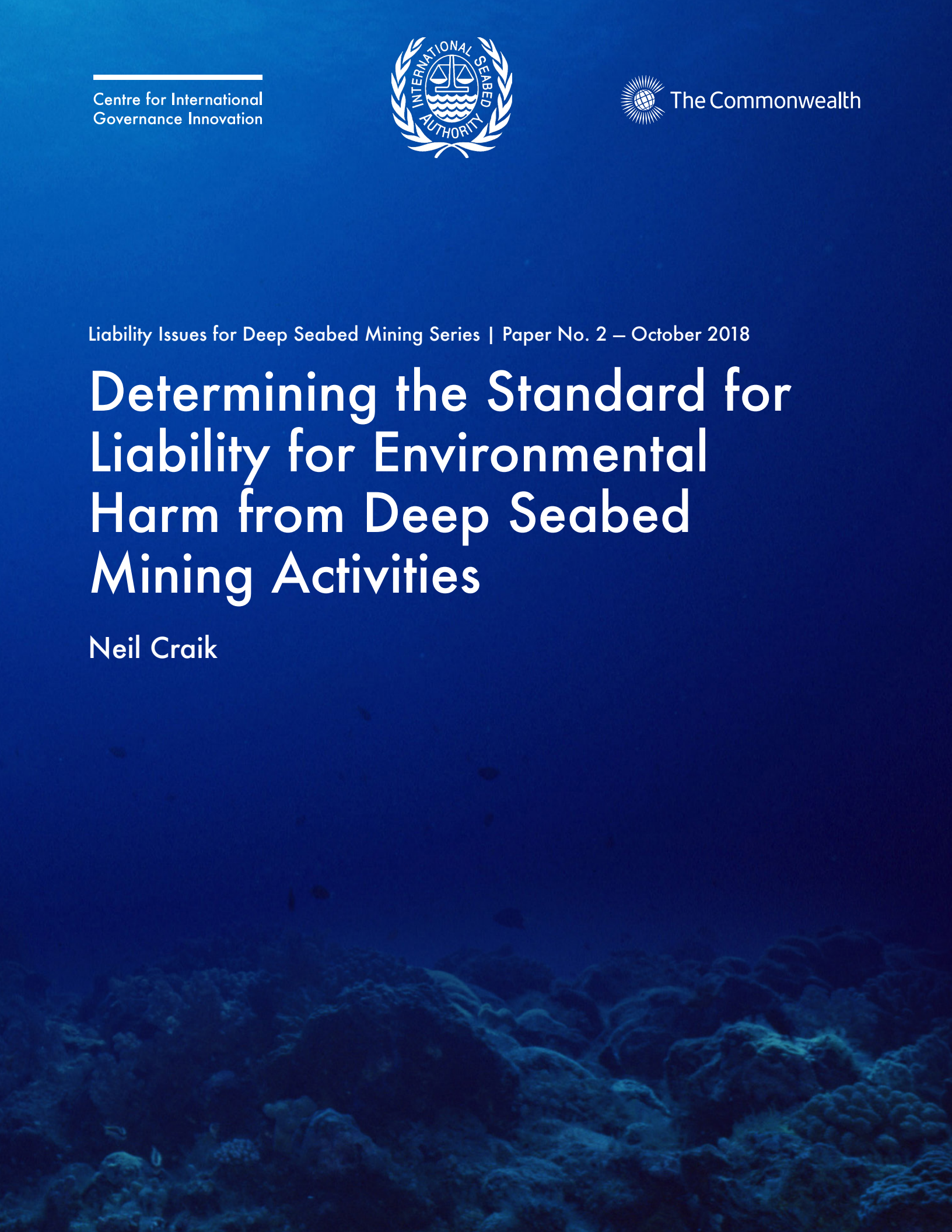
Centre for International Governance Innovation

The Commonwealth

Liability Issues for Deep Seabed Mining Series | Paper No. 2 – October 2018

Determining the Standard for Liability for Environmental Harm from Deep Seabed Mining Activities

Neil Craik



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CIGI Masthead

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About the Project

The Liability Issues for Deep Seabed Mining project was developed by the Centre for International Governance Innovation (CIGI), the Commonwealth Secretariat and the Secretariat of the International Seabed Authority (ISA) to assist in clarifying legal issues of responsibility and liability underpinning the development of exploitation regulations for the deep seabed. CIGI, in collaboration with the ISA Secretariat and the Commonwealth Secretariat, in 2017, invited leading legal experts to form the Legal Working Group on Liability for Environmental Harm from Activities in the Area (LWG) to discuss liability related to environmental damage, with the goal of providing the Legal and Technical Commission, as well as members of the ISA with an in-depth examination of potential legal issues and avenues.

Papers in the series cover the following topics: the current legal architecture for liability/responsibility under the United Nations Convention on the Law of the Sea; the scope of activities covered under a liability regime; the responsible parties; the potential claimants; the range of recoverable damages; and the appropriateness of using insurance and compensation funds to ensure adequate resources for compensation. CIGI Senior Fellow Neil Craik coordinated the development of the paper series.

