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Exploiting the deep seabed for the benefit of humankind: A universal ideology for sustainable resource development or a false necessity?

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Abstract

A pivotal point in time has been reached in the ongoing negotiations under the auspices of the International Seabed Authority (ISA) towards the adoption of regulations for the commercial exploitation of mineral resources in the deep seabed beyond national jurisdiction. The ISA has a mandate to ensure that activities in the Area, legally designated as ‘common heritage of humankind’, are carried out for the benefit of humankind as a whole. Yet, there is a growing sense of unease with the potential imminence of the commercial exploitation phase, and concern that the implementation of all components of the common heritage principle, including its environmental and distributive ambitions, will be compromised in the interest of a handful of industry stakeholders. This article dives under the surface of these tensions by asking how the public interest in a global commons can become constructed in a way that conflates diverse and opposing interests in favour of value extraction by the private sector, revealing the ambivalent role of international law in the process. It uses the concept of ‘false necessity’ to question the apparent urgency and inevitability of commercial exploitation, more specifically to the extent it obscures and pre-empts more inclusive conceptions of ‘benefit’ for humankind. By shifting the focus from the much-debated risks of deep seabed mining to the notion of benefit, the article illuminates the inherent contradictions and distributional asymmetries obscured by the conflated yet purportedly universal conception of public interest in exploitation.

Keywords: common heritage of humankind; deep seabed mining; exploitation; global commons; sustainable development

1. Introduction

A pivotal point in time has been reached in the ongoing negotiations under the auspices of the ISA towards the adoption of regulations for the commercial exploitation of mineral resources in the deep seabed beyond national jurisdiction (the Area). The negotiations have been in choppy waters since June 2021, when the government of Nauru triggered an obscure rule which requires the ISA to complete its regulatory work within two years’ time.¹ Nauru made this request in its capacity as sponsoring state of a private contractor, Nauru Ocean Resources Inc (NORI),² which intends to

¹This provision is contained in the 1994 Implementing Agreement, Annex, Section 1, para. 15. See also Letter dated 25 June 2021 from the President of the Republic of Nauru addressed to the President of the Council of the International Seabed Authority, ISBA/26/C38 (1 July 2021).

²NORI is a wholly owned subsidiary of the Canadian corporation The Metals Company (TMC), formerly DeepGreen.

apply for an exploitation contract with the ISA.³ When the two-year deadline passed in July 2023, it was clear that the Draft Regulations were far from ready for adoption. Member states are now working on a timeline with the non-legally binding target to finalize the regulations by 2025.⁴ Meanwhile, the exact practical implications of the current legal twilight zone remain a topic of ongoing debate.⁵ The two-year rule provides that when regulations are not in place by the deadline, the Council of the ISA ‘shall none the less consider and provisionally approve’ contractor applications for plans of work for exploitation.⁶ With this ‘sword of Damocles’ hanging over the negotiations,⁷ there is a growing sense of unease with the potential imminence of the exploitation phase and the need to take fundamental decisions under time-pressure.

Commercial exploitation of the deep seabed is not a prospect that has suddenly arisen out of the blue though. While previous decades in the life and work of the ISA have triggered far less public attention, it has, to date, adopted regulations for the exploration phase of deep seabed mining,⁸ and granted 31 contracts for prospecting and exploration of deep sea minerals to 22 different contractors.⁹ Work on the Draft Exploitation Regulations has been ongoing since 2014.¹⁰ Due to the scope and complexity of this task, the initial self-imposed deadline to complete the process by 2020 was not met, at which point member states emphasized that the need to ‘get it right’ should override self-imposed deadlines.¹¹ So, are they any closer to ‘getting it right’ by 2025?

If the trigger of the two-year rule has revealed anything, it is how a single sponsoring state – relaying the priorities of a private contractor – can put pressure on an international organization mandated to ensure that activities in the Area designated as common heritage of humankind are carried out for the ‘benefit of humankind as a whole’.¹² This fuels longstanding and growing concerns shared by member states, scientists, NGOs, and civil society alike, that full implementation of *all* components of the common heritage principle – including the protection of the marine environment,¹³ and the equitable sharing of benefits derived from activities in the Area¹⁴ – should take precedence over the commercial interests of a handful of industry

³Non-state actors can only apply to the ISA for a contract when sponsored by a member state, 1982 United Nations Convention on the Law of the Sea, 1833 UNTS 397, Art. 153(2)(b); Ann. III, Art. 4.

⁴Decision of the Council of the International Seabed Authority on a timeline following the expiration of the two-year period pursuant to section 1, paragraph 15, of the annex to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea, ISBA/28/C/24 (21 July 2023).

⁵See Decision of the Council of the International Seabed Authority relating to the understanding and application of section 1, paragraph 15, of the annex to the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea ISBA/28/C/9 (adopted 31 March 2023).

⁶Intersessional discussions with the aim of finding a common understanding of paragraph 15 and its implications continue, but consensus has been reached on the view that the Council indeed has the obligation to consider a plan of work, but also discretion to decide whether or not to provisionally approve it. *Ibid.*, para. 5.

⁷Statement by the Spanish delegation, ‘ISA-27 Assembly Highlights: Thursday, 4 August 2022’, *Earth Negotiations Bulletin (IISD Reporting Services)* Vol. 25(229), 5 August 2022.

⁸Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area ISBA/19/C/17 (adopted 13 July 2000 and amended 22 July 2013); Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area ISBA/16/A/12/Rev.1 (adopted 7 May 2010); Regulations on Prospecting and Exploration for Cobalt-Rich Crusts ISBA/18/A/11 (adopted 27 July 2012).

⁹See the International Seabed Authority’s ‘Exploration Contracts’, available at www.isa.org.jm/index.php/exploration-contracts.

¹⁰See, for the latest version, Draft Regulations on Exploitation of Mineral Resources in the Area ISBA/25/C/WP.1 (22 March 2019).

¹¹Summary of the Twenty-fifth Annual Session of the International Seabed Authority (Second Part): 15–26 July 2019’, *Earth Negotiations Bulletin (IISD Reporting Services)* Vol. 25 (207), 29 July 2019, 18; ‘Summary of the Twenty-sixth Annual Session of the International Seabed Authority (First Part): 17–21 February 2020’, *Earth Negotiations Bulletin (IISD Reporting Services)* Vol. 25(244), 24 February 2020, 10–11.

¹²Taking into ‘particular consideration the interests and needs of developing states’, see UNCLOS, *supra* note 3, Arts. 140 and 136, 137.

¹³*Ibid.*, Art. 145.

¹⁴*Ibid.*, Art. 140 mentions financial and other economic benefits. Further components of the ‘distributive’ part of the ISA’s mandate are facilitating and encouraging marine scientific research, transfer of technology, and capacity building. See *ibid.*, Arts. 143, 144.

stakeholders from the global North. The African Group warned in response to Nauru's request that it 'is likely to weaken rather than facilitate the development of an effective regime fully embodying the common heritage of humankind principle'.¹⁵ A Chilean delegate reminded the ISA Assembly that it is member states who are called upon to protect the common heritage of humankind, not contractors.¹⁶ Some critics have pointed fingers at Nauru with arguments invoking its obligation of good faith or an abuse of rights.¹⁷ Yet, this arguably amounts to little more than shooting the messenger. A more fundamental question appears to be at stake here: how does 'the public interest' in a global commons that is legally designated as such become constructed in a way that conflates diverse and opposing interests in favour of value extraction by a limited number of (mostly) private actors?

The universalist nature and substantive indeterminacy of the common heritage principle lends itself to support an 'ideology of mutuality',¹⁸ which allows actors to dress opposing interests in universalist terms, making them appear mutually supportive.¹⁹ The current course of implementation of the seabed regime and the work of the ISA appear to be premised on such a conflated conception of universal public interest, under which the promise of 'sustainable resource development' through commercial exploitation equals distribution (primarily via royalty payments to the ISA), thereby equalling 'benefit' for humankind. Along this line of reasoning, the main outstanding challenge for the exploitation regulations is then to find an acceptable 'trade-off' with the social and environmental costs of commercial deep seabed mining. Hence, much of the ongoing debate – both in the regulatory realm and among commentators – is understandably focused on how to deal with the risks, in particular environmental risk.

By shifting the focus instead to the concomitant and equally crucial notion of *benefit*, this article seeks to illuminate the inherent contradictions and distributional asymmetries obscured by the conflated yet purportedly universal conception of public interest in exploitation. It builds on the premise that narratives of universality, such as that inherent in the common heritage principle, are prone to produce false necessities. It follows Marks in her observation that such narratives also serve as vehicles for ideology: 'discursive manoeuvres that help to legitimate and thence stabilise existing configurations of power'.²⁰ False necessity obscures potentiality by presenting as self-evident what is actually precarious and contingent.²¹ Contingency is understood here as opposed to necessity, but should not be equated with chance or accidental or arbitrary action.²² Marks also warns about 'false contingency' which obscures the forces and systemic constraints that shape the conditions and limits of possibility in a particular scenario.²³ The aim of the present article is to reposition potentiality in a regime that continues to be in the making. It takes up Feichtner and Ranganathan's suggestion to take seriously the possibility of recovering conceptualizations of global commons that 'point away from a political economy built on the competitive pursuit of

¹⁵Submission of members of the Council of the International Seabed Authority from the African Group in relation to the request made by Nauru pursuant to Section 1, paragraph 15, of the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, ISBA/26/C/40 (13 July 2021), para. 5.

¹⁶See ISA-27 Assembly Highlights, *supra* note 7.

¹⁷See, for a discussion, P. A. Singh, 'Commentary: Can the Invocation of the "Two-Year Rule" at the International Seabed Authority Be Challenged?', *DSM Observer*, 30 September 2021, available at dsmobserver.com/2021/09/commentary-can-the-invocation-of-the-two-year-rule-at-the-international-seabed-authority-be-challenged/.

¹⁸S. Marks, 'Exploitation as an International Legal Concept', in S. Marks, *International Law on the Left* (2008), 281, at 303.

¹⁹See further Sections 2 and 4, *infra*. See also M. Koskeniemi and M. Lehto, 'The Privilege of Universality', (1996) 65 *Nordic Journal of International Law* 533, at 553–4.

²⁰S. Marks, 'False Contingency', (2009) 62 *Current Legal Problems* 1, at 14.

²¹*Ibid.*, at 3; building on the work of R. M. Unger, *False Necessity: Anti-Necessitarian Social Theory in the Service of Radical Democracy* (2004).

²²See on this understanding and use of the concept also I. Venzke, 'Situating Contingency in the Path of International Law', in I. Venzke and K. J. Heller (eds.), *Contingency in International Law: On the Possibility of Different Legal Histories* (2021), 3, at 6.

