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# A Guardian of Universal Interest or Increasingly Out of its Depth? The International Seabed Authority turns 25

Richard Collins[*] & Duncan French[**]

## Introduction

In contemporary debates on the powers and competences of global institutions, just as in discussions of territory and sovereignty, there is an important yet often overlooked organisational curiosity: namely, the International Seabed Authority (ISA, or 'the Authority' hereafter). Established by the 1982 UN Convention on the Law of the Sea (UNCLOS)[1] and notably revised by a 1994 Implementation Agreement (hereafter, the '1994 Agreement'[2]), the ISA reflects a highpoint in international communitarian governance. Premised around traditional notions of access, control and allocation of the resources of the deep seabed (known as the "Area"), the ISA's mandate is both invariably spatial-temporal,[3] and yet also limited and functional. At its heart, its purpose is to govern the extraction of seabed mineral resources for the collective benefit of the international community. To achieve that ambition, however, a highly complex and bureaucratic international regulatory structure has been established.

Endorsing what was at the time a novel concept of 'common heritage of mankind' (CHM) as a device to mutually exclude both maritime sovereignty and common ownership (*res communis*),[4] UNCLOS grants the Authority both competence and regulatory control to an

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[1] United Nations Convention on the Law of the Sea, UN Treaty Series, vol 1833, p 3, 10 December 1982 [hereafter 'UNCLOS'].

[2] Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea, UN Treaty Series, vol 1836, p 3, 16 November 1994 [hereafter '1994 Agreement'].

[3] Some discussion of our understanding of 'spatial-temporal' is necessary. While the "Area" has an obvious spatial aspect – though never precisely defined other than by omission in the Convention ('the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction' (UNCLOS Article 1)) – the temporal is more implicit but is as significant. Like sovereignty, the CHM principle is an ongoing – thus temporal – state (see, for instance: 'The Area and its resources *are* the common heritage of mankind' (UNCLOS Article 136) and 'All rights in the resources of the Area *are vested* in mankind as a whole' (UNCLOS Article 137(2)) (emphasis added));

[4] A not dissimilar tension can be seen between the (in force) 1967 Outer Space Treaty, which recognises essentially outer space as *res communis* ('Outer space, including the Moon and other celestial bodies, shall be free for exploration and use by all States…' (Article I)) and the (not in force) 1979 Moon Treaty, which recognises that 'The moon and its natural resources are the common heritage of mankind' (Article 11). This tension has arisen again, more recently, in relation to the present negotiations for an internationally legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction ("BBNJ" negotiations) – see further on this point in Section 4 below.

extent so far unparalleled in international law.[5] And yet, the ISA's bureaucracy hides both traditional tensions related to State influence and constrained organisational autonomy, and more modern characteristics of commercial influence and corporate networking.

During the years when the prospect of mineral extraction remained a distant likelihood, the ISA was assigned a minor place in the pantheon of international organisations. Barely mentioned and rarely understood, its headquarters in Kingston, Jamaica - a country not known for its housing of UN bodies - seemed to emphasise this remoteness. However, as the likelihood of mineral extraction has increased, the role of the Authority has commensurately become more mainstream and contentious. There might now even be existential or first-order questions around its purpose and the inevitability of collective control. Indeed, as the Authority now enters its twenty fifth year, the utopian aspects of the underlying principles infused within CHM, conceived on the floor of the UN General Assembly many decades ago, now seem a distant past.

Fragmentation of scholarship has been particularly unhelpful as regards the study of the ISA. It has been considered niche, and often unrelated to general public international law study, or even the more specific law of the sea literature.[6] It is also often neglected when viewed among the debates on universalism and community interests in international law.[7] Most surprisingly, however, the ISA remains rather under-studied amongst scholars of international organisations law. Indeed, a quick search within the pages of this very journal reveals a handful of tangential footnote references at best. The lack of substantive focus on the work of the Authority is surprising when one considers the economic and political interests surrounding deep seabed mineral resources, as well as the distributional welfare and economic justice principles that its work entails and which have been widely debated in general international economic fora. From an institutional perspective, however, it is perhaps more surprising that the ISA has been largely overlooked given some of its institutional innovations and the fact that, within its jurisdictional limits, it has carved out for itself a somewhat unprecedented level of supranational authority, an authority that is supposed to be exercised for the benefit of mankind as a whole.

The extent to which the Authority has been able to function autonomously as a guardian of the collective interest, however, remains hampered not only by core tensions between the developed and developing world – only further exacerbated by the 1994 *Implementation* Agreement – but also the seeming shift in ISA governance from an exclusively economic perspective to a more nuanced sustainable development focus, balancing commercial and ecological considerations. Furthermore, the application of a more recent interpretative lens (largely spurred on by developments in international environmental law) onto the ISA regime is not without its problems as its normative roots remain grounded in a classic North-South dichotomy. Thus, the Authority has had to balance contrasting economic and political frames

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[5] Cf. the evolution of the regime on plant genetic resources for food and agriculture (PGRFA) under which the non-binding International Understanding from 1983 saw such resources as the "common heritage of mankind", but these words, and this concept, were purposely omitted with the adoption of the 2001 International Treaty on PGRFA, which nevertheless adopted a "multilateral system" which was meant to be "efficient, effective, and transparent, both to facilitate access to plant genetic resources for food and agriculture, and to share, in a fair and equitable way, the benefits arising from the utilization of these resources, on a complementary and mutually reinforcing basis" (Article 10(2)).

[6] Without critiquing any particular treatise on the law of the sea, Yoshifumi Tanaka in *The International Law of the Sea,* 2nd edn (Cambridge University Press, 2015), for instance, spends only 15 out of 470 pages on the Area, with limited further discussion on environmental aspects and dispute settlement provisions relating to the deep seabed elsewhere in the book.

[7] For instance, in the rather voluminous collection of essays by U Fastenrath *et al* (eds), *From Bilateralism to Community Interest: Essays in Honour of Bruno Simma* (Oxford University Press, 2011), there is only one brief reference to the ISA in its 1300 pages.

of reference within an untested institutional framework, whilst simultaneously being required to face novel and innovative ecological argumentation.

Recent developments have thus suggested that the ISA will increasingly struggle to reconcile its ambivalent position between, on the one hand, a hope yet to be realised in the fulfilment of CHM and, on the other, a rather technical and formal bureaucracy tied to traditional notions of property ownership. The 2011 Advisory Opinion of the Seabed Chamber of the International Tribunal of the Law of the Sea (ITLOS),[8] which addressed the rights and responsibilities of states parties in their sponsorship of private contractors, reaffirmed (and arguably extended) the possibilities of the Authority as the guardian of the collective interest. At the same time, the ongoing negotiation of an international agreement on access and benefit-sharing to deep-sea marine genetic resources in areas beyond national jurisdiction and, more particularly, controversies surrounding any role for the ISA in such governance arrangements, suggests a conflict between its paradoxically narrow (yet geographically expansive) functional mandate and its seemingly more utopian spatial–temporal one.

In this article – purposely written for an academic audience broader and more diverse than the ISA's work invariably attracts or, some more critically would suggest, with which the ISA seeks to engage – we consider this tension in the mandate of the ISA, particularly insofar as it manifests in aspects of its institutional design and functioning in practice. We will argue that appreciating these dynamics not only helps one better understand governance of the deep seabed, but also more broadly demonstrates the innate tensions in granting international institutional control over natural resources and common spaces. In that sense, a detailed consideration of the institutional functioning and practical evolution of the ISA and its governance framework has the potential to reveal important lessons about the functional powers and limitations of international organisations that purport to represent fundamental interests and values that – at least in their spirit – are supposed to transcend the more immediate political concerns of Member States. It is particularly relevant in this regard that we find that the inherent constitutive limitations of the ISA, whilst ostensibly delimiting its authority, also opens up to critique its role as a guardian of the CHM concept in regard to the equitable use and protection of the resources of the deep seabed. In short, whilst the ISA demonstrates the kind of institutional autonomy and capacity for evolution arguably necessary for it to assume a guardianship over the CHM ideal, this seemingly autonomous institutional form cannot but reflect back substantive uncertainty and disagreement about that very concept.