About the LWG

The LWG was co-convened by CIGI, the Commonwealth Secretariat and the Secretariat of the ISA, under the joint direction of Neil Craik (CIGI), Hannah Lily (Commonwealth Secretariat) and Alfonso Ascencio-Herrera (ISA Secretariat). Other members of the LWG were invited based on their expertise in areas related to international law of state responsibility and liability, international environmental law and law of the sea. While working under the auspices of the ISA, the LWG is an independent group of legal experts.

The members of the LWG are:

- Alfonso Ascencio-Herrera, Deputy Secretary-General, ISA
- Christopher Brown, Legal Officer, ISA
- Eden Charles, Independent Consultant on International Law, and Former Deputy Permanent Representative of Trinidad and Tobago to the United Nations*
- Neil Craik, Senior Fellow, CIGI, and Professor of Law, University of Waterloo*
- Tara Davenport, Research Fellow, Centre for International Law, National University of Singapore*
- Elie Jarmache, Special Adviser on the Law of the Sea, Member, Legal and Technical Commission, ISA
- Hannah Lily, Legal Adviser, Commonwealth Secretariat*
- Ruth Mackenzie, Reader in International Law, University of Westminster*
- Stephen E. Roady, Professor of the Practice of Law, Duke University School of Law
- Andres Rojas, Diplomat, Ministry of Foreign Affairs and Worship, Argentina*
- Dire Tladi, Professor, University of Pretoria, and Member, International Law Commission
- Guifang (Julia) Xue, Professor, KoGuan Law School, Shanghai Jiao Tong University*

*Contributing authors to the paper series.

About the Author

Neil Craik is a CIGI senior fellow with the International Law Research Program, effective June 2015. He is an associate professor at the University of Waterloo with appointments to the Balsillie School of International Affairs (BSIA) and the School of Environment, Enterprise and Development, where he teaches and researches in the fields of international and Canadian environmental law. Neil is co-director of the BSIA/CIGI International Law Summer Institute, and from 2011 to 2017, he served as director of the School of Environment, Enterprise and Development at the University of Waterloo.

His current research examines the legal structure of global commons regimes. He has particular interests in climate and geoengineering law and governance, deep seabed mining regulation and environmental impact assessment.

Neil is the author of several books, including *Global Environmental Change and Innovation in International Law* (Cambridge University Press, 2018); *Climate Change Policy in North America: Designing Integration* (University of Toronto Press, 2013); *Public Law: Cases, Materials and Commentary* (Emond Montgomery, 2011); and *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (Cambridge University Press, 2008), in addition to numerous book chapters and journal articles.

Executive Summary

This paper examines the existing approaches taken in establishing the degree of fault required to impose liability for environmental harm in international law, with a specific focus on identifying the key considerations in establishing a standard of liability for deep seabed mining activities. The paper considers the standard of liability for state behaviour under the law of state responsibility and on operators through international legal regimes on civil liability, as well as detailing the use of liability exceptions and liability caps across various regimes.

Introduction

A threshold question for designing liability rules in any legal system is the degree of fault required to impose liability. In discussing the form of liability, most legal systems distinguish between three main forms of liability: negligence, strict liability and absolute liability. 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 is often identified as reasonably prudent or duly diligent behaviour, as evidenced by accepted standards of behaviour in the area of activity.[1] 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.

The approach to liability in relation to environmental harm has been subject to much debate and conceptual confusion in relation to state responsibility for environmental harm.[2] One result has been that the rules respecting liability have not developed as a unitary body of law common to all activities (although there are baseline customary rules), but rather on a regime basis with slightly different approaches to the standard and scope of liability associated with the regulated activity.

An important factor that has influenced the development of liability regimes in relation to other activities is whether the approach to liability is to focus on state liability or to channel liability to the operators or owners of the activity in question. The approach 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 and has influenced state practice in this area. As it is possible that either approach could be adopted in connection to deep seabed mining, this paper considers the approach to liability and associated rules that have developed in relation to both state liability and where liability is channelled to operators.

In addressing this question in the context of deep seabed mining, this paper first discusses the current rules respecting liability that are set out under the United Nations Convention on the Law of the Sea (LOSC) and considered by the Seabed Disputes Chamber (SDC) of the International Tribunal for the Law of the Sea (ITLOS) in its Advisory Opinion on the Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area.[3] The existing rules under the LOSC are the default requirements, but as discussed below, there is considerable breadth for the International Seabed Authority (ISA) to develop new approaches to liability to better address the particular demands associated with deep seabed mining. As the choice of liability standard is a policy decision, the paper discusses the key factors/justifications that ought to influence the standard of liability for deep seabed mining activities.

1 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 & Panos Merkouris, eds, *Research Handbook on International Environmental Law* (Cheltenham, UK: Edward Elgar, 2010) 320; Alan Boyle, "Globalizing Environmental Liability: The Interplay of National and International Law" (2005) 17:1 J Envtl Law 3; Philippe Sands & Jacqueline Peel, *Principles of International Law,* 4th ed (Cambridge, UK: Cambridge University Press, 2018) ch 16.

