CHAPTER 17

THE ADOPTION OF RULES, REGULATIONS AND PROCEDURES TO PROTECT THE MARINE ENVIRONMENT BY THE INTERNATIONAL SEABED AUTHORITY: LIMITATIONS AND REINFORCEMENT MEASURES

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RÉSUMÉ: *La Convention des Nations Unies sur le droit de la mer de 1982 a retenu le concept de zone internationale des fonds marins comme espace d'intérêt international, en désignant la zone et ses ressources comme patrimoine commun de l'humanité. Dans la partie XI de la Convention, son régime juridique met spécifiquement l'accent sur la nécessité de réglementer les activités menées dans la Zone et de partager les ressources de manière équitable, mais il protège également l'intérêt général de conserver cet espace et le milieu marin dans son ensemble en pensant aux générations futures. Le but de cette étude est d'examiner dans quelle mesure l'Autorité internationale des fonds marins (AIFM-ISA) remplit ou peut remplir ce mandat environnemental. Ce document part de l'hypothèse selon laquelle l'ISA doit faire face à des obstacles qui réduisent son potentiel de réglementation en matière de protection de l'environnement marin. Certaines de ces difficultés découlent du*

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scénario complexe dans lequel l'AIFM opère. D'autres limitations découlent de la conception structurelle de l'Autorité et de ses pouvoirs législatif et d'exécution. Après avoir identifié ces limitations, cette étude décrit brièvement certaines mesures structurelles qui pourraient être adoptées ainsi que certaines actions stratégiques qui devraient être priorisées pour renforcer le rôle de leadership normatif de l'AIFM.

Mots-clés: *zone internationale des fonds marins; Autorité internationale des fonds marins (AIFM); environnement marin; intérêts généraux; pouvoirs législatifs.*

ABSTRACT: *Assuming the concept of the International Seabed Area as a space of international interest, the United Nations Convention on the Law of the Sea of 1982 designated the Area and its resources as the common heritage of mankind. In Part XI of the Convention, its legal regime specifically focuses on the need to regulate the activities carried out in the Area and to share resources equitably, but it also protects the general interest in the conservation of that space and the marine environment as a whole, having future generations in mind. The aim of this study is to examine the extent to which the International Seabed Authority (ISA) fulfills or can fulfill this environmental mandate. This paper is based on the hypothesis that the ISA must face obstacles that are reducing its potential regulatory role in the protection of the marine environment. Some of these difficulties arise from the complex scenario in which the ISA operates. Other limitations originate in the structural design of the Authority and its legislative and enforcement powers. After identifying these limitations, this study briefly outlines some structural measures that could be adopted, as well as some strategic actions that should be prioritized to reinforce the ISA's normative leadership role.*

Keywords: *international seabed area; international seabed authority (ISA); marine environment; general interests; law-making powers.*

1. INTRODUCTION

Conserving and sustainably using oceans, seas and marine resources is one of the seventeen Sustainable Development Goals (SDGs) set out in 2015 as part of the new *2030 Agenda for Sustainable Development*[1]. Due to growing interest in the exploration and exploitation of the seabed and its more than probable environmental impacts[2], in order to achieve this goal, special attention must be paid to the International Seabed Area (the Area), which covers more than fifty percent of the global seabed[3].

[1] Adopted by the UN General Assembly Resolution (A/RES/70/1) of 21 October of 2015.

[2] Some recent scientific studies conclude that due to the «vulnerable nature of deep-sea environments to mining impacts, currently limited technological capacity to minimize harm, significant gaps in ecological knowledge, and uncertainties of recovery potential of deep-sea ecosystems», «deep-sea mining is likely to result in biodiversity loss», but «the industry cannot at present deliver an outcome of no net loss», Niner, H. J. *et al.* (2018), «Deep-Sea Mining With No Net Loss of Biodiversity - An Impossible Aim», *Frontiers in Marine Science*, available at: *https://www.frontiersin.org/articles/10.3389/fmars.2018.00053/full* (all websites herein were last visited on 31/10/2018).