²³'For just as things do not have to be as they are, so too history is not simply a matter of chance and will.' See Marks, *supra* note 20, at 10.

interests, in which commercial considerations come to drive the exploitation of nature'.²⁴ It uses the concept of false necessity to question the perceived urgency and inevitability of commercial exploitation of the deep seabed, more specifically to the extent it obscures and pre-empts more inclusive conceptions of 'benefit' for humankind, while also showing that this potentiality is not evenly distributed.

The argument will proceed in three steps. First, 'exploitation' is positioned within the context of the common heritage principle (Section 2). A very brief history of the common heritage regime does not purport to comprehensively uncover all contingencies throughout its turbulent history and aim for universal participation, but rather to unsettle the sense of 'necessity' in the course of a regime that continues to be in the making today. The second part focuses on the role of the ISA in this process to draw out the substantive tensions and contradictions between the commercial, distributive, and environmental components of its mandate. It shows that, as a result, no single understanding of public interest can take precedence over others, hence exploitation cannot be 'necessary' to benefit humankind (Section 3). The third part critically reviews the most dominant arguments in favour of exploitation to show how an evolving narrative of necessity continues to justify the costs of exploitation to humankind, while obscuring the true beneficiaries and pre-empting more inclusive conceptions of benefit (Section 4).

2. Exploitation and the common heritage principle

The deep seabed regime provides a laboratory setting in which the conflation of apparently opposing interests into a universalized conception of 'the public interest' materializes, revealing the ambivalent role of international law in that process. A juxtaposition of the following two statements serves to illustrate this point. On the occasion of the twenty-fifth anniversary of the ISA, its Secretary General Michael Lodge characterized the ISA and its work as 'a unique experiment in civilisation; it is the only example that we have of a global commons that is managed internationally for the benefit of all humanity'.²⁵ On a second occasion, he articulated the following – not uncommon – argument that:

it is useless and counterproductive to argue that an a priori condition for deep-sea mining is an existential debate about whether it should be permitted to go ahead or not. The international community passed that point already many years ago. This is because one factor that distinguishes deep seabed mining from any other extractive activity, or indeed any other ocean use, is the nature of the underlying legal regime established by the Law of the Sea Convention.²⁶

This narrative should be questioned for a number of reasons. Firstly, when considering the role of an international organization with a mandate to conduct 'a unique experiment in civilisation' by managing a global commons for the benefit of humankind as a whole, existential questions are rather pertinent. Such questions include: what constitutes 'benefit', who determines this, and who are the actual 'beneficiaries' behind the universalist notion of 'humankind'? Secondly, the turbulent history of the seabed regime shows that the international community did not uniformly and decidedly 'pass that point' many years ago, but that the decisions taken at the time were contingent, made on the basis of erroneous and incomplete knowledge, starkly diverging motives, and usurped by an extractive ideology that came to dominate other core components of the

²⁴I. Feichtner and S. Ranganathan, 'International Law and Economic Exploitation in the Global Commons: Introduction', (2019) 30 *European Journal of International Law* 541, at 546.

²⁵See Summary of the Twenty-fifth Annual Session, *supra* note 11, at 18.

²⁶M. W. Lodge and P. A. Verlaan, 'Deep-Sea Mining: International and Regulatory Challenges and Responses', (2018) 14 *Elements* 331, at 336.

common heritage principle. It is therefore indeed the nature of the common heritage regime and the tensions remaining within it that distinguish it from other extractive activities, and therefore warrant continued enquiry into the fundamental questions posed above before the final frontier of commercial exploitation is crossed once and for all.

While contemporary connotations of ‘common heritage’ may bring inclusive understandings of ecological and social value and images of trusteeship to mind,²⁷ there is no doubt that the designation of the Area as common heritage of humankind was rooted in an exploitation-oriented rationale.²⁸ On what terms and conditions such exploitation was to unfold, however, was far from a given. It was the Maltese ambassador Pardo’s famous speech to the UN General Assembly in 1967 that, although not the first to articulate the common heritage concept as such, imprinted the prospect of unparalleled riches waiting to be recovered from the ocean floor firmly onto the international consciousness, combined with a sense of urgency.²⁹ Pardo spoke to a fear that resonated with newly independent states in particular, warning that industrialized states with the financial, technological, and military means would lead a ‘scramble’ for the deep seabed analogous to the nineteenth century colonial scramble for territory – leaving developing states (with economies heavily dependent on the export of commodities) once again on the losing end.³⁰ Pardo’s proposal to prevent this scenario was that the deep seabed would be designated as common heritage of humankind, and that a new regime and an international body would be established for its administration, notably including environmental management.³¹ According to Pardo, this was ‘the only alternative by which we can hope to escape the immense hazards of a permanent impairment of the marine environment’ and to ensure that the riches of the seabed would be exploited peacefully ‘with harm to none and benefit to all’.³²

His reasoning leveraged existing tensions between developed and developing states effectively.³³ During that very same 1967 session, as per Pardo’s proposal, the UNGA adopted a resolution that established the Seabed Committee to continue work on the topic.³⁴ In 1969, a majority of developing states pushed through another key resolution, the Moratorium Resolution, that froze claims to the seabed in the meantime.³⁵ This was followed by the 1970 Declaration of Deep Seabed Principles which reaffirmed the deep seabed’s status as common heritage of humankind, reiterating the objective of the future regime to ensure equitable sharing of benefits derived therefrom, as well as the need to establish rules and standards to protect and conserve the marine environment.³⁶ The debate and work within the Seabed Committee carried into the Third UN Conference on the Law of the Sea (UNCLOS III) which convened for the first time in 1973 to negotiate what would eventually become the 1982 UN Convention on the Law of the Sea (UNCLOS).

Throughout this same period, the idea of a ‘New International Economic Order’ (NIEO) was gaining traction.³⁷ The NIEO movement sought to address the economic power disparities and substantive inequalities in international relations between developed and (newly independent)

²⁷See also, e.g., K. Mickelson, ‘Common Heritage of Mankind as a Limit to Exploitation of the Global Commons’, (2019) 30 *European Journal of International Law* 635.

²⁸Feichtner has described this as the ‘exploitation bias’ of the regime, I. Feichtner, ‘Sharing the Riches of the Sea: The Redistributive and Fiscal Dimension of Deep Seabed Exploitation’, (2019) 30 *European Journal of International Law* 601.

²⁹Address by A. Pardo to the Twenty-Second Session of the General Assembly, UN Doc. A/C.1/PV.1515 (1 November 1967).

³⁰*Ibid.*, para. 91.

³¹For an overview and discussion of the early General Assembly debates see Mickelson, *supra* note 27, at 637–9.

³²Address by A. Pardo to the Twenty-Second Session of the General Assembly (continued), UN Doc. A/C.1/PV.1516 (1 November 1967), para. 3.

³³See more extensively S. Ranganathan, ‘Global Commons’, (2016) 27 *European Journal of International Law* 693, at 713–14.

³⁴UNGA Res. 2340 (XXII) (18 December 1967).

³⁵UNGA Res. 2574 (XXIV) (15 December 1969).

³⁶UNGA Res 2749 (XXV) (17 December 1970), paras. 9, 11.

³⁷See M. Bedjaoui, *Towards a New International Economic Order* (1979); K. Hossain (ed.), *Legal Aspects of the New International Economic Order* (1980).

developing countries, and one means to achieve this was through a more equitable distribution of benefits from developmental and technological progress, including through access to previously unattainable natural resources. The deep seabed and the prospect of a new legal regime based on the common heritage principle soon became a flagship topic on the NIEO agenda. However, as Ranganathan's critical history of Pardo's mission shows, Pardo himself was not a direct spokesperson for the NIEO, and even took a stance counter to some of its key policies.³⁸ The momentum generated by Pardo's speech was most likely a function of its timing and the almost utopian, yet erroneous, presentation of the economic potential of seabed resources: 'Pardo here was guilty of hypostasizing facts . . . presenting an account of "reality" that was selective and optimistic at best, wildly speculative at worst, and irresponsible in exacerbating existing developed/developing tensions.'³⁹ While the accuracy of the figures and sources on which Pardo had relied were soon debunked,⁴⁰ his proposal had taken root at a time of general technological and scientific optimism. The seabed bandwagon had taken off and was not (yet) to be stopped.

Some interesting parallels emerge here with the current regulatory process towards the commercial exploitation phase. First, the *urgency* invoked by Pardo to commit to the negotiation of a new treaty regime meant that an earlier, and at the time still ongoing, comprehensive technical study by the UN Secretariat on different aspects of seabed regulation was cut short by the UNGA's establishment of the Seabed Committee. As Ranganathan observes:

We cannot be certain that the Secretariat, had it been able to complete its work before the issue became prominent, would have arrived at a better regime, but we can surmise that it would have avoided decision making on the basis of delusive "facts". Pardo's intervention was a critical event that changed the course of law-making on the seabed.⁴¹

Today, scientists warn that the available knowledge and data of deep sea ecosystems is insufficient to enable evidence-based decision making or to provide a basis for sound environmental regulations – a challenge to which we shall return further below.⁴² Second, stressing the need for a dedicated regime and treating deep seabed resources as somehow distinct or disconnected from other ocean uses and governance challenges arguably contributed to the self-contained and over-emphasized position that the development of the seabed regime enjoyed throughout UNCLOS III and continues to enjoy today.⁴³ This disconnect has echoes in the process leading up to the recently adopted International Agreement on Biodiversity Beyond National Jurisdiction.⁴⁴ Disagreement along developed/developing state lines on whether marine genetic resources on the seabed should be subject to a common heritage or high seas freedoms-based regime marked the negotiations, while the need to 'not undermine' existing institutions and an apparently restrictive view of the ISA's role and mandate in areas beyond national jurisdiction were established early on.⁴⁵ The common heritage of humankind principle

³⁸Malta voted against the 1969 Moratorium Resolution for example. See extensively Ranganathan, *supra* note 33, at 709–10.

³⁹*Ibid.*, at 713; S. Ranganathan, 'What If Arvid Pardo Had Not Made His Famous Speech? (False) Contingency in the Making of the Law of the Sea', in Venzke and Heller, *supra* note 22, at 238–42.

⁴⁰See Ranganathan, *supra* note 33, at 711–12.

⁴¹*Ibid.*, at 713.

⁴²See Section 3.1, *infra*.

⁴³See also *ibid.*, at 714, and Section 4.1, *infra*.

⁴⁴Agreement 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, UN Doc. A/CONF.232/2023/4 (19 June 2023).