Our argument is structured as follows. We first (1) address the background to the development of the deep seabed regime and the CHM concept as it applies thereto, within which we explain the impact of changing political dynamics and draw out many of the above-noted tensions. The paper then (2) looks at the innovative and evolving institutional framework of the ISA, noting some of the peculiarities of its organs and functions and the ways in which it has sought to balance competing interests within an autonomous institutional frame. Following this, the paper then (3) reviews the bespoke dispute settlement procedures, which are highly complex, intentionally deferential to the ISA in important respects and yet, even with only one Advisory Opinion issued, already revealing their importance. The paper then moves on (4) to consider the work of ISA in practice, both as it continues to develop a 'Mining Code' and as it faces up to broader challenges of ocean governance. In conclusion (5), the paper returns to the paradox of the ISA's institutional privilege – as enshrined in UNCLOS – which only reveals itself more clearly as it seeks to develop a difficult balance between a solidarist, ecological and exploitative

[8] *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion, 1st February 2011, ITLOS Case No 17, [2011] ITLOS Rep 10, ICGJ 449 (ITLOS 2011), (hereafter, 'Seabed Disputes Chamber Advisory Opinion')

conceptualisation of CHM, whilst grappling still with the institutional realities of a bureaucracy designed so as to not compromise distinct and competing political and commercial interests.

## 1. A Brief History of the Deep Seabed Regime

Until relatively recently, the deep seabed remained one of the last frontiers of human exploration. Despite representing an area covering over half of the planet's surface, little was known about the marine environment of the abyssal plain. Whilst there had for centuries been much speculation about the living and non-living resources of the deep seabed, it was not until the expedition of HMS Challenger in 1873 and the discovery of vast deposits of so-called polymetallic or manganese nodules – small potato-sized rocks containing minerals such as cobalt, nickel, and copper – that knowledge of the seabed's mineral resources specifically came to light.[9] And it took until after the Second World War for technological developments to make feasible the potential exploitation of such mineral resources at some future point.[10] The history of the journey which followed - beginning with an initiative of Malta[11] and the Maltese Representative, Avid Pardo's famous intervention in the UN General Assembly,[12] itself occurring against the backdrop of proposals for a New International Economic Order (NIEO),[13] and culminating in the adoption of the Declaration of Principles Governing the Sea-Bed and the Ocean Floor[14] - is by now well-retold.[15] It was these developments that proved to be the primary impetus behind the convening of the third UN Conference on the Law of the Sea (UNCLOS III) from 1973 to 1982, which gave rise to the 1982 Convention, within which the Deep Seabed regime would form the most contentious part (Part XI).

In contrast to other parts of UNCLOS, such as the environmental part, which are written more in the character of a 'framework treaty' (or otherwise provide for governance through 'incorporation by reference'), Part XI lays out an 'unusually detailed regime' for the deep seabed, and the institutional machinery of the ISA in particular.[16] Part XI contains the core framework of the CHM regime that was to apply to the seabed and its resources[17] beyond national jurisdiction. Specifically, Article 136 declares that '[t]he Area and its resources are the

[9] For a good discussion of the mineral composition of manganese nodules, see A M Post, *Deep Sea Mining and the Law of the Sea* (Martinus Nijhoff, 1983) 8-17.
[10] See in particular the ground-breaking study that followed the recovery of polymetallic nodules from the seabed close to Tahiti: JL Mero, *The Mineral Resources of the Seas*, Oceanography Series 1 (Elsevier, 1965).
[11] See UN Doc A/6695 (1967). For background, see A Pardo, 'The Origins of the 1967 Malta Initiative' (1993) 9 *International Insights* 66.
[12] See First Committee of the 22nd session of the General Assembly, UN Doc A/C.1/PV 1515 (1967). It should be noted, however, that the original Maltese proposal, as put forward by Pardo, would have declared all living and non-living resources beyond 200NM as the common heritage of mankind. On this point, see See A Pardo, *The Common Heritage: Selected Papers on Oceans and World Order 1967–1974* (Malta University Press, 1975) at 381. See further T Scovazzi, 'The Seabed Beyond the Limits of National Jurisdiction: General and Institutional Aspects' in A.G. Oude Elferink and E.J. Molenaar (eds.), *The International Legal Regime of Areas Beyond National Jurisdiction: Current and Future Developments* (Martinus Nijhoff, 2010), 43–60, at 45-46.
[13] See eg UNGA Res. 3201 (S-VI), 'Declaration on the Establishment of a New International Economic Order', 1 May 1974, UN Doc A/RES/S-6/3201.
[14] UNGA Res 2749 (XXV), *Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction,* 12 December 1970, UN Doc A/RES/25/2749.
[15] See *inter alia* SS Nandan, MW Lodge and S Rosenne, *The Development of the Regime for Deep Seabed Mining* (Kluwer Law International, 2002).
[16] S Ranganathan, 'The Law of the Sea and Natural Resources' in E Benvenisti and G Nolte (eds), *Community Interests Across International Law* (Oxford University Press, 2018) 121, at 125.
[17] Importantly, for reasons outlined below, the "resources" of the Area are defined as 'all solid, liquid or gaseous mineral resources in situ in the Area at or beneath the seabed, including polymetallic nodules' (UNCLOS Article 133(a)).

common heritage of mankind'. This status ensures that there can be no claim to sovereignty over the Area, or its resources, the rights to which are essentially vested in mankind as a whole.[18] Furthermore, the Area and its resources were to be used solely for peaceful purposes.[19] Nevertheless, the main innovation in the Convention, and thus the primary source of contention, was the establishment of the ISA.

Although one of three international organisations created by UNCLOS,[20] the ISA was undoubtedly the most controversial. The Authority was to have sole competence with regard to the 'alienation' of the resources of the Area.[21] As originally envisaged, the system for exploration and exploitation of seabed mineral resources was to be carried out by, or on behalf of the ISA for the benefit of mankind as a whole.[22] Indeed, according to Lodge, Segerson and Squires, this requirement is 'a recognition that those resources constitute "natural assets" that have the potential to contribute to human wellbeing in a manner similar to other assets (financial and/or non-financial), both now and into the future'.[23] Bearing in mind this significant economic potential, one of the more contentious areas of the proposed regime was the benefit-sharing arrangements that were envisaged as falling under the Authority's mandate,[24] as well as its role in ensuring the effective participation of developing states within the deep seabed regime, including transfer of technologies thereto.[25] Furthermore, the regime as originally envisaged sought to safeguard the economic interests of developing states through the use of collective-oriented production policies,[26] a system of so-called 'Site Banking' (essentially ensuring that contractors reserve part of their identified mining sites for exploitation by or in the interests of developing state parties),[27] and with mining operations effectively divided through a 'Parallel System' between the Authority's own mining arm ('The Enterprise') and works conducted by contractors (states parties, their entities, or duly authorised private contractors) operating under licence from the Authority.[28]

It is important not to underestimate what was originally agreed to in this respect. As Ranganathan points out, the proposed architecture was significant in its approach to benefit sharing amongst developing states, as it sought not only to secure the redistribution of profits from mining activities, but also their direct participation in mining activity (not to mention, as we will see below, equal representation in the administrative machinery of the ISA itself). It was this move from passive reception to active participation which truly reflected the aspirations of the global south in securing the CHM as part of the NIEO agenda.[29]

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[18] UNCLOS Article 137.
[19] UNCLOS Article 141.
[20] The others being the Commission on the Limits of the Continental Shelf (CLCS) and the International Tribunal for the Law of the Sea (ITLOS).
[21] UNCLOS Article 137(2).
[22] UNCLOS Article 140.
[23] MW Lodge, S Segersen and D Squires, 'Sharing and Preserving the Resources in the Deep Sea: Challenges for the International Seabed Authority' (2016) 32(3) *International Journal of Marine and Coastal Law* 427, at 428.
[24] UNCLOS Article 140(2).
[25] UNCLOS Article 144
[26] UNCLOS Article 151
[27] UNCLOS Article 153 & Annex III
[28] UNCLOS Article 153(2).
[29] Ranganathan, above n 16, at 125-26. It is notable that the 1974 Charter of Economic Rights and Duties of States – in many ways the pinnacle of NIEO activity within the UNGA – included, at Article 29, a cross-reference to UNGA Res 2749 (XXV), declaring the CHM status of the deep seabed.

Nevertheless, even before the adoption of UNCLOS it was apparent that the regime for the deep seabed was in serious trouble and unlikely to see the light of day.[30] Recognising that some of the provisions were proving unpopular, particularly with the US and certain western European states, provisional arrangements were put in place in the form of two (non-binding) Final Act Resolutions dealing, respectively, with the creation of a Preparatory Commission (PREPCOM) in anticipation of the establishment of the ISA and ITLOS (Resolution I) and a series of measures giving preferential treatment to those States and private consortia that had already invested large sums of money in mining technology (Resolution II). The ambition behind both was to encourage those states to sign and ratify the Convention. It was hoped that a combination of the Part XI regime and Resolution II would be sufficient to guarantee consensus, however, by the early 1980s some developed States had moved towards a more aggressively free market ideology combined with a growing distrust of global bureaucracy. The complicated structure of the regime and the necessity for the equitable division of profits between States both conflicted with the then prevailing paradigm of global capital ideologies.