[3] UN Chronicle, «The international Seabed Authority and Deep seabed mining», vol. LIV, n^{os} 1 and 2 2017, May 2017.

This space of international interest was classified by the 1982 United Nations Convention on the Law of the Sea (UNCLOS) as *common heritage of mankind* (CHM)[4]. According to Part XI of the Convention, its legal regime specifically focuses on the need to regulate the activities in the Area and to share resources equitably, but it also protects the *general interest in the conservation of that space and the marine ecosystem as a whole*, having in mind the future generations[5]. For this reason, Art. 145 UNCLOS establishes the obligation to take all the necessary measures to ensure effective protection of the marine environment from harmful effects which may arise from activities carried out in the Area.

To that end, the International Seabed Authority (ISA), the organization created to manage the activities of the Area *on behalf of mankind as a whole*[6], is required to adopt appropriate rules, regulations and procedures (RRP) for the prevention, reduction and control of pollution and other hazards to the marine environment, as well as for 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. Likewise, the 1994 Agreement on the application of Part XI (the 1994 Agreement) stipulates that the adoption of RRP incorporating applicable standards for the protection and preservation of the marine environment is one of the issues the Authority shall concentrate on between the entry into force of the Convention and the approval of the first plan of work for exploitation[7].

When exercising its normative competences, the ISA has to date adopted three regulations on prospecting and exploration of different mineral resources and four recommendations, all of which are included in the «Mining Code»[8]. As the exploration contracts will soon start to expire[9] and the next phase will begin, it has been working on Draft Regulations on exploitation of mining resources in the

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[4] United Nations Convention on the Law of the Sea of 10 December 1982, *UNTS* 1994, vol. 1833, Art. 136.

[5] Van Doorn, E. (2016), «Environmental aspects of the Mining Code: Preserving humankind's common heritage while opening Pardo's Box?», *Marine Policy*, 70, 192-197, at 196. As the doctrine has warned, «To fail in the protection, conservation, preservation and prudential management of the region and its resources would breach the trust and legal obligation implicit in responsibly supervising the earth's heritage for mankind in the future», Joyner, Ch. (1986), «Legal Implications of the Concept of the Common Heritage of Mankind», *International and Comparative Quarterly*, 35, 190-199, at 105. Similarly, South Africa spoke at the session of the General Assembly in 2009: «[T]he common heritage of mankind principle is not solely about benefit sharing. [It] is just as much about conservation and preservation», Statement by South Africa to the UN General Assembly on Oceans and the Law of the Sea (4 December 2009).

[6] UNCLOS, Art. 137.2.

[7] Agreement relating to the implementation of Part XI of the Convention on the Law of the Sea of 1982, *UNTS* 1994, vol. 1836, Annex, Section 1, 5 (g).

[8] See in particular the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (ISBA/19/C/17) of 2000, and its amendments (ISBA/19/A/9); the Regulations on prospecting and exploration for polymetallic sulphides in the Area (ISBA/16/A/12 Rev.1) of 2010; and the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area (ISBA/18/A/11) of 2012. The ISA has also approved four recommendations on aspects related to the annual reports of contractors and on guidelines regarding the evaluation of the environmental impacts caused by the exploration of polymetallic nodules. All are available at: *https://www.ISA.org.jm/es/mining-code*.

[9] The first contracts for 15 years were about to expire and have been extended for 5 more years. See: *https://www.isa.org.jm/deep-seabed-minerals-contractors*.

Area since 2014[10]. All these instruments contain environmental provisions regarding the protection of the Area, its resources, and the marine environment in general. However, the recently approved Strategy Plan for the period 2019-2023[11] has generated a great deal of criticism. In particular, environmental NGOs have claimed that the Authority's commitment to the protection of the marine environment could be much more intense.

This paper argues that there are some obstacles preventing the Authority's potential role in the protection of the general interest in safeguarding the marine environment. Some of these obstacles are due to the complex scenario in which the Authority has to operate (2). However, other limitations originate in the structural design of the organization and in its law-making and enforcement powers (3). After identifying these limitations, this study briefly outlines some structural measures that could be adopted, as well as some strategic actions that should be prioritized to reinforce the ISA's normative leadership role (4). The paper concludes with some final remarks (5).