2 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 [Boyle, "State Responsibility"]; G Handl, "Liability as an Obligation Established as a Primary Rule of International Law: Some Basic Reflections on the International Law Commission's Work" (1985) 16 Nethl YB Intl L 49.

3 *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (2011), Advisory Opinion, No 17 [SDC Advisory Opinion 2011].

Policy Considerations

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 some loss where the person who causes the harm has acted wrongly in some fashion. 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.[4] Much, of course, here depends upon how the respective rights and duties of the parties are defined.[5]

The difficulty with fault requirements is that 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 between two potentially innocent actors. Creation of risk is most often raised as a basis for imposing liability without a requirement of proof of fault.[6] As a consequence, activities with higher degrees of risk are often subjected to strict forms of liability in both international and domestic law. The presence of risk underlies the law of strict liability in common law tort regimes[7] and is raised as a basis for imposing strict liability on states where they engage in or authorize hazardous or "ultra-hazardous" activities,[8] discussed further below.

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 and 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 ensuring the higher standard of strict liability encourages 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.

Cost internalization is often reflected in the inclusion of the polluter pays principle in international declarations and treaties.[9] The polluter pays principle has some clear purchase in the area of marine pollution[10] and is identified as a relevant principle in relation to marine pollution from oil transport.[11] Outside the marine pollution area, the polluter pays principle has been linked to strict liability under the (Lugano) Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment.[12] As an allocation rule, the polluter pays principle favours placing

4 Ernest J Weinrib, "Corrective Justice in a Nutshell" (2002) 52:4 UTLJ 349.

5 See RH Coase, "The Problem of Social Cost" (1960) 3 JL & Econ 1.

6 de la Fayette, *supra* note 1; International Law Commission (ILC), *Draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities, with commentaries*, 58th Sess, A/61/10 (2006), Principle 4 at para 13 [ILC, *Draft Principles*].

7 See e.g. *Rylands v Fletcher* (1868), LR 3 HL 330.

8 C Wilfred Jenks, "The Scope and Nature of Ultra-Hazardous Liability in International Law" 117 *Recueil des 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 ultra-hazardous activities" in Neil Craik et al, eds, *Global Environmental Change and Innovation in International Law* (Cambridge, UK: Cambridge University Press, 2018) ch 9.

9 *Rio Declaration on Environment and Development,* UNGAOR, UN Doc A/CONF.151/26 (Vol 1), 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* (Oxford, UK: Oxford University Press, 2015) 426.

10 *Convention for the Protection of the Marine Environment of the North-East Atlantic*, 22 September 1992, art 2(2)(b) (entered into force 25 March 1998); *Convention on the Protection of the Marine Environment of the Baltic Sea Area*, 22 March 1972, art 3(4) (entered into force 3 May 1980).

11 Patricia Birnie, Alan Boyle & Catherine Redgwell, *International Law & The Environment,* 3rd ed (Oxford, UK: Oxford University Press, 2009) 432, citing Organisation for Economic Co-operation and Development (OECD), *Recommendation of the Council concerning Certain Financial Aspects of Actions by Public Authorities to Prevent and Control Oil Spills*, C(81)32/Final (1981) and *International Convention on Oil Pollution Preparedness, Response and Co-operation* (London), 30 November 1990, 30 ILM 733 (entered into force 13 May 1995), Preamble.

12 *Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano)*, 21 June 1993, 32 ILM 480 (not in force) ("Having regard to the desirability of providing for strict liability in this field taking into account the 'Polluter Pays' Principle").

costs associated with environmental harm on the operator, not the victim, to avoid cost shifting of harm prevention to third parties. The principle reflects the goal of deterrence and harm prevention, as well as recognizing that responsibility should follow those actors who benefit from the activity. The principle is not without qualification and provides room for policy choices respecting exceptions and limitations on liability.

As a matter of environmental protection, and as a reflection of economic equity, cost internalization is often cited as a desirable policy goal.[13] Relatedly, cost internalization may promote more efficient methods of loss sharing through insurance or compensation schemes, which spread the risk among operators and better protect 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 the LOSC in the requirement for "prompt" compensation.[14]

Liability under the LOSC

The key primary obligation on sponsoring states in relation to activities in the seabed area beyond national jurisdiction (the Area) is to "ensure" that activities in the Area conducted by entities under their jurisdiction or control are in conformity or compliance with the requirements of Part XI and subsidiary rules developed by the ISA, including those contained in plans of work and contracts between the ISA and the contractor.[15] While the objective is to secure contractor compliance, the obligation is to "deploy adequate means, to exercise best possible efforts, to do the utmost, to obtain this result."[16] Given that the obligation is one of conduct, not result, the obligation is characterized as one of due diligence. The due diligence obligation requires the sponsoring state to enact appropriate laws and regulations to effectively control persons under its jurisdiction and provide a means of securing compliance with those laws, including an obligation under article 235(2) to ensure "recourse is available under their legal systems for prompt and adequate compensation."[17]

