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Ready to Regulate?

The International Seabed Authority on the Brink of Commercial Mining

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EXECUTIVE SUMMARY

The International Seabed Authority (ISA) is a unique international organization mandated to regulate mining in seabed areas beyond the limits of national jurisdiction ('the Area'), protecting the marine environment from its harmful effects and sharing mining proceeds for the benefit of all of humankind. The ISA was created by the United Nations Convention on the Law of the Sea 1982 and became operational in 1994. Since the early 2000s, the ISA has issued contracts for mineral exploration in the Area. As industry gears up for the beginning of commercial seabed mining, this complex multilateral organization faces a critical question: is it ready to regulate?

The ISA's ability to regulate a new extractive industry hundreds of miles offshore has raised several concerns. According to the best available scientific information, seabed mining could result in significant environmental consequences; however, the organization is not structured to adequately investigate or respond to environmental concerns, lacking the necessary capacity and capabilities. This, among other things, has led to a trend of 'burden-shifting' in which organs with mandates limited to administrative or technical matters are driving policy decisions, as well as the ISA (the regulator) being overly reliant on inputs from seabed mineral exploration contractors (the regulated).

The ISA's effective functioning necessitates active involvement from its 167 member states, but the organization's record shows significant state disengagement. Many member states participate only sporadically, in some cases because of resource constraints in traveling to ISA headquarters. Participation in ISA decision-making by civil society, or other potential interested non-state actors, is similarly limited.

The organization's lack of transparency also poses problems. Existing practices have not ensured that important information about seabed mining is available to the public, or even to the member state decision-makers. The ISA's subsidiary organs have significant discretion about how to handle information and often fail to present a clear rationale for their choices. Confidentiality rules and the lack of access to information about the ISA and its contractors' work impedes internal and public oversight. It is also difficult to assess whether or how conflicts of interest are managed within ISA structures.

Finally, the way in which the organization's budget is linked to exploitation presents a challenge to impartial decision-making, potentially leading to the prioritization of commercialization of seabed mining at the expense of other obligations.

Prior to any seabed mining commencing in the Area, it is urgent that member states and other interested parties ensure that the ISA is fit for purpose and ready to regulate. To ensure effective debate and to achieve outcomes consistent with the ISA's purposes, barriers to participation must be lowered so all states, as well as representatives of non-state interests, have a meaningful voice in decision-making. Possible reforms include creating new organs within the organization with a specific environmental mandate, separating the organization's regulatory responsibilities from other functions, making more information available publicly, and enhancing oversight and institutional accountability.

INTRODUCTION

On June 25, 2021, a Pacific island nation submitted a brief document to the International Seabed Authority (ISA). That perfunctory exchange could have significant implications for ocean governance. The letter, from the President of Nauru to the President of the ISA’s Council, invoked a provision that urges the ISA to complete regulations for deep seabed mining within two years – accelerating a regulatory process that has been slowly unfolding for more than a quarter century.²

The ISA holds a unique, and in many ways unprecedented, role as an international natural resource regulator. Under the UN Convention on the Law of the Sea (UNCLOS), the ISA is responsible for administering mineral resources on and below a significant portion of the ocean floor as the “common heritage” of humankind.³ In doing so, the ISA simultaneously provides a political forum for its 167 member states⁴ to set mining policy, issue and enforce regulations which ensure the effective protection of the marine environment from the harmful effects of mining, compensate for seabed mining’s negative economic impacts on terrestrial mining, and distribute mining royalties – all while facilitating private mineral exploitation and developing its own commercial mining operation.⁵

Preparing for the impending full-scale realization of seafloor mining and the concomitant environmental, political, and administrative burdens poses a major challenge for the ISA and its member states. For more than 25 years the ISA has been slowly laying the foundation for commercial exploitation. With Nauru’s invocation, the ISA is now at an inflection point. With exploitation on the horizon, concerns about equity and the environment take on a new level of urgency and political salience, while profit-driven incentives similarly become more intense.

If and when exploitation is underway, the organization’s policy and regulatory decisions will gain a momentum of their own. Decisions made in the near-term will therefore have profound implications for the future of the organization. Scientists have repeatedly highlighted the predicted environmental impacts of seabed mining, including habitat destruction, biodiversity loss, pollution through plumes, noise, and light, and impacts on fish stocks and mid-water ecosystems.⁶ With

² “Letter dated 30 June 2021 from the President of the Council of the International Seabed Authority addressed to the members of the Council,” ISBA/26/C/28 (2021).

³ United Nations Convention on the Law of the Sea, 1833 UNTS 3, December 10, 1982, art. 136.

⁴ The ISA technically has 168 members; the EU is a member in its own right, separate from the membership of its constituent states. “Member States,” *International Seabed Authority*, www.isa.org.jm.

⁵ UNCLOS, art. 140(2), 145, 150, 157(1), 170(1). Under art. 82, the ISA is also responsible for collecting and distributing portions of mining revenue generated on states’ extended continental shelves.

⁶ Williams R and others, ‘Noise from Deep-Sea Mining May Span Vast Ocean Areas’ (2022) 377 *Science* 157; Weaver PPE and others, ‘Assessing Plume Impacts Caused by Polymetallic Nodule Mining Vehicles’ (2022) 139 *Marine Policy* 105011; Jeffrey C. Drazen et al., “Midwater Ecosystems Must Be Considered When Evaluating Environmental Risks of Deep-Sea Mining,” *Proceedings of the National Academy of Sciences* 117, no. 30 (July 28, 2020): 17455–60; Holly J. Niner et al., “Deep-Sea Mining With No Net Loss of Biodiversity—An Impossible Aim,” *Frontiers in Marine Science* 5 (March 1, 2018), www.frontiersin.org/article/10.3389/fmars.2018.00053; C. L. Van Dover et al., “Biodiversity Loss from Deep-Sea Mining,” *Nature Geoscience* 10, no. 7 (July 2017): 464–65; van der Grient JMA and Drazen JC, ‘Potential Spatial Intersection between High-Seas Fisheries and Deep-Sea Mining in International Waters’ (2021) 129 *Marine Policy* 104564; Haeckel M and others, ‘Environmental Impacts of Deep Seabed Mining’ in Tomas Heidar (ed), *New Knowledge and Changing Circumstances in the Law of the Sea*, vol 92

significant scientific gaps remaining, the extent of these potential impacts remains unknown.⁷ Partly because of the predicted environmental impacts, some states as well as scientists, international organisations, and NGOs are calling for a pause on seabed mining until the environmental effects are better understood.⁸

Seabed mining may also have important economic impacts, aside from those associated with any environmental damage mining causes. Many of the mineral resources found on the ocean floor are receiving increased attention because they contain metals that are needed for green technologies such as high-capacity batteries.⁹ These same metals are a significant source of revenue for many countries, and seabed mining could therefore adversely impact existing land-based mining, which could generate geopolitical and domestic implications.¹⁰

These pressures would test any organization, much less one that has limited resources and enjoys only intermittent interest from national leaders, senior diplomats, and the media. Unfortunately, there are indications that tensions inherent in the organization's mandate, coupled with unresolved structural and cultural obstacles, hinder the ISA's ability to act as competent regulator while balancing humanity's varied interests in seabed mining. This paper identifies key concerns and suggests a range of potential reforms. It draws upon the small but growing literature on the ISA and on broader insights from the study of international organizations. One of the lead authors conducted more than a dozen confidential interviews with individuals who have worked in and around the ISA and these also inform the paper.

(Brill 2020); Martins I and others, 'Beyond Deep-Sea Mining Sublethal Effects: Delayed Mortality from Acute Cu Exposure of the Cold-Water Octocoral *Viminella Flagellum*' (2022) 183 *Marine Pollution Bulletin* 114051

⁷ Diva J. Amon et al., "Assessment of Scientific Gaps Related to the Effective Environmental Management of Deep-Seabed Mining," *Marine Policy* 138 (April 2022): 105006; Diva J. Amon et al., "Heading to the Deep End without Knowing How to Swim: Do We Need Deep-Seabed Mining?," *One Earth* 5, 3 (2022): 220–23.

⁸ See, e.g., 'Letter dated 16 June 2022 from the Permanent Mission of Chile to the United Nations',

https://www.un.org/depts/los/meeting_states_parties/documents/Splos3215ChilePositionPaperAdvanceVersion.pdf; Alliance of Countries for a Deep-Sea Mining Moratorium, 10 July 2022,

<https://gov.fm/index.php/component/content/article/27-fsm-pio/news-and-updates/622-following-palau-s-leadership-fsm-to-join-alliance-of-countries-for-a-deep-sea-mining-moratorium-president-panuelo-to-solicit-members-of-pacific-islands-forum-to-oppose-deep-sea-mining?Itemid=177>; European Parliament resolution of 9

June 2021 on the EU Biodiversity Strategy for 2030: Bringing nature back into our lives (2020/2273(INI)), paras 184-185; Long Distance Advisory Council (LDAC), 'LDAC Opinion on Deep-Sea Mining' (Discussed at LDAC WG5 meetings in October 2018 and March 2019, adopted by consensus by the LDAC Executive Committee on 22 May 2019) ref R-04-19/WG5

https://www.ldac.eu/images/EN_LDAC_Advice_on_Deepsea_Mining_R.04.19.WG5_May2019.pdf; IUCN, 'Protection of Deep-Ocean Ecosystems and Biodiversity through a Moratorium on Seabed Mining', (Motion 069) (World Conservation Congress, Marseille, 22 September 2021) <<https://www.iucncongress2020.org/motion/069>> accessed 16 November 2021; Marine Expert Statement Calling for a Pause to Deep-Sea Mining,

<https://www.seabedminingsciencstatement.org/>; Deep Seabed Mining Coalition Sends Letter to President Biden Urging a Moratorium on Dangerous Mining," *Earthjustice*, December 1, 2021, <https://earthjustice.org>;

⁹ Saleem H. Ali et al., "Mineral Supply for Sustainable Development Requires Resource Governance," *Nature* 543, no. 7645 (March 2017): 367–72; Winnie Yeh, Assheton Stewart Carter, and Graham Lee, *Deep-Sea Minerals: What Manufacturers and Markets Need to Know*, (World Economic Forum, November 2020), https://www3.weforum.org/docs/WEF_BP_Deep-Sea_Minerals_2020.pdf.

¹⁰ See, e.g., Natural Resource Governance Institute, *Copper Giants: Lessons from State-Owned Mining Companies in the DRC and Zambia*, (Natural Resource Governance Institute, April 23, 2015), <https://resourcegovernance.org>.