As a number of those states began to take and mutually recognise unilateral legislative measures, in the form of the so-called "Reciprocating States Regime" – which was decried as 'wholly illegal' by the PREPCOM[31] – and given the increasing reality that the Convention might enter into force without the most developed nations being party to it, negotiations began in 1990 under then UN Secretary General, Javier Pèrez de Cuèllar. The purpose of these negotiations was to conclude a further implementation agreement which would, in effect, modify some of the most controversial provisions of Part XI. With a desire to achieve a universal system of deep seabed governance, both sides of the dispute started to show some flexibility in approach and, prior to the Convention's entry into force, twelve months following its sixtieth ratification (by Guyana in November 1993), the 1994 Implementation Agreement was signed.

Under Article 2 of the Agreement, UNCLOS Part XI and the provisions of the Agreement itself were to be read as an integrated whole, with any inconsistencies being decided in favour of the Agreement. Although the 1994 Agreement states that it does not amend UNCLOS, this is generally viewed as disingenuous.[32] The Agreement removed many of the provisions that were perceived to be most controversial amongst developed states, whilst heavily qualifying others by making many of the terms more cost effective or more sensitive to the market. This included: a reduction of the overall costs to states parties; a removal of the obligation for compulsory transfer of technology, replaced with a more general duty to facilitate such acquisition; the postponement of the establishment of the Enterprise (and, once established, it was to be placed on a par with private contractors and not privileged above them); an ending of production limitations; the imposition of clearer anti-subsidy policies; restructuring of financial support for land-based mining nations; and the adoption of more market-friendly contractual terms for mining operators. In addition, and as explained more fully below, the Agreement redistributes seats in the Council on the basis of different chambers, effectively protecting the interests of

[30] D. Rothwell and T. Stephens, *The International Law of the Sea* (Hart, 2010) 130-131: 'Failure to reach universal agreement on these and other issues lead to the somewhat unsatisfactory conclusion of UNCLOS III in 1982. The LOSC [Law of the Sea Convention] was adopted not by consensus as had been hoped and expected, but rather by vote which meant that some level of dissent would be openly expressed…with few exceptions, those states involved or interested in deep seabed mining did not vote in support of the LOSC'.

[31] See LOS/PCN/72 of 2 September 1985, as well as similar concerns raised in LOS/PCN/78 of 21 April 1986.

[32] As Scovazzi notes of the 1994 Agreement, 'the label of 'implementing agreement' is more a fig leaf that covers the evident reality that in 1994 the LOS Convention was amended and several aspects of the original concept of common heritage of making were substantively changed'. Scovazzi, above n 12, at 47.

all groups in the decision-making processes of the Authority. The Agreement also placed new emphasis on the importance of environmental protections.[33]

It was hoped that these changes would encourage many more developed States to ratify UNCLOS – which has certainly been the case – though the US is still not a party. Nonetheless, due to the concessions made, questions remain as to how far the constituted seabed regime still reflects the CHM ideal. Whilst collective oversight and control remains, in substantive terms developing states lost out to a considerable degree. In this respect, Ranganathan describes the resulting regime as ‘a novel if not altogether successful experiment in internationalism’.[34] Nevertheless, in terms of organisational innovation, it is clear that the ISA represents to date the only successful attempt to fully institutionalise oversight of the CHM principle, making it an ‘an unprecedented experiment in international law-making.’[35] Furthermore, insofar as states parties to UNCLOS are essentially prohibited from changing or derogating from the common heritage status of the deep seabed,[36] and given the prohibition on any unilateral claims to or acquisition of deep seabed resources by any state, person or entity, and not just states parties,[37] the regime of Part XI seems to have an *erga omnes* character.[38]

As such, notwithstanding the undeniable limitations to the full force of the CHM concept as originally envisaged, the regime that eventually came into effect clearly establishes a complex, dynamic and in many respects revolutionary institutional bureaucracy. As we shall see in the following sections, this novelty and sophistication does not just come from the decision-making architecture of the Authority, its subsidiary organs and dispute settlement processes, but also, as Rüdiger Wolfrum notes, in the way in which the regime requires member states themselves to act as trustees of mankind.[39] Nevertheless, the question remains whether this dynamic institutional structure is sufficient to realise the CHM concept, now and into the future.

## 2. Finding Institutional Autonomy: The Complex Architecture of the International Seabed Authority

Following the finalisation of the 1994 Agreement, the ISA came into existence on 16 November 1994 (operating on a provisional basis until the appointment of its first Secretary General in March 1996). The centrality of the Authority’s function to the regime of the deep seabed cannot be underestimated. All member states of UNCLOS are *ipso facto* members of the ISA.[40] As UNCLOS makes clear, all activities in the Area ‘shall be organized, carried out and controlled by the Authority on behalf of mankind as a whole’ and thus the Authority is ‘the

[33] For a good overview, see MC Wood, ‘International Seabed Authority: The First Four Years’ (1999) 3 *Max Planck United Nations Yearbook* 173, 179-82.
[34] Ranganathan, above n 13, at 125.
[35] J Harrison, ‘The International Seabed Authority and the Development of the Legal Regime for Deep Seabed Mining’ (2010) *Edinburgh Working Paper*, at p. 36, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1609687.
[36] UNCLOS Article 311(6).
[37] UNCLOS Article 137(3).
[38] Whether one might also view the CHM as a *jus cogens* norm is perhaps a moot point, though it would seem implicit in the PREPCOM objections to the reciprocating states regime and, certainly now that UNCLOS has gone live, one might doubt the validity of a bilateral (or even a multilateral) treaty that sought to sidestep the deep seabed regime or ISA regulation.
[39] R Wolfrum, ‘Identifying Community Interests in International Law: Common Spaces and Beyond’ in Benvenisti and Nolte, above n 16, 19, at 26.
[40] UNCLOS Article 156(2). In addition, there is also provision made (in Article 156(3)) for observer status for those states with observer status to the UNCLOS III Conference who signed the final act, plus the grant of provisional membership (later expiring) for those states who participated in the UNGA in preparing the 1994 Agreement (under Annex 1, Para 12 of the 1994 Agreement.

organization through which States Parties shall… organize and control activities in the Area, particularly with a view to administering [its] resources'.[41] In the language of UNCLOS, 'activities in the area' means 'activities of exploration for, and exploitation of, the resources of the Area'[42] – deep seabed mining, essentially – which would include primarily the recovery of minerals, but also ancillary activities such as drilling, dredging, coring, excavation, dumping of waste, laying or maintenance of pipelines, construction, maintenance or use of any installations, though not the processing or transportation of the minerals itself.[43]

In 'organis[ing] and control[ling]' such activities, the Authority also has a number of important ancillary functions, including: the adoption of rules, regulations and procedures in relation to mineral prospecting, exploration and exploitation,[44] as well as supervising the performance of these standards, particularly as regards the conduct of states parties and private enterprises;[45] providing for equitable benefit sharing from activities in the Area, including the adoption of rules, regulations and procedures related thereto;[46] promoting and in some cases carrying out marine scientific research;[47] the transfer of technology;[48] the protection of the marine environment of the Area;[49] and the protection of underwater cultural heritage found on the seabed.[50] The Authority also has a role in redistributing payments made in relation to states parties' claims to an extended continental shelf.[51]

To carry out this mandate, the ISA assumes an ostensibly typical institutional form, though as Michael Wood notes, this appearance masks a number of important institutional innovations.[52] The Authority functions as an autonomous institution with international legal personality and has 'such legal capacity as may be necessary for the exercise of its functions and the fulfilment of its purposes'.[53] In this respect, it has a classically 'functional mandate', supported through requisite privileges and immunities,[54] as well as 'implied powers'[55] – though, somewhat more unusually perhaps, there is an explicit acknowledgement of such powers within both the Convention[56] and the 1994 Agreement.[57]

In terms of composition, the ISA assumes – again – a mostly quite classical institutional setup: in addition to a permanent secretariat headed by a Secretary General, decision-making is divided between an all-member plenary (the Assembly) and a 36-member Council, which functions essentially as the Authority's 'executive' arm.[58] However, Part XI also makes provision for the establishment of the Authority's own mining arm, 'the Enterprise'.[59] As