2. AN ENVIRONMENTAL MANDATE IN A DIFFICULT SCENARIO

The context in which the Authority must exercise its mandate to ensure the effective protection of the marine environment is complex: first, because the boundaries of the Area have not been fully delimited to date; second, because mining activities in the Area must be regulated while exploration and exploration activities are already underway, and the start of the exploitation phase is imminent; and finally, because the Authority's normative jurisdiction has been progressively questioned.

2.1. The lack of delimitation of the boundaries of the Area

One of the main obstacles to protection of the Area originates in the lack of a precise delimitation of the spatial boundaries of the marine space, in both a horizontal and vertical sense. This applies in a *horizontal sense* because, as is well known, the Area begins where the limits of the continental shelves of the States end. To the extent that the outer limits of the extended continental shelves of the States are not yet precisely known, the boundaries of the Area are not determined. The lack of delimitation between the Area and the continental shelves of the States therefore leaves areas of the seabed in a legal limbo, between subjection to the sovereign rights of States over their resources and the protection conferred by the CHM statute. As a consequence, a phenomenon of creeping jurisdiction of coastal States in these areas has arisen.

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[10] Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/24/LTC/WP.1/Rev.1), 9 July 2018. Available at: *https://www.isa.org.jm/document/isba24ltcwp1rev1*.

[11] Decision of the Assembly of the International Seabed Authority relating to the strategic plan of the Authority for the period 2019-2023 (ISA/24/A/10), 27 July 2018.

The role of the ISA in this sphere is not an easy one, since despite its mandate and jurisdiction over the Area, UNCLOS did not grant it a right to participate in the determination of its boundaries, or of those of the continental shelves beyond 200 nm. Furthermore, at least in practice, there is no clearly defined term for the States to inform the Commission on the Limits of the Continental Shelf of their desires to expand their continental shelves [12]. States can therefore continue to explore resources (and exploit them soon afterwards) for what may be a considerable period of time, which increases the likelihood of affecting the marine environment [13].

The lack of delimitation of the Area also has a *vertical projection*, since there is a legal debate about whether the marine genetic resources in proximity to the ocean floor belong to the Area or not. Indeed, while the mineral resources on the seabed and ocean floor are clearly part of the Area, there is some controversy as to whether this also includes the sedentary living species that live in the water column next to that space. If so, these genetic resources would be part of the CHM that the ISA is called upon to protect, and this statute would govern access to them, their use and the way they are shared. While some mainly developing States interpret it in this way, other developed States argue that the legal regime of the Area must be interpreted restrictively, and that these resources are therefore subject to the freedom applicable to the high seas [14].

2.2. The urgent need to regulate seabed mining activities while they are already taking place

Another difficulty in the protection of the marine environment by the Authority is related to the urgent need to regulate mining activities in the Area while around thirty exploration contracts of seabed are in force [15] and the start of the exploitation phase is imminent.

In its regulation of activities in the Area, the ISA must strike the right balance between the various interests involved (developed and developing States, mining

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[12] Franckx, E. (2010), «The International Seabed Authority and the Common Heritage of Mankind: The Need for States to Establish the Outer Limits of their Continental Shelf», *The International Journal of Marine and Coastal Law,* 25, 543-567, 554-556.

[13] Without prejudice to Art. 82 UNCLOS. However, it is important to note that the implementation of article 82 is a pending issue. See Lodge, M. (2014), «The International Seabed Authority and the Exploration and Exploitation of the Deep Seabed», *Revue Belge de Droit International*, 1, 129-136, at 136.