BACKGROUND

ORIGIN AND MANDATES

UNCLOS, which was concluded in 1982 and entered into force in 1994, established the legal framework organizing and controlling activities on the seafloor beyond national jurisdiction – referred to as the “Area”.¹¹ The ISA stands at the center of this regime, serving as a political, regulatory, and administrative authority. The UNCLOS signatories envisioned the ISA achieving several broad goals. Most important among these was preventing a reckless scramble to monopolize seabed resources in which rich and technologically advanced countries would inevitably prevail.¹² UNCLOS accordingly requires the ISA to manage the Area’s resources as a global “common heritage”, ensuring their use “for the benefit of [human]kind as a whole”.¹³ This “common heritage of [hu]mankind” (CHM) principle sits at the core of the ISA’s purpose.

To give effect to the CHM principle, states established the ISA as a common resource management structure and mandated it “to organize and control activities in the Area, particularly with a view to administering the mineral resources of the Area.”¹⁴ Underneath this overarching mandate sits a slate of responsibilities, some appearing to be in tension with one another. First, the organization is empowered to develop the resources of the Area. Art. 150(a) of UNCLOS specifies that “Activities in the Area shall, as specifically provided for in this Part, be carried out [...] with a view to ensuring the development of the resources of the Area”, which is also foreseen as the long-term source of funding for the ISA.¹⁵ Importantly, as a regulator, the ISA is also obligated to exercise control over mining activities, including to conduct inspections and take all necessary measures to ensure compliance by contractors.¹⁶

Second, the ISA must protect the marine environment, in all parts of the ocean, from harms caused by mining activities in the Area.¹⁷ Although not mentioned in UNCLOS itself, the “precautionary principle” has come to frame discussions of the ISA’s environmental responsibility.¹⁸ Under this principle, set out in the 1992 “Rio Declaration”, a lack of scientific certainty should not be a reason to avoid reasonable measures to prevent environmental damage.¹⁹ This principle has since been

¹¹ In fact, UNCLOS encompasses many areas of international maritime law. Part XI is specifically dedicated to the Area, along with annexes III and IV. In 1994 states negotiated the Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, November 16, 1994. The UNCLOS 1994 Implementing Agreement substantially amends UNCLOS’s provisions on production targets, technology sharing, and the ISA’s initial structure. In this paper, we use “UNCLOS” in the body to refer to both the original convention and the 1994 agreement. Specific citations are given in the footnotes. Also relevant to the ISA are part XII of UNCLOS, establishing obligations for signatories to protect the marine environment, and art. 82, making the ISA responsible for collecting and sharing a portion of states’ revenues from non-living resources on their extended continental shelves.

¹² David Bosco, *The Poseidon Project: The Struggle to Govern the World’s Oceans* (New York, NY: Oxford University Press, 2022), 118–22.

¹³ UNCLOS, art. 140(1).

¹⁴ UNCLOS, art. 157(1).

¹⁵ UNCLOS art. 171. *See also*, ISBA/26/FC/7.

¹⁶ UNCLOS, art. 153.

¹⁷ UNCLOS, art. 145.

¹⁸ Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection* (Leiden: Brill, 2017), 131-136.

¹⁹ “Report of the United Nations Conference on Environment and Development,” June 14, 1992, sec. res. 1, annex I, principle 15.

incorporated into the ISA's regulations²⁰ and embraced by the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea.²¹ Additionally, all ISA member states are individually obligated by Part XII of UNCLOS to protect the marine environment, a responsibility that extends to their participation in the ISA.²² A corollary mandate under UNCLOS is to facilitate scientific research, a practical necessity if environmental protection is to be taken seriously, particularly given the substantial knowledge gaps about deep ocean ecosystems.²³

Third, under a follow-on agreement to UNCLOS, ISA operations must be "cost-effective."²⁴ The ISA has so far taken this admonition to heart, keeping a small staff and repeatedly referencing cost-effectiveness in its budgetary proposals.²⁵ However, the ISA must also follow an "evolutionary approach" as it develops.²⁶ Given the current negotiations around future commercial exploitation, the ISA's paradigm for evaluating reasonable expenses will need to change with the organization's operations. Funding and institutional changes will also be necessary to meet the ISA's far-reaching compliance mandate, which it is currently working to flesh out.²⁷

STRUCTURE

All states parties to UNCLOS are *ipso facto* members of the ISA.²⁸ Structurally, the ISA consists of three principal bodies: a plenary Assembly, an executive Council, and an administrative Secretariat.²⁹ Additionally, three subsidiary organs are foreseen in UNCLOS to support the primary organs while a separate entity, the Enterprise (which has not yet been operationalized), was designed to conduct commercial mining activity under the ISA's own auspices on behalf of humanity as a whole.

²⁰ E.g., "Regulations on Prospecting and Exploration for Polymetallic Nodules in the area," ISBA/19/C/17 (2013), reg. 2(2), 5(1), and 31(2).

²¹ Seabed Disputes Chamber of the ITLOS, Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011.

²² Under UNCLOS, states have a general obligation to "protect and preserve the marine environment," as well as specific obligations, including to establish regulations through the ISA to control pollution from activities in the Area and adopt domestic measures to that end in regards to activities performed under their authority (UNCLOS, arts. 192, 209).

²³ UNCLOS art. 143.

²⁴ UNCLOS 1994 Implementing Agreement, annex, sec. 1(2).

²⁵ See, e.g., "Future financing of the International Seabed Authority," ISBA/26/FC/7 (2021), paras. 7 and 17.

²⁶ UNCLOS 1994 Implementing Agreement, sec. annex, sec. 1(3). For an in-depth discussion of the evolutionary approach, see, "Gwenaëlle Le Gurun, *Some Reflections on the Evolutionary Approach to the Establishment of the International Seabed Authority*" in Michael Lodge and Myron H Nordquist (eds), *Peaceful Order in the World's Oceans: Essays in Honor of Satya N. Nandan* (Brill Nijhoff, 2014).

²⁷ See e.g., ISA, Draft Regulations on Exploitation of Mineral Resources in the Area - Prepared by the Facilitator, Ambassador Maureen Tamuno (Nigeria), of the Informal Working Group on Inspection, Compliance and Enforcement, ISBA/27/C/IWG/ICE/CRP.1/Rev.2 (2022).

²⁸ UNCLOS, art. 156(2). Similarly, the provisions of the UNCLOS 1994 Implementing Agreement were incorporated into UNCLOS for states that ratified or acceded to UNCLOS since the 1994 Implementing Agreement was adopted (as per art. 4(1) of the latter). The majority of states which became parties to UNCLOS prior to the adoption of the 1994 Implementing Agreement have since joined the 1994 Implementing Agreement. "Multilateral Treaties Deposited with the Secretary-General, Chap. XXI, Sec. 6a," *United Nations Treaty Collection*, August 15, 2022, <https://treaties.un.org>.

²⁹ UNCLOS, pt. XI, sec. 4.

The Assembly is described as the ISA’s “supreme organ” and is responsible for the ISA’s overarching policies and strategy.³⁰ Each member state is entitled to send a delegation to the Assembly’s annual meeting and to one vote in Assembly decisions.³¹ UNCLOS negotiators also created a Council, comprised of 36 member states elected by the Assembly.³² The UNCLOS 1994 Implementing Agreement strengthened the power of the Council significantly, a change that effectively reduced the role of the Assembly. The Council has broad powers to establish specific policies on any matter within the ISA’s mandate while also having law-making and supervisory competencies. The Council has the capacity to make certain “provisional decisions” that can essentially become permanent in practice. The Council also meets more frequently than the Assembly and is therefore more capable of taking quick action.

The Council has a subsidiary advisory body, the Legal and Technical Commission (LTC), which comprises individual experts in fields such as geology, law, oceanology, marine environmental science, and economics. The LTC is meant to provide guidance and make recommendations on regulations, approval of mining applications, and other topics.³³ In practice, the Council regularly defers to the recommendations of the LTC. A similar expert body, the Finance Committee, provides guidance to the Council and Assembly on financial matters.³⁴ The functions of a third such body, the Economic Planning Commission, are currently performed by the LTC pending the start of exploitation or until a time determined by the Council.³⁵

Like nearly all international organizations, the ISA also has a full-time administrative apparatus to coordinate the ISA’s functions and continue operations between sessions. The Secretariat currently employs 44 staff members, organized into four units: the Executive Office of the Secretary-General, the Office for Administrative Services, the Office of Legal Affairs, and the Office of Environmental Management and Mineral Resources.³⁶ Unlike the other organs, UNCLOS does not enumerate a detailed list of responsibilities for the Secretariat and its elected Secretary-

³⁰ UNCLOS, art. 160.

³¹ Referred to as sequentially numbered “sessions”, the cycle of annual meetings serves to organize much of the Authority’s decision-making. For example, most reports, decisions, and elections taken in 2019 belong to the 25th Session. UNCLOS, art. 159(1-2), (6).

³² The Council has a distinctive composition, with certain defined interest groups, for example states exporting significant quantities of the minerals to be mined from the seabed, receiving a set number of seats. Voting procedures under the UNCLOS 1994 Implementing Agreement give each “chamber” an effective veto over Council decisions, although the preference is for consensus decision-making (see UNCLOS Implementing Agreement, annex sec. 3). For a discussion of the Council’s effective multicameral nature, see Thomas Bräuninger, “When Simple Voting Doesn’t Work: Multicameral Systems for the Representation and Aggregation of Interests in International Organizations,” *British Journal of Political Science* 33, no. 4 (October 2003): 681–703; Richard Collins and Duncan French, “A Guardian of Universal Interest or Increasingly Out of Its Depth?: The International Seabed Authority Turns 25,” *International Organizations Law Review* 17, no. 3 (December 9, 2020): 15–16; James Harrison, *Making the Law of the Sea: A Study in the Development of International Law* (2011), Cambridge: CUP. Under UNCLOS, the Council was originally meant to meet at least three times per year. However, it has historically convened less often in the interest of cost effectiveness. UNCLOS, art. 161(5); ISBA/26/FC/7, para. 8.

³³ UNCLOS, art. 165.

³⁴ UNCLOS 1994 Implementing Agreement, annex, sec. 9.

³⁵ UNCLOS 1994 Implementing Agreement, annex, sec. 1(4).

³⁶ *Proposed Budget for the International Seabed Authority for the Financial Period 2021–2022*, ISBA/26/A/5-ISBA/26/C/18, (2020), para. 7; “The Secretariat,” *International Seabed Authority*, www.isa.org.jm.