[41] UNCLOS Articles 153 and 157 respectively.
[42] UNCLOS Article 1(3).
[43] See on this point, Seabed Disputes Chamber Advisory Opinion, above n 8, at paras 87-96.
[44] UNCLOS Articles 160(2)(f)(ii) and 162(2)(o)(ii).
[45] See *inter alia* UNCLOS Article 162(2)(l).
[46] See UNCLOS Articles 140(2), 160(2)(f) and 162(2)(o).
[47] UNCLOS Article 143.
[48] UNCLOS Article 144.
[49] UNCLOS Article 145.
[50] UNCLOS Article 149. However, it seems that the Authority would have no jurisdictional competence over cultural heritage objects found in the Area.
[51] UNCLOS Article 82(4).
[52] See Wood, above n 33, 190.
[53] UNCLOS Article 176.
[54] See generally UNCLOS Articles 176-185
[55] See eg M Rama-Montaldo, 'International Legal Personality and Implied Powers of International Organizations' (1970) 44 *British Yearbook of International Law* 111.
[56] UNCLOS Article 157(2).
[57] 1994 Agreement, Section 1(1).
[58] UNCLOS Article 158(1).
[59] UNCLOS Articles 158(2) & 170.

originally envisaged, the Enterprise would have operated on the basis of the 'parallel system', briefly outlined above.[60] Nevertheless, as a result of the 1994 Agreement, the Enterprise's initial functions were to be (and still are) carried out directly by the secretariat, and the decision of whether to make it operational will not be taken by the Council until 'the approval of a plan of work for exploitation for an entity other than the Enterprise, or upon receipt by the Council of an application for a joint-venture operation with the Enterprise'. Even then the Council will only act '[i]f joint-venture operations with the Enterprise accord with sound commercial principles'.[61] Furthermore, the Agreement also disapplied all funding and technology transfer obligations in relation to such joint ventures.[62]

The Convention also makes provision for two subsidiary organs of the Council, in the form of a Legal and Technical Commission (LTC) and an Economic Planning Commission - though the latter has yet to be established and its functions are currently carried out by the former.[63] The LTC is composed of independent experts (environmental, geological, oceanographical, economic and legal), who are elected by the Council, and who assume an advisory role in ensuring that decisions of the ISA are based on sound scientific and technical expertise. In addition, the 1994 Agreement (Annex, Section 9) establishes a Finance Committee, composed of fifteen members elected by the Assembly, the composition of which roughly mirrors that of the Council (on which, see below), though also guaranteeing a seat to major financial contributors. All decisions of the Council and Assembly on financial and budgetary matters 'shall take into account recommendations' of the Finance Committee;[64] a strongly-worded prescription for a superior organ to consider the advice of a subsidiary body.

Whilst all the organs have distinct functions, the decision-making procedures of the ISA depend on a complex interaction between them. This perhaps represents a 'balancing' of powers (as opposed to a complete separation of powers) that is somewhat typical in many international organisations;[65] though the 1994 Agreement creates a much stricter sequential delineation that is more atypical, thus preferring the Council in favour of the all-member Assembly.[66] In theory, the Assembly is the 'supreme organ' of the ISA, with the broadest policy competence and each of the other organs reporting to it on matters within their own competence.[67] It is responsible for electing members of the Council, the selection of a Secretary-General (following a proposal from the Council) and will eventually have responsibility for appointing the leadership of the Enterprise.[68] Nevertheless, its broad policy-setting powers are now restricted by an obligation to work in cooperation with the Council on all matters.[69] In general, most of its powers of approval occur only on the initiative of the Council, such as in relation to the approval of rules and regulations and budgetary matters.[70] Most restrictively, perhaps, the Assembly's power of refusal also only reverts proposals (such

[60] See Article 153 and Annex III, Articles 8 & 9.
[61] 1994 Agreement, Section 2, paragraph 2,
[62] 1994 Agreement. Section 5(1).
[63] Under Section 1(4) of the Annex to the 1994 Agreement, the functions of the Economic Planning Commission are to be performed by the Legal and Technical Commission until such time as the Council decides otherwise or until the first plan of work for exploitation has been approved.
[64] 1994 Agreement, Annex, Section 9, para. 7.
[65] ND White, *The Law of International Organisations,* 3rd edn (Manchester University Press, 2016) at 88.
[66] See MW Lodge, 'The Deep Seabed' in DR Rothwell, AG Oude Elferink, KN Scott and T Stephens (eds), *The Oxford Handbook of the Law of the Sea* (Oxford University Press, 2015) 226, at 231-35.
[67] See UNCLOS Article 160(1).
[68] See Section 4 below.
[69] 1994 Agreement, Annex, Section 3, para. 1.
[70] UNCLOS Articles 160(2)(f) & (h).

as proposed rules and regulations) back to the Council for further consideration – it has no power to formally amend such rules.

In contrast to the Assembly, the Council has the power to establish the more specific policies to be pursued by the ISA, as long as in line with UNCLOS and the general policies established by the Assembly.[71] Given that the 1994 Agreement undoubtedly favours the Council, it is unsurprising that its composition was one of the most contentious aspects of the Agreement's negotiation. In the end, the agreed composition – essentially based around distinct interest groups (five in total), which divide into a system of 4 chambers for decision-making procedures – ensures that the dominant powers' interests are not undermined. These Groups are composed as follows: the four biggest mineral consuming states (Group A); four of the eight largest investor states (based on to-date investments in activities in the Area) (Group B); four states from among the major net exporters of mineral types found on the ocean floor, including at least two specially-affected developing states (Group C); and six developing states with special interests, which includes *inter alia* land-locked and geographically-disadvantaged states, island states, major mineral importers, as well as producer states (Group D). In addition, eighteen further Council members are elected on the basis of an equitable geographical distribution of seats (Group E).[72]

These groups feature in an unusually complex system of decision-making within the Council, made up of four chambers in total. Groups A – C form the first three chambers respectively, whilst a fourth chamber is composed of a combination of developing states from Group D and Group E. The result of this arrangement is that decision-making reflects a broad spread of interests and ensures that no one chamber can force through particular proposals. Although consensus is usually sought when voting, where this is not possible a two-thirds majority is required, so long as not blocked by a majority of any one of the decision-making chambers. As such, and as Harrison notes, 'the procedure comes closer to unanimity than to consensus as it is understood in other contexts'.[73] Whilst this gives each of the distinct interest groups an effective veto over legislative proposals, the rationale for the changes in 1994 was essentially to ensure that developed states' interests were not compromised.

This unusually complex decision-making procedure, and the numerous checks and balances in play, are easily explicable given the extent of the normative authority that the ISA assumes over the Area. Although its jurisdiction is limited both *ratione loci* and *ratione materie,* the Authority enjoys a quite extensive level of legislative and enforcement jurisdiction.[74] In terms of access, the ISA grants contractors exclusive, though time-bound, rights to mine in the Area.[75] The Authority then determines the content of contracts as well as a schedule of works. In doing so, it not only decides who gains access to mineral resources of the Area, but also determines the conditions of access. Furthermore, it has extensive power to make general rules, regulations and procedures, which might relate both to matters of its internal functioning, financing and other budgetary matters, but also to its main regulatory activity in the Area, i.e. in relation to prospecting, exploration and exploitation of seabed mineral resources, or over matters of

[71] UNCLOS Article 162(1).
[72] As Harrison notes (above n 35, at p. 5), however, in practice the Council's composition is as much a result of political compromise as equitable distribution, which effectively results in a composition of ten African seats, nine Asian seats, eight Western European seats, seven seats for Latin American and Caribbean states and three Eastern European seats, with each of the groups apart from the Eastern European states relinquishing one seat in each rotation so as to keep the total allocation at 36 overall.
[73] Harrison, above n 35, p. 11.
[74] See on this point, Y Tanaka, *The International law of the Sea,* 2nd edn (Cambridge University Press, 2015) 182-84.
[75] See UNCLOS Article 153, plus Annex III, Articles 3 & 16, as well as the adopted ISA Regulations.

benefit sharing, the protection of human life or of the marine environment.[76] We will return to discuss these law-making powers more extensively in Section 4.