⁴⁵The 'not undermining clause' is contained in *ibid.*, Art. 4(2). See also A. Langlet and A. B. M. Vadrot, 'Not "Undermining" Who? Unpacking the Emerging BBNJ Regime Complex', (2023) 147 *Marine Policy* 105372. See, for a discussion of the changing position of the common heritage principle in the early phases of the negotiations, D. Tladi, 'The Common Heritage of Mankind and the Proposed Treaty on Biodiversity in Areas beyond National Jurisdiction: The Choice between Pragmatism and Sustainability', (2014) 25 *Yearbook of International Environmental Law* 113.

is still mentioned in the text of the Agreement alongside high seas freedoms, but only as a guiding principle.⁴⁶

Pardo, for better or worse, arguably also relied on a false necessity in assuming that the historical means of securing access to natural resources would be replicated. His image of a deep seabed ‘scramble’ did not reflect the fact that the dynamics of imperialist power-structures were already changing. In the wake of the decolonization process, (former) colonial powers were relying on means other than ‘land grabbing’ to gain and retain access to natural resources, notably through international trade agreements, protection of foreign investment, and development aid regimes.⁴⁷ While the substantive indeterminacy of the common heritage principle provided developing states with a testing ground for NIEO-inspired development policies within the new seabed regime, it also meant that the concept could be ‘co-opted’ by industrialized states over the course of nearly a decade of UNCLOS III negotiations.⁴⁸ The developing states were primarily interested in reducing inequality by securing actual participation in seabed exploitation, ideally by means of an international monopoly and the equitable distribution of benefits derived therefrom. The industrialized states, on the other hand, were primarily interested in securing access for private corporations and investors ‘on the logic that [minerals] supply was best guaranteed through commercial enterprise reacting to market demands’.⁴⁹ This divergence was not resolved by the mere designation of the resources as ‘common heritage of humankind’ and set sharp dividing lines for the substantive negotiations on how to operationalize the regime.

A fair number of the policies that developing states pushed for initially made it into the negotiating text by 1975, albeit in compromised form. However, against a background of rising cold war tensions, the dynamics changed markedly when President Reagan was elected in 1980. It became clear that the US and several other industrialized countries had objections pertaining exclusively to the seabed regime contained in Part XI of the draft Convention, specifically those provisions that defied free-market principles and protected developing states’ interests.⁵⁰ A particularly thorny issue was the concept of an ‘international industry’ in the form of ‘the Enterprise’: a dedicated body that was to function as the operative mining arm of the ISA. For the industrialized states, this was the epitome of ‘international socialism’.⁵¹ For developing states, it was the only way to ensure actual participation in a technologically advanced future industry.⁵² While the initial economic and technological optimism around seabed mining had faltered by this time, the topic remained hot for ideological reasons,⁵³ but also because developing states continued to be fed ambiguous and inflated information about the practical and economic feasibility of seabed mining.⁵⁴ With the ideological positions of states and the substantive terms of

⁴⁶See BBNJ Agreement, *supra* note 44, Art. 5(b). Substantively, the principle is not further elaborated in the Agreement itself, although an element of it can be seen as reflected in the provisions on equitable sharing of benefits from marine genetic resources. *Ibid.*, Part II.

⁴⁷See Ranganathan, *supra* note 33, at 714; S. Pahuja, *Decolonising International Law: Development, Economic Growth and the Politics of Universality* (2011); J. T. Gathii and S. Puig, ‘The West and the Unraveling of the Economic World Order: Thoughts from a Global South Perspective’, in D. L. Sloss (ed.), *Is the International Legal Order Unraveling?* (2022), 62.

⁴⁸See Bedjaoui, *supra* note 37, at 221–39.

⁴⁹See Feichtner, *supra* note 28, at 608.

⁵⁰D. L. Larson, ‘The Reagan Rejection of the UN Convention’, (1985) 14 *Ocean Development & International Law* 337; see Koskenniemi and Lehto, *supra* note 19, at 542. See also Tedeschini, who analyses the US-led project to restore profitable conditions for capital accumulation in the seabed regime; M. Tedeschini, ‘Unclosure: The International Law of Seabed Mining and the Systemic Cycles of Capital Accumulation’, (2022) 10 *London Review of International Law* 265.

⁵¹The head of the US delegation to UNCLOS III under Reagan expressed ‘deep concern’ about its ‘great dangers’, J. L. Malone, ‘The United States and the Law of the Sea after UNCLOS III’, (1983) 46 *Law and Contemporary Problems* 29, at 31.

⁵²See Koskenniemi and Lehto, *supra* note 19, at 543; R. C. Ogley, ‘The Law of the Sea Draft Convention and the New International Economic Order’, (1981) 5 *Marine Policy* 240.

⁵³See extensively Koskenniemi and Lehto, *ibid.*, at 541–6.

⁵⁴See S. Ranganathan, ‘Ocean Floor Grab: International Law and the Making of an Extractive Imaginary’, (2019) 30 *European Journal of International Law* 573, at 595.

the draft regime thus divorced from practical reality, the consensus process through which UNCLOS was being negotiated as a package deal eventually broke down on the seabed regime.

The Convention's text was adopted by vote in 1982, but it quickly became apparent that without further adjustments to Part XI the entry into force of UNCLOS would become dependent entirely on ratifications by developing states. As far as the Area was concerned, it was also evident that operationalizing the regime through an ISA that could not count on the participation (and financial contributions) of developed states was hardly realistic. The search for compromise thus continued through 'informal consultations' between 1990 and 1994 under the guise of commitment to the 'universality' of the Convention,⁵⁵ which had become code for amending the original Part XI to make it acceptable to the industrialized states.⁵⁶

The Part XI Implementing Agreement was eventually adopted by consensus in 1994 and entered into force that same year together with UNCLOS. The common heritage principle remains front and centre of the Implementing Agreement and the environmental component remained untouched.⁵⁷ Apart from that, the original Part XI regime was effectively rewritten to replace the provisions that facilitated direct participation by developing states and make way for market principles.⁵⁸ The independent functioning of the Enterprise was put on halt,⁵⁹ mandatory transfer of technology was scrapped,⁶⁰ and so were production ceilings and a compensation fund intended to protect land-based producers of minerals.⁶¹ Financial obligations of states to the ISA and contractor application fees were reduced,⁶² and, importantly, decision making procedures within the ISA were changed to steer legislative power away from the plenary Assembly towards the executive Council. The Council has a limited membership of 36 states and operates with a system of 'chamber voting' which gives special interest groups a veto in some instances,⁶³ and thereby developed states more control over ISA decision making.⁶⁴ Almost ironically, Pardo's initial proposal had already foreshadowed this in his rejection of the idea that the UN General Assembly could administer the seabed for the practical reason that it was 'hardly likely' that the developed countries 'would agree to an international regime if it were administered by a body where small countries, such as mine, had the same voting power as the United States or the Soviet Union'.⁶⁵ This acceptance of inequality in decision making is an example where Pardo's proposal runs counter to NIEO objectives. Where the Implementing Agreement had perhaps the most significant implications for both distributive and environmental justice, however, and what the developing world arguably underestimated and failed to reign in, was the de facto relocation of

⁵⁵D. H. Anderson, 'Further Efforts to Ensure Universal Participation in the United Nations Convention on the Law of the Sea', (1994) 43 *International and Comparative Law Quarterly* 886.

⁵⁶See Koskenniemi and Lehto, *supra* note 19, at 547–9.

⁵⁷Environmental aspects are even re-emphasized as an area of focus for the future work of the ISA, Implementing Agreement, Annex, Section 1(5)(g).

⁵⁸The Implementing Agreement was not a formal amendment, because the amendment procedure of UNCLOS Art. 312 was not yet available, but the effect is the same: the Agreement and the Convention are to be 'interpreted and applied together as a single instrument', and in the event of inconsistency between the two 'the provisions of the Agreement shall prevail', Implementing Agreement, Art. 2(1).

⁵⁹*Ibid.*, Ann., Section 2.

⁶⁰*Ibid.*, Ann., Section 5.

⁶¹*Ibid.*, Ann., Section 6.

⁶²The financial terms of contract shall follow those used in land-based mining of similar minerals to avoid competitive advantages, Implementing Agreement, Annex, Section 8.

⁶³The five groups or 'chambers' are major (mineral) consumers, major investors, land-based producers, developing states and special interests, and equitable geographical representation group, Implementing Agreement, Ann., Section 3(15).

⁶⁴Implementing Agreement, Annex, Section 3(5, 9, 15) and UNCLOS, *supra* note 3, Art. 161(8). For a detailed discussion see R. Collins and D. French, 'A Guardian of Universal Interest or Increasingly Out of Its Depth: The International Seabed Authority Turns 25', (2020) 17 *International Organizations Law Review* 633, at 646–8.

⁶⁵See Official Records of the 22nd Session, *supra* note 29, para. 7.

power to private enterprises.⁶⁶ This continues to have striking manifestations in the seabed regime and the workings of the ISA today, as detailed further below.

It is undeniable that the Implementing Agreement marked the ‘unmitigated victory’ of market ideology and the final demise of the NIEO project.⁶⁷ Yet, it is not the dominance of particular ideologies alone that determines the available choices and their chances of success. This brief history of the seabed regime has also illustrated that potentiality is not evenly distributed; that actors and arguments are predisposed to take precedence over others, or in other words, that ‘the terrain of struggle is not even’.⁶⁸ As stressed by Venzke, the possibilities of choice and alternative action in international law are inherently tied to the dynamics and structures of international law-making processes.⁶⁹ The negotiating modalities of UNCLOS III, geared towards a ‘consensus package deal’ of carefully crafted compromises,⁷⁰ put any majoritarian politics of the developing states at the mercy of the developed states (minority) who had the power to block the consensus process – as they did precisely on the seabed regime.

The convergence, or perhaps strategic (re)framing, of two strands of ideology ultimately enabled this deadlock to be overcome in favour of the developed states: neoliberal thinking about economic development that steadily impregnated the positions of developing states,⁷¹ and the ideal of universal participation in the new UNCLOS.⁷² In terms of process, this change of strategy was complemented by a rhetoric of ‘technical pragmatism’ and a rationality of ‘accepting the facts’ of the impracticality of seabed mining for the foreseeable future, which usurped the more ideological dividing lines that had dominated in the early 1980s.⁷³ Both process and ideology were thus married successfully in the project of the Implementing Agreement, reflecting what Koskenniemi and Lehto describe as:

not only the paradox that the concessions to industrialized States were negotiated under a communitarian public rhetoric, but the larger irony of liberal language which compels power to lose its name as it enters the arena of public policy and, thus unrecognised, assures its victory.⁷⁴

This legitimizing and co-ordinating potential of the communitarian public rhetoric that is inherent in both the common heritage principle and in the aim of universal participation is facilitated by the substantive indeterminacy of these principles, which allows protagonists to dress opposing (national) interests in universalist supranational terms, making them appear mutually supportive.⁷⁵ Feichtner describes how the Implementing Agreement ‘depoliticised’ the regime and the diverging underlying interests by reformulating its objective and presenting its market orientation as a win-win situation: ‘if the objective of revenue generation is replaced with a public interest in economic growth, then commercial and public interests coincide’.⁷⁶ In other words, a prime example of the ideology of mutuality at play.

⁶⁶See on this dynamic in international law more broadly also I. Venzke, ‘Possibilities of the Past: Histories of the NIEO and the Travails of Critique’, (2018) 20 *Journal of the History of International Law* 263, at 288; A. Anghie, ‘Legal Aspects of the New International Economic Order’, (2015) 6 *Humanity: An International Journal of Human Rights, Humanitarianism, and Development* 145, at 146.