General. Instead, the Secretariat is meant to organize the annual sessions and generally facilitate the other organs' work.³⁷

The Enterprise was designed so that the organization itself could pursue exploitation on behalf of the international community, including states and peoples who lack the technical and financial capacity to create their own mining firms.³⁸ Although the Assembly and Council will set the Enterprise's broad policies and choose its board members and Director-General, it will have a staff separate from the Secretariat and will be subject to largely the same application, reporting, and compliance processes as any other contractor.³⁹ The Enterprise, however, has yet to come into operation. The UNCLOS 1994 Implementing Agreement removed a requirement that ISA members fund an initial Enterprise mining project, instead stipulating that the Enterprise would operationalize incrementally, using joint ventures with other contractors to build up its technical and financial capabilities. The ISA has received two proposals for such joint ventures in recent years, prompting the Secretary-General to appoint a Special Representative for the Enterprise in negotiations. However, those proposals have fallen through and the future of the Enterprise remains uncertain. Some states, most prominently the African Group, have lamented the reluctance of the Council to operationalize the Enterprise as a way of effectuating the CHM principle.⁴⁰

RELATIONSHIP TO OTHER ORGANIZATIONS

While not formally a part of the United Nations, the ISA collaborates with UN agencies and is integrated with the larger world of multilateral organizations.⁴¹ The ISA shares many stakeholders, structural elements, and governance challenges with other international organisations.⁴² Like other multilateral structures, it serves both as an international political forum and as a mechanism to generate and manage knowledge that informs those political deliberations.⁴³ It shares this feature with regional fisheries management organizations (RFMOs) and groups such as the Intergovernmental Panel on Climate Change (IPCC) and the Codex Alimentarius Commission.⁴⁴

³⁷ UNCLOS, art. 166.

³⁸ UNCLOS, art. 170(1).

³⁹ UNCLOS, art. 160(2)(c), 162(2)(c),(i). The Enterprise does not have to set aside reserved areas like applicants in most other circumstances and does not require a state sponsor. UNCLOS, annex III, art. 3(2), 4(1), 9; UNCLOS 1994 Implementing Agreement, annex, sec. 2(4).

⁴⁰ See, Mehdi Remaoun, "The International Seabed Authority and the Enterprise: How Africa Is Reinvigorating the Principle of the Common Heritage of Mankind," *Journal of Ocean Governance in Africa (Iilwandle Zethu)* 2021 (2021): 1–37.

⁴¹ For example, 32 UN and other intergovernmental organizations are official observers at the ISA and the ISA has made voluntary commitments to work with various organizations in support of the UN 2030 Agenda for Sustainable Development. "Observers," *International Seabed Authority*, <https://www.isa.org.jm/observers>; "ISA's Contributions to the Achievement of the 2030 Agenda," *International Seabed Authority*, <https://isa.org.jm>.

⁴² See, Jeff A. Ardron, "Transparency in the Operations of the International Seabed Authority: An Initial Assessment," *Marine Policy* 95 (September 1, 2018): 324–31.

⁴³ Ginzky, H, Singh, P. and Markus, T, "Strengthening the International Seabed Authority's knowledge-base: Addressing uncertainties to enhance decision-making," *Marine Policy* 144 (April 2020): 103823.

⁴⁴ Adi Ayal, Ronen Hareuveny, and Oren Perez, "Science, Politics and Transnational Regulation: Regulatory Scientific Institutions and the Dilemmas of Hybrid Authority," *Transnational Environmental Law* 2, no. 1 (April 2013): 45–68; Tim Bütthe and Nathaniel Harris, "Codex Alimentarius Commission," in *Handbook of Transnational Governance: Institutions & Innovations* (Cambridge, UK: Polity Press, 2011), 219–28; Timothy Meyer, "Epistemic Institutions and Epistemic Cooperation in International Environmental Governance," *TEL* 2 (2013): 15.

Yet the ISA is unusual in key respects. Unlike the RFMOs, for example, the ISA's scope is global.⁴⁵ The ISA's global scope and direct regulatory power increase the stakes for each of its decisions and make building political consensus more difficult.⁴⁶ Because the ISA is essentially a mining regulator with the power to award binding contracts (including to parties who sit in its decision-making organs), the organization's knowledge-generation and regulatory functions may be in tension with each other. The pressing nature of many regulatory functions may also sap resources from the knowledge-building efforts that are necessary to inform rulemaking.⁴⁷

The ISA is also associated with a larger organizational apparatus through UNCLOS's dispute resolution mechanism, including the rarely used Seabed Dispute Chamber of the International Tribunal on the Law of the Sea.⁴⁸ Once exploitation begins this may become an important component of the ISA's legal machinery, similar in some ways to the World Trade Organization's dispute resolution system. However, the ISA will be entitled to significant revenue streams from mining royalties and obligated to use those revenues according to its benefit-sharing policies, potentially making the organization itself a party to legal challenges in a way not common in public international law. Additionally, the fact that the operations of the ISA largely falls outside the elaborate UN oversight mechanisms (due to its autonomous status) is problematic, especially since the ISA lacks its own procedures and processes to ensure check and balance through external oversight.

MINING

UNCLOS lays out the general regime for mining in the Area—defining a progression of mining activities, who is eligible to mine, the application process the ISA must use to evaluate prospective miners, and the ISA's general enforcement powers – while leaving the ISA to develop specific procedures, regulations, and compliance measures.⁴⁹ UNCLOS divides activities in the Area into three phases. The first, prospecting, entails initial surveys of the ocean floor for exploitable deposits. Prospectors are largely unregulated, obliged only to inform the ISA of their activities, agree to be bound by the ISA's regulations, and refrain from harming the marine environment. Conversely, prospectors are granted no rights to the minerals they find unless they apply to conduct exploration, the next phase, and are accepted.⁵⁰

⁴⁵ See, Collins and French, "A Guardian of Universal Interest or Increasingly Out of Its Depth?," 16–17; James Harrison, *Making the Law of the Sea: A Study in the Development of International Law* (Cambridge University Press, 2011), 123.

⁴⁶ See, Rüdiger Wolfrum, "Legitimacy of International Law and the Exercise of Administrative Functions: The Example of the International Seabed Authority, the International Maritime Organization (IMO) and International Fisheries Organizations," in *The Exercise of Public Authority by International Institutions*, ed. Armin von Bogdandy et al., *Beiträge Zum Ausländischen Öffentlichen Recht Und Völkerrecht* (Berlin, Heidelberg: Springer, 2010), 917–40.

⁴⁷ On the other hand, were LTC discussions more transparent the procedural credibility of a determined epistemic process could assuage concerns from those who lack the technical expertise to evaluate scientific findings as such. Meyer, "Epistemic Institutions and Epistemic Cooperation in International Environmental Governance," 31–37.

⁴⁸ Although the Seabed Dispute Chamber's capacity to resolve disputes surrounding the Area is promising, it has so far had occasion to issue a sole advisory opinion. Collins and French, "A Guardian of Universal Interest or Increasingly Out of Its Depth?," 19–21.

⁴⁹ UNCLOS, art. 153, 156, 157, and annex III.

⁵⁰ UNCLOS, annex III, art. 2.

Once a prospective mining entity identifies an area of the seafloor it would like to investigate further, it can apply to conduct exploration, entailing more detailed surveys as well as tests of technology and processes, including test mining operations. A variety of entities may apply for contracts under UNCLOS: private firms, state-owned firms, member states as such, the Enterprise, and joint ventures between entities in any of the other categories.⁵¹ All applicants except the Enterprise must secure sponsorship from an eligible member state or states (in order to meet the requirements of nationality as well as having effective control over the mining entity). Essentially, that member state certifies that the sponsored entity falls within its domestic regulatory reach and agrees to enforce UNCLOS and ISA requirements under the contract through its domestic legal system.⁵² Applications also include a proposed plan of work and details on the applicant's technical competence and financial soundness.⁵³ Once an application is approved, a contract is negotiated and subsequently signed with the ISA, in which the contractor agrees to conform to ISA regulations and perform the activities in its proposed plan of work.⁵⁴

Contractors with exploration contracts may then choose to transition to commercial mining, referred to as 'exploitation', at the end of their contract term.⁵⁵ However, the contractor must still apply separately for an exploitation contract,⁵⁶ showing that it has fulfilled its exploration contract in good faith and has the technical and financial wherewithal to responsibly complete a plan of work for exploitation and that its plan of work will ensure effective environmental protection. Future exploitation contractors must also comply with a separate set of regulations and a payment regime, both currently in the drafting process.⁵⁷ Under UNCLOS, the ISA is required to collect payments from exploitation contractors in order to fund its own budget, to compensate developing countries whose national revenue from land-based mining has been adversely affected by mining in the Area, and to redistribute the economic and other benefits of mining equitably around the world.⁵⁸ The details, however, are still under discussion, including whether the payment regime will rely on profit sharing or directly assessed royalties, whether loss of natural capital and other environmental externalities will be included in the financial model (following the polluter-pays principle), and how revenue in excess of the ISA's budgetary requirements will be used.

REGULATION AND ENFORCEMENT

The ISA issues binding regulations (and binding standards are anticipated for future exploitation activities) along with non-binding technical guidelines and recommendations for contractors, collectively known as the "Mining Code". The regulations set out requirements for contractor applications and reports, environmental and health and safety measures, and other matters, while

⁵¹ UNCLOS, art. 153(2).

⁵² UNCLOS, annex III, art. 4(3) and (4).

⁵³ UNCLOS, art. 153.

⁵⁴ UNCLOS, annex III, art. 3, 4, 6. Firms must obtain the sponsorship of their state of nationality, which must be an ISA member. However, multinational ownership structures make this something of a formalism. Contractors must also have a training program to increase the technical capacity of the ISA and developing states. *Id* at art. 15. In most circumstances, applicants must also set aside half of the seafloor it has prospected or explored for use by the Enterprise or developing states. *Id* at art. 8.

⁵⁵ For a particular category of resources. UNCLOS, annex III, art. 10, 16.

⁵⁶ UNCLOS, annex III, art. 10.

⁵⁷ For current status, *see*, "The Mining Code: Draft Exploitation Regulations," *International Seabed Authority*, <https://isa.org.jm>.

⁵⁸ UNCLOS, art. 140(2), 171, 173.

the guidelines, standards, and recommendations spell out expectations and requirements in greater detail. So far, the ISA has approved the portions of the Mining Code relating to prospecting and exploration for three classes of minerals.⁵⁹ Exploitation requirements are currently being negotiated.

UNCLOS envisions the ISA monitoring and enforcing contractors' compliance with its regulations, backed up by legal process in sponsor states and recourse to dispute settlement mechanisms.⁶⁰ Perhaps because the ISA considers the exploratory activities conducted thus far to be low risk, the monitoring and enforcement system remains underdeveloped. The LTC reviews annual reports submitted by contractors but does not independently verify the information submitted, nor supervise the contractors' performance via any other mechanism, save for self-reporting.⁶¹ The ISA has released little public information on noncompliance or enforcement, although it has apparently been discussed in recent LTC sessions.⁶² Plans to establish a staff of inspectors and a recent proposal for a compliance committee are also under discussion at the ISA. While it is too early to say whether the current situation reflects the nature of exploration versus exploitation or a more serious inattention to enforcement, this area warrants future attention.

POTENTIAL PROBLEM AREAS

TENSION IN THE MANDATE

As noted, the core of the ISA's mandate is to manage the Area and its resources as the common heritage of humankind. What that means in practice, however, is open to debate. Of particular concern is that UNCLOS seems to presuppose that exploitation and environmental protection can coexist. If the effective protection of the marine environment from the harmful effects of activities

⁵⁹ The three categories of minerals are polymetallic nodules, polymetallic sulphides, and cobalt-rich ferromanganese crusts. "The Mining Code," International Seabed Authority, <https://www.isa.org.jm/mining-code>.

⁶⁰ UNCLOS, art. 139, 153(4)-(5) and annex III, art. 4(4), 18, 21-22. For details on domestic enforcement measures, see "National Legislation Database," International Seabed Authority, <https://www.isa.org.jm/index.php/national-legislation-database>; "Comparative Study of the Existing National Legislation on Deep Seabed Mining," November 2021, <https://www.isa.org.jm/node/20643>.

⁶¹ Regulations on Prospecting and Exploration for Polymetallic Nodules in the area, sec. reg. 6(1)(b-c), 28, and annex IV, 10; "Information relating to compliance by contractors with plans of work for exploration," ISBA/24/C/4 (2018), paras. 5 and 8. Contractors conducting exploration are required by the terms of the standard contract provisions to submit annual reports, and must participate in five-year reviews with the Secretary-General.

⁶² ISA, Report of the Chair of the Legal and Technical Commission on the work of the Commission at the second part of its twenty-seventh session, ISBA/27/C/16/Add.1 (2022), paras. 12, 14, 20-21; "Report of the Chair of the Legal and Technical Commission on the work of the Commission at its session in 2017," ISBA/23/C/13 (2017), para. 15(c)-(h); Information relating to compliance by contractors with plans of work for exploration, paras. 20-21 and 28(c). In 2017-2018, the Secretary-General and LTC reported to the Council several cases where contractors did not comply with the regulations and guidelines, primarily in regard to reporting requirements. Since then, this has been a regular occurrence. Significantly, the Council has not been informed (at least, publicly), of the non-compliant contractors' identities. It is also unclear if previous non-compliance had gone unreported, or if contractors have been found out of compliance since. Generally, ISA practice thus far gives primary responsibility for monitoring compliance to the Secretary-General. In the Secretary-General's report on this subject, he suggests producing an annual report for the Council on incidents of non-compliance, although it is not clear what level of detail the Secretary-General would provide. [ISBA/24/C/4, para. 20-21 and 28(c); ISBA/23/C/13, para. 15(c)-(h).] For discussion of a proposal to place non-compliance issues in the hands of the Council, see Singh, P., Christiansen, S., and Guilhon, M., "IASS Comments on Draft Regulations on Exploitation of Mineral Resources in the Area," 15 October 2019, https://isa.org.jm/files/files/documents/IASS%20Comments%20to%20Draft%20Exploitation%20Regs_15%20OCT%202019final.pdf

in the Area cannot be ensured, should humanity's collective interests in economic development or a healthy ecosystem take priority?⁶³

The UNCLOS negotiators' primary concern with Part XI was to stop mineral extraction in the Area from being monopolized.⁶⁴ Environmental protection was a secondary, though still present concern.⁶⁵ In the decades since the adoption of UNCLOS, scientists have drawn increasing attention to the ecological importance of the seafloor⁶⁶ and the current impossibility of protecting the marine environment while allowing seabed mining to proceed.⁶⁷ The unique biodiversity of the high seas and the Area is even the subject of a proposed follow-on agreement to UNCLOS, recognizing the environmental importance and human utility of the seafloor's living resources.⁶⁸ The vast majority of states have accordingly pronounced their dedication to sustainable development in many fora.⁶⁹ The world's increasing consciousness of the environmental impact of human activities and the need to protect the biosphere requires addressing the tension between exploitation's economic benefits and ecological consequences more directly than UNCLOS originally did.

Fulfilling the promise of the CHM principle requires balancing humanity's economic and environmental interests in the Area. Assessing whether the ISA, as currently structured, is able to strike that balance requires consideration of the incentive structures facing the organization and other key stakeholders. First, the organization's budget and continued relevance depend on exploitation, shaping incentives for its bureaucracy. Accounts of international organizations focused on their permanent staff show that budgetary and prestige considerations can motivate staff, knowingly or not, to influence an organization's agenda, policies, and practices.⁷⁰ Evidence that this is the case at the ISA can be found in a recent Secretariat report calling attention to transitioning the ISA's funding source from assessed member contributions to mining royalties.⁷¹ If mining does not eventually commence, it will be reasonable for member states and observers to question whether continuing to invest in the ISA is necessary. The ISA as a bureaucracy—

⁶³ Dionysia-Theodora Avgerinopoulou, "The Lawmaking Process at the International Seabed Authority as a Limitation on Effective Environmental Management," *Colum. J. Envtl. L.* 30, no. 3 (2005): 580; Hannah Lily and Layla Hughes, *The International Seabed Authority and Principles of International Environmental Law: Critique and Recommendations*, (WWF, September 2020), 5–6, 9.

⁶⁴ Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection* (Leiden: Brill, 2017), 74–75.

⁶⁵ James Harrison, *Making the Law of the Sea: A Study in the Development of International Law* (Cambridge University Press, 2011), 137–38.

⁶⁶ See, *supra* note 6.

⁶⁷ Diva J. Amon et al., "Heading to the Deep End without Knowing How to Swim: Do We Need Deep-Seabed Mining?," *One Earth* 5, 3 (2022): 220–23; Levin LA and others, "Defining "Serious Harm" to the Marine Environment in the Context of Deep-Seabed Mining" (2016) 74 *Marine Policy* 245

⁶⁸ The subject of the Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction. See, "Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction," *United Nations*, www.un.org.

⁶⁹ E.g., "Transforming our world: the 2030 Agenda for Sustainable Development," A/RES/70/1 (2015). The ISA has embraced the 2030 Agenda for Sustainable Development as part of its public presence and strategic planning. "ISA's Contributions to the Achievement of the 2030 Agenda," International Seabed Authority, <https://isa.org.jm/isa-and-the-2030-agenda>.

⁷⁰ See, e.g., Michael N. Barnett, *Rules for the World: International Organizations in Global Politics*, ed. Martha Finnemore (Ithaca, N.Y.: Cornell University Press, 2004).

⁷¹ ISA, Future financing of the International Seabed Authority ISBA/26/FC/7, para. 18.

including Secretariat staff as well as affiliated experts and ISA specialists within delegations—may therefore be inclined to emphasize mining over environmental protection.

Because the ecological effects of seabed mining are uncertain, various ISA actors may pay lip service to environmental protection while in practice avoiding hard choices to mitigate the risks of the activities it regulates.⁷² Arguably, this is already occurring. The ISA has included environmental protection and the UN’s Sustainable Development Goals in its strategic planning and has hosted scientific workshops to bolster its environmental image.⁷³ However, it devotes little of its budget to conducting new research, protects contractors’ environmental management plans and data as confidential, and has only partially implemented a database for environmental data.⁷⁴

INCONSISTENT STATE ENGAGEMENT AND PARTICIPATION

The attention of member states and broad participation in the ISA’s processes are critical to making the ISA’s policies, regulations, and actions reflect the CHM principle.⁷⁵ While some states have the means to send large, well-versed teams to the ISA’s sessions, others show little interest or are not able to participate. The more engaged states—a minority of ISA members—tend to be wealthier, sponsor or hold ISA contracts, or perceive themselves to be particularly vulnerable to the environmental or economic impacts of seabed mining. On the other end of the spectrum, some developing states are unable to send a single representative every year, and therefore lack the ability to influence the organization’s policies.

⁷² See, Alexander E. Kentikelenis, Thomas H. Stubbs, and Lawrence P. King, “IMF Conditionality and Development Policy Space, 1985-2014,” *Review of International Political Economy* 23, no. 4 (2016): 543–82, <https://doi.org/10.1080/09692290.2016.1174953>. The authors argue that the IMF engaged in organizational hypocrisy in response to public pressure to incorporate social and labor considerations into its conditionality policies, analogous to tension between environmental and economic considerations at the ISA.

⁷³ “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 (2018), sec. annex, paras. 9–10, 13–14, and 28; “Decision of the Assembly of the International Seabed Authority relating to the implementation of the strategic plan for the Authority for the period 2019–2023,” ISBA/25/A/15 (2019), sec. annex, paras. 12–16. The ISA has hosted many workshops relating to environmental science and protection, e.g., “Towards an ISA Environmental Management Strategy for the Area,” International Seabed Authority, March 20–24, 2017, <https://www.isa.org.jm/workshop/workshop-towards-isa-environmental-management-strategy-area>.

⁷⁴ Rabone, M. Horton, T., Jones D., Simon-Lledo, E, and Glover, A. “A review of the International Seabed Authority database DeepData: challenges and opportunities in the UN Ocean Decade” (preprint), <https://doi.org/10.1101/2022.10.14.512288>; Komaki and Fluharty, “Options to Improve Transparency of Environmental Monitoring Governance for Polymetallic Nodule Mining in the Area,” 6–10; Ginzky, H, Singh, P, and Markus, T, “Strengthening the International Seabed Authority’s knowledge-base: Addressing uncertainties to enhance decision-making,”; Jeff A. Ardron, “Transparency in the Operations of the International Seabed Authority: An Initial Assessment,” *Marine Policy* 95 (September 1, 2018): 325, 327–29, <https://doi.org/10.1016/j.marpol.2016.06.027>. \$378,000 was budgeted for “Promotion and encouragement of marine scientific research in the Area”, or roughly 2% of the ISA’s total budget. “Proposed budget for the International Seabed Authority for the financial period 2021–2022,” ISBA/26/A/5/Add.1/Rev.2-ISBA/26/C/18/Add.1/Rev.2 (2020). The ISA has committed to making environmental data more easily available. “Decision of the Assembly relating to the action plan of the International Seabed Authority in support of the United Nations Decade of Ocean Science for Sustainable Development,” ISBA/26/A/17 (2020), sec. enclosure.

⁷⁵For this purpose member state participation includes both state delegations’ participation as such and the work of experts in the LTC and FC. Although experts are supposed to act in their formal capacity, they can play a large role in representing the specific interests and perspectives of their home states and regions.

Some states will naturally take a greater interest in the various aspects of the seabed mining regime. For example, countries with highly developed maritime and mining industries may advocate more strongly for the economic benefits of mining while coastal states that depend on deep-sea fisheries may be motivated to pursue more stringent environmental protections. Similarly, terrestrial mining countries will have these economic considerations in mind when engaging in the topic of seabed mining. Some states, particularly less affluent inland states, may believe that they do not have interests at the ISA compelling enough to justify the resources necessary to participate. Perfect parity in participation should not be expected and is not necessary for good governance of the Area. However, the CHM principle demands that as broad a swathe of stakeholders as possible be included in the ISA's discussions, which should include non-state actors and communities that have historically been marginalized, such as indigenous peoples and local communities.⁷⁶

Lack of participation is an acute problem for the ISA. According to its 2016 Periodic Review, the Assembly failed to reach formal quorum in ten of the eleven sessions from 2005 to 2015.⁷⁷ The majority of respondents to the review's survey agreed that financial constraints were a major factor in attendance.⁷⁸ There are other indicators of state apathy.⁷⁹ In 2022, for example, 60 members (more than one-third) were two years or more in arrears on their assessed contributions, indicating that the ISA's work is not a high priority for them.⁸⁰ Attendance issues extend beyond the Assembly and the Council; the Secretary-General noted in 2016 that attendance in the LTC had hovered between about 70% and 80% since 2002, with some members not attending any meetings.⁸¹

Practically, inconsistent member attendance hampers ISA's organs from completing necessary work and harms the legitimacy of decisions that are purported to be taken on behalf of all of humankind. As the periodic review noted, decisions made without quorum could be open to legal challenge. Indeed, the increased frequency and length of recent ISA meetings is causing further strain on state resources, particularly smaller delegations with limited manpower, which also have to attend other ocean-related negotiations and international meetings. In effect, this could

⁷⁶ Ardron J, Lily H and Jaekel A, 'Public Participation in the Governance of Deep-Seabed Mining in the Area' in Rosemary Rayfuse, Aline Jaekel and Natalie Klein (eds), *Research Handbook on International Marine Environmental Law 2nd ed* (Edward Elgar, forthcoming 2023); Hunter J, Singh P and Aguon J., "Broadening Common Heritage: Addressing Gaps in the Deep Sea Mining Regulatory Regime", *Harvard Environmental Law Review* (2018), <https://harvardelr.com/2018/04/16/broadening-common-heritage/>

⁷⁷ Johnson et al., "ISA Article 154 Review: Interim Report.", ISBA/26/A/2.

⁷⁸ Id, para. 15. The list includes relatively wealthy states like Saudi Arabia, indicating that financial difficulty is not always the culprit, as well as one contract sponsor, Tonga. Whatever the reason, under UNCLOS and the Assembly's rules of procedure, these states should not be able to vote until they have paid their arrears or the Assembly decides their non-payment is due to factors outside their control. It is not clear if this rule is enforced.

⁷⁹ Although the Assembly approved the inclusion of attendance figures in the Secretary-General's annual report as part of the report on performance indicators for the ISA's high-level action plan starting with the 26th session. Decision of the Assembly of the International Seabed Authority relating to the implementation of the strategic plan for the Authority for the period 2019–2023, para. annex I, 28. In 2019, 64 percent of the Assembly and 92 percent of the Council attended. Worryingly, the proportions of least developed, landlocked developing, and small island developing states in attendance at the Assembly were much lower. "Report of the Secretary General of the International Seabed Authority under article 166, paragraph 4, of the United Nations Convention on the Law of the Sea," ISBA/26/A/2 (2020), sec. annex I, pg. 11, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N20/171/92/pdf/N2017192.pdf?OpenElement>.

⁸⁰ ISBA/27/FC/5, Status of contributions.

⁸¹ Election of members of the Legal and Technical Commission, ISBA/23/C/2, 2016, para. 16.

compromise the effective participation of developing states at the ISA. Moreover, the impression that the ISA's decisions are skewed towards particular nations or interests could foster cynicism, discouraging future participation and possibly motivating states to mine outside of the UNCLOS framework.

Meeting attendance is not sufficient, however. Delegations must also be well-informed on the issues before the ISA and willing to voice their views. National governments must also take an active interest in the ISA to ensure domestic priorities are aligned with ISA decisions, which could be effected through national level consultations that then inform the positions taken at the ISA. Lastly, participatory governance involves not only states but also diverse stakeholders with an interest in seabed mining whose views should be accommodated in ISA decision making.

TRANSPARENCY

Transparency is a perennial issue of debate at the ISA. From the earliest days of drafting the Mining Code, members have complained that the LTC, especially, withholds too much information from the rest of the organization,⁸² which is problematic not least because the LTC is subsidiary to, and subject to the direction from, the Council.⁸³ Scholars and observers have similarly faulted the ISA for making too little information available outside of the organization.⁸⁴ The ISA's organs have responded by incorporating transparency into the organization's strategic plan and making efforts at reform but have so far failed to move beyond recognition of the problem.

The most significant barrier to improving transparency at the ISA is the organization's vague definition of confidential information and discretion-based system for protecting it. In principle, confidentiality is meant to protect the investments contractors make in exploration and research and design. However, UNCLOS stipulates that environmental data cannot be subject to this protection.⁸⁵ The ISA's own policies remain ambiguous.⁸⁶ It is largely left to the Secretariat to

⁸² See, e.g., "Statement of the President on the work of the Council during the resumed third session," ISBA/3/C/11 (1997), paras. 3–4. At the time, and for the most part still, the LTC held only closed-door sessions. The justification given at the time was that, as an expert body, the LTC members should be free to discuss their frank opinions without worrying about political ramifications, but states without a seat on the LTC nevertheless felt cut out of deliberations.

⁸³ UNCLOS, art. 163(9).

⁸⁴ See eg Willaert K, 'Transparency in the Field of Deep Sea Mining: Filtering the Murky Waters' (2022) 135 Marine Policy 104840; Ardron JA, Ruhl HA and Jones DOB, 'Incorporating Transparency into the Governance of Deep-Seabed Mining in the Area beyond National Jurisdiction' (2018) 89 Marine Policy 58.

⁸⁵ UNCLOS, annex III, art. 14(2).

⁸⁶ "Secretary-General's bulletin: information sensitivity, classification and handling," ISBA/ST/SGB/2021/2 (2021), paras. 3, 19–25; Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, sec. annex, reg. 36; Decision of the Council of the Authority concerning the rules of procedure of the Legal and Technical Commission, sec. annex, rule 12. The Mining Code places confidentiality determinations at the discretion of "contractor[s], in consultation with the Secretary-General," and access to confidential information at the discretion of the Secretary-General. Confidential information is subject only to "limited use" by the Secretariat and LTC. The Secretary-General's rules for information classification state that "the overall approach... is based on an understanding that the work of the Authority should be open and transparent..." and that "[c]lassifications should be used judiciously." However, the rules specify that any information received from any source (not just contractors) under an expectation of confidentiality or that poses a risk to the ISA's work or a contractor's commercial interests should be treated as sensitive. In practice, this definition has shielded a wide swathe of information from public view – clearly much more than necessary under UNCLOS and the 1994 Implementing Agreement.

determine what information is confidential and what will be shared with the other organs. While the LTC has more access to confidential information than the other organs, it is not allowed to distribute information without the Secretariat's consent.⁸⁷ The lack of public information coupled with potential conflicts reduces substantive credibility, while the vague and discretionary implementation of confidentiality prevents procedural credibility from taking its place.

While contractors have a legitimate interest in protecting confidential information, current implementation at the ISA impedes internal and public oversight. Currently most details of contractors' plans of work and annual reports are considered confidential.⁸⁸ The Council and Assembly, therefore, lack specifics on which to make policy and oversee the LTC's and Secretariat's actions. Instead, they must rely on reports and recommendations from the LTC and Secretariat. The ISA's confidentiality rule does allow for disclosure of information necessary for formulating environmental and safety regulations, but in practice little specific information has been shared.⁸⁹ Confidentiality also serves as a reason for almost all LTC meetings to be conducted in private.

Opaqueness regarding potential conflicts of interest that ISA experts and staff members may have is another area of concern. Some LTC members have been reported to work simultaneously for contractors, raising conflict of interest issues.⁹⁰ However, while ISA staff and commissioners are barred from having a material interest in any activity relating to exploration and exploitation in the Area, there are no disclosure rules that would expose any existing conflicts, financial or otherwise, to delegations or the public.⁹¹

⁸⁷ Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, sec. annex, reg. 36(3) and 37(3).

⁸⁸ The Exploration Regulations confer upon the contractor the discretion to designate data and information submitted to the ISA as confidential (see for example, reg. 35 of the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area).

⁸⁹ Regulations on Prospecting and Exploration for Polymetallic Nodules in the area, sec. annex, reg. 36(2); Ardron, "Transparency in the Operations of the International Seabed Authority," 329; Komaki and Fluharty, "Options to Improve Transparency of Environmental Monitoring Governance for Polymetallic Nodule Mining in the Area," 6. Ardron notes that no environmental or safety data from contractors has "to date [2018] been made publicly available." Since then, a couple of contractors released environmental impact assessments pursuant to domestic requirements in their sponsoring states. It is worth emphasizing again that only "proprietary" information and industrial secrets must be protected under UNCLOS. The ISA has instead chosen to largely treat contracts, plans of work, environmental impact statements, some baseline information, and annual compliance reports confidential. This level of confidentiality seems designed to obscure the extent and environmental impact of mining, rather than narrowly protect contractors' investments in research and design. *See also*, "Drawing on Civil Society Initiatives", *infra*, for more on best financial disclosure practices.

⁹⁰ Johnson et al., "ISA Article 154 Review: Interim Report," 67; Aline Jaeckel, "Developments at the International Seabed Authority," *Int'l J. Marine & Coastal L.* 31, no. 4 (2016): 716; Makoto Seta, *The Legitimacy of the International Seabed Authority and the Way It Accepts the Involvement of Non-State Actors in Governing the Area* (Marcial Pons, 2019), 341, <https://halshs.archives-ouvertes.fr/halshs-02397759>; Karen McVeigh, "Seabed Regulator Accused of Deciding Deep Sea's Future 'behind Closed Doors,'" *The Guardian*, April 1, 2022, sec. environment, <https://www.theguardian.com/environment/2022/apr/01/worlds-seabed-regulator-accused-of-reckless-failings-over-deep-sea-mining>.

⁹¹ UNCLOS, art. 163(8). FC experts, the Secretary-General, and Secretariat staff also may not have a financial interest in matters under the FC's purview. UNCLOS, art. 168(2); UNCLOS 1994 Implementing Agreement, annex sec. 9(6). LTC members are required to make a declaration that they have no financial interest in activities in the Area and that they will disclose any potential conflicts of interest, but no independent mechanism exists to check for conflicts. ISBA/6/C/9, annex, rule 11.

Conflicts of interest also complicate the ISA's use of consultants to create reports and advise on policy. The Secretariat employs consultants on a contractual basis for many tasks to cope with its high workload and relatively thin staffing. However, consultants are selected and contracts signed without formal input from any of the other organs, leaving members and the public unable to assess the impartiality and credentials of consultants.

Closed LTC sessions, a concern for transparency in the drafting of regulations, review of applications, environmental impact assessments, and compliance monitoring, pose a separate and surprising challenge for the ISA. Because only those states with a national sitting on the LTC have a direct view into the body's discussions, members have reportedly nominated non-experts just to know what is happening in the organ. This dynamic contributes to the relatively narrow representation of expertise on the LTC, preventing it from doing its work effectively.⁹² It has also made the debate about LTC composition, already a difficult question, nearly intractable.⁹³

Non-governmental observers, a crucial voice for public interests that may not be included in government priorities, have not always been welcomed by the ISA, and their ability to make interventions has been restricted at times.⁹⁴ In order to participate in sessions, observers are asked to demonstrate that they have a valid interest in the ISA's work.⁹⁵ Moreover, the Secretariat's processes for selecting expert workshops and awarding consultancy contracts are not transparent.⁹⁶

Finally, the ISA only recently began taking public comment on specific topics, such as the Mining Code. Far from taking public comment on EIAs, the ISA has allowed contractors to conduct consultations at their own discretion and only loosely exercise oversight through the LTC issuing non-binding guidance to contractors,⁹⁷ although some contractors have released their

⁹² The LTC has historically been composed largely of lawyers and diplomats, with relatively few scientists represented. The LTC itself, along with ISA members and others, see this as impeding the LTC's work. See, e.g., *Election of Members of the Legal and Technical Commission: Report of the Secretary-General*, ISBA/23/C/2, (International Seabed Authority, November 11, 2016), fig. Table 1; International Seabed Authority, Final report on the periodic review of the International Seabed Authority pursuant to article 154 of the United Nations Convention on the Law of the Sea, ISBA/23/A/3, Annex, paras 26–27.

⁹³ Aside from diverse expertise, UNCLOS requires the LTC provide equitable geographic representation. The Council has found it tricky to agree on an acceptable balance between these considerations, instead preferring to consistently expand the size of the ISA to accommodate all nominations and appease all sides. Jaeckel, "Developments at the International Seabed Authority," 713–16; Singh, P. "Commentary: Latest developments in the election of members of the LTC", 2020, <https://dsmobserver.com/2020/05/commentary-latest-developments-in-the-election-of-members-of-the-ltc/>.

⁹⁴ Thaler, A. *A tense but productive ISA meeting, bookended by moments of high drama*. (DSM Observer, 5 May 2022, <https://dsmobserver.com/2022/05/a-tense-but-productive-isa-meeting-bookended-by-moments-of-high-drama/>); Earth Negotiation Bulletin. *27th Session of the Assembly of the International Seabed Authority (ISA-27): daily report for 4 August 2022*. (International Institute for Sustainable Development, <https://enb.iisd.org/assembly-international-seabed-authority-isa-27-daily-report-4aug2022>).

⁹⁵ "Rules of procedure of the Assembly of the International Seabed Authority," ISBA/A/6 (1994), sec. rule 82(1)(e); "Decision of the Assembly on the guidelines for observer status of non-governmental organizations with the International Seabed Authority," ISBA/25/A/16 (2019), sec. annex, paras. 3–4.

⁹⁶ Komaki and Fluharty, "Options to Improve Transparency of Environmental Monitoring Governance for Polymetallic Nodule Mining in the Area".

⁹⁷ LTC's Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area (ISBA/25/LTC/6/Rev.2).

Environmental Impact Statements as a matter of corporate policy or as required under domestic law.

The DeepData database, intended to make environmental data accessible, appears not to be regularly populated with new data and is difficult to use.⁹⁸ Scholars therefore lack an important resource for conducting general research and for specifically analyzing the environmental baseline information collected to date as well potential environmental effects of exploitation.

BURDEN SHIFTING

One notable trend in the ISA's evolution is the Secretariat's assumption of work seemingly designated to the deliberative bodies (the Assembly, Council, LTC, and FC). For example, the Secretariat appears to do much of the work of reviewing contractors' applications and required annual reports, duties that formally belong to the LTC as a subsidiary body that reports to the Council.⁹⁹ Reports authored by the Secretariat cover topics as diverse as potential equitable sharing regimes and the composition of the LTC.¹⁰⁰ These reports often cover the historical, legal, or scientific background of an issue, present what the Secretariat considers to be the pertinent aspects to consider, and suggest one or more potential avenues of action. While the Secretariat's efforts are currently instrumental in allowing the other organs to do their work, they also raise questions about the Secretariat's influence over policy and whether the other organs possess the expertise to fully consider the decisions they make.

⁹⁸ "About DeepData," International Seabed Authority, <https://www.isa.org.jm/index.php/deepdata/about>; Rabone, Horton, Jones, Simon-Lledo and Glover, "A review of the International Seabed Authority database DeepData: challenges and opportunities in the UN Ocean Decade"; Ardron, "Transparency in the Operations of the International Seabed Authority," 329; Komaki and Fluharty, "Options to Improve Transparency of Environmental Monitoring Governance for Polymetallic Nodule Mining in the Area," 7; Ginzky, Singh and Markus, "Strengthening the International Seabed Authority's knowledge-base: Addressing uncertainties to enhance decision-making".

⁹⁹ UNCLOS, art. 162(2)(j-l) and 165(2)(b-c); Regulations on Prospecting and Exploration for Polymetallic Nodules in the area, sec. annex, reg. 6, 21, 22, and 32(2); *see also*, "Report of the Finance Committee," ISBA/26/A/10-ISBA/26/C/21 (2020), para. 36 (noting that an increasing number of contracts has caused more work for both the Secretariat and the LTC).

¹⁰⁰ *See, e.g.*, Dale Squires et al., "Equitable sharing of financial and other economic benefits from deep-seabed mining" (Kingston: International Seabed Authority, 2021) (systematic report on potential benefit-sharing regimes, including recommendations, authored by the Secretary-General with several outside experts and consultants); *compare* "Development of rules, regulations and procedures on the equitable sharing of financial and other economic benefits derived from activities in the Area pursuant to section 9, paragraph 7 (f), of the annex to 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/A/24-ISBA/26/C/39 (2021) (FC's report on equitable sharing, borrowing heavily and often word for word from the technical study and antecedent Secretariat reports); "Summary report of the Chair of the Legal and Technical Commission on the work of the Commission during the twentieth session of the International Seabed Authority," ISBA/20/C/20 (2014), para. 23 (noting the work of the Secretary-General and a consultant on the initial exploitation regulations draft); "Draft regulations on exploitation of mineral resources in the Area," ISBA/23/C/12 (2017), para. 1 (noting the SG prepared the first exploitation regulations draft at the LTC's request); "Election of members of the Legal and Technical Commission," ISBA/23/C/2 (2016); "Election of members of the Legal and Technical Commission," ISBA/26/C/14 (2020) (two of a number of reports the SG has written for the Council about the LTC's composition). While in any one case the line between facilitating another organ's work and taking on its responsibilities is hard to pinpoint, the Secretariat's disproportionate output is striking: on average, from the first to 26th sessions the Secretariat authored about 56% of the ISA's reports and about half of its official documents overall.

For the LTC, an unrealistic workload has led to increased reliance on the Secretariat over the years. As the pace of activities at the ISA has increased, the LTC finds itself unable to cope with the volume of material it must process. The more than 30 extant exploration contracts yield lengthy annual reports for the LTC to review. At the same time, it is tasked with reviewing new contract applications, applications for contract extensions, and environmental impact statements. In addition, the LTC drafts new regional environmental management plans and regulations, standards, and guidelines for exploitation.¹⁰¹

This work must be completed under significant time pressure. Like all the deliberative organs at the ISA, the LTC meets for only a few weeks each year. Outside of ISA sessions, the experts on the LTC most often hold other full-time positions. It is unreasonable to expect them to carefully consider each item on their agenda during their meetings or between sessions. Instead, they understandably rely on the Secretariat's summaries and reports to guide their decision-making. This is an important consideration when discussing adding further work to the LTC's agenda.

In the other organs, burden-shifting may be better explained by a lack of specialized knowledge. According to former participants, Assembly and Council delegations are composed largely of generalists who have portfolios beyond the ISA and require time to become familiar with the ISA's work. Members must often lean on the Secretariat's professional staff to provide background information and explain issues, or even to prepare complete proposals for their consideration.

The LTC has its own challenges with expertise. The body was intended to have representation from a variety of fields relevant to the ISA's work, from marine biology to economics. In practice, however, due to a combination of transparency issues, political impasse, and difficulties attracting nominees, the LTC has historically not had the broad swathe of expertise it would need to take charge of the issues before it.¹⁰²

Whatever the cause, overreliance on the Secretariat detracts from member states' ability to drive policy. For the ISA, charged with administering a significant portion of the planet's mineral resources, the principle of member control is especially important. Staff in the Secretariat, no matter how well intentioned, face pressures and incentives different from those of national delegations. The Secretariat also has its own time-consuming responsibilities. With a small staff, the Secretariat often turns to consultants to produce the reports the deliberative bodies need.¹⁰³

¹⁰¹ See, "Report of the Chair of the Legal and Technical Commission on the work of the Commission at the first part of its twenty-sixth session," ISBA/26/C/12 (2020); Election of members of the Legal and Technical Commission, 2020, paras. 3–4, ISBA/26/C/14.

¹⁰² David Johnson et al., "Periodic Review of the International Seabed Authority pursuant to UNCLOS Article 154: Interim Report," 63–64; Election of members of the Legal and Technical Commission, 2016, paras. 7–12 [ISBA/23/C/2]; Election of members of the Legal and Technical Commission, 2020, paras. 5–7 [ISBA/26/C/14]. The LTC specifically suffers from a lack of environmental, economic, and technological expertise. Current and former LTC members and delegates report that the confidential nature of LTC sessions has created an incentive for states to prioritize nominating their own nationals above ensuring an adequate mix of expertise (see "Limited Transparency," *infra*). In ISBA/23/C/2, para. 9, the SG specifically notes that he has had to bring in outside experts to supplement the LTC's capabilities, raising questions of impartiality and burden-shifting.