The SDC also identifies a set of further "direct obligations" that arise independently from the obligation to ensure the sponsored contractor's compliance, including obligations to apply the precautionary principle, to apply best environmental standards and conduct environmental impact assessments.[18] While these obligations are distinct from the more general due diligence obligation, they are also constituent elements of due diligence.[19] Some care must be taken to look carefully at the primary obligation, as the standard of liability is a character of the specific obligation and not the regime as a whole.[20] That said, the direct obligations relating to environmental harm contained in the LOSC are conduct-based, not result-based. Under the wording of article 139(2), liability only arises if there is damage, which could include damage to the Area and its resources, as well as damage to the marine environment.[21]

The question of the standard of state liability was addressed directly in the Advisory Opinion, where the SDC was firmly of the view that liability "arises only from [a sponsoring state's] failure to meet its obligation of due diligence."[22] As discussed below, the framing of the obligation as one of due diligence is consistent with the customary rule of international law respecting transboundary harm.[23]

13 See OECD, *The Polluter-Pays Principle*, OCDE/GD(92)81 (1992).

14 *United Nations Convention on the Law of the Sea*, 10 December 1982, 1833 UNTS 396, 21 ILM 1261 arts 235, 235(2) (entered into force 16 November 1994) [LOSC].

15 *Ibid*, art 139(1), Annex III, art 4(4).

16 SDC Advisory Opinion 2011, *supra* note 3 at para 110.

17 LOSC, *supra* note 14, art 235(2).

18 SDC Advisory Opinion 2011, *supra* note 3 at paras 121–50.

19 *Ibid* at para 123.

20 *Ibid* at para 206.

21 *Ibid* at para 179.

22 *Ibid* at para 189.

23 *Legality of the Threat or Use of Nuclear Weapons* (1996), Advisory Opinion, ICJ Reports 226 at para 29; *Pulp Mills on the River Uruguay (Argentina v Uruguay)* (2010), Judgment, 2010 ICJ April 20 at para 101; ILC, *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities* in *Report of the International Law Commission*, UNGAOR, 53rd Sess, Supp No 10, UN Doc A/56/10 (2001), art 3 [ILC, *Draft Articles on Prevention*].

The structure of the liability obligations is that the primary responsibility for environmental damages rests with the contractor and the ISA,[24] who are independently responsible for their own "wrongful acts," and these obligations exist in parallel, rather than being joint and several with the sponsoring state.[25] Where damages arise from the failure of a sponsored contractor to comply with its obligation, the sponsoring state is only liable if that failure relates to the sponsoring state's own lack of due diligence.[26] As a consequence, the sponsoring state is not responsible for residual (uncovered) damages flowing from a contractor's wrongdoing, but rather only for damages that arise from its failure to exercise due diligence.

The use of the phrase "wrongful act" in Annex III, article 22, should not be interpreted as necessarily requiring fault-based liability for contractors or the ISA. Wrongful in this context means that liability will flow from a breach of the requirements that the contractor or ISA is subject to under the deep seabed mining regime, which may be proven with or without proof of fault, depending on the nature of the primary obligation.[27]

The obligation on contractors to prevent environmental harm in relation to exploration activities is set out in the regulations. Regulation 31(5) 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."[28] As it stands under the exploration regulations, the standard of liability imposed on contractors requires a failure of due diligence; that is, to take reasonable measures. 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 international rules. Although where the failure to comply with a direct, primary obligation results in harm, for example, failing to comply with an emergency order, the non-compliance ought to be viewed as wrongful, with liability consequences flowing from the non-compliance.

In the event that the contractor fails to take all reasonable measures, it is also noteworthy that while article 235(2) calls for prompt and adequate compensation, Annex III, article 22 further specifies that in the context of deep seabed mining, liability "shall be for the actual amount of damages." This requirement is repeated in the standard contractual terms, where it is noted that the "Contractor shall be liable for the actual amount of any damages, including damage to the marine environment, arising from wrongful acts or omissions."[29]

Without further rules, the processes for determining and awarding compensation from contractors will be determined by the domestic rules of the sponsoring state. Read together, article 235 and Annex III, article 22 indicate that sponsoring states, in meeting their obligation under article 235(2), must take steps to ensure that they provide a means for prompt and adequate compensation for the actual amount of damages. 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 is, arguably, open for the sponsoring state to impose domestic rules that provide for strict liability, although this may depend on whether imposing a strict standard is seen as being "inconsistent with Part XI," per Annex III, article 21(3). This provision does allow sponsoring states to adopt rules that are "more stringent" than those adopted by the ISA, which may provide greater latitude for sponsoring states to impose a strict liability standard.

24 *LOSC, supra* note 14, Annex III, art 22.

25 SDC Advisory Opinion 2011, *supra* note 3 at para 200.

26 *LOSC, supra* note 14, art 139(2).

27 ILC, *Draft Articles on Responsibility of States for Internationally Wrongful Acts, with commentaries*, UNGAOR, 53rd Sess, UN Doc A/56/10 (2001) art 2, Commentary 7 [ILC, *Draft Articles on Responsibility*].

28 *Decision of the Council of the International Seabed Authority Relating to Amendments to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and Related Matters*, ISBA Doc ISBA/19/C/17 (2013), Regulation 31(5) [*RPEN*] [emphasis added].