[14] See: Tladi, D. (2015), «The Common Heritage of Mankind and the Proposed Treaty on Biodiversity in Areas Beyond National Jurisdiction: The Choice between Pragmatism and Sustainability», *Yearbook of International Environmental Law*, 25 (1), 113-132; Jaeckel, A. L. (2017), *The International Seabed Authority and the Precautionary Principle. Balancing Deep Seabed Mineral Mining and Marine Environmental Protectio*n, Brill Nijhoff, 125-126; Wood, M. C. (1999), «International Seabed Authority: The First Four Years», Max Planck UNYB, 3, 173-241, at 185; Hartley, D. (2012), «Guarding the Final Frontier: The Future Regulations of the International Seabed Authority», *Temp. Int'l and Comp. L. J.*, 26, 335-366, at 363. The latter work points out that preserving the Area and its resources for future generations implies an obligation to preserve both mineral and non-mineral resources.

[15] 29 exploration contracts have been concluded to date: See: *https://www.isa.org.jm/deep-seabed-minerals-contractors*.

companies, civil society, etc.) and evaluate all the «relevant factors including assessments of the environmental implications of activities in the Area» [16]. This must be a measured scientific debate. However, the fact that mining, prospecting and exploration activities are already underway may precipitate or affect some of the Authority's decisions. While the number of exploration contracts is increasing, numerous environmental NGOs continue to call for the concession of contracts to be suspended, on the grounds of their impact on the marine environment as well as the existence of alternative mineral sources [17].

The factor of time also has other implications. In a field like mining activities in the Area, in which there is great scientific, technical and commercial uncertainty [18], the precautionary principle is essential. The legal regime should therefore be sufficiently adaptable and flexible to allow modulations or increases in the environmental obligations of those operating in the Area. This flexibility is reflected in the ability to amend the normative instruments adopted by the ISA. However, the same does not apply to mining contracts. Thus, at present it is complex to find a way to compel States or companies that hold exploration contracts in force to assume new environmental obligations beyond those stipulated when they signed the contract. This leads to a fragmentation of the obligations of the contractors depending on when they signed the contract, which breaks down the uniformity of the legal regime.

2.3. The questioning of the Authority's normative jurisdiction

Finally, another hindrance to the ISA's protection of the Area and its resources by the ISA is related to the gradual erosion of its normative jurisdiction, partly as a result of the circumstances mentioned above. The adoption of rules by the ISA is being questioned due to ambiguity in some of the provisions of the UNCLOS itself. For example, the normative jurisdiction of the ISA regarding marine research activities has been questioned, reducing the organization's jurisdiction to the regulation of applied scientific research, and not including pure scientific research [19]. Furthermore, as discussed previously, the Authority's jurisdiction over the genetic resources of the Area is also being questioned.

As a consequence of this questioning, some aspects related to the Area and its resources are being negotiated through other channels. This is the case, for example, in the future adoption of a convention on the protection of biological diversity of areas beyond national jurisdiction [20]. The negotiation of aspects that affect the

[16] UNCLOS, Art. 165.2.f.

[17] Among others, see Greenpeace *et al.* (2018), «Submission on the ISA's Draft Strategic Plan, Protect the Marine Environment from Harm», 27 April. Available at: *https://www.isa.org.jm/files/documents/EN/SPlan/Subs/Joint.pdf*.

[18] Strategic plan of the Authority for the period 2019-2023 (ISA/24/A/10), 7, para. 14.

[19] See Casado Raigón, R. (2016), «La investigación científica en los espacios marinos reconocidos por el Derecho internacional», *Revista Española de Derecho Internacional*, 68 (2), 183-206.

[20] In 2015, the General Assembly of the United Nations adopted a Resolution calling for the negotiation of a binding instrument, which has led to the States directly negotiating a convention, UN General Assembly

protection of the Area and the use of its resources outside the ISA may affect the coherence of the legal regime as well as its governance[21].

3. SOME LIMITATIONS ON THE ISA'S STRUCTURAL DESIGN AND LAW-MAKING POWERS

In this complex scenario, the ISA's main tool to exercise its mandate to protect the environment is the adoption of RRP. The ISA has incorporated them into two types of legal instruments: *regulations* and *recommendations*. The regulations are binding on the ISA itself, the Member States and the contractors, and they are binding without requiring express consent (States give their consent when ratifying the UNCLOS) and without *op-out formulas*[22]. However, the recommendations usually have technical content and although they lack legally binding effects, they develop administrative or technical aspects regulated in the UNCLOS and in the regulations.