The Authority's legislative power is backed up by quite extensive enforcement powers, with UNCLOS allowing it to 'to take at any time any measures provided for under [Part XI] to ensure compliance with its provisions and the exercise of the functions of control and regulation assigned to it thereunder or under any contract'.[77] This general enforcement mandate is also supplemented by a specific power to sanction non-compliance and impose monetary penalties.[78] Whilst these powers are extensive in themselves, the real institutional novelty, perhaps, is that this competence does not just extend to states parties but to any entity engaged in activities in the area – all natural and legal persons – whether or not such persons are themselves nationals of states parties. In fact, all applicants are placed under an explicit obligation to comply and cooperate with the Authority in carrying out its mandate in the Area.[79]

Within its spatial, temporal and functional limits, then, it might well be possible to conclude that the Authority exercises a quite extensive supranational competence, and one which is unprecedented insofar as it purports to regulate a substantive economic resource for the benefit of mankind as a whole. As we have described above, there are undoubted constitutional limitations to this functional competence, which restrict the operational freedom of the ISA. To the extent that these constitutional limits give policy initiative to the Council, they also paradoxically highlight the distinctive 'layers of autonomy' within the ISA, whilst also demonstrating overt constraints in its institutional design and practice.[80]

Whilst it would be a significant misnomer to equate the Authority's powers with national sovereignty, they certainly predate the recent attempts by the UN Security Council to regulate individuals and non-State actors.[81] Indeed, it reminds one perhaps of the anti-trust / competition competence of the EU Commission.[82] Others, such as Alessandro Polsi, have noted that it might be useful to compare the World Trade Organization (WTO) with the ISA:

> These two organizations confirm a new taxonomy, since they are at the same time universal and sectoral: in fact, they have the task of managing and suggesting rules in order to regulate respectively international trade and the exploitation of sea resources. They are relatively autonomous and are invested with a relevant power, since they deal with vital issues of the adherent countries' economies and engage with States' sovereignty; moreover, both of them are equipped with international tribunals or dispute settlement bodies.[83]

It may seem rather perverse to suggest too much complementarity between the WTO and the ISA; the former often seen as a member-driven organisation (possessing a relatively weak centre) and the Authority as a good example of apparent supranationalism. Certainly, the WTO and its predecessor, the GATT, have seen the dynamic of how self-selecting groups of states,

[76] See *inter alia* UNCLOS Articles 145, 146, 147, 160, 162, 209, plus Annex III, Article 17.
[77] UNCLOS Article 153(5)
[78] UNCLOS Annex III, Article 18.
[79] See, in for example, UNCLOS Annex III, Article 4(6), which sets out a raft of cooperative obligations.
[80] See, by way of comparison, ND White, 'Layers of Autonomy in the UN System' in R Collins and ND White (eds), *International Organizations and the Idea of Autonomy: Institutional Independence in the International Legal Order* (Routledge, 2011) 298-315.
[81] See e.g. recently, D Whittle, 'The Limits of Legality and the United Nations Security Council: Applying the Extra-Legal Measures Model to Chapter VII Action' (2015) 26(3) *European Journal of International Law* 671, at 689-90.
[82] For a general overview, see S Wilks, 'Competition Policy: Defending the Economic Constitution' in H Wallace, MA Pollock, and AR Young (eds), *Policy-Making in the European Union,* 7th edn (Oxford University Press, 2015) 141-166.
[83] A Polsi, 'Universalism and Regionalism in the History of the United Nations and of Specialized Agencies' in R Virzo and I Ingravallo (eds), *Evolutions in the Law of International Organizations* (Brill, 2016) 116, at 129.

especially the most influential, can behave to change the direction of the entire organisation (sometimes referred to within the GATT as the so-called "green room" approach[84]). Though informal, is this much different from the chamber structure of the ISA Council in which particular interests are privileged in debate and thus find favour? On the other hand, much of the WTO decision-making procedure, especially on matters of dispute settlement, is by way of negative consensus (thus depriving individual States of the right of veto). Thus, to the extent that WTO member states are prepared to work within the framework of the WTO system – something the US is putting under increasing strain at the time of writing – the WTO (in those matters in which negative consensus operates) would indeed seem to operate in a quasi-autonomous fashion; in a manner that is separable to an individual State's bare political interests.

Within the ISA, however, the 1994 Agreement has seemingly entrenched such interests, and only the bare legal provisions of the regime, the underlying regulatory structure (adopted by such decision-making) and the overarching CHM ethos are capable of restraining national and commercial interest. On the other hand, none of this takes away from the fact that the decision-making processes of the ISA produce a kind of 'corporate will' or *volonté distincte,*[85] which clearly distinguishes its normative output as more than just a political compromise between its members, thus allowing for the easier adaptation of the deep seabed regime to respond to new challenges and opportunities. As such, it is clear that the ISA is, in one sense at least, an effective institutional experiment in attempting to regulate the common interest. The key point, however, is that the institution has evolved to ensure that no one understanding of the collective interest, as reflected in disagreement about the very idea of CHM itself, can take precedence over others. The regime accommodates substantive disagreement and competing political interests by incorporating them within the evolving institutional framework of the Authority itself. We will return to this point again in Section 4, but before doing so, one further part of the institutional structure of the deep seabed regime deserves discrete consideration: its dispute settlement mechanism.

## 3. Dispute Settlement in the Area: Compulsory, Complex and Novel Jurisdiction

Just as the Area has many distinctive regulatory characteristics from the rest of the maritime zones covered by UNCLOS, its dispute settlement provisions are also notably different. Section 5 of Part XI provides for the principal elements of the dispute settlement regime, supplemented by relevant provisions of Part XV (settlement of disputes), notably section 1 on voluntary pacific settlement, and Annex VI which acts as the constitutive instrument of ITLOS. Importantly, section 5 of Part XI takes precedence on matters relating to the deep seabed over section 2 of Part XV, which sets out the more general compulsory dispute settlement processes (under which states have a certain right to choose the method but cannot escape the obligation of dispute settlement) and similarly its section 3, which sets out certain limitations and exclusions to compulsory jurisdiction. As Article 287(2) UNCLOS notes, '[a] declaration made under paragraph 1 shall not affect or be affected by the obligation of a State Party to accept the jurisdiction of the [ITLOS] Seabed Disputes Chamber… to the extent and in the manner provided for in Part XI, section 5'. Thus, for all principal purposes, Section 5 of Part XI[86] provides a bespoke dispute settlement regime for the deep seabed.

[84] K Jones, 'Green Room Politics and the Crisis of Representation' (2009) 9(4) *Progress in Development Studies* 349-357

[85] See generally, Collins and White, above n 80, plus White, above n 65, at 30.

[86] Along with certain provisions of Annex VI on institutional design, notably its section 4 – on which, see further below.

The key innovation in this regard is the establishment of the Seabed Disputes Chamber (SDC), which is legally and functionally independent of ITLOS.[87] The Chamber has jurisdiction in respect of a wide range of disputes involving a broad array of actors. This includes, first, disputes between States Parties over the interpretation or application of Part XI UNCLOS (what might be viewed as traditional intergovernmental disputes). Second, the SDC has jurisdiction over disputes between a State Party and the ISA in relation to various matters including: 'acts or omissions of the Authority or of a State Party alleged to be in violation of this Part or the Annexes relating thereto or of rules, regulations and procedures of the Authority adopted in accordance therewith', or where a State Party alleges excess of jurisdiction by the ISA (a more novel jurisdiction but certainly not without precedent in international law[88]). Third, disputes between parties to a contract relating to exploration and exploitation are also covered: such parties being variously States Parties (including state enterprises), the Authority (or the Enterprise once established), and natural or juridical persons concerning either the 'the interpretation or application of a relevant contract or a plan of work' or 'acts or omissions of a party to the contract relating to activities in the Area and directed to the other party or directly affecting its legitimate interests'. This is undoubtedly more progressive than is evident in almost any other area of international law, reflecting the commercial realities of deep seabed mining. Fourth, there is also jurisdiction on a range of potential disputes between the Authority and prospective contractors, and as regards issues of Authority liability. Finally, the Chamber is given the power to issue advisory opinions when requested to do so by either the ISA Assembly or Council. In all cases, a judgment of the Chamber shall be considered as a judgment issued by ITLOS itself.[89] Moreover, in notable recognition of the cross-over role between public and private law that the ISA must navigate, and consequently the SDC, Annex VI provides very specifically that '[t]he decisions of the Chamber shall be enforceable in the territories of the States Parties in the same manner as judgments or orders of the highest court of the State Party in whose territory the enforcement is sought'.[90] This is language more usually seen in treaties dealing with the recognition and enforcement of commercial arbitration awards, and the novelty of its inclusion here simply highlights the complexity of the structure that States Parties had to incorporate when designing the governance of the Area.

Though expansive, the SDC's jurisdiction is neither complete nor exclusive. Importantly, Article 189 UNCLOS sets out in rather monosyllabic and blunt terms, the limits of the Chamber's jurisdiction: **'**The Seabed Disputes Chamber shall have no jurisdiction with regard to the exercise by the Authority of its discretionary powers in accordance with this Part; in no case shall it substitute its discretion for that of the Authority'. The concern of States shines through here; it goes beyond the traditional concern over judicial activism; States were creating a new maritime zone from scratch – a whole new "world of law" untried and untested, and including for the first time non-State actors – where the balance of rights and obligations were being carefully delineated.