29 *Ibid*, Annex IV, Standard Clauses, s 16.1.

The sponsoring state would appear to be obligated to ensure that sources of compensation are available, perhaps through insurance or other forms of security.[30] There is, in principle, no bar to states establishing civil jurisdiction over sponsored contractors for activities and damages in the Area (based on the nationality principle).[31] There may, however, be disincentives for sponsoring states to have more onerous liability requirements for their sponsored contractors, in the absence of commitments from other states to maintain similar standards.

The wording of articles 139(2) and 304 makes it clear that the provisions respecting responsibility and liability are without prejudice to existing and future rules of international law. As a result, the LOSC contemplates the possibility of the development of new rules on liability, whether they arise from general developments in public international law or specifically in the context of the deep seabed mining regime.[32]

The SDC specifically links the potential for the development of future rules on responsibility and liability, such as the establishment of compensation funds, to the presence of liability gaps (uncompensated damages) that currently exist under the deep seabed mining regime.[33] In particular, the SDC identified gaps where the sponsoring state meets its due diligence obligations, but damages arise from contractor activities, which the contractor is unable to meet; or where there is a failure of due diligence, but it is not causally related to the damage.[34] It should be noted that a more significant liability gap arises in cases of accidental harm by the contractor, but where contractor liability requires proof of fault. In those cases, the victim shall be required to bear its own losses.

There is ample authority for the ISA, through the Council and Assembly, to develop new rules on responsibility and liability for damages to the marine environment. Article 235(3) explicitly contemplates the development of further rules with the objective of assuring "prompt and adequate compensation." The provision includes the possibility of the potential development of measures that better ensure the availability of adequate compensation, such as compulsory insurance or compensation funds. At the time this clause was negotiated, it would have been known that compensation fund schemes often include strict liability.[35] The development of such rules would fall under the plenary powers of the Council and Assembly to develop rules, regulations and procedures for deep seabed mining.[36]

There is nothing in the deep seabed mining regime that suggests that the sponsoring state, the ISA or the contractor must each be subject to the same standard of liability. In fact, the structure of the LOSC, which specifies a due diligence standard for sponsoring states directly in article 139, suggests an intention to impose a due diligence obligation on sponsoring, while allowing the standard of liability for contractors (and perhaps the ISA) to be determined in light of their primary obligations.

In summary, without further development of rules, the basic structure for liability for harm to the environment under Part XI provides as follows:

- Sponsoring states are responsible for exercising all due diligence in order to ensure that contractors carry out their activities in accordance with the requirements under Part XI. Liability on states arises from a failure to exercise due diligence and the presence of damages causally related to the lack of due diligence.
- Contractors and the ISA are liable for damages arising from wrongful acts in carrying out their operations or, in the case of the ISA, in the exercising of their powers and functions.

30 *Ibid*, Standard Clauses, s 16.4 (for exploration activities, contractors are required under the standard clauses to provide "appropriate insurance policies with internationally recognized carriers, in accordance with generally accepted international maritime practice").

31 Ian Brownlie, *Principles of Public International Law*, 6th ed (Oxford, UK: Oxford University Press, 2003) at 302.

32 SDC Advisory Opinion 2011, *supra* note 3 at para 211.

33 *Ibid* at para 209.

34 *Ibid* at para 203.

35 For example, some oil pollution and nuclear facilities treaties were in effect in 1982. See discussion below.

36 *LOSC, supra* note 14, arts 162(2)(o)(ii), 160(2)(f)(ii).

- Sponsoring states are required to ensure that recourse is available in their domestic legal system for prompt and adequate compensation. Rules respecting the liability of contractors, including the standard of liability, may be determined by the domestic laws of the sponsoring state.
- There are no requirements under Part XI, or elsewhere in the LOSC, that require sponsoring states to harmonize their recovery rules, with the possibility that different sponsoring states may enact a patchwork of rules with different standards of liability and exceptions, although the requirements for prompt and adequate compensation and that liability reflect actual damages may be interpreted as requiring minimum standards.
- Finally, the LOSC contemplates that new rules and processes addressing responsibility and liability may arise generally in international law or specifically in relation to marine activities, including deep seabed mining.

The remainder of the paper addresses the potential sources and approaches that may be used in the development of new rules respecting liability. Since article 304 of the LOSC notes that "[t]he provisions of this Convention regarding responsibility and liability for damage are without prejudice to the application of existing rules and the development of further rules regarding responsibility and liability under international law," it is important to account for any general developments in international law regarding responsibility and liability since the negotiation of the LOSC, as well as the prevailing policy choices of states that could provide exemplars for future, regime-specific developments.

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. The approaches are not mutually exclusive. Where states opt to develop a civil liability regime, they do not divest themselves of responsibility, but rather make operators liable in the first instance; a structure that is present in Annex III, article 22 of the LOSC.[37] 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.