Both the regulations and the recommendations of the ISA regulate different interests in the Area. These include those provisions including measures for the protection of the marine environment in compliance with the mandate contained in Art. 145 UNCLOS, which are provisions aimed at regulating a *general interest*. The international practice when these interests are protected by treaties shows that they are usually negotiated by consensus in collective forums that foster rational deliberation between States and other international actors, and a better identification, interpretation and delimitation of these interests. Likewise, they are frequently adopted according to majority or qualified majority rules, which prevents the private interest of one or several States from vetoing the adoption of a good collective measure[23]. The general features of this procedure (collective debate, involvement of various actors, negotiation by consensus and adoption by majorities) can be exported to other normative instruments, such as resolutions by international organizations, and could benefit collective interests.

This is not the model of the ISA. On the contrary, the adoption of RRP for the protection of the marine environment by the Authority is subject to some limitations arising from the structural design of the Authority itself and its regulatory powers. These include an underdeveloped institutional structure; an imbalance of

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(2015), «Resolution on Oceans and the Law of the Sea on the Development of an International Legally-Binding *Instrument under the United Nations Conventions on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdictionral*», 9 June, A/RES/69/292, par. 1.

[21] About these risks, see the ISA (2018), «Statement to the Intergovernmental Conference on an International Legally Binding Instrument Under the United Biological Diversity of Areas Beyond National Jurisdiction (General Assembly resolution 72/249)», 5th September. Available at: *https://www.isa.org.jm/files/documents/EN/DSGStats/BBN-09-2018.pdf*.

[22] Jaeckel A. L. (2017), *op. cit.,* 144 et seq.

[23] See Rodrigo, Á. J., and Abegón, M. (2017), «El concepto y efectos de los tratados de protección de intereses generales de la Comunidad internacional», *Revista Española de Derecho Internacional,* 69 (1), 167-193, at 183.

normative power between its organs; very limited opportunities for participation by other actors in the adoption of RRP; and very limited powers to implement and monitor compliance with those RRP. These limitations are formal, but affect the potential to effectively protect the marine environment by the ISA since, in short, they diminish the role of the Assembly as a plenary and democratic body, and empower the Council, which due to its membership and decision-making rules, seems to be more inclined to prioritize the protection of other individual interests in the Area.

3.1. The institutional structure of the ISA is underdeveloped

The ISA is composed of three main organs (the Assembly, the Council and the Secretariat), two subsidiary bodies (the Legal and Technical Commission and the Finance Committee), and two bodies that are as yet not operational (the Enterprise and the Economic and Planning Commission). Of these, the Assembly, the Council and the Legal and Technical Commission are the organs participating in the normative function of the organization. The Assembly is the supreme organ and is plenary in nature (160.1 UNCLOS). It establishes the Authority's general policy, and it is the organ that considers and approves, upon the recommendation of the Council, the RRP on prospecting, exploration and exploitation in the Area (160.2.f.).

The Council is the main executive body and its composition is restricted. It is composed of thirty-six Member States elected for four years with possible re-election (161.3 and 4), which are divided into four groups or chambers representing special interests (161.1)[24]. As an executive body, the Council establishes the specific policies to be pursued by the Authority (162.1). Among its important normative functions, it recommends to the Assembly the adoption of RRP on the equitable sharing of financial and other economic benefits derived from activities in the Area, and adopts and provisionally applies the RRP, and any amendments thereto, taking into account into the recommendations of the Legal and Technical Commission, which remain in force provisionally until they are approved by the Assembly or amended by the Council (162.2.o.ii).