Nevertheless, despite these limitations, the provisions on dispute settlement in relation to the Area help to underline the autonomous nature of the deep seabed regime overall. This is not to suggest that the regime is isolated from general international legal developments. In the first and, so far, only judgment of the SDC, in a 2011 Advisory Opinion,[91] the Chamber, whilst

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[87] However, the membership of the Chamber is drawn from that of the Tribunal. See UNCLOS Annex VI, Article 35(1).

[88] Again, the EU perhaps provides the best comparator: see e.g. A Arnull, 'Judicial Review in the European Union' in A Arnull and D Chalmers (eds), *The Oxford Handbook of European Union Law* (Oxford University Press, 2015) 376-402.

[89] UNCLOS Annex VI, Article 15(5).

[90] UNCLOS Annex VI, Article 39.

[91] See Seabed Disputes Chamber Advisory Opinion, above n 8.

staying within the confines of its interpretative function, nonetheless gave strong judicial support – often by means of reference to contemporary norms outside the deep seabed – to the obligations incumbent on both private entities and sponsoring states in terms of environmental governance of the Area. The Opinion is thus particularly significant, highlighting the evolving responsibilities of the Authority to further develop the CHM concept in its governance of the Area, specifically through its law-making activity. In this respect, we will return again to consider the Advisory Opinion in the next section, where we look in more detail at the Authority's evolving understanding of its mandate in light of the challenge of seabed governance in practice.

## 4. The ISA at Work: Navigating Uncertainties within its Mandate

Since the entry into force of the Convention, the prospects for commercial exploitation of deep seabed mineral resources have grown less remote, with increasing attention paid to the role of the ISA as a result.[92] The work of the Authority has stepped up to consider a broad range of matters to better understand the scientific, technological, ecological, and economic aspects of the effective governing of the Area. The ISA has presently entered into 29 contracts to allow for exploration for polymetallic nodules, polymetallic sulphides and cobalt-rich ferromanganese crusts at various different sites across the ocean floor.[93] It has also been working on benefit sharing, both in terms of monetary benefits – as part of the proposed exploitation regulations, discussed below – but also non-monetary benefits. One example of this latter kind of benefit is the already-established ISA Endowment Fund, which supports the participation of developing country scientists in marine scientific research programmes and activities.[94]

It is not our intention or indeed possible (within the limits of this paper) to survey the wide range of current activities of the ISA. Rather, the aim of this final section is to consider what we believe to be a fundamental tension at the heart of its mandate, namely how to operationalise deep seabed in a manner that reflects a changing (and still contentious) conceptualisation of CHM. Of course, much of the criticism so far has rightly focused on the extent of the environmental risks to such mining and whether they can be mitigated to a *de minimis*, or an acceptable, level. Many do not believe they can.[95] On the other hand, the ISA Secretary-General in particular is increasingly seeking to place seabed mining within the framework of the narrative of the "blue economy"[96] and a broader contextualisation.[97] But notwithstanding

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[92] See eg A Jaeckel, 'Current Legal Developments: International Seabed Authority' (2016) 31(4) *International Journal of Marine and Coastal Law* 706.

[93] ISA, 'Deep Seabed Mineral Contractors', available at: https://www.isa.org.jm/deep-seabed-minerals-contractors?qt-contractors_tabs_alt=0#qt-contractors_tabs_alt.

[94] See E Morgera, 'Equity and Benefit sharing from marine genetic resources in areas beyond national jurisdiction', IIED Briefing, April 2018, available at: http://pubs.iied.org/17462IIED.

[95] C L Van Dover et al, 'Biodiversity Loss from Deep-Sea Mining' (2017) 10 *Nature Geoscience*, Correspondence 1-2.

[96] Statement by H. E. Michael W. Lodge, Secretary-General, ISA at a side event on deep sea mining hosted by H. E. Baron Divavesi Waqa, President of Nauru, during the Forty-ninth Pacific Island Forum Leaders Meeting, Nauru Island (3 September 2018) (https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/SG-Stats/pif-nauru.pdf): 'The benefits to mankind of deep seabed exploration extend far beyond simply knowledge of the mineral resources but include scientific knowledge of the marine environment that will be critical to realizing all aspects of the Blue Economy, as well as technology development'.

[97] Speech by Michael Lodge, Secretary-General, ISA to the Hamburg Business Club (25 September 2018) (https://ran-s3.s3.amazonaws.com/isa.org.jm/s3fs-public/documents/EN/SG-Stats/dsm-hamburg.pdf): 'It is essential that deep seabed mining must be considered in a broader context…Mining and metals are essential to global economic and social development'. [hereafter 'Hamburg Speech']

the serious environmental considerations, there are other tensions within the changing CHM dynamic, including questions as to its transparency and legitimacy, how it responds to a emergent private sector (which for the ISA's supporters neatly ties back to the contribution of seabed mining to the global economy, often via the contested narrative of "sustainable development"[98]) and, of course, in many ways its principal original goal of strengthening the economic status of developing countries.

By far the most important aspect of the Authority's work has been in drafting rules and regulations in relation to seabed mining. The legislative work of the Authority has been undertaken in a tripartite division – prospecting, exploration and exploitation – which has led to the incremental development of regulations, the totality of which will ultimately form a comprehensive "Mining Code". For instance, the 2000 Polymetallic Nodule Regulations[99] apply, as the name suggests, only to one form of mineral, polymetallic nodules (with regulations on polymetallic sulphides and cobalt-rich ferromanganese crusts being adopted in 2010[100] and 2012[101] respectively) and only to their prospecting and exploration. The ISA views this cautious approach as both cognisant with known science and, increasingly, as reflective of its overarching environmental mandate. As Rothwell and Stephens have pointed out, the 'Polymetallic Nodules Regulations have a strong environmental protection focus',[102] and the subsequent regulations are even stronger in this respect.[103]

To allow for exploitation, a further set of regulations are currently being drafted, which were originally proposed to be broken down into distinct issue areas, adopting what has been termed a 'building blocks' approach.[104] In July 2016 the LTC published a working draft of regulations on exploitation, including standard contract terms,[105] and noted that a further two sets of draft regulations were due to be published addressing, respectively, environmental matters[106] and the structures and powers of the seabed directorate, including the incorporation of a mining inspectorate. This approach was perceived by the ISA as significant, not only due to the detailed consultative process that is being undertaken in shaping each set of regulations – though many civil society groups are critical of the true level of transparency[107] – but also by elevating the

[98] On the tensions within the general debates on sustainable development, see, for instance, D French and L Kotzé (eds), *Sustainable Development Goals: Law, Theory and Implementation* (Edward Elgar, 2018).
[99] Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, ISBA/6/A/18 (13 July 2000), amended by ISBA/19/C/17 (22 July 2013), ISBA/19/A/12 (25 July 2013), and ISBA/20/A/9 (24 July 2014).
[100] Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1 (15 November 2010), amended by ISBA/19/A/12 (25 July 2013) and ISBA/20/A/10 (24 July 2014).
[101] Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11 (27 July 2012), amended by ISBA/19/A/12 (25 July 2013).
[102] Rothwell and Stephens, above n 30, at 139
[103] Talking of an obligation to apply best environmental practices, the Seabed Disputes Chamber in its 2011 Advisory Opinion, above n 8, noted 'In the absence of a specific reason to the contrary, it may be held that the [2000] Nodules Regulations should be interpreted in light of the development of the law, as evidenced by the subsequent adoption of the [2010] Sulphides Regulations' (para 137).
[104] See eg Jaeckel, above n 92, at 707.
[105] See ISA, *Working Draft Regulations and Standard Contract Terms on Exploitation for Mineral Resources in the Area* https://www.isa.org.jm/files/documents/EN/Regs/DraftExpl/Draft_ExplReg_SCT.pdf.
[106] See, most recently, ISA, *A Discussion Paper on the development and drafting of Regulations on Exploitation for Mineral Resources in the Area (Environmental Matters)* (2017), available at: https://www.isa.org.jm/files/documents/EN/Regs/DraftExpl/DP-EnvRegsDraft25117.pdf
[107] For instance, the European Parliament has recently raised a number of concerns in this regard. See European Parliament, Resolution of 16 January 2018 on international ocean governance: an agenda for the future of our oceans in the context of the 2030 SDGs (P8_TA-PROV(2018)0004), at para 22. See also, recently, JA Ardron, HA Ruhl & DOB Jones, 'Incorporating transparency into the governance of deep-seabed mining in the Area beyond national jurisdiction' (2018) 89 *Marine Policy* 58, at 59 in particular. The Authority has sought to

latter two topics (namely, environmental and institutional matters) to a status of apparently equal importance to the draft exploitation regulations themselves. Nevertheless, it seems that the ISA Secretariat, on recommendation of the Chairman of the LTC, decided to make something of an 'about-face' on this 'building blocks' approach, citing *inter alia* the risk of duplication and a lack of consistency as primary reasons,[108] and instead the Authority is pushing forward on the basis of one set of overarching exploitation regulations.[109] More broadly, and as noted below, the particular insular nature of both ISA governance and its engagement with the international community has raised concerns that what is considered innovative regulation by the ISA needs sense-checking against what is occurring elsewhere in international environmental law.[110]