State Responsibility for Environmental Harm

The default rules for state liability for environmental harm combine two fundamental rules. The first 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, the first rule, which is a customary rule of international law, requires the responsible state to make reparations for the injury caused by wrongful acts that are attributable to the state.[38] Under international law, reparations include restitution and compensation by way of damages.[39] The second rule establishes the primary obligation on states to prevent transboundary harm. This obligation applies to activities under state control, including the obligation of sponsoring states in relation to deep seabed mining operations, and includes preventing 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 idea that states may be strictly responsible for environmental harm from activities under their control has been discussed and analyzed for decades, principally through the work of the ILC, when it undertook to develop rules for "international liability for injurious consequences arising out of acts not prohibited

37 SDC Advisory Opinion 2011, *supra* note 3 at para 200.

38 ILC, *Draft Articles on Responsibility*, *supra* note 27, art 31.

39 *Ibid*, art 34.

by international law."[40] The underlying concern with the due diligence standard was that in cases of unforeseeable or accidental harm, the resulting harm is borne by the innocent state (or their nationals) or, in the case of the global commons, by the international community as a whole. Thus, the motivating concern was ensuring that victims of harm should not be left to bear the loss. Since the harms arose from activities that were not prohibited, the focus of the ILC's early work was on "injurious consequences arising from acts not prohibited by international law."[41] Holding states liable for such damages was justified, in part, on the role of states in creating risks that exposed others to potential harm.[42]

A number of commentators, both inside and outside the ILC process, have argued in favour of imposing a no-fault standard in relation to those activities that can be classed as ultra-hazardous in nature.[43] 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[44] and the Cosmos 954 claim that was filed under that treaty.[45]

Deep seabed mining could be characterized as hazardous (or ultra-hazardous), but much of the justification for strict liability from risk creation arises from the imposition of risk on potentially impacted states without their consent. The structure under the deep seabed mining regime differs in the sense that member states are involved in the regulation of the activity through the ISA, derogating to some degree from the involuntary nature of the exposure to risk.

In addition, unlike the placement of space objects, which may be understood as an activity with more direct state involvement, 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,[46] is again indirect. It can be argued that strict liability might result in more vigilant oversight of contractors. 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 remediation, since the sponsoring state effectively becomes the insurer of the contractor, 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.

Ultimately, the ILC's early work on liability was criticized for being conceptually flawed, as it relied on a distinction between lawful and unlawful acts that was not borne out in international law.[47] Moreover, it was noted that there has been little state practice in support of a move away from due diligence as the default approach to liability. The ILC reframed its original topic on liability into two separate topics on state obligations to prevent transboundary harm and loss allocation.

The loss allocation topic resulted in the development of a set of draft principles,[48] but these were not adopted by the General Assembly, which only took note of the principles and commended their attention to national governments.[49] The ILC's Draft Principles on Loss Allocation do not apply to the Area, but remain salient as a potential exemplar,

40 The ILC began consideration of the topic of international liability in 1978. For a description of the early work of the ILC on this topic, see Pemmaraju Sreenivasa Rao, Special Rapporteur, ILC, *First Report on the legal regime for allocation of loss in the case of transboundary harm arising out of hazardous activities*, 55th Sess, UN Doc A/CN.4/531 (2003) at paras 6–14.

41 For a critical assessment, see Boyle, "State Responsibility", *supra* note 2.

42 Rao, *supra* note 40 at para 5 (citing early work of the ILC).

43 See Jenks, *supra* note 8; Goldie, *supra* note 8.

44 *Convention on International Liability for Damage Caused by Space Objects*, 961 UNTS 187; 24 UST 2389; 10 ILM 965 (1971), art II.

45 *Protocol on Settlement of Canada's Claim for Damages Caused by 'Cosmos 954', Canada and Union of Soviet Socialist Republics*, 2 April 1981, 20 ILM 689.

46 de La Fayette, *supra* note 1 at 327.

47 Rao, *supra* note 40 at para 17, citing Ian Brownlie, *System of the Law of Nations: State Responsibility* (Oxford, UK: Oxford University Press, 1983) at 50; see also Boyle, "State Responsibility", *supra* note 2.

48 ILC, *Draft Principles*, *supra* note 6.

49 *Allocation of loss in the case of transboundary harm arising out of hazardous activities*, UNGAOR, 61st Sess, UN Doc A/RES/61/36 (2006).

in particular because they frame the purposes of loss allocation as relating to prompt and adequate compensation and environmental protection.[50] The primary obligation under the ILC Draft Principles is to ensure that "prompt and adequate compensation is available for victims of transboundary damage," which would include imposition of liability on the operator responsible for the harm.[51] The principles include further obligations respecting non-discriminatory access to adjudicative bodies in the state of origin, as a means to implement the right to compensation. The approach is one of broad harmonization of recovery rules in domestic legal systems in the event of transboundary harm and thus focuses on operator liability, not state liability.[52] The Draft Principles provide that the measures for prompt and adequate compensation should not require proof of fault.[53] The use of strict liability as the appropriate standard for operator liability was a reflection of international practice in relation to specific hazardous activities (discussed in detail below) and domestic practice, but also a recognition of the unjustness of having "the claimant shoulder a heavy burden of proof of fault or negligence in respect of highly complex technological activities."[54] The approach can be understood as supporting a strict liability approach, where liability is coupled with channelling liability to operators, but not as supporting strict liability for states. As noted, the ILC in its Draft Articles on Prevention of Transboundary Harm from Hazardous Activities maintains a due diligence standard for state obligations to prevent transboundary harm.[55]

In summary, states are subject to the following key obligations in relation to responsibility for environmental harm:

- States are responsible to ensure that activities under their jurisdiction or control are subject to appropriate measures to prevent harm to other states and the global commons. States are liable for damages that arise from their failure to exercise due diligence.
- As evidenced by article 235 of the LOSC, but also supported by Principle 10 of the Rio Declaration, there may be an emerging obligation for states to provide measures for prompt and adequate compensation, but these measures do not necessitate providing for a standard of strict liability.