Finally, the Legal and Technical Commission (LTC) is the organization's technical advisory body and is composed of experts in various scientific fields related to ocean mining (165). Its main tasks are to make recommendations regarding the exercise of the Authority's competences, if requested by the Council (165.2.a); upon the Council's request, to supervise activities in the Area (165.2.c); to make recommendations on the protection of the marine environment (165.2.e), and to prepare assessments of the environmental implications of activities in the Area (165.2.d); and to make recommendations to the Council regarding the establish-

[24] As Aline Jaeckel points out, this implies that Russia and Japan have had a seat on the Council since its creation and that the United States, if it ratifies UNCLOS, will also have one, Jaeckel, A. L. (2017), *op. cit.,* 94.

ment of a monitoring program to observe, measure, evaluate and analyze, on a regular basis, the risks or effects of pollution of the marine environment resulting from activities in the Area (165.2.h). As regards its normative function, it formulates the RRP, submits them to the Council (165.2.f); and keeps them under review and recommends amendments to them to the Council from time to time (165.2.g).

Despite the strong environmental content of its mandate, the institutional structure of the ISA is still underdeveloped, and *does not include any committee or technical advisory body whose main function is the protection of the marine environment*.

3.2. There is a normative power imbalance between the ISA's organs

According to the UNCLOS, the Assembly adopts the RRP (160.2.fi), but approval always depends on the previous recommendation of the Council, in relation to a draft instrument prepared by the LTC (162.2.i) considering «all relevant factors including assessments of the environmental implications of activities in the Area» (165.2.f).

There is therefore *a marked imbalance of power between the organs of the ISA that participate in the adoption of RRP.* This power imbalance is detrimental to the Assembly, the plenary and democratic body. Although the Assembly is the body which formally adopts the RRP, its influence on the content is therefore very limited because it is always subject to the recommendation of the Council[25]. Once an RRP has been approved by the Council, it is applied provisionally before it is examined by the Assembly (Art. 162.2.o.ii) and until this occurs, the regulation remains in force and creates binding legal effects. Furthermore, even if the Assembly rejects its adoption, the instrument remains in force provisionally until the Council reviews it, and it may have legal effects that could have significant implications for contracts.

The restricted body is therefore the one with the greatest decision-making power. This means that its Member States it (some of which are permanent) hold the key to the regulation of this marine space.

The LTC lacks decision-making power. However, in practice, this body can also have an important influence because the rules finally adopted by the Assembly originate in the drafts it prepares. Given that the regulations of the ISA can sometimes include value judgments, *e. g.*, on the choice between different alternative management models, in those cases the individual opinion of the experts

[25] See the 1994 Agreement, Annex, Section 3, para. 1. As James Harrison points out, «Despite being the most democratic of the organs of the Authority, its powers have been somewhat diminished by the Part XI Agreement, which provides that the Assembly must act in collaboration with the Council on all issues», Harrison, J. (2011), *Making the Law of the Sea: A Study in the Development of International Law*, Cambridge University Press, 118.

of the LTC can have a significant influence on the final decision [26]. The members of the LTC must act independently and there are rules prohibiting conflicts of interest [27]. However, they are chosen by the Council from the experts proposed by the States, and they can be influenced in their decisions [28]. In addition, the private nature of its sessions [29] provides a framework in which this risk is increased.

The decision-making rules of these organs reinforce the power imbalance mentioned above

The 1994 Agreement establishes as a general rule that the «decision-making in the organs of the Authority should be by consensus» [30]. Only in the event that «all efforts to reach a decision by consensus have been exhausted», will the Assembly decide upon questions of procedure by a majority of the members present and voting and by a two-thirds majority for the questions of substance [31]. In the Council, the rule is the same, provided that such decisions are not opposed by a majority in any one of its chambers [32]. Finally, if it does not reach a consensus, the LTC will decide by a majority of the members present and voting [33]. As a result, the consensus rule may lead to a delay in the adoption of regulatory instruments, and although the 1994 Agreement provides for a subsidiary majority rule, this in practice gives each of the Council chambers a right of veto [34].

3.3. The scope for participation by other actors in the adoption of RRP is insufficient

According to its Operational Rules, other actors with interests in the management of the Area can participate as observers in the Assembly [35] and in the Council [36]. This allows environmental NGOs (such as Greenpeace or the Deep Sea Con-

[26] *Ibid.*

[27] *Rules of procedure of the Legal and Technical Commission,* Rules 11 and 13.