Moreover, the approach that the Authority has taken in developing the Mining Code brings to light a number of central concerns of this paper. Undoubtedly, the Authority's work has shown the 'living' and evolutive nature of deep seabed governance, and particularly the important role that the Authority has in this regard. It is clear that UNCLOS was only ever intended as providing the core constitutive elements of the seabed regime, leaving the ISA with a significant degree of operational competence to further develop governance arrangements and give flesh and meaning to the CHM concept – especially as knowledge of the geological and ecological features of the deep seabed is enhanced and international regulatory priorities inevitably shift.[111] This 'gap-filling' role clearly goes well beyond simply interpreting and applying the provisions of Part XI and the 1994 Agreement, as a key aspect of the Authority's competence is in seeking to navigate competing political interests whilst developing the regime to respond to new knowledge and challenges in a way that aims to reflect the needs of mankind as a whole. In many respects, then, UNCLOS can be described, much like the UN Charter, as a 'living instrument',[112] especially when considering the complex regulatory web that makes up the ISA's constitution.[113] This is evident not only in terms of enhanced environmental protections, but in particular if one compares the approach taken in completing the first set of regulations on polymetallic nodules (which adopted the originally-envisaged site-banking system) and those more recently adopted on polymetallic sulphides (adopting an equity share model, utilising a form of joint venture scheme not expressly foreseen in UNCLOS).[114]

In light of this, it is evident that the ISA now understands the CHM concept as going well beyond non-appropriation, peaceful use and positive benefit sharing, and incorporating – if in

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respond to these concerns in reviewing its working practices, an issue raised especially in the periodic review, discussed further below.

[108] See ISA, *Report of the Chair of the Legal and Technical Commission on the work of the Commission at its session in 2017,* 9 August 2017, ISBA/23/C/13, at para 17: 'With regard to separate regulations dealing with environmental matters and a mining inspectorate, the Commission noted a general sentiment that while the development of separate regulations might be appropriate, such an approach also entailed challenges owing to the potential for duplication, ambiguity and a lack of consistency between separate sets of regulations.'

[109] See ISA, *Draft regulations on exploitation of mineral resources in the Area: Note by the Secretariat,* 10 August 2017, ISBA/23/C/12.

[110] T Woody, 'The Interminable Debate Around Deep Sea Mining Regulations' *Pacific Standard* (31 July 2018) (https://psmag.com/environment/the-slow-slog-toward-deep-sea-mining-regulation): 'The draft regulations that the Council reviewed provide for the protection of the marine environment as a "fundamental principle," but lacked any detail on how that protection would be ensured. Specific environmental standards for what constitutes unacceptable harm to deep-sea ecosystems and guidelines for conducting environmental assessments and reviews have yet to be developed'.

[111] See Harrison, above n 35, at 1.

[112] See most recently, D Moeckli and ND White, 'Treaties as Living Instruments' in D Kritsiotis & M Bowman (eds.), *Conceptual and Contextual Perspectives on the Modern Law of Treaties* (Cambridge University Press, 2018) 136-171.

[113] A Jaeckel, *The International Seabed Authority and the Precautionary Principle* (Brill, 2017) 132-133.

[114] Harrison, above n 35, at 25-26.

juxtaposition – environmental objectives, a commercial agenda, as well as being linked to goals of sustainable development and economic well-being. It is perhaps not completely unfair to question the ability of the ISA to achieve these goals simultaneously. On the other hand, the ISA Secretary-General has sought to defend the approach of the ISA: in his words, 'seabed mining offers substantial potential for developing high-grade, abundant, mineral resources…the contribution of deep seabed mining towards increased long-term demand for minerals must be part of the overall vision for a sustainable world'.[115] Supporters of the work of the ISA would thus point to the increasingly prominent place that environmental standards are playing in the Mining Code, particularly the draft environmental regulations, which includes envisaging the establishment of both a seabed sustainability fund and the possibility of new liability rules.[116] Additionally important is the way in which the Authority has used different regulatory tools, including soft law recommendations, in relation to e.g. impact assessment and feasibility studies, as well as insertion of relevant contract terms, in order to ensure that environmental standards are directly enforceable as against approved contractors.

Particularly relevant in this regard is the SDC's 2011 Advisory Opinion, concerning the duties and obligations of sponsoring states, briefly alluded to above.[117] When asked whether these environmental requirements could be differentiated based on the developmental status of the sponsoring State, the Chamber gave a firm reply in the negative, asserting the importance of equality of treatment between developing and developed States to avoid sponsoring states "of convenience", and thus further risks to the marine environment and, ultimately, the CHM ideal.[118] The Advisory Opinion usefully clarified many other key relationships between actors – notably the relationship between a commercial enterprise and "sponsoring State", as well as confirming the important supplementary role general international environmental law plays in matters of deep seabed governance, significantly on matters of precaution, environmental impact assessment and due diligence.[119] Thus, whilst ostensibly remaining well within the realm of judicial interpretation, the Chamber was able to synthesise a raft of standards and obligations, derived from UNCLOS, general international law, mining contracts, as well as soft law obligations under Authority recommendations, and utilise this framework to flesh out the CHM concept in relation to the deep seabed, allowing it to be broadly aligned with the goals of sustainable development.[120] It will be difficult for States Parties – even if they wished – to retreat from 'the highest standards of protection'.[121] Although, of course, the Chamber cannot overrule or second guess the discretionary power of the Authority, by relying on public international law it has been able to add a challenging "gloss" to the ISA's work.

Nevertheless, in pushing the CHM idea further in this direction, and recognising the important role of the ISA as guardian of this idea, critics question whether the Authority is able to adequately respond to these increasing demands as seabed mining moves into the exploitation phase, particularly given its limited spatial-temporal mandate as well as the tension between

[115] See Lodge, Hamburg speech, above n 97.
[116] See ISA, above n 106. See also Centre for International Governance and Innovation, Legal Liability for Environmental Harm: Synthesis and Overview: Legal Working Group on Liability (July 2018) (https://www.cigionline.org/sites/default/files/documents/Deep%20Seabed%20paper%20no.1.pdf).
[117] Seabed Disputes Chamber Advisory Opinion, above n 8, at paras 205 & 209.
[118] Ibid, para 159.
[119] On which, see D French, 'From the depths: rich pickings of principles of sustainable development and general international law on the ocean floor - the Seabed Disputes Chamber's 2011 advisory opinion' (2011) 26(4) *International Journal of Marine and Coastal Law* 525-568.
[120] Ibid. See also Wolfrum, above n 39, 28-29. See also the statement of Secretary-General Lodge to the UN General Assembly on 8 June 2017, noted by the ISA here: https://www.isa.org.jm/sites/default/files/files/documents/bp032017-final-lr.pdf.
[121] Seabed Disputes Chamber Advisory Opinion, above n 8, para 159.

ecological sensitivities and commercial imperatives of seabed mining. Part of the challenge will initially lie in concluding the extraordinary complex exploitation regulations and related payments mechanisms, not only given the commercial and ecological challenges referred to above, but also due to the fact that the Authority's work is increasingly attracting attention from global civil society. Thus, a core aspect of this challenge will be in answering some as-yet-unanswered questions surrounding the institutional structure of the Authority itself.