¹⁰³ See, e.g., Edwin Egede, Mati Pal, and Eden Charles, "A Study Related to Issues on the Operationalization of the Enterprise: Legal, Technical and Financial Implications for the International Seabed Authority and for States Parties to the United Nations Convention on the Law of the Sea," June 13, 2019, https://isa.org.jm/files/files/documents/enterprise_study.pdf; Anna Lapteva et al., "Study of the Potential Impact of

This practice is not only an additional expense for the ISA, but it places substantive deliberation further from the members and creates lack of transparency and conflict-of-interest questions referenced above.

CONTRACTOR INFLUENCE

Cutting across multiple areas of concern already identified, contractors' and applicants' interactions with the ISA deserve particular attention. Contractors possess a wealth of expertise on deep-sea mining and can provide invaluable input on the feasibility of regulations, economic implications of ISA policy, and other topics. Indeed, the ISA's ability to exercise control over activities in the Area and to secure regulatory compliance is largely dependant on what contractors provides with it. At the same time, however, contractors' incentives to secure decisions that allow them to mine sooner, in more areas, and with less regulatory and financial burdens must be recognized.

Under UNCLOS, an important part of securing contractors' regulatory compliance comes from domestic legal systems. However, the ability of some sponsoring states to realistically enforce any legal judgements against a potentially large and/or foreign multinational is questionable. Moreover, the incentives of some member states to hold contractors to account are mixed, given that sponsoring states with small economies could stand to gain revenues from both taxes and ISA benefit-sharing. The possibility exists that contractors may take advantage of relationships by seeking "sponsors of convenience," that is, sponsoring states who tacitly agree to regulate mining firms lightly in exchange for direct financial gains. Because contractors are not required to disclose their beneficial ownership structures, the public and other member states have little visibility into such arrangements. Additionally, in some instances where the government directly holds the ISA contract (such as the cases of India, Korea and Poland), there is the possibility of even lesser public scrutiny due to national security laws.

Contractors have so far had a close relationship with the Secretariat. First, contractors make reports directly to the Secretariat, which mediates the flow of information to the other organs. Apart from their sponsoring delegations, the Secretariat is also the contractors' primary point of contact at the ISA, participating in annual contractor meetings and collaborating on workshops, capacity-development programs, and other initiatives. Interestingly, such meetings or collaborations are not widely reported as compared to other activities or initiatives undertaken by the Secretariat. Given the alignment of incentives between the ISA and contractors, safeguards are necessary to ensure this close cooperation remains a productive means of information exchange and coordination, rather than a way for contractors and/or the Secretariat to sway ISA decision-making. Additionally, conflicts of interest can arise when employees move between contractors and the ISA. While the Secretariat may legitimately benefit from the unique knowledge of former contractor staff, transparency is important to prevent the creation of a "revolving door" that reinforces any bias towards contractor interests within the ISA's administration.

Polymetallic Nodules Production from the Area on the Economies of Developing Land-based Producers of those Metals which are Likely to be Most Seriously Affected," May 12, 2020, <https://www.isa.org.jm/files/documents/impactstudy.pdf>; Squires et al., "Equitable sharing of financial benefits." The ISA has budgeted over \$ 1 million for consultants for 2021 and 2022, representing about 5.9% of the total budget and roughly one tenth of the Secretariat's expenditures on its regular staff. Proposed budget for the International Seabed Authority for the financial period 2021–2022.

POTENTIAL SOLUTIONS

PROMOTING BROAD PARTICIPATION

UNCLOS specifies that the ISA to be headquartered in Jamaica, and the organization's location in a developing country has been viewed as important.¹⁰⁴ Unfortunately, Kingston reportedly has significant downsides as a center of ISA activity, including for staff recruitment and session attendance.¹⁰⁵ The advent of secure mobile meetings and provisions in UNCLOS allowing for alternative locations provide for some flexibility.¹⁰⁶ For the Secretariat, opening positions to fully remote work where appropriate could lower recruitment hurdles.

As more staff are added, establishing branch offices in other parts of the world would also be an option (although funding constraints are significant). Locations in the Pacific Islands region would allow for closer partnerships with other ocean-focused international organizations and civil society groups. Locations close to contractors and mining activities would provide inspectors with easier access to facilities they need to inspect. Locations in Africa, and Latin America would allow for more interaction with some of the most active geographic groups within the ISA membership as well as developing states who face both higher potential impacts from ISA policies as well as additional challenges participating in ISA processes.

The ISA has also established two trust funds to aid delegations and experts from developing countries in attending Council, LTC, and FC meetings, but notably not in participating in the Assembly. The trusts are funded from voluntary contributions, meaning they are rarely adequate to meet the needs of developing states.¹⁰⁷ Contributions have also come in large part from contractors, raising conflict of interest issues. The ISA currently charges contractors substantial application and annual administrative fees, but returns the portion of fees not used for administrative expenses. The ISA could take the cost of fully funding these trusts into account when setting contractor fees, contributing to state participation without increasing states' assessed contributions.

Public comment mechanisms are a critical way for institutions to ensure that their policies and decisions reflect the interests of all stakeholders, especially in the context of environmental impact assessments. The ISA could put formal mechanisms for public input into the mining application process and rules of procedure when considering regulations or new initiatives such as regional environmental management plans (REMPs). Additionally, the Natural Resources Governance Institute (NRGI) recommends that national governments include key civil society organizations and other stakeholders in a formal advisory body. Under the NRGI framework, advisory bodies should specifically guide policies on confidentiality and reporting.¹⁰⁸ Such a structure would be

¹⁰⁴ UNCLOS art. 156(4); "Decision of the Assembly of the International Seabed Authority relating to the headquarters of the International Seabed Authority," ISBA/5/A/11 (1999), sec. annex.

¹⁰⁵ ISBA/22/A/CRP. 3(1). Interim Report, Art. 154 Periodic Review

¹⁰⁶ UNCLOS, art. 156(5).

¹⁰⁷ See, Report of the Finance Committee, paras. 14–15; "Implementation of the decision of the Council in 2019 relating to the reports of the Chair of the Legal and Technical Commission," ISBA/26/C/3 (2019), paras. 39–41.

¹⁰⁸ See Natural Resource Governance Institute, Natural Resource Charter (2nd ed.), 7-11, available at https://resourcegovernance.org/sites/default/files/documents/nrcj1193_natural_resource_charter_19.6.14.pdf

beneficial for the ISA as well, allowing it to collect input from non-government actors in a systematic way.

DECISION-MAKING AND QUORUM

The LTC, Council and Assembly must strive to achieve decisions by consensus,¹⁰⁹ although their rules of procedure and UNCLOS itself contemplate voting mechanisms. Consensus decision-making encourages compromise and avoids open conflict that might jeopardize the ISA's credibility. However, these benefits sometimes come at the cost of less vigorous debate, lowest-common-denominator compromises, and a loss of transparency. On certain controversial topics members have used the threat of a vote to advocate for minority interests to be taken into consideration. In the expert bodies, decision-making is currently a closed process. While it may be understandable for actual votes to be kept confidential (although the results of vote counts, e.g. how many in favor, how many against and how many abstentions, should be made public), it is essential for reports to be far more elaborate and explanatory, including to highlight dissenting views and a detailed recollection of matters that were discussed.

The ISA, particularly the Assembly, should also consider enforcing its own quorum rules.¹¹⁰ It violates basic principles of governance to allow a small number of interested states to set policy for all of humankind.¹¹¹ While requiring a quorum may disrupt business in the short-run, in the long run it will encourage states to invest in the participation of other states, thereby helping to ensure that all ISA decisions have been discussed by a broad range of states, in line with the CHM principle. Remote or hybrid participation in ISA sessions, as was temporarily enabled during the Covid-19 pandemic, may offer a fast and easy way to increase participation.

REFORMING THE LTC AND ESTABLISHING NEW ENVIRONMENTAL AND COMPLIANCE MECHANISMS

An effective LTC is crucial to managing the conflict between the environmental and economic aspects of the ISA's mandate and therefore realizing the CHM principle. Sitting directly at the intersection of the ISA's epistemic and regulatory functions, the LTC, perhaps more than any other organ, bears the load of ensuring the ISA's decisions are responsible and credible.

The LTC is currently torn between the ISA's environmental, exploitation, and compliance mandates, attempting to implement initiatives like the REMPs while simultaneously drafting regulations, processing mining applications, and reviewing annual reports of contractors. Additionally, as currently constituted the ISA lacks an appropriate nexus for scientific efforts to reduce uncertainty around mining's environmental effects. Fortunately, the ISA has the power to set up new subsidiary organs. Creating a dedicated environmental body parallel to the LTC would relieve pressure on the LTC and ensure that the ISA can implement credible environmental protections. Similarly, inspection should be carried out separately through an independent body of inspectors while monitoring compliance should be outsourced to a dedicated body, such as a compliance committee, to ensure a degree of separation of powers.

¹⁰⁹ UNCLOS 1994 Implementation Agreement, annex, sec. 3(2).

¹¹⁰ UNCLOS, art. 159(5).

¹¹¹ Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection* (Brill Nijhoff 2017), 145-148.

An Environmental Commission that sits parallel to the LTC could address several shortcomings in the ISA's institutional structure,¹¹² and the establishment of such an independent and expert scientific body should be made a priority discussion item in the ongoing negotiations as the ISA looks to transition from exploration to exploitation.¹¹³ It would reduce the currently unsustainable workload of the LTC and ensure availability of sufficient expertise in marine biology and environmental management, in line with suggestions made in the ISA's first institutional review.¹¹⁴ Historically, LTC membership has included a disproportionate number of lawyers and geologists, failing to represent all fields of expertise relevant to its work. Establishing an independent environmental body could help mitigate the issue. If the LTC's main tasks were regulatory, it would not need as broad a variety of experts. Moreover, an Environmental Commission would introduce transparency over environmental decisions and information.¹¹⁵ An Environmental Commission could play a leading role in the development of REMPs, provide input on regulations, standards, and guidelines from an environmental perspective, review and oversee contractors' baseline studies and environmental impact assessments, help assess compliance of applications with the environmental requirements under the Mining Code, and contribute towards the ISA's responsibilities on marine scientific research and data-sharing. This would reflect the separate approval processes for mining and environmental permits as commonly seen in domestic jurisdictions.

With respect to inspection and compliance, the Council is the specific organ entrusted under UNCLOS to exercise control over activities in the Area and ensure compliance. Without proper oversight over the work of contractors, including through inspection, it would be impossible for the ISA to take compliance and enforcement measures.¹¹⁶ To this end, the Council is required to establish a staff of inspectors, based on the recommendations of the LTC, to inspect activities in the Area carried out by contractors. Discussions are ongoing with respect to where to house such a staff of inspectors. Several options exist, including placing such an inspection body under existing structures, i.e. within the Secretariat or under the supervision of the LTC, or establishing new arrangements such as an Inspectorate or a compliance committee within the Council. While placing such a body under existing structures might seem convenient and attractive, this might compromise the authority of inspectors and their ability to act and report to the Council independently. Moreover, creating an independent body would not only help foster separation of powers and increase transparency but could also reduce pressure on existing structures, namely, a busy Secretariat and an overburdened LTC.

¹¹² See also Aline Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Mineral Mining and Marine Environmental Protection* (Brill Nijhoff 2017), 294-297.

¹¹³ Singh, P. "The two-year deadline to complete the International Seabed Authority's Mining Code: Key outstanding matters that still need to be resolved", 2021:134, 104804.

¹¹⁴ David Johnson et al., *Periodic Review of the International Seabed Authority pursuant to UNCLOS Article 154—Interim Report* (ISA, 2016), https://www.isa.org.jm/files/documents/EN/22Sess/Art154/Art154_InterimRep.pdf.

¹¹⁵ Ardron JA, 'Transparency in the Operations of the International Seabed Authority: An Initial Assessment' (2018) 95 *Marine Policy* 324.

¹¹⁶ Pew Charitable Trusts and RESOLVE, "ISA Inspections and ISA Inspectorate: What will be Needed? Report from a One-Day Workshop for Participants and Observers of the Annual Session of the International Seabed Authority", 20 July 2019. https://www.resolve.ngo/docs/2019_jamaica_workshop_-_ISA_inspections_and_ISA_inspectorate_-_summary_final.pdf

The LTC would then be able to focus on drafting broader regulations, standards, and guidelines, assessing all other aspects of applications, supervising the allocation of training programs, and carrying out the many other requests that the Council routinely places on the LTC. Such a setup would streamline the organs' workflows and give the ISA a focal point for the different priorities. With additional deliberative capacity, this arrangement may also allow for innovative approaches to reducing environmental uncertainty, such as supervising contractors' baseline studies and collaborating with a contractor and academic institutions to conduct rigorous studies of mining's environmental impacts. All bodies will also play a role in ensuring contractors fulfill their environmental obligations and in assisting the Council in carrying out its responsibilities in respect of compliance and enforcement.

REVISITING CONFIDENTIALITY

UNCLOS does not specify what information received from contractors must be considered confidential or a process for determining confidential status. It specifically exempts from non-disclosure environmental data and information needed to make rules and regulations but does not specify which organ will determine what falls into these exceptions. Under the current Mining Code, the contractor determines confidentiality in consultation with the Secretariat. The Secretary-General has promulgated an "Information sensitivity, classification and handling" bulletin, but this policy is vague on what constitutes confidential information. As such, the current practice of the ISA is that all contractor information is to be presumed confidential unless it meets narrow exceptions.¹¹⁷ While the draft exploitation regulations foresee more transparency,¹¹⁸ it remains to be seen what confidentiality rules will ultimately be adopted.

Credibility demands rigorous procedural safeguards. Categories of proprietary and commercially sensitive information should be spelled out in as much detail as possible, as should categories of environmental data and other information the ISA needs for its decision-making process. "Data and information submitted pursuant to the Regulations", currently deemed sensitive by the Secretary-General's bulletin, requires further elaboration in order to comply with UNCLOS and operationalize the ISA's goal of transparency.¹¹⁹ Further, specific guidelines for what information will be shared with the LTC, as well as mechanisms to redact documents as appropriate for distribution to the other organs and public release would be helpful. Most importantly, this newly detailed policy should be drafted in consultation with observers and other stakeholders to ensure that members and the public can have procedural confidence in the ISA's confidentiality regime. Designing regulatory mechanisms whereby members of the public can request for information from the ISA, as well as procedures to challenge the designation of confidentiality, should also be considered.

¹¹⁷ ISBA/ST/SGB/2021/2, annex II, para. 3. Information that is already publicly available, has been given to a third party without an obligation of confidentiality, or that the ISA already possesses without an obligation of confidentiality is not confidential according to the bulletin.

¹¹⁸ ISA, *Draft Regulations on Exploitation of Mineral Resources in the Area* (ISBA/25/C/WP1) <<https://www.isa.org.jm/document/isba25cwp1-0>>

¹¹⁹ ISA, *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), <https://www.isa.org.jm/document/isba24a10>.

DRAWING ON NATIONAL REGULATORY EXPERIENCE AND CIVIL SOCIETY INITIATIVES

Domestic natural resource regulators face many of the same governance challenges as the ISA, albeit in varied political contexts. Their experiences, as well as the work of non-state organizations dedicated to improving natural resource governance, can inform the ISA's growth and reforms. Personnel with experience in domestic resource regulation could also be sources of expertise for bodies like the LTC.

The "Norwegian Model" is sometimes cited as an effective model for extractive industry governance.¹²⁰ Norway divides strategic policy, regulatory, and commercial roles into three separate entities, somewhat analogously to UNCLOS's divvying up of responsibilities between the Council, LTC, and Enterprise.¹²¹ The relative independence of these authorities is often credited with the effective governance of Norway's oil sector, allowing each agency to focus on its core mission while eliminating the conflicts of interest that could arise if all roles were combined in one body.¹²²

In other countries, consolidation of roles has led ministries to promote new investment at the cost of monitoring and enforcement, often compounded by statutory requirements to respond to contractor applications on a defined timescale without defined requirements for monitoring.¹²³ Personnel can be faced directly with this problem, as when the same people are responsible both for reviewing applications and reviewing contractors' environmental reports. If staffing is insufficient, priority is often given to approving new projects before ensuring that existing projects comply with regulations.¹²⁴ As a body, the LTC is faced with the same problem. Applications for new plans of work compete for attention with compliance oversight and regulatory tasks, meaning all tasks may receive less scrutiny than they deserve, not to mention the obvious lack of separation of powers.

Aside from emulating effective domestic resource regimes, the ISA can also look to a variety of non-governmental organizations that promote good governance practices, such as the Natural Resource Governance Institute, the Open Government Partnership, Transparency International, and the Extractive Industries Transparency Initiative. While these organizations are geared towards national governments, much of their work can be applied analogously to the ISA. Under UNCLOS, the Secretariat may engage with other relevant organizations, providing an opportunity for the ISA to align its own practices with international standards while contributing to good governance and capacity-building around the world.¹²⁵

¹²⁰ Mark C. Thurber, David R. Hults, and Patrick R.P. Heller, "Exporting the 'Norwegian Model': The Effect of Administrative Design on Oil Sector Performance," *Energy Policy* 39, no. 9 (September 1, 2011): 5366.

¹²¹ The Ministry of Petroleum and Energy, the Petroleum Directorate, and Statoil, respectively. Juan M. Ramírez-Cendrero and Eszter Wirth, "Is the Norwegian Model Exportable to Combat Dutch Disease?" *Resources Policy* 48 (June 2016): 88, <https://doi.org/10.1016/j.resourpol.2016.02.010>.

¹²² Thurber, Hults, and Heller, "Exporting the 'Norwegian Model': The Effect of Administrative Design on Oil Sector Performance," 5368.

¹²³ Erin Smith and Peter Rosenblum, "Enforcing the Rules: Government and Citizen Oversight of Mining," 2011, 24, <https://resourcegovernance.org/analysis-tools/publications/enforcing-rules>.

¹²⁴ *Id.*, 26.

¹²⁵ UNCLOS, art. 169.

The Extractive Industries Transparency Initiative's (EITI) work may be especially relevant to the ISA as it transitions to exploitation. A non-profit association of governments, industry, and other stakeholders, EITI sets financial disclosure standards for participating governments and verifies regular disclosure reports.¹²⁶ The EITI standard contains many provisions applicable to the ISA, including a requirement to publish the full text of all contracts, disaggregated production levels, and contractors' beneficial owners, as well as a requirement to form a multi-stakeholder working group to guide implementation of the standards in a particular country.¹²⁷

CONCLUSION AND NEXT STEPS

The ISA is an organization with significant promise. Decisions taken today and in the near future regarding the common heritage of humankind will impact generations to come. To be considered effective, however, the ISA must serve all elements of its mandate, functioning as an effective mechanism for the world's diverse population to agree on how to properly weigh conflicting priorities in managing their common heritage. This is a difficult undertaking: the technology of deep-sea mining is still developing, the economics of extractive industries are complex, and states and other actors have a wide array of different perspectives.

Some of the solutions proposed here would constitute major changes to the way the ISA currently works. However, even barring changes to the ISA's foundational texts, which seem unlikely, there are actors with the motivation and ability to begin implementing the necessary reforms. Member states as individuals and blocs can achieve a lot, enabled by the prevailing norm of consensus decisions. Non-governmental observers and other interested parties also have opportunities to agitate for change. They raise awareness of these issues and others among national delegations, increase transparency by investigating and publishing conflicts of interest and contractors' beneficial owners, facilitate scientific research, and raise the ISA's public profile.

At this critical stage in the ISA's development several areas of concern appear to require immediate attention. It is clear that mining will have significant environmental consequences, even if the scope is still uncertain, requiring a reckoning of mining's costs and benefits that UNCLOS did not fully anticipate. To ensure debate on this issue and others and to achieve outcomes commensurate with the CHM principle, barriers to participation must be lowered so all states, as well as representatives of non-state interests, have a meaningful voice in decision-making. The incentives of the ISA's own bureaucracy and its power to shape the ISA's agenda must be recognized, necessitating both evolutionary and revolutionary organizational reforms, such as creating new organs, limiting confidentiality, making more information available publicly and between the ISA's organs, and ensuring rules of procedure that permit meaningful oversight.

¹²⁶ See, Elisa Arond, Anthony Bebbington, and Juan Luis Dammert, "NGOs as Innovators in Extractive Industry Governance. Insights from the EITI Process in Colombia and Peru," *The Extractive Industries and Society* 6, no. 3 (July 1, 2019): 665–74; Päivi Lujala, "An Analysis of the Extractive Industry Transparency Initiative Implementation Process," *World Development* 107 (July 1, 2018): 358–81; Extractive Industries Transparency Initiative, "EITI Standard," October 15, 2019. The EITI's effectiveness in domestic contexts has been questioned, however. Benjamin K. Sovacool et al., "Energy Governance, Transnational Rules, and the Resource Curse: Exploring the Effectiveness of the Extractive Industries Transparency Initiative (EITI)," *World Development* 83 (July 1, 2016): 179–92.

¹²⁷ Extractive Industries Transparency Initiative, "EITI Standard", *id.*, 9–19.