[28] As Henry G. Schermers and Niels M. Blokker point out: «Many individually elected experts are, in fact, not independent from their governments. They may hold an office under the supervision of their government, or they may depend on their governments in other ways. Even when they are independent, experts may be greatly involved in national policy. They may at the same time be advisors to their own governments. In that capacity, they may have shaped national policy [...] Although a person may feel independent, he still may be influenced by the public opinion which is dominant in his state», Schermers, H. G., and Blokker, N. M. (2011), *International Institutional Law*, *pub.* Martinus Nijhoff, Fifth Revised Edition, 218-219.

[29] *Rules of procedure of the Legal and Technical Commission,* Rule 6.

[30] 1994 Agreement, Annex Section 3, Decision-making, 2. In practice, almost all of the decisions are made by consensus.

[31] *Ibid.,* 3.

[32] *Ibid.,* 5, in relation to 9.

[33] *Ibid.,* 13.

[34] As Yoshifumi Tanaka points out: «The practical effect is that three of the four members of each chamber can block substantive decisions which do not require consensus. It is to be noted that Russia and the United States are permanently to be elected as members of the chamber provided for in paragraph 15(a) of section 3», Tanaka, Y. (2015), *The International Law of the Sea*, Cambridge, Cambridge University Press, second edition, 190-191.

[35] *Rules of procedure of the Assembly of the International Seabed Authority,* Rule 82, especially para. 1.e).

[36] *Rules of procedure of the Council of the International Seabed Authority,* Rule 75.

servation Coalition) to participate in the procedure. However, *the potential for real participation is insufficient*. On one hand, because that participation is not allowed in the deliberations by the Legal and Technical Commission. On the other, because many of the Authority's working documents (mining contracts, annual reports) are confidential, this prevents NGOs from examining them, making observations and in general, establishing their opinions on the RRP adopted by the Authority. The confidential nature of the data and information submitted or transferred to the Authority basically depends on its consideration as such by the contractor. Although the Regulations stipulate circumstances that remove this confidentiality, including «data and information that is necessary for the formulation by the Authority of rules, regulations and procedures concerning the protection and preservation of the marine environment and its security», when the documents contain equipment design data and are protected by intellectual property rights, its confidentiality prevails[37]. This is common practice in this field, since States and Companies have invested heavily to develop equipment capable of carrying out exploration and exploitation activities in such a hostile environment.

3.4. The ISA's enforcement and control powers have a limited approach

Once the RRP included in an ISA Regulation have been adopted, they become binding. The key to their effectiveness is then transferred to their implementation and oversight of compliance. According to UNCLOS, the ISA «shall exercise such control over activities in the Area as is necessary for the purpose of securing compliance with the relevant provisions of this Part and the Annexes relating thereto, and the rules, regulations and procedures of the Authority, and the plans of work approved» (153.4). As mentioned above, the LTC has the competence to make recommendations to the Council on the protection of the marine environment; on the establishment of monitoring programs to observe, measure, evaluate and analyze the risks or consequences of activities in the Area; and on the possibility of suspending or adjusting operations, or even excluding areas from exploitation, to prevent serious environmental damage.

The measures for oversight and supervision of the application envisaged in both the UNCLOS and the regulations include carrying out *inspections* (153.5/ 162.2.z/ 165.2.m, 165.3); supervision of the *reports* sent by the contractors, and in the event of non-compliance, *the institution of proceedings on behalf of the Seabed Disputes Chamber* (162.2.u), which may entail the imposition of fines or sanctions, including termination of the contract.

It can be concluded that, *to date, the approach envisaged to ensure compliance with the RRP is limited and primarily focused on control and the requirement of liability in case of non-compliance*. However, measures to encourage voluntary

[37] All the adopted Regulations contain similar stipulations, *e. g.*, the Cobalt-rich Ferromanganese Crusts Regulations (ISBA/18/A/11), Art. 38.

compliance[38], such as economic incentive systems, are not included in the regulations on prospecting and exploration. This weakness seems to be reversed in the Draft Regulation on exploitation of mining resources, which provides for the development of «incentive structures, including market-based instruments that support and enhance the environmental performance of Contractors, including technology development and innovation»[39].