⁶⁷See Koskenniemi and Lehto, *supra* note 19, at 551.

⁶⁸See Venzke, *supra* note 66, at 295.

⁶⁹*Ibid.*, at 273.

⁷⁰B. Buzan, ‘Negotiating by Consensus: Developments in Technique at the United Nations Conference on the Law of the Sea’, (1981) 75 *American Journal of International Law* 324.

⁷¹See on this development more broadly also Venzke, *supra* note 66, at 287–8; Pahuja, *supra* note 47.

⁷²See Anderson, *supra* note 55.

⁷³It provided the ‘justification under which developing States were able to renounce their earlier, strongly held view about the unacceptability of touching Part XI’ and ‘made it easier to extract concessions and to attain the universality that everybody claimed to strive for’, see Koskenniemi and Lehto, *supra* note 19, at 551.

⁷⁴*Ibid.*, at 535.

⁷⁵*Ibid.*, at 553–4; see Bedjaoui, *supra* note 37, at 221.

⁷⁶See Feichtner, *supra* note 28, at 620–1.

As the brief history recounted above shows, facilitating exploitation has been a core component of the common heritage principle throughout its history, as have the other two components of equitable distribution of benefits and environmental protection. This history also illustrates that the substantive content of these components is open to be conceived on the basis of a plurality of interpretations and interests, and indeed has been reconceived under ideological shifts and changing knowledge, to which the Implementing Agreement bears witness. However, underneath the universalist rhetoric, the legal framework and mandate of the ISA still carry within themselves the same tensions and contradictions that marked the negotiating history, and, as the next section will show, these tensions are becoming ever more pronounced in light of present-day knowledge and conditions.

3. Exploitation and the mandate of the ISA

Although a lot of work on the development of the Exploitation Regulations has undeniably been done over the past years, a lot also remains outstanding.⁷⁷ Member states have widely expressed concern about having to work under time pressure and in the face of too many uncertainties.⁷⁸ Now that the two-year deadline has passed, contractors can in principle submit applications for a plan of work to the Council for consideration.⁷⁹ Some member states have called for a precautionary pause on considering applications until sufficient scientific knowledge and data on deep sea ecosystems is available to inform decision making.⁸⁰ Even the call for a moratorium – until recently voiced primarily by scientists, NGOs, global business, and civil society – has been uttered inside the walls of the ISA.⁸¹ Notable was President Macron’s open call for a ban on deep seabed mining, first at the 2022 UN Oceans Conference in Lisbon, and again at COP27 in Sharm El Sheikh.

Proceeding to the exploitation phase, whether on the basis of fully adopted regulations or some form of provisional or transitional regime, cannot be deemed to benefit humankind as long as the ISA is not fulfilling all components of its mandate. As this section will elaborate, this is not currently the case for a number of reasons. It may be noted that warning signs have already been flagged over a period of time. The first Periodic Review of how the regime for the Area operates in practice (pursuant to Article 154 of UNCLOS) was conducted in 2016, and found that the ISA was ‘not yet fulfilling its obligation to ensure that activities in the Area are carried out for the benefit of mankind’.⁸² A variety of concrete issues were highlighted, including the prioritization of developing some parts of the regime over others, a lack of transparency and stakeholder participation, and a lack of effective scrutiny of contractor and sponsoring state performance.⁸³ On the institutional level, commentators and member states alike have long

⁷⁷See, for an overview, e.g., P. A. Singh, ‘The Two-Year Deadline to Complete the International Seabed Authority’s Mining Code: Key Outstanding Matters That Still Need to Be Resolved’, (2021) 134 *Marine Policy* 104804.

⁷⁸Summary of the Twenty-seventh Session of the Assembly of the International Seabed Authority 1-4 August 2022’, *Earth Negotiations Bulletin (IISD Reporting Services) Vol. 25(230)*, 8 August 2022.

⁷⁹Not entirely insensitive to levels of frustration with the unrealistic deadline, Nauru had indicated that it would not submit a plan of work for exploitation prior to the 28th Council meeting which concluded on 21 July 2023. Present intentions remain unclear at the time of writing. See ‘Summary of the Twenty-eighth Annual Session of the International Seabed Authority (First Part) 16-31 March 2023’, *Earth Negotiations Bulletin (IISD Reporting Services) Vol. 25 (251)*, 4 April 2023.

⁸⁰A. Thaler, ‘Deep-Sea Mining’s Rapid Technological Progress Is Met with Increased Calls for a Precautionary Pause at the Closing Meeting of the 27th Session of the International Seabed Authority’, *DSM Observer*, 26 December 2022, available at dsmobserver.com/2022/12/deep-sea-minings-rapid-technological-progress-is-met-with-increased-calls-for-a-precautionary-pause-at-the-closing-meeting-of-the-27th-session-of-the-international-seabed-authority/. See also Summary of the Twenty-seventh Session, *supra* note 78.

⁸¹*Ibid.* See also calls by Fiji and Palau, ‘“Not Worth the Risk”: Palau, Fiji Call for Deep-Sea Mining Moratorium’, *Reuters*, 27 June 2022.

⁸²International Seabed Authority, ‘Periodic Review of the International Seabed Authority pursuant to UNCLOS Article 154, Final Report’, 30 December 2016, 19, available at www.isa.org.jm/files/documents/EN/Art154/Rep/ISA154-FinalRep-30122016.pdf.

⁸³*Ibid.*, 2–3, at 81.

raised concerns that ISA institutional practices fall below UN standards.⁸⁴ With a mandate to act on behalf of humankind, if anything, one would expect a ‘higher moral role’ than the average international organization, and the accommodation of ‘a plurality of voices’ – also when these express views that do not directly align with those of the ISA.⁸⁵

While steps are being taken to address some of these issues, they appear to be symptoms of more structural asymmetries in the institutional workings of the ISA and the different parts of its mandate. At least on the level of political discourse, the ISA frames its ongoing work in the context of the Sustainable Development Agenda.⁸⁶ Or in slightly less modest terms: as ‘the best example of how the international community can collaborate for environmental protection whilst at the same time allowing for sustainable use of a critical shared resource’.⁸⁷ The ISA recognizes that the management of this global commons ‘has at its heart the resolution of trade-offs through collaborative, evidence-based decision-making’.⁸⁸ However, as will be unpicked in more detail below, more than a trade-off, ‘sustainable seabed exploitation’ appears to be a contradiction in terms. It is unrealistic, if not impossible, for the ISA to effectively achieve its commercial, distributive, and environmental goals all at the same time. The tensions between these core components of the mandate will be considered in turn.

3.1 Exploitation and protection of the marine environment

Starting with the implementation of the ISA’s obligation to ensure effective protection of the marine environment, the Periodic Review acknowledged that ‘this is not always an easy trade off with facilitating seabed mining, which is inherently a destructive industry’.⁸⁹ This framing as a ‘trade-off’ reflects the dominant perception of environmental protection as an ‘externality’ to the goal of exploitation, rather than an independent objective. Such a narrow interpretation of the environmental mandate is difficult to reconcile with the text of the Convention. UNCLOS requires the ISA to adopt rules and procedures not only to prevent and control pollution and other hazards to the marine environment, including the coastline (i.e., not limited to localized impacts), but also for the protection *and conservation* of natural resources of the Area.⁹⁰ The narrow interpretation also does not chime with today’s understanding of the fragility and largely unexplored biodiversity of deep sea ecosystems, their interconnectivity with ocean health and the global climate system at large, and thereby with human health, livelihoods, and human rights reliant on these ecosystem services.⁹¹ The vulnerability of deep sea ecosystems is further

⁸⁴See, for a record of examples, E. Morgera and H. Lily, ‘Public Participation at the International Seabed Authority: An International Human Rights Law Analysis’, (2022) 31 *Review of European, Comparative & International Environmental Law* 374, at 385; K. Willaert, ‘Public Participation in the Context of Deep Sea Mining: Luxury or Legal Obligation?’, (2020) 198 *Ocean & Coastal Management* 105368.

⁸⁵See summary of the Twenty-fifth Annual Session, *supra* note 11, at 15.

⁸⁶See, e.g., Decision of the Assembly of the International Seabed Authority relating to the strategic plan of the Authority for the period 2019–2023, ISBA/24/A/10 (27 July 2018), para. 10; and report commissioned by the ISA, The Contribution of the International Seabed Authority to the Achievement of the 2030 Agenda for Sustainable Development (22 November 2021), available at https://www.isa.org.jm/wp-content/uploads/2021/02/ISA_Contribution_to_the_SDGs_2021.pdf.

⁸⁷Statement by H.E. Mr. Michael W. Lodge Secretary-General of the International Seabed Authority to the Fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity, 7–19 December 2022, available at [isa.org.jm/files/documents/EN/SG-Stats/SG_Statement_Fifteenth_meeting_of_the_Conference_of_the_Parties_to_the%20Convention_on_Biological_Diversity_Pt.2.pdf](https://www.isa.org.jm/files/documents/EN/SG-Stats/SG_Statement_Fifteenth_meeting_of_the_Conference_of_the_Parties_to_the%20Convention_on_Biological_Diversity_Pt.2.pdf).

⁸⁸See ISA 2030 Agenda Report, *supra* note 86, at 19.

⁸⁹See Periodic Review, *supra* note 82, at 20.

⁹⁰See UNCLOS, *supra* note 3, Art. 145.

⁹¹See, e.g., H. J. Niner et al., ‘Deep-Sea Mining With No Net Loss of Biodiversity—An Impossible Aim’, (2018) 5 *Frontiers in Marine Science* 53; L. A. Levin et al., ‘Hydrothermal Vents and Methane Seeps: Rethinking the Sphere of Influence’, (2016) 72 *Frontiers in Marine Science*; C. R. Smith et al., ‘Deep-Sea Misconceptions Cause Underestimation of Seabed-Mining Impacts’, (2020) 35 *Trends in Ecology & Evolution* 853; L. A. Levin et al., ‘Climate Change Considerations Are Fundamental to

amplified by the impacts of climate change, which limit their resilience to the impacts of human activities.⁹²

The application of the precautionary approach, which is front and centre of the ISA's environmental policies and regulations,⁹³ does not fundamentally alter this 'trade-off' premise. As long as certain duties are fulfilled to assess, monitor, and manage risks, the principle justifies activities being approved in the face of uncertainty as to the exact extent and nature of the environmental risk involved. This is because the precautionary principle itself does not prescribe *how* risks and benefits ought to be defined and weighed in a specific scenario: a balancing act that is largely informed by extra-legal (scientific) knowledge and data. This is where the key challenge and controversy in the implementation of the environmental mandate of the ISA arises, because evidence-based decision making and any assessment of the adequacy of environmental management relies on sufficient 'evidence' (i.e., scientific knowledge and consolidated environmental baseline data) being available in the first place.

A recent study into scientific knowledge gaps concluded on the basis of extensive literature review and stakeholder consultations that currently:

despite an increase in deep-sea research, there are few categories of publicly available scientific knowledge comprehensive enough to enable evidence-based decision-making regarding environmental management, including whether to proceed with mining in regions where exploration contracts have been granted.⁹⁴

At least 15 critical gaps were identified in the scientific information needed for contractors to be able to develop robust and comprehensive environment impact assessments, environmental monitoring and management plans, and, crucially, for the ISA to effectively fulfil its regulatory and enforcement responsibilities in this regard.⁹⁵ In short, the extra-legal information needed to take informed decisions on the extent and allocation of environmental cost and the conditions under which a 'trade-off' may be acceptable, is insufficient at present. The interpretation and application of the precautionary approach can then work both ways. It can mean that an activity is permitted in the face of this uncertainty under certain conditions and procedural safeguards that serve to justify the environmental risk as an acceptable 'trade-off'. It can also be relied on to justify the postponement or prohibition of the activity altogether – which explains why this same principle is being invoked in support of a (temporary) moratorium on seabed mining.⁹⁶

The 'trade-off approach' to environmental costs is also reflected in the substantive obligations under the Draft Exploitation Regulations, for example those that require 'restoration and rehabilitation' of the Area.⁹⁷ It begs the question whether effective conservation, restoration, and rehabilitation measures are even ecologically and practically possible. The term 'restoration' is arguably misleading because this suggest that a damaged area can be restored to a previous

Management of Deep-Sea Resource Extraction', (2020) 26 *Global Change Biology* 4664. On the human rights nexus see Morgera and Lily, *supra* note 84.

⁹²Pörtner et al., *Climate Change 2022: Impacts, Adaptation and Vulnerability, Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* (2022), at 455.

⁹³See Draft Regulations, *supra* note 10, Reg. 2(e)(ii). See extensively A. L. Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection* (2017).

⁹⁴D. J. Amon et al., 'Assessment of Scientific Gaps Related to the Effective Environmental Management of Deep-Seabed Mining', (2022) 138 *Marine Policy* 105006.

⁹⁵*Ibid.*, at 2.

⁹⁶E.g., the French delegation arguing for a moratorium: 'Our precautionary principle must translate into tangible action, for the benefit of all humankind', reported by Thaler, *supra* note 80. See similarly the call for a moratorium supported by 664 marine scientists 'Marine Expert Statement Calling for a Pause to Deep-Sea Mining', available at www.seabedminingsciencestatement.org/.

⁹⁷See, e.g., Draft Regulations, *supra* note 10; Reg. 55 on the Environmental Fund; Reg. 59 on the objectives of Closure Plans, and Annex VII as one of the components of Environmental Management and Monitoring Plans.

ecological state, while scientific studies show that the resilience of the deep sea marine environment is low, and that nodule habitats, for example, take centuries to recover from disruption.⁹⁸ There are at present no successful approaches to restoring or rehabilitating deep seabed ecosystems, and the costs and technical challenges involved, certainly at scale, are likely to be prohibitive.⁹⁹ It is, thus, no surprise that the Draft Regulations foresee the establishment of an Environmental Compensation Fund to compensate in monetary terms for environmental damages when these cannot be recovered from contractors or sponsoring states.¹⁰⁰ The exact purposes of the fund, who will contribute to it, and how much, remain to be agreed upon. In addition to the regulations, the ISA's environmental policy in the form of Regional Environmental Management Plans (REMPs) is envisaged as a 'primary vehicle' through which to realize its environmental mandate.¹⁰¹ Also on this point work and discussions remain ongoing, but recent scientific scrutiny of the work in progress suggests that all current management measures, including the designation of protected areas that are closed to mining, are not suited to effectively protect the marine environment from harmful impacts of mining.¹⁰² Proceeding to approve an exploitation application on the basis of the regime as it stands would therefore arguably not be in accordance with the ISA's environmental obligations.

To link this conclusion back to the concept of benefit, one could of course take the view that a certain degree of irreversible environmental damage and loss of ecosystem services is an acceptable trade-off: a loss for which humankind can be compensated in either monetary terms or other benefits, or in combination with some form of offsetting (substituting one type of ecosystem by the protection of another).¹⁰³ Either way, accepting any measure of environmental risk and internalizing that cost inevitably comes at the expense of other components of the common heritage regime, in particular its distributive potential. After all, the environmental risks and costs involved, including those paid into some form of compensation fund, would have to be discounted somewhere if contractors' profit expectations are to be safeguarded at the same time. This will almost inevitably mean lower royalty rates, leaving less for the ISA to distribute.

3.2 Exploitation and equitable benefit sharing

Taking now the objective of maximizing proceeds for the ISA to equitably distribute as our point of departure, an immediate tension emerges with the need to attract contractors and private capital.¹⁰⁴ The yet to be developed financial mechanism (including an eventual benefit sharing mechanism) will have to grapple with this conundrum. An Open-Ended Ad Hoc Working Group

⁹⁸See Amon et al., *supra* note 94, at 9; E. Simon-Lledó et al., 'Biological Effects 26 Years after Simulated Deep-Sea Mining', (2019) 9 *Scientific Reports* 8040.

⁹⁹See Amon et al., *ibid.*, at 10; S. Gollner et al., 'Restoration Experiments in Polymetallic Nodule Areas', (2022) 18 *Integrated Environmental Assessment and Management* 682; C. L. Van Dover et al., 'Ecological Restoration in the Deep Sea: Desiderata', (2014) 44 *Marine Policy* 98.

¹⁰⁰See Draft Regulations, *supra* note 10, Reg. 55.

¹⁰¹See Statement by Michael W. Lodge, Secretary-General, International Seabed Authority, 28th SPLOS, 11 June 2018, at 5, available at www.isa.org.jm/sites/default/files/documents/EN/SG-Stats/splos-jun2018.pdf. See Guidance to facilitate the development of regional environmental management plans, Report and recommendations by the Legal and Technical Commission, ISBA/27/C/37, (10 August 2022).

¹⁰²C. Blanchard and S. Gollner, 'Area-Based Management Tools to Protect Unique Hydrothermal Vents from Harmful Effects from Deep-Sea Mining: A Review of Ongoing Developments', (2022) 4 *Frontiers in Political Science*.

¹⁰³Scientists, however, do not consider offsetting measures to be an adequate option for compensation, because they cannot replicate biodiversity and ecosystem services lost through seabed mining. See Niner et al., *supra* note 91.

¹⁰⁴As long as the Enterprise will not become functional, this is the only way for the ISA to generate any revenue from mining activities. Progress on the Enterprise as the operational part of the regime that was effectively shelved under the Implementing Agreement has been notoriously slow, see, e.g., K. Willaert, 'The Enterprise: State of Affairs, Challenges and Way Forward', (2021) 131 *Marine Policy* 104590. At the March 2023 meeting, the Council decided to establish the position of interim director general of the Enterprise, see Decision of the Council of the International Seabed Authority relating to the establishment of the position of an interim director general of the Enterprise, ISBA/28/C/10 (adopted 31 March 2023).

of the Council was created in 2018 and has been working on this part of the regime with the help of external consultants.¹⁰⁵ The current approach to the payment mechanism shows a strong emphasis on incentivising mining by protecting contractors' profit expectations, rather than mechanisms to adequately compensate loss or to maximize and eventually distribute financial benefits for humankind.¹⁰⁶ All models that are currently being considered use set royalty rates based on an estimated mineral content of a polymetallic nodule.¹⁰⁷ Not only does this neglect the wider social and political context of mineral resource economies and commercial dynamics further up the supply chain (i.e., outside the ISA's regulatory reach), it also does not account for any externalities, including environmental and socio-economic impacts and costs.¹⁰⁸ An approach which leaves the economy of seabed mining to 'unfold' as exploitation gets underway is based on a presumption which Feichtner argues is not only a practical myth, but also misplaced when it involves the making of a resource economy that is common heritage and thus per definition political.¹⁰⁹ It also underestimates the role of the ISA and the potential impact of its regulation on the global political economy for raw mineral markets.¹¹⁰ It is simply not possible to develop a financial mechanism disconnected from the broader implications of entering into the exploitation phase, even when those are understood in purely financial terms.¹¹¹

If the distributive pillar of the regime is to do justice to the common heritage principle and the ISA's commitment to the 2030 Agenda for Sustainable Development, *all* costs of seabed mining should be accounted for at the assessment stage of exploitation applications, in the financial terms of contract, and in the eventual distributive mechanism. This includes environmental, socio-economic, and cultural costs for present and future generations, as well as the cost of economic assistance to compensate interests specifically protected by UNCLOS, such as the effects of seabed mining on the economies of developing countries who are land-based producers of these minerals.¹¹²

One can already infer that after deducting all these costs, little would appear to be left in the ISA's pot to distribute for the benefit of all. Hence the African Group has stated that 'if [deep seabed mining] is such a high cost, risky and inefficient industry that miners cannot afford to fairly compensate mankind, then it would be better if [it] did not proceed until such time that adequate compensation is viable'.¹¹³ There are economic approaches available that are premised on more

¹⁰⁵See Report of the Chair on the outcome of the third meeting of the open-ended working group, ISBA/26/C/8 (17 February 2020). For an analysis of work-in-progress also K. Willaert, 'Fair Share: Equitable Distribution of Deep Sea Mining Proceeds', (2022) 37 *International Journal of Marine and Coastal Law* 217.

¹⁰⁶Member states and other stakeholders have expressed concern about this imbalance, see, e.g., Statement by Algeria on behalf of the African Group at the 25th Session of the Council of the ISA, 25 February 2019, available at https://www.isa.org.jm/wp-content/uploads/2022/06/1-algeriaoboag_finmodel.pdf; R. Kirchain et al., 'UPDATE: Report to the International Seabed Authority on the Development of an Economic Model and System of Payments for the Exploitation of Polymetallic Nodules in the Area Based on Stakeholder Feedback', *MIT Materials Systems Laboratory*, October 2020, para. 5, available at isa.org.jm/files/files/documents/Nodule%20Financial%20Payment%20System%20Report%20October%202020%20V3.pdf.

¹⁰⁷Four models are being discussed, a fixed rate ad valorem-only royalty mechanism, a two-stage ad valorem-only royalty mechanism, a combined ad valorem royalty and profit-based system, and a progressive ad valorem royalty system. The Working Group is yet to start work on minerals other than nodules. See for the latest www.isa.org.jm/mining-code/working-groups.

¹⁰⁸Externalities are explicitly excluded from the scope of the study commissioned by the ISA, see Kirchain et al., *supra* note 106, para. 4. Critical of this approach are T. Thiele, H. P. Damian and P. Singh, 'A Comprehensive Approach to the Payment Mechanism for Deep Seabed Mining', *IASS Policy Brief*, 2021, 12, available at www.iass-potsdam.de/en/output/publications/2021/comprehensive-approach-payment-mechanism-deep-seabed-mining; see Feichtner, *supra* note 28, at 624–9.

¹⁰⁹See Feichtner, *ibid.*, at 625–6.

¹¹⁰*Ibid.*, at 625.

¹¹¹See Thiele, Damian and Singh, *supra* note 108, at 13.

¹¹²See UNCLOS, *supra* note 3, Art. 150(h) and Implementing Agreement, Section 7.

¹¹³'African Group Submission on the Payment Regime for Deep-sea Mining in the Area', June 2022, available at https://www.isa.org.jm/wp-content/uploads/2022/12/African_Group_Submission_Payment_Regime.pdf.

inclusive conceptions of cost, such as ‘natural capital’ accounting tools that seek to quantify ecosystem services and the loss thereof.¹¹⁴ Regardless whether one agrees that a price tag can or should be placed on the ecological and social value of the deep seabed, under a financial regime that is based on any more inclusive economic conception of the interests of humankind, rather than contractor profit expectations alone, commercial exploitation emerges again as only one possible trajectory among others; and one that is unlikely to be sustainable in the foreseeable future.

The current orientation of the regime towards profit expectations of private actors is difficult to reconcile with any more inclusive concept of the public interest: be that in revenue generation for equitable distribution, reduced global inequality through direct participation, or sound environmental management in the interest of both current and future generations. The contradictions and tensions between the different components of the common heritage regime and the mandate of the ISA sketched here illustrate that no single course of the regime can be deemed ‘inevitable’ or ‘necessary’, and that the underpinning questions of political economy should not be glossed over by a conflated conception of benefit. This resonates with Venzke’s more general observation that:

Also under the spell of neo-liberalism the law continues to be ridden with tensions. The law remains to some degree pliable, not least because what neo-liberalism demands from the law is not so straightforward. Struggles on the inside of the law about what to do with those demands must be part of the story.¹¹⁵

It also raises the question how the ISA and its member states perceive its mandate. Is it in the first place an institution that facilitates and regulates a commercial industry? Or one that governs and preserves a global commons for present and future generations? Can it realistically be both? Or somewhere in between? Collins and French would be right to conclude that:

the institution has evolved to ensure that no one understanding of the collective interest, as reflected in disagreement about the very idea of [common heritage] itself, can take precedence over others. The regime accommodates substantive disagreement and competing political interests by incorporating them within the evolving institutional framework of the Authority itself.¹¹⁶

Indeed, a view of the ISA as locked into a single-destination trajectory in the implementation of the regime would contradict the ‘evolutionary approach’ to its institutional functioning explicitly foreseen in the Implementing Agreement so that its organs and subsidiary bodies ‘may discharge effectively their respective responsibilities at various stages of the development of activities in the Area’.¹¹⁷ If no one understanding of the public interest can take precedence by virtue of the regime itself, exploitation cannot be ‘necessary’ to benefit humankind. The next section will consider how the narrative of necessity is nevertheless used strategically to justify the socio-ecological costs of exploitation, and to obscure more inclusive understandings of benefit.

¹¹⁴See, e.g., Thiele, Damian and Singh, *supra* note 108, at 6. The Council has recently commissioned a study on the internalization of environmental costs of exploitation activities in the Area into the production costs of minerals from the Area, ISBA/27/C/43 (11 November 2022).

¹¹⁵See Venzke, *supra* note 22, at 16.

¹¹⁶See Collins and French, *supra* note 64, at 650.

¹¹⁷Implementing Agreement, Ann., Section 1(3).

4. Exploitation as a false necessity

Starting with the most dominant arguments in favour of exploitation, this section will first critically review how necessity comes to function as a justification of the costs of exploitation to humankind. Next, it will unpick who the primary beneficiaries of exploitation are and show how a conflated conception of public interest pre-empts and obscures more inclusive conceptions of 'benefit' reflective of a wider range of stakeholders.

4.1 Justifying cost

The main argument in support of commercial deep seabed mining being both necessary and urgent is that it is needed to meet the predicted rise in demand for critical minerals associated with the transition to net zero economies. Cobalt and nickel, for example, are used in batteries for electric vehicles. The ISA accordingly presents its mandate as entailing a responsibility to contribute to this supply, and thereby to sustainable development by 'responding in a cautious and planned way to the projected dramatic increase in the supply of minerals needed for decarbonisation'.¹¹⁸ This position relies on a number of assumptions that are not undisputed, and, according to a recent statement by the European Academies of Science Advisory Council, even misleading.¹¹⁹

First of all, in terms of necessity and urgency, different models produce different demand and supply scenarios, all of which involve a considerable measure of uncertainty and tend to presume the current state of technology as a constant.¹²⁰ While it is outside the scope of this article to evaluate these prognoses in detail, it may be noted that recent studies based on the most ambitious decarbonization scenario of net zero by 2050 conclude that deep seabed mining is not necessary to meet this demand.¹²¹ That may mean that terrestrial mining activities need to be ramped up in the near future – which, as discussed in more detail below, proponents of seabed mining would argue is worse than commencing commercial seabed exploitation. This is arguably a false dilemma, because the advent of a deep seabed mining industry is actually likely to spur competition with land-based producers in the minerals market. At the same time, there is a range of variables, including technological innovation, that may reduce or completely eliminate the use of certain critical metals in batteries for example,¹²² while more circular economic models, integrated transport systems, and recycling could all further reduce demand.¹²³

Secondly, as shown above, the 'cautious and planned' approach to exploitation that the ISA sets out does not solve the problem that sustainable deep seabed mining remains a contradiction in terms. Markets are not immune to influences from civil society and national regulators who are increasingly aware of the social and environmental risks involved in deep seabed mining, and

¹¹⁸See ISA 2030 Agenda Report, *supra* note 86, at 6.

¹¹⁹The European Academies of Science Advisory Council (EASAC) recently concluded that deep seabed mining is 'not essential to meeting climate targets and labelling it as a vital green technology is misleading', see EASAC Statement, 'Deep-Sea Mining: Assessing Evidence on Future Needs and Environmental Impacts', 8 June 2023, available at easac.eu/publications/details/deep-sea-mining-assessing-evidence-on-future-needs-and-environmental-impacts.

¹²⁰See, for a discussion, e.g., K. A. Miller et al., 'Challenging the Need for Deep Seabed Mining From the Perspective of Metal Demand, Biodiversity, Ecosystems Services, and Benefit Sharing', (2021) 8 *Frontiers in Marine Science* 706161; P. M. Haugan et al., 'Blue Paper: What Role for Ocean-Based Renewable Energy and Deep-Seabed Minerals in a Sustainable Future?', *High Level Panel for a Sustainable Ocean Economy*, 2019, 22, available at www.oceanpanel.org/blue-papers/ocean-energy-and-mineral-sources.

¹²¹M. Simas, F. Aponte and K. Wiebe, 'The Future Is Circular: Circular Economy and Critical Minerals for the Green Transition', *SINTEF*, 15 November 2022; S. Teske et al., 'Renewable Energy and Deep Sea Mining: Supply, Demand and Scenarios', *Institute for Sustainable Futures, University of Technology Sydney*, July 2016.

¹²²Alternative battery technologies that require neither cobalt or nickel are already in development, including by Tesla, see for a discussion Miller et al., *supra* note 120, at 2.

¹²³See Simas, Aponte and Wiebe, *supra* note 121; Teske et al., *supra* note 121.

there are growing expectations on manufacturers to source minerals responsibly.¹²⁴ Major electric vehicle producers have signed a Business Statement in support of a moratorium on deep seabed mining, committing to exclude deep sea minerals from their supply chains.¹²⁵ Several major banks have recently adopted lending policies that exclude finance for seabed exploration and exploitation due to the high environmental, social, and governance risks involved.¹²⁶ In a similar vein, the UN Environment Programme Finance Initiative sent ‘a clear message’ to its members that ‘in their current form, there is no foreseeable way in which the financing of deep-sea mining activities can be viewed as consistent with the Sustainable Blue Economy Finance Principles’.¹²⁷

Questions of financial feasibility and sustainability aside, the narrative outlined above shows the ideology of mutuality at play again. This time, it is presented not as the ‘old wine’ of market-led economic growth through resource extraction that seemingly makes commercial and public interests coincide, but in the ‘new bottle’ of sustainable resource development necessary for decarbonization in the interest of all. The public interest here is posited again as universal in character, yet the justification of ‘necessity’ is rooted in what scholars of critical development and indigenous studies have characterized as an ‘epistemology of crisis’.¹²⁸ Urgency and necessity are key assumptions underpinning such an epistemology: responsive action is needed and cannot wait, hence any harmful consequences of such action for humans or the environment are unfortunate but inevitable, and thus an acceptable trade-off.¹²⁹ The narrative thereby masks and perpetuates dominant forms of power and privilege under an extractivist rationale,¹³⁰ justified by the need to respond to an imminent ‘crisis’ (in this case the projected increase in the demand for minerals needed for decarbonization) in the public interest.¹³¹ That is not to say that the energy transition is not necessary or urgent, or that climate change cannot be considered a crisis. The critique rather speaks to the *manner* in which a particular course of action is justified and presented as though there is no other choice. Dominant power-dynamics are obscured in the name of collective action, while the cost of such actions is born by humankind in this case, although not evenly, but by some communities and generations more than others.

Proponents of deep seabed exploitation tend to down-play and justify the environmental and social costs involved by drawing a comparison with land-based mining and positing deep seabed mining as the lesser of two evils. The argument goes that it is ‘not as bad’ as land-based mining of minerals, because the latter is often weakly regulated and, as a result, the social and environmental impacts are high.¹³² The comparison with deep seabed mining is then drawn on two main points. First, compared to terrestrial mining, deep seabed mining offers ‘a unique opportunity to get it right’ by regulating the impacts of seabed mining before commercial exploitation commences.¹³³ In terms of chronology this is true, but the fact that an activity is regulated does not necessarily mean that it is ‘sustainable’ or in the public interest. As discussed above, the draft regime is

¹²⁴World Economic Forum, ‘Decision-Making on Deep-Sea Mineral Stewardship: A Supply Chain Perspective’, (2022) *White Paper* 4.

¹²⁵Including BMW Group, Volvo, Volkswagen, Scania, and Renault Group, see www.noseabedmining.org/.

¹²⁶R. Hicks, ‘Credit Suisse Joins Growing List of Banks Shunning Deep-Sea Mining’, *Eco-Business*, 29 April 2022, available at www.eco-business.com/news/credit-suisse-joins-growing-list-of-banks-shunning-deep-sea-mining/.

¹²⁷UNEP, ‘Harmful Marine Extractives: Understanding the Risks & Impacts of Financing Non-Renewable Extractive Industries’, 2022, available at www.unepfi.org/publications/harmful-marine-extractives-deep-sea-mining/.

¹²⁸K. Whyte, ‘Against Crisis Epistemology’, (2020) *Routledge Handbook of Critical Indigenous Studies* 52.

¹²⁹This is also the PR narrative of TMC, see metals.co/frequently-asked-questions/.

¹³⁰‘Extractivism’ describes not the activity of extraction as such, but the underlying political economy which has roots in colonial history and contemporary global neoliberalism. It is theorized in critical development studies as a mode of development in which the social and environmental costs of resource extraction exceed the benefits, and where the costs and benefits tend to be disproportionately and inequitably distributed. See, e.g., D. N. Scott, ‘Extractivism: Socio-Legal Approaches to Relations with Lands and Resources’, in M. Valverde et al. (eds.), *Routledge Handbook of Law and Society* (2021), 124.

¹³¹See Whyte, *supra* note 128.

¹³²See, e.g., ISA 2030 Agenda Report, *supra* note 86, at 19; see Lodge and Verlaan, *supra* note 26, at 335.

¹³³See, e.g., Statement by Secretary General, *supra* note 87; see ISA 2030 Agenda Report, *supra* note 86, at 7.

currently not on track to ‘get it right’ if that means delivering on all components of the ISA’s mandate. The second common comparative argument is therefore the more remarkable, namely that social and environmental impacts are ‘lower or absent for deep-sea mining’ compared to terrestrial mining.¹³⁴ It is often coupled with an emphasis on the limited spatial footprint of deep seabed mining in terms of the percentage of the seabed that is being disturbed.¹³⁵ This narrative invokes a particularly disconnected and lifeless image of the deep sea ecosystem, suggesting that the popular image of the deep seabed as a ‘pristine wilderness’ is ‘erroneous’ and that seabed mining by and large ‘involves rocks and mud’.¹³⁶

If one takes a view informed by mounting scientific evidence underlining both the rich biodiversity and interconnectivity of deep sea ecosystems,¹³⁷ such contentions appear misinformed at best, but this narrative also again serves to stabilize dominant power configurations. Because of the remoteness and relative invisibility of the deep sea, those who have access to the technology and (largely confidential) data that map it (i.e., contractors and certain organs of the ISA, notably the Legal and Technical Commission) can assume that others without this access have a different perception of the deep sea ecosystem: ‘in understanding the deep-sea environment as an “imagined” geography, it allows its characteristics and dynamics to be narrated and reified by those in power’.¹³⁸ This spatial disconnectedness also underpins arguments invoking the comparatively small spatial ‘footprint’ of seabed mining. While the two-dimensional image of a ‘footprint’ might make intuitive sense for terrestrial activities, it does not chime with the physical reality of three-dimensional liquid ocean space where the seabed and water column are not disconnected and where impacts are not localized, but multi-dimensional, interconnected, and cumulative.¹³⁹

Arguments invoking the social disconnectedness and alleged lack of social impacts are plainly paradoxical,¹⁴⁰ as it essentially denies that an activity administered for the benefit of humankind has social implications or communities of people as its direct stakeholders.¹⁴¹ Experiences with seabed mining projects in areas within national jurisdiction (i.e., on a state’s continental shelf) suggest that direct impacts on communities are not just hypothetical. In Tonga, exploratory seabed mining is reported to have impacted its fisheries sector, while the controversial and failed Solwara 1 project in Papua New Guinea left the country in huge debt.¹⁴² It also caused public outcry among local communities who reported an increase in dead fish washing up on their beaches during prospecting activities, including unusual and previously unseen deep sea creatures, and excessively murky waters that interfered with traditional fishing practices.¹⁴³ Locals

¹³⁴See ISA 2030 Agenda Report, *ibid.*, at 27; see Lodge and Verlaan, *supra* note 26. Similarly TMC, see metals.co/frequently-asked-questions/.

¹³⁵*Ibid.*

¹³⁶See Lodge and Verlaan, *supra* note 26, at 335–6.

¹³⁷See, e.g., Smith et al., *supra* note 91; Niner et al., *supra* note 91.

¹³⁸J. Childs, ‘Greening the Blue? Corporate Strategies for Legitimising Deep Sea Mining’, (2019) 74 *Political Geography* 102060, at 5.

¹³⁹See also *ibid.*, at 6–7; J. C. Drazen et al., ‘Midwater Ecosystems Must Be Considered When Evaluating Environmental Risks of Deep-Sea Mining’, (2020) 117 *Proceedings of the National Academy of Sciences* 17455.

¹⁴⁰An article co-authored by the current ISA Secretary General lists ‘no local human populations to be disturbed’ as one of the advantages of seabed mining, see Lodge and Verlaan, *supra* note 26, at 332.

¹⁴¹See on a similar paradox in corporate narratives around seabed mining Childs, *supra* note 138, at 9. Feichtner characterizes deep seabed mining as socially, ecologically, and institutionally ‘disembedded’, See Feichtner, *supra* note 28, at 612–14.

¹⁴²B. Doherty, ‘Collapse of PNG Deep-Sea Mining Venture Sparks Calls for Moratorium’, *Guardian*, 15 September 2019, available at www.theguardian.com/world/2019/sep/16/collapse-of-png-deep-sea-mining-venture-sparks-calls-for-moratorium.

¹⁴³Blue Ocean Law and Pacific Network on Globalisation, ‘Resource Roulette: How Deep Sea Mining and Inadequate Regulatory Frameworks Imperil the Pacific and Its Peoples’, 2016, 5, 33, available at cer.org.za/wp-content/uploads/2016/08/Resource-Roulette-Deep-sea-Mining-and-Inadequate-Regulatory-Frameworks.pdf.

furthermore suspect that noise pollution from the activities is to blame for the absence of sharks, which affects their customary indigenous cultural practice of shark calling.¹⁴⁴

On the basis of current knowledge, it cannot be excluded that negative impacts from deep seabed mining in areas beyond national jurisdiction impact coastal communities and the ecosystems on which they rely for their livelihoods and cultural practices, nor that global ecosystem services, including climate regulation, may be affected. Hence, it can be argued that the ISA and its member states have an obligation to consider the human rights implications of their decision making *ab initio*, including the rights of future generations.¹⁴⁵ At the very least, it may be clear that the rights and interests involved in the question whether or not to proceed with exploitation are far more diverse than those reflected in the narrative of deep seabed mining as a binary ‘exploitation versus environmental risk trade-off’.

4.2 (Al)locating benefit

Turning now to the conception and allocation of benefit, it should be noted that ‘humankind’ is an undefined term. UNCLOS stipulates that all rights in the resources of the Area are vested in humankind as a whole on whose behalf the ISA shall act,¹⁴⁶ but that does not mean that individuals hold rights under the regime. Crucially, upon recovery, minerals extracted from the Area become private property of the contractor.¹⁴⁷ This raises the question where ‘humankind’ stands as a subject of international law. The Convention could simply have referred to ‘all states’, yet apparently, a broader (undefined) range of stakeholders is denoted in the concept of humankind. Tanaka describes it as a ‘trans-temporal concept’ in that it includes both present and future generations,¹⁴⁸ which aligns with understandings of common heritage in light of the principle of intergenerational equity.¹⁴⁹ The critical observer would note that the universalist notion of ‘humankind’ has in terms of international law and political economy of course never included all groups or classes of humans on equal terms, and to the extent that it centres ‘man’ as a dominating force over the natural environment, it also facilitates the resultant (selective) commodification thereof.¹⁵⁰

For proponents of seabed exploitation, ‘benefit’ is primarily understood in terms of financial gain from extraction that contributes to ‘sustainable’ development and growth. In that scenario, the primary recipients of such proceeds from activities in the Area are not ‘humans’ or ‘humanity’ as such, but benefit is channelled through other privileged stakeholders. The yet to be developed benefit sharing mechanism would distribute any financial benefit accrued by the ISA from contractor royalty payments (after deduction of costs) equitably among member states, and thereby – at least in theory – benefit their respective constituencies. However, as illustrated above, it is questionable whether any meaningful amounts can be generated for distribution should exploitation commence on the current draft terms of the regime. It may be clear that the bulk of any financial benefit to be obtained from exploitation thus flows in the first place directly to private contractors. Common arguments in favour of exploitation nevertheless tend to emphasize

¹⁴⁴*Ibid.*, at 33.

¹⁴⁵This includes, *inter alia*, the right to a healthy environment, and indigenous peoples’ cultural rights. See extensively Morgera and Lily, *supra* note 84, at 377. See also Maastricht Principles on the Human Rights of Future Generations, July 2023, available at www.rightsoffuturegenerations.org/the-principles.

¹⁴⁶See UNCLOS, *supra* note 3, Art. 137(2).

¹⁴⁷*Ibid.*, Ann. III, Art. 1.

¹⁴⁸Y. Tanaka, ‘Protection of Community Interests in International Law: The Case of the Law of the Sea’, (2011) 15 *Max Planck Yearbook of United Nations Law* 329, at 339.

¹⁴⁹See, e.g., also Mickelson, *supra* note 27, at 662.

¹⁵⁰E.g., feminist theory develops this critique, in particular Braidotti’s version which converges posthuman theory as a critique of Eurocentric privilege with post-anthropocentrism as a critique of species privilege, see R. Braidotti, *Posthuman Knowledge* (2019), 71.

two ways, in addition to benefit sharing via the ISA, in which commercial exploitation benefits an undefined 'humankind': via the role of sponsoring states, and through the generation and enhancement of deep sea research and data. Each shall be considered in turn.

Taking on sponsorship of a private entity wishing to undertake activities in the Area is typically presented as directly beneficial to the sponsoring state, in particular for developing states. Sponsoring states in turn have an obligation of due diligence to ensure that the contractor complies with the terms of the regime and its contract,¹⁵¹ and a responsibility shared with the ISA to 'contribute to the common interest of all States in the proper implementation of the principle of common heritage of [hu]mankind'.¹⁵² Out of the current 22 sponsoring states, ten are developing states, including six small island states.¹⁵³ This can be explained by the fact that developing states are particularly attractive sponsoring states. Under their sponsorship, contractors (thus far primarily from the global North) can get access to areas reserved under the regime for exploration and exploitation by developing states.¹⁵⁴ The full owner of NORI, the Canadian The Metals Company (TMC), for example, holds exploration contracts sponsored by Nauru, Tonga, and Kiribati respectively, all in reserved areas in the Clarion Clipperton Zone.¹⁵⁵ It has been suggested that sponsorship partnerships with Pacific small island states are furthermore attractive due to favourable political and regulatory environments, and that there may be an additional interest of foreign corporations in gaining future access to mineral resources located in areas within national jurisdiction of these states.¹⁵⁶

Depending on the exact sponsorship arrangement, benefits for the sponsoring state could take the shape of tax revenue, increased employment opportunities, and other forms of local investment and capacity building. In short: a promise of economic development for the sponsoring state. Under this generic promise of development lies the question how that translates into any form of concrete benefit for relevant communities. Nauru is a case in point. During the colonial period, most of the island was strip-mined for phosphate by European corporations, leaving a devastated moon landscape behind.¹⁵⁷ Since then, strategies to increase economic gain from the exercise of its sovereignty have ranged from providing a (OECD blacklisted) tax haven, to hosting controversial refugee camps for Australia in return for financial assistance.¹⁵⁸ Under the

¹⁵¹See UNCLOS, *supra* note 3, Art. 139.

¹⁵²*Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area*, Advisory Opinion of 1 February 2011, [2001] ITLOS Rep. 10, para. 226.

¹⁵³See, e.g., ISA 2030 Agenda Report, *supra* note 86, at 22.

¹⁵⁴Under the so-called 'parallel system' contractors upon their application for an exploration contract must contribute a 'reserved area' of equal economic potential to their intended exploration site to the ISA. This reserved site would under the original Part XI regime be reserved for exploitation by the Enterprise itself, or when the Enterprise decides not to carry out activities in this area, a developing state (on behalf of a contractor) can submit a plan of work for the reserved area, see UNCLOS, *supra* note 3, Ann. III, Arts. 8, 9. As long as the Enterprise is not operationalized, this leaves reserved areas exclusively to developing states. The parallel system is currently only fully in place for polymetallic nodules, the Regulations on Sulphides and Crusts added the option to offer the Enterprise an equity share in a joint venture instead of reserving the area, because of the more localized nature of these resources. See Sulphides Regulations, *supra* note 8, Reg. 19; Cobalt-Rich Crusts Regulations, *supra* note 8, Reg. 19.

¹⁵⁵Interestingly, its name cannot be traced in any of the documents submitted to the ISA at the time of application. Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Nauru Ocean Resources Inc. ISBA/17/C/14 (19 July 2011); Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Tonga Offshore Mining Limited, ISBA/17/C/15 (19 July 2011); Decision of the Council relating to a request for approval of a plan of work for exploration for polymetallic nodules submitted by Marawa Research and Exploration Ltd., ISBA/18/C/25 (26 July 2012).

¹⁵⁶K. Willaert and P. A. Singh, 'Deep Sea Mining Partnerships with Developing States: Favourable Collaborations or Opportunistic Endeavours?', (2021) 36 *International Journal of Marine and Coastal Law* 199, at 209.

¹⁵⁷See extensively on this history C. Storr, *International Status in the Shadow of Empire: Nauru and the Histories of International Law* (2020); A. Anghie, "'The Heart Of My House': Colonialism, Environmental Damage, and the Nauru Case', (1993) 34 *Harvard International Law Journal* 445.

¹⁵⁸C. Storr, 'Deep Water', *London Review of Books*, 19 September 2018, available at www.lrb.co.uk/blog/2018/september/deep-water.

current sponsorship arrangement with NORI, it is unlikely that Nauru can expect to see any substantial revenue.¹⁵⁹ The confidentiality of sponsorship arrangements between corporations and developing states makes it difficult to assess the exact terms and conditions, or compliance with treaty obligations.¹⁶⁰ There are, however, long-standing general concerns over whether a sponsoring state has any form of effective control over a sponsored entity.¹⁶¹ Even in the event that significant revenue would be generated and injected into a local economy, a robust governance system and sufficient capacity is needed to avoid the many problems and injustices associated with the 'resource curse' in the past, including in the relations with indigenous peoples, who form a majority in many Pacific island nations.¹⁶²

Somewhere between the preferential position granted to developing states under the system of reserved areas, and sponsorship arrangements in practice, the former privilege is taken up by corporations from the global North and the distribution of benefit derived therefrom is lost at sea. Or as Feichtner observes:

While government officials may be in for an exhilarating ride, the newly emerging political economies appear to lack any moorings in a conception of how the interaction between state and economy in facilitating extraction might contribute to the well-being of concrete communities.¹⁶³

In other words, facilitating resource extraction by acting as sponsoring state does not simply equate to public 'benefit'. The sponsoring state furthermore faces a conflict of interest here. If it seeks to maximize fiscal revenue from its role as sponsoring state, it has little incentive to support maximum financial redistribution via the ISA as well, because the higher the payments owed to the ISA, the less scope there is for sponsoring states to impose their own direct payment obligations on the contractor – risking a race to the bottom.¹⁶⁴

The second way in which commercial exploitation is argued to benefit humankind is by contributing to scientific knowledge of the deep sea, as contractors bring the resources required for deep sea research which exceed those typically available to scientific research institutes or developing states. Or as the ISA puts it: 'by requiring contractors to undertake environmental studies before they can apply for exploitation contracts, and by setting standards for data collection, ISA enables contractors to contribute to the global knowledge base'.¹⁶⁵ The enhancement of scientific knowledge of the deep seabed is, or should be interpreted as, a benefit for humankind independent of exploitation. Indeed, UNCLOS asserts that marine scientific research in the Area shall be carried out for the benefit of humankind as a whole,¹⁶⁶ not solely for the purposes of facilitating exploitation. However, in the way the argument is presented, the two become conflated in the 'necessity' of attracting private finance to fund (often prohibitively) expensive deep sea research. One may presume that contractors are driven more by the prospect of generating profit than a philanthropic commitment to furthering deep sea science, hence any data

¹⁵⁹See for a discussion I. Feichtner, 'Mining for Humanity in the Deep Sea and Outer Space: The Role of Small States and International Law in the Extraterritorial Expansion of Extraction', (2019) 32 *Leiden Journal of International Law* 255, at 269–70.

¹⁶⁰See more extensively Willaert and Singh, *supra* note 156.

¹⁶¹UNCLOS Art. 153 requires entities to possess the nationality of the sponsoring state or to be effectively controlled by them. The current practice within the Legal and Technical Commission of reviewing applications merely checks the place of registration or incorporation of the entity, not evidence of an actual relationship. Commentators have argued this conflation of nationality and effective control contradicts treaty language, and that a proper interpretation and application of the effective control criterion would render several partnerships and the resultant exploration contracts unlawful. *Ibid.*, at 204–5, 215.

¹⁶²See also Blue Ocean Law and Pacific Network on Globalisation, *supra* note 143, at 7–9.

¹⁶³See Feichtner, *supra* note 159, at 257.

¹⁶⁴See also Feichtner, *supra* note 28, at 632.

¹⁶⁵See ISA 2030 Agenda Report, *supra* note 86, at 7.

¹⁶⁶See UNCLOS, *supra* note 3, Art. 143.

or evidence that suggests that the environmental, distributive, and social ambitions of the regime are better served by non-exploitation is not particularly conducive to their business case. There have long been concerns about the independence, reliability, and verifiability of (environmental) data submitted by contractors. Although the ISA has worked to make improvements around the public availability of such data,¹⁶⁷ it is questionable how beneficial this enhanced transparency is when there are no opportunities for interested (third-party) stakeholders to constructively engage with it.¹⁶⁸ The ISA is proactive in developing joint projects with scientists, including collaborations between industry and science.¹⁶⁹ It is not clear how these relationships are established (often not via public procurement) and it remains unclear whether and in what way scientific inputs obtained therefrom feed into the negotiations for example.¹⁷⁰

Finally, the ISA runs a capacity-building programme with the overarching aim to enhance full participation of developing states in the work of the ISA and activities in the Area.¹⁷¹ While this could certainly be of direct benefit to individuals, e.g., through the advancement of women in deep sea science, the ultimate aim of this work is still closely connected to the aim of exploitation, as it seeks to enable states to take on the role of sponsoring state.¹⁷² Apart from the fact that it is questionable to what extent this role ultimately benefits the sponsoring state and its population as considered above, the enhanced capacity is to a not insignificant extent directly beneficial to the contractor. Shortly after the small island sponsoring states mentioned above had applied for exploration contracts, the European Union (EU) offered development assistance to Pacific Island states, including Nauru, to help them improve the governance and management of deep sea minerals and draft national legislation. As a result, NORI ‘not only [gained] access to areas reserved for exploration and exploitation by developing states; it also is the indirect beneficiary of development assistance by the EU aimed at enabling Nauru to meet its obligations as a sponsoring state’.¹⁷³ In deep sea exploration, that is one small step for Nauru, one giant leap for NORI – rather than humankind.

5. Conclusion

This article sought to move beyond the well-worn but unresolved, and possibly unresolvable, debate on how to find an acceptable trade-off between facilitating commercial deep seabed mining and adequately regulating the many risks involved. Instead, it showed that proceeding to the exploitation phase is a false necessity if one takes seriously the treaty obligation that activities in the Area are to be carried out for the benefit of humankind as a whole, and each component of the ISA’s mandate. The ISA is faced with an impossible task if its aim is to realize the contradiction in terms that is ‘sustainable seabed exploitation’. At the same time, its uniquely complex mandate and the tensions that remain within it are also where its potential lies and should be sought. This is why it is important to break through the dominant narrative of ‘necessity’ that perpetuates the power structures and interests served by value extraction from the global commons and justifies the costs thereof to humanity, while obscuring the true beneficiaries under vague notions of universality. The ideology of mutuality is still at play in the ideal of sustainable seabed mining for decarbonization and sustainable development.

¹⁶⁷Primarily through its Deepdata database, available at www.isa.org.jm/deepdata. See also, however, N. Gilbert, ‘Major Ocean Database That Will Guide Deep-Sea Mining Has Flaws, Scientists Warn’, *Nature*, 25 May 2023, available at www.nature.com/articles/d41586-023-01303-7.

¹⁶⁸See also Willaert, *supra* note 84, at 4.

¹⁶⁹See International Seabed Authority, ‘Marine Scientific Research’, available at www.isa.org.jm/index.php/marine-scientific-research; see also ISA 2030 Agenda Report, *supra* note 86, at 7.

¹⁷⁰See Morgera and Lily, *supra* note 84, at 384.

¹⁷¹See <https://www.isa.org.jm/capacity-development-training-and-technical-assistance/>.

¹⁷²See ISA 2030 Agenda Report, *supra* note 86, at 7.

¹⁷³See Feichtner, *supra* note 159, at 261–2.

Yet, this mutuality is becoming increasingly difficult to uphold as the contradictions inherent in the regime become stronger and ever more pronounced in light of present-day knowledge and conditions. The common heritage principle has proven to be able to accommodate ideological shifts and changing interests. The most drastic shift witnessed thus far was under the sway of market-based principles to create favourable conditions for private value extraction from the deep seabed. Perhaps another fundamental shift is imminent; this time under the increasing weight of the environmental and social imperatives of the regime – a shift that would be easier to reconcile with the common heritage principle’s underlying intergenerational values and trans-temporal rationale than the first one.¹⁷⁴ Perhaps the audacity of the trigger of the two-year rule has also triggered something in the global public consciousness of humanity as global ‘commoners’; perhaps it has dispelled some of the hydrothermal smoke and mirrors of social and ecological disconnectedness from the deep sea. At the very least, it has animated a plurality of stakeholders in our common heritage, and its plight, that may conveniently remain out of sight for most, is no longer out of mind.

¹⁷⁴See also Mickelson, *supra* note 27, at 662.