As a matter of existing international legal approaches, the preferred route for risky activities overseen by states (or international organizations), but carried out by third party operators (perhaps with close ties to states), is to channel liability to the operator, while retaining due diligence standards for oversight activities. This approach is consistent with the current structure of Part XI, in that Annex III, article 22, makes the operators and the ISA the main subjects of liability.[56] As discussed below, where states have chosen to create civil liability regimes, the approach uses a strict standard of liability.

Standards of Liability under Civil Liability Regimes

Civil liability regimes are international agreements whereby states create rules for responsibility and liability in relation to specific hazardous activities, with the following key features: the primary subject of liability is the operator; liability for defined activities and defined damages is imposed without proof of fault; liability may be capped and subject to certain exceptions; and responsible entities are required to maintain insurance or compensation funds as a means to meet the requirement for adequate compensation.[57] The current sectors where civil liability regimes have been negotiated

50 ILC, *Draft Principles*, *supra* note 6, Principle 1, Commentary 10 (defining "transboundary harm" to exclude harm to the global commons).

51 *Ibid*, Principle 4.

52 *Ibid*, Principle 4(2).

53 *Ibid*.

54 *Ibid*, Principle 3, Commentary 13.

55 ILC, *Draft Articles on Prevention*, *supra* note 23, art 3.

56 SDC Advisory Opinion 2011, *supra* note 3 at para 200.

57 Sands & Peel, *supra* note 1 at 771–2.

include nuclear facilities,[58] oil pollution,[59] carriage of hazardous and noxious substances by sea,[60] bunker oil,[61] hazardous waste,[62] living modified organisms[63] and Antarctic activities.[64] As the approach adopted in civil liability regimes is also addressed elsewhere in this series, this paper focuses on the approach to liability contained in those regimes.

Standard of Liability

The standard of liability for operators under civil liability regimes is strict, but not absolute. The policy justifications for imposing strict liability include the desire to:

- ensure prompt and adequate compensation, including available compensation for remediation and reinstatement of environmental harm;
- encourage a high standard of care and deter pollution;
- adhere to the polluter pays principle;
- recognize the fairness of having the creator of risks (as opposed to the victim) bear losses associated with that activity; and
- achieve greater efficiency of providing for compensation without proof of fault.

As the party 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 standard of liability, under the 1992 Civil Liability for Oil Pollution Convention, for example, is implemented through a provision that states that the responsible party "shall be liable for any pollution damage" caused by the activity in question.[65] Other civil liability regimes impose the same standard through similarly worded provisions.[66] In effect, in order to recover damages, the claimant need only prove a causal link between the activity and the damage. There are, of course, subtle, but important differences under each regime, in how each addresses exceptions and matters relating to contributory fault (discussed below).

Exceptions

The 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. For example, the 1963 Vienna Convention, which identifies the imposed standard as absolute, contains a narrow set of exonerating circumstances; namely an incident due to armed conflict and "a grave natural disaster of

58 *Convention on Third Party Liability in the Field of Nuclear Energy*, 29 July 1960, 956 UNTS 251 (entered into force 1 April 1968) (amended by 1964 and 1982 Protocols) [*1960 Convention on Nuclear Energy*]; *Vienna Convention on Civil Liability for Nuclear Damage*, 21 May 1963, 1063 UNTS 265 (entered into force 12 November 1977) (amended by 1997 Protocol, 36 ILM [1997] 1462); *Convention on Supplementary Compensation for Nuclear Damage*, 12 September 1997, 36 ILM (1997) 1473 (entered into force 15 April 2015).

59 *International Convention on Civil Liability for Oil Pollution Damage*, 29 November 1969, 973 UNTS 3 (entered into force 19 June 1975) (replaced by 1992 Protocol, 27 November 1992, IMO LEG/CONF.9/15) (entered into force 30 May 1996) [*1992 Convention on Oil Pollution*]; *International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, 18 December 1971, 1110 UNTS 57 (entered into force 16 October 1978) (amended by 1992 Protocol, 27 November 1992, IMO LEG/CONF.9/16, entered into force 30 May 1996) [*1992 Convention on International Fund*]; *Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage*, 16 May 2003, LEG/CONF.14/20 (entered into force 8 September 2006).

60 *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, 1996*, UN Doc UNEP/CHW.1/WG/1/9/2 [*HNS Convention*].

61 *International Convention on Civil Liability for Bunker Oil Pollution Damage*, 23 March 2001, UKTS 47 (2012) (entered into force 21 November 2008).