4. TOWARDS REINFORCEMENT OF THE ISA'S NORMATIVE LEADERSHIP ROLE TO PROTECT THE ENVIRONMENT

Despite the normative instruments adopted to date, the complex scenario in which the ISA operates, together with its internal limitations, has limited the role that it can play in protecting the marine environment. For its President, however, the organization can exercise a leadership role:

> «As the only organization with a regulatory mandate over the seabed and ocean floor beyond national jurisdiction, the ISA is ideally placed to play a leadership role in the implementation of the goals and commitments relevant to the protection of biodiversity that have been endorsed by its member States in other fora. A proactive approach by the ISA would not only help to establish the credibility of the organization as a responsible manager of the largest portion of the seabed but would also help to dispel growing concerns as to the environmental sustainability of proposed seabed mining activities»[40].

We believe that this leadership is linked to the necessity to fully comply with its mandate to effectively protect the marine environment - an obligation that according to the Convention, is not subject to the needs of the market, or the commercial viability of mining in the Area.

Some of the limitations that have been mentioned above are contextual and therefore difficult to resolve by the organization. Nevertheless, it is able to adopt some structural and operational measures, as well as to prioritize some actions, in order to be better able to comply with its environmental mandate. In fact, this is the idea contained in the 2019-2023 Strategic Plan, in which the ISA acknowledges that it «must adapt, enhance and increase its structural and functional capacities at a rate that keeps pace with progress in deep sea mining»[41] to become an «Authority with the institutional capacity, *public acceptance, credibility* and state of readiness to act as 'fit-for-purpose' regulator of activities in the Area»[42].

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[38] About these techniques, see Rodrigo Hernández, Á. J. (2001), «Nuevas técnicas jurídicas para la aplicación de los tratados internacionales de Medio Ambiente», *Cursos de derecho internacional y relaciones internacionales de Vitoria-Gasteiz*, vol. 1, 155-244.

[39] Draft Regulations on Exploitation of Mineral Resources in the Area (ISBA/24/LTC/WP.1/Rev.1), Draft regulation 46.e). See also Draft regulation 61.

[40] Lodge, M. (2011), «International Seabed Authority», 26 *Int'l J. Marine & Coastal L*, 463-480, 470-1.

[41] Strategic plan of the Authority for the period 2019-2023 (ISA/24/A/10), 10, para. 24.

[42] *Ibid.,* 13, para. 35.e). Italics added.

4.1. Some structural measures

To that end, it should be a priority for the ISA to implement short-term structural measures aimed at:

(a) The *creation of an environmental Committee* or similar scientific-technical body, in accordance with the provisions of Art. 160.2.d and 162.2.d, with advisory and monitoring functions. This possibility has already been considered and has the support of some Member States[43].

(b) The *urgent improvement of transparency* in the process of adoption of RRP, especially within the LTC[44]. As some observations pointed out in the 2019-2023 Draft Strategic Plan[45], as a guiding principle of good governance, transparency in the ISA must not only refer to the access to information, but also, in accordance with the Aarhus Convention, it is necessary to promote public participation in decision-making processes, and in accountability processes[46]. It is encouraging that the Draft Regulation on exploitation of mining resources provides for improvement of transparency[47].

(c) The *promotion of the participation in the adoption of RRP of non-state actors that defend the general interest in the protection of the environment* (NGOs, activist groups), guaranteeing calm dialogue and increased possibilities of influencing the normative instruments. Achieving this participation should be a primary objective in order to contribute to improve the perception of the ISA as a forum that is more permeable to environmental concerns.

4.2. Some strategic measures

Given that the exploration phase is about to end, it is also essential to identify and prioritize strategic measures that will reinforce the normative leadership of the ISA in the protection of the marine environment. As a non-exhaustive list, the ISA should focus the exercise of its competences on:

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[43] ISA (2018), *Earth Negotiations Bulletin* (ENB-IISD PART I FINAL BULLETIN), Friday 9 March, 11. Its demand has been reiterated by the observers who made observations on the ISA's 2019-2023 Strategic Plan. In particular, see the observations made by the DeepSea Conservation Coalