*.[121] The SRFC Advisory Opinion was concerned with the obligations of flag states to prevent illegal, unreported and unregulated fishing activity in the exclusive economic zones of other states, but the reasoning of the ITLOS applies equally to activities in the high seas.[122] In reviewing these obligations,[123] the ITLOS notes that flag states are required to exercise 'effective jurisdiction and control in administrative matters' over fishing vessels subject to their jurisdiction.[124] This requires flag states to adopt appropriate laws and to take measures to ensure compliance with those laws.[125] As a set of oversight obligations, the standard of liability is due diligence.[126] The ITLOS adopts the reasoning of the SDC in its 2011 *Activities in the Area* Advisory Opinion as to the variable and contextual nature of due diligence. Due diligence obligations extend to international organizations, such as the European Union, that exercise jurisdiction over aspects of the activities in question.

One important clarification respecting the nature of due diligence provided in the *SRFC* Advisory Opinion relates to the relationship between harm and due

[118] UNCLOS (n 27) Annex III art 22.
[119] ibid art 153(4).
[120] SRFC Advisory Opinion (n 54).
[121] *The South China Sea Arbitration (The Republic of Philippines v The People's Republic of China)* (Award) (2016) Oxford Reports on ICGJ 495 (PCA) (*South China Sea Arbitration*).
[122] SRFC Advisory Opinion (n 54) para 120 (noting the application of UNCLOS art 192 to all maritime zones).
[123] Throughout the SRFC Advisory Opinion (n 54) ITLOS identifies UNCLOS arts 91, 92, 94, 192, 193, as well as arts 58(3) and 62(4), as principal sources of flag state obligations.
[124] ibid para 119.
[125] ibid paras 134–139.
[126] SRFC Advisory Opinion (n 54) para 125.

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diligence. The issue was framed in terms of whether flag states could be found to have breached their due diligence obligations in the event of isolated illegalities or whether a breach required a more sustained pattern of illegality. In holding that the frequency of illegal fishing activity is not a relevant consideration, the ITLOS centres the analysis of due diligence on the adequacy of the measures taken, not the frequency of the illegal activity.[127] In principle, the reasoning is sound; liability will flow where a causal relationship between environmental harm and insufficient oversight can be demonstrated. In practice, however, determining the reasonableness of the oversight will be influenced by the degree of compliance that the measures are likely to bring about.

The *SRFC* Advisory Opinion does not address the issue of the relative capabilities of states in relation to their due diligence obligations, but there may be reasons to consider whether the approach of the SDC on this issue is generalizable to activities in the high seas. There are provisions within UNCLOS that may be relevant to the determination of the standard of oversight required. For example, article 194(1) requires states to take measures to prevent marine pollution 'in accordance with their capabilities'. The 1996 London Protocol to the Convention on the Prevention of Marine Pollution by Dumping qualifies the obligation to protect and preserve the marine environment in a similar fashion.[128] Notably, however, the recognition of the relevance of differentiation capabilities is not present in other key provisions on oversight obligations in the high seas, including the obligation to conserve living resources,[129] and the provisions requiring states to 'take all necessary measures to ensure activities under their jurisdiction' are conducted so as not to cause pollution in areas outside of their jurisdiction.[130] In this regard, the approach of the SDC is more important than the result. What is required is a careful consideration of the specific obligations and the context of their application, as well as the minimal reasonable requirements for 'vigilance, employment of infrastructure and monitoring of hazardous activities' that are expected.[131] Given that developed states are under obligations to share technologies and contribute to the capacities of developing states, the availability of such mechanisms and support to developing states is a further salient consideration.[132]

[127] SRFC Advisory Opinion (n 54) para 150.

[128] Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 17 November 1996, entered into force 24 March 2006) (1997) 36 ILM 1 art 2 ('according to their scientific, technical and economic capabilities').

[129] UNCLOS (n 27) art 117.

[130] ibid art 194(2).

[131] ILC, Draft Articles on Prevention of Transboundary Harm (n 48), commentary to art 3, 155, para 17 (also noting 'it is, however, understood that the degree of care expected of a State with a well-developed economy and human and material resources and with highly evolved systems and structures of governance is different from States which are not so well placed').

[132] Contained in UNCLOS (n 27), arts 202 and 203, Part XIV.

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As with fisheries, there is no specialized regime for liability for environmental harm arising from shipping activities in the high seas. The result is that the default standard of liability will reflect general obligations of due diligence for states and domestic negligence standards for operators. States have the ability to impose strict liability on ships operating (flagged) under their jurisdiction, but the incentives to do so are minimal in the absence of international cooperation to impose a uniform standard. The *SRFC Advisory Opinion* has relevance for the standard of conduct that applies to flag states, including those states that maintain open registries, in relation to oversight of shipping activities. Article 94 requires any state to 'exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag'.[133] A failure to exercise due diligence exposes the flag state to liability for environmental harm that is causally connected to oversight failures.

Standard limitations of liability under the Convention on Limitation of Liability for Maritime Claims (1976 LLMC) may still serve to limit liability regardless of the standard imposed.[134] While the 1996 Protocol to amend the 1976 LLMC (1996 LLMC Protocol) exempts claims arising under the oil pollution liability regime, the non-application of the oil pollution liability rules to areas beyond national jurisdiction means that the 1976 LLMC limits will have broad application to environmental claims in the high seas.[135] The one exception to the fault-based standard is the transportation of nuclear materials by sea that is covered under the 1997 Vienna Convention, which applies to damage 'wherever suffered', including the high seas.[136]

Due diligence, as a standard of required state behaviour, has a broad application to other high seas activities or to matters affecting the high seas, with implications for the development of new liability rules for emerging ocean activities and concerns, including marine genetic resources,[137] ocean acidification[138] and ocean fertilization.[139] The difficulty is not with extending the general obligation to emerging circumstances, but rather with identifying the content of the standard of care. In relation to state responsibility, what amounts to reasonable oversight steps will depend upon the surrounding normative environment. In the deep seabed mining

[133] ibid art 94.

[134] Convention on Limitation of Liability for Maritime Claims (adopted 19 November 1976, entered into force 1 December 1986) 1456 UNTS 221 (1976 LLMC), and Protocol of 1996 to Amend the Convention on Limitation of Liability for Maritime Claims, 1976 (adopted 2 May 1996, entered into force 13 May 2004) Can TS 2008 No 18 (1996 LLMC Protocol).

[135] 1976 LLMC (n 134) art 3.

[136] 1997 Vienna Convention (n 5) art 1A.

[137] Hua Zhang, 'The Obligation of Due Diligence in Regulating the Marine Genetic Resources in Areas beyond National Jurisdiction' in Keyuan Zou (ed), *Global Commons and the Law of the Sea* (Brill Nijhoff 2018) 286.

[138] Karen Scott, 'Ocean Acidification: A Due Diligence Obligation under the LOSC' (2020) 35 IJMCL 382.

[139] Karen Scott, 'Geoengineering and the Marine Environment' in Rosemary Rayfuse (ed), *Research Handbook on International Marine Environmental Law* (Edward Elgar 2015) 451.

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context, the SDC draws on the regulatory framework with Part XI, as elaborated upon in the ISA's regulations. While the SDC focused on the application of due diligence to sponsoring states, it is equally clear that the contractor's standard of care will be assessed in light of the regulatory requirements of the regime. Similarly, state oversight of ocean fertilization activities is likely to be assessed in light of the requirements of the 1996 London Protocol.[140] Generally accepted international rules and standards (GAIRS) will also play an important role in defining the standard of care, although the lower density of regulations and guidance in the high seas that could structure the content of state and private actor due diligence will pose some challenges in determining applicable standards of conduct with precision.

5.5 CONCLUSIONS

At the heart of the policy question concerning standards of liability is the distribution of losses following an event which causes harm to third parties, be they states or individuals. The prevailing approach within the law of state responsibility is not to impose a strict standard on states in relation to activities under their jurisdiction or control. States are simply unwilling to become the insurers of environmentally risky activities, preferring instead to oversee these activities with due diligence. It is unsurprising that in relation to activities affecting the commons environment that states have not been more open to moving towards a strict standard. The distributive calculus of risk in the commons does not favour a strict standard since states are not required to bear the full risk of environmental harm themselves, but are to share that risk with all states, and in many cases, with future generations. Restricting loss-shifting to failures of state due diligence subjects the international community to risks that they neither consent to nor control, although states can influence the content of the standard of care through their own oversight actions and through the development of international standards of duly diligent conduct. The concerns, first raised by Goldie, with foreseeability of harm for emerging activities and where there is an absence of clear standards of behaviour, have ongoing purchase in commons activities, where the risks to the environment are often less well understood.

The shifting of losses to third parties and to the international community as a whole can, however, be substantially mitigated through the imposition of strict liability standards on operators. The greater willingness to use strict liability standards in civil liability regimes is again a reflection of risk distribution, where the victims of environmental harm, which often include states themselves, are less diffuse. There is a growing association between the obligation on states to provide

[140] See art 6 bis and Annex 4 addressing marine geoengineering in the 2013 amendments to the 1996 Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter: Amendment to the London Protocol to Regulate the Placement of Matter for Ocean Fertilization and Other Marine Geoengineering Activities, Resolution LP.4 (8) (adopted 18 October 2013).

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prompt and adequate compensation and the imposition of strict liability on operators. This association reflects a policy preference, as opposed to being an obligation. However, the consistent adoption of strict liability standards for activities that pose clear transboundary risks, including risks to commons resources, raises a strong presumption in favour of strict operator liability, albeit accompanied by liability caps. Insofar as strict liability incentivizes higher standards of care and reduces the risk of environmental harm that is not remediated, the rationale supporting no-fault liability applies with equal force to the global commons.

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