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

63 *Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety*, 15 October 2010, UKTS Miscellaneous No 6 (2014) (entered into force 5 March 2018) [*Nagoya-Kuala Lumpur Protocol*].

64 *Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty Liability Arising from Environmental Emergencies*, (2005) 402 UNTS 71, 30 ILM 1455 (1991) [*Antarctic Protocol*].

65 *1992 Convention on Oil Pollution*, *supra* note 59, art III(1).

66 See also *HNS Convention*, *supra* note 60, art 7; *1960 Convention on Nuclear Energy*, *supra* note 58, art 3.

an exceptional character."[67] More typically, treaties contain a longer list of exceptions, which include: [68]

- armed conflict;[69]
- intentional damage by a third party;[70]
- contributory negligence (the incident resulted from the intentional or negligent actions of the claimant);[71]
- damage caused by government negligence;[72]
- damage caused as a result of "a natural phenomena of exceptional, inevitable, unforeseeable and irresistible character;"[73] and
- damage caused as a result of compliance with a compulsory measure of a public authority.[74]

The presence of exceptions moves away from a rigid application of the polluter pays principle, and appears driven largely by issues of fairness and control. For example, exonerations based on contributory negligence or "compliance with compulsory measures" responds to the equities of imposing liability on an operator where the fault lies elsewhere.[75] 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.

While not strictly an exception to liability, civil liability regimes also limit liability by restricting the forms of damages that may be recoverable. A constituent element of each treaty are rules that identify which damages are recoverable. For example, the oil pollution regime excludes damages to commons areas. Environmental reinstatement (remediation) costs are included, but only insofar as expenses are actually incurred.[76]

Liability Caps

The other common feature of civil liability regimes is the practice of limiting liability to identified compensation caps per claim. 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 for the nuclear regime appeared insufficient following the Chernobyl incident, the amounts were raised. 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. Determining the upper limits of potential claims in the deep seabed mining context will be a critical consideration in assessing the use of liability caps, but also the viability of insurance, which relies on liability caps. The presence of limited liability is a further derogation from the application of the polluter pays principle, but responds to the practicality of the pooled compensation funds. The Basel Convention (not yet in force) provides for unlimited liability where the harm is a result of "wrongful intentional, reckless or negligent acts or omissions."[77]

67 *1992 Convention on Oil Pollution*, *supra* note 59, art IV(2).

68 *Ibid*, art III(2); *1992 Convention on International Fund*, *supra* note 59, art 4(2); *Antarctic Protocol*, *supra* note 64, Annex VI, art 8; *Nagoya-Kuala Lumpur Protocol*, *supra* note 63, art 6; *HNS Convention*, *supra* note 60, art 4(2)(3), 7; *Basel Protocol on Liability*, *supra* note 62, art 4(5).

69 *1992 Convention on Oil Pollution*, *supra* note 59, art III(2)(a); *1992 Convention on International Fund*, *supra* note 59, art 4(2)(a); *HNS Convention*, *supra* note 60, art 7(2)(a).

70 *1992 Convention on Oil Pollution*, *supra* note 59, art III(2)(b); *1992 Convention on International Fund*, *supra* note 59, art 4(3); *HNS Convention*, *supra* note 60, art 7(2)(b).

71 *HNS Convention*, *supra* note 60, art 7(3).

72 *1992 Convention on Oil Pollution*, *supra* note 59, art III(2)(c); *HNS Convention*, *supra* note 60, art 7(2)(c).

73 *Basel Protocol on Liability*, *supra* note 62, art 4(5); *HNS Convention*, *supra* note 60, art 7.

74 *Basel Protocol on Liability*, *supra* note 62, art 4(5).

75 *Ibid*.

76 *1992 Convention on Oil Pollution*, *supra* note 59, art I(6).

77 *Basel Protocol on Liability*, *supra* note 62, art 5. See also Ruth MacKenzie, "Liability for Environmental Harm from Deep Seabed Mining Activities: Defining Environmental Damage" CIGI, Liability Issues for Deep Seabed Mining Series, forthcoming 2019.

Conclusion

The following observations respecting the approach to standards of liability can be abstracted from the discussion above:

- State liability for environmental harm requires proof of fault (an absence of due diligence) under Part XI of the LOSC and, in international law, respects transboundary harm more generally. Strict liability does not.
- While a number of commentators have posited a generalized strict liability standard for ultra-hazardous activities, the state practice in support of such a standard is limited.
- The preferred approach of the international community in relation to hazardous (or ultra-hazardous) activities is to channel liability to operators and to impose a strict liability standard on them.
- The use of strict liability in the context of operator liability under civil liability regimes ought to be viewed as keeping in mind options that provide some relief to operators. These include:
    - exculpatory exceptions;
    - liability caps; and
    - the (mandatory) use of insurance and pooled compensation funds.
- Although the existing rules (under the Exploration Regulations) indicate that contractors will only be held liable for failures of due diligence, the LOSC contemplates that the parties may adopt a different (strict) approach to liability that achieves the objective of providing "prompt and adequate compensation."

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