Of particular concern is the future of the Enterprise, the operation of which so far still seems a distant possibility.[122] In relation to this and other matters, it should be noted that the ISA has recently completed its first periodic review,[123] which not only addressed matters concerning adequate participation by members in the work of the Authority, but a range of questions concerning the performance of each of its organs.[124] The final report was published in February 2017 and amongst a number of recommendations related to the procedures and practices of many of the organs, particularly the Council, the report recommended that the Secretary General should consider 'adding expertise in the fields of environmental policy, management and planning in the secretariat as a matter of priority'.[125] However, in relation to the Enterprise specifically, the report requested only that the LTC 'continue to address the issue of the operationalization of the Enterprise as an important matter', whilst nonetheless cautioning against the appointment of an interim Director-General, given the lack of readiness of the Secretariat overall.[126] Whilst these conclusions are somewhat timid, perhaps, there remains a clear need to advance institutional reforms to ensure that the Authority can properly transition from – as Jaeckel notes – an 'organisation that has been described as "mainly providing meeting services" to an administrative agency that regulates and effectively controls seabed mining'.[127]

In addition to these more operational matters, however, more fundamental questions remain about the future of the ISA in seabed and, indeed, ocean governance more broadly. This includes whether the Authority can (and indeed, should) work with regional fisheries management organisations (RFMOs) and other international frameworks, especially within other UN processes. For instance, how far – and to what extent – should the ISA be the lead agency on 'the management of risks to the marine biodiversity of seamounts, cold water corals, hydrothermal vents and certain other underwater features' and thus may be expected to take the lead on tackling 'destructive practices that have adverse impacts on marine biodiversity and ecosystems, including seamounts, hydrothermal vents and cold water corals'?[128] Though not without controversy, it is arguable that the ISA already has the mandate to act on these matters, in the face of the environmental provisions in UNCLOS, as well as those contained within the evolving Mining Code and reinforced by the Advisory Opinion. The language of UNCLOS Article 145 is important: 'the Authority shall adopt appropriate rules, regulations and procedures for inter alia… (b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment'. And yet, this mandate has always been understood as falling within the context of 'activities within the

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[122] A somewhat surprising proposal from Nautilius Minerals for a joint venture with the Enterprise was considered and rejected by the Council in 2013. See discussion in Lodge, above n 66, at 239.
[123] Under UNCLOS Article 154, such a review is required every 5 years, though until 2015 the Assembly has deemed it premature to undertake such a review.
[124] See Assembly Decision ISBA/21/A/9/Rev.1 of 24 July 2015.
[125] See ISAB/23/A/3, Annex, *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,* p. 6 (Recommendation 6).
[126] Ibid, Recommendation 12, and further discussion at pp. 8-9, in para 21.
[127] Jaeckel, above n 92, at 711-12.
[128] UNGA Res 66/231 (2012), paras 173-174. It is this resolution which provides the list of topics ("the 2011 package"), which formed the basis of the BBNJ intergovernmental negotiations later initiated through UNGA Res 69/292 (2015).

Area' and not as a self-standing competence.[129] It was an important contention – and important point of principle for many States – at UNCLOS III that the ISA should not be responsible for non-mineral sedentary species.[130] The answer, in part, must surely be a political one: namely, whether the ISA is seen – and, as importantly, whether it sees itself – as a strong multilateral environmental agency or a laggard interested primarily in commercial exploitation,[131] or somewhere in between.[132]

These questions are especially relevant as regards the current negotiations towards the conclusion of a legally binding instrument (under UNCLOS) aimed at the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (so-called "BBNJ" negotiations). In particular, the negotiations are raising complex institutional questions as to division of competence and responsibility. How far can the ISA be considered as the most appropriate body to regulate the exploitation of marine *genetic* resources (MGRs) of the deep seabed? To recall Article 133(a) of UNCLOS: '"resources" means all solid, liquid or gaseous mineral resources in situ in the Area at or beneath the seabed, including polymetallic nodules'. Thus, whilst the literal reading of the text would seem to exclude living resources from falling within the scope of the Authority, whether seabed living resources might in the future fall within its remit is not an altogether concluded matter. Alternatives presently raised have included to "fall back" on *res communis* (subject to varying degrees of soft/hard treaty-based constraints), to delineate MGRs on the basis of whether they fall in the high seas or the Area and to regulate accordingly – but this hardly reflects the integrated ecological approach underpinning the concept of biological diversity – or to categorise MGRs as common heritage but perhaps subject to an alternative institutional model, other than the ISA. States are presently divided on these matters, and the Authority, conscious of divisions between its members, is wisely keeping its counsel technical.[133]

Thus, it remains to be seen whether the ISA would wish to take on management of marine genetic resources (as found in the Area?), but equally the Authority would surely not want any alternative regime (or a combination of regimes) to erode its spatial-temporal mandate. The question can be broadly – but nevertheless legally – framed as to whether the ISA is (or should be) concerned with general governance of the Area, or whether it is limited to 'activities in the Area' (as presently defined) which refers explicitly to mineral activities (and regulating the environmental consequences of such activities). It is relevant that UNCLOS Article 145, as

[129] See again, for example, UNCLOS Article 145: 'Necessary measures shall be taken in accordance with this Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from such activities'.
[130] See discussion in KJ Marciniak, 'Marine Genetic Resources: Do They Form Part of the Common Heritage of Mankind Principle?' in L Martin, C Salonidis, and C Hioureas (eds), *Natural Resources and the Law of the Sea: Exploration, Allocation, Exploitation of Natural Resources in Areas under National Jurisdiction and Beyond* (Juris Publishing, 2017) 373, at 398-402. A comparison can be made with the regime for the continental shelf where a clear statement exists as to the rights of the coastal State therein, under UNCLOS Article 77(4): 'The natural resources referred to in this Part consist of the mineral and other non-living resources of the seabed and subsoil *together with living organisms belonging to sedentary species*, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.' (emphasis added))
[131] See eg criticisms of Greenpeace, 'Deep sea mining decisions: Approaching the point of no return', 23 March 2018, available at: https://www.greenpeace.org/international/story/15514/deep-sea-mining-decisions-isa-jamaica-point-of-no-return/.
[132] See eg C Jamasmie, 'Experts come up with plan for protecting deep-sea life from mining', 11 July 2018, available at: http://www.mining.com/experts-come-up-with-plan-for-protecting-deep-sea-life-from-mining/.
[133] See IISD, '1st Session of the Intergovernmental Conference (IGC) on an International Legally Binding Instrument under the United Nations Convention on the Law of the Sea (UNCLOS) on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ)', 4-17 September 2018, available at: http://enb.iisd.org/oceans/bbnj/igc1/.

noted above, does recognise the ISA's role in protecting marine living resources. Proponents might therefore point to the broadly framed wording of this permissive right to regulate. Those more cautious would say it has to be read within the context that "activities in the Area" – expressly limited to minerals – frames the particular scope of Part XI UNCLOS. Thus, whether this provision can – and should – be the hook as including (or as extending to) the sustainable use of marine living resources and, in this particular context, to MGR, is just the latest aspect of an increasingly complex dynamic in ocean governance.

From somewhat obscure beginnings, then, the ISA is finding itself at the heart of global debates – some long-standing, others less so – yet much about the Authority's function and mandate is inchoate and, consequently, still not fully understood. As an organisation, it seems to shy away from public attention, focusing on the technocratic aspects of its work, despite increased focus on seabed mining, both from a commercial and ecological perspective. Ever since the adoption of the 1994 Agreement, seabed mining has incrementally become less a matter of science-fiction and more a factual reality. At the same time, the ISA has gradually stepped up its work, but always away from the model of that supranational organisation that had been envisaged in the halcyon days of UNCLOS III in the 1970s. At best, it is a multilateral organisation with a global function in a very particular spatial-temporal context. But it is these tensions within *this* overriding function, within *this* context, that prevents it being understood purely in technocratic terms, and to which we return in the conclusion.

## 5. Conclusion

Notwithstanding these many interpretative and operational questions, there remains still a far more basic, first order question which goes to the heart of the tension identified at the start of this paper: what now is the underlying purpose of CHM and can it truly reconcile the developmental, ecological and commercial imperatives which all seem to be presently incorporated within it? Such a question reformulates, in a fundamental way, the underlying purpose of CHM; moving it still further away from the traditional dichotomy of North-South relations that lay behind the NIEO implications of common heritage at its initial inception. Of course, the ISA has not addressed – and probably could not address – this ontological paradox at the heart of its work; the substance of the work of the Authority to date has seemingly conflated the attainment of sustainable development and the solidarist and distributive goal of CHM. But, so far, this has been largely at the level of theory and political discourse; there is much more uncertainty over how environmental imperatives can be advanced within an institutional framework designed to prioritise commercial and political interests once exploitation becomes a closer reality.

On the occasion of its twenty-fifth anniversary, then, as the Mining Code becomes more definite, and commercial seabed mining more real, the ISA faces both operational and existential questions. Operationally, will it be able to manage the process of commercial exploitation effectively, fairly and sustainably – recognising that cost-effectiveness, equity and environmental protection are all now elements of CHM? And at an existential level, there remain wider questions: as it currently operates, how far can the Authority be perceived as a supranational organisation, autonomous from the will of its individual members (the empirical question) and how far will the ISA's success be ultimately dependent upon it asserting a clearer sense of a supranational identity vis-à-vis overt State interests (the normative question)?

Undoubtedly, we can now look back and say that the 1994 Agreement trimmed the utopian excesses of the ISA; what is not yet clear is whether that pruning not only created the political (and commercial) situation for the regime to come into its own in the next few years, but also

stymied the very agency it requires. The Authority thus risks finding itself out of its depth at a time when it more than ever needs to assume a full guardianship of our common heritage in the deep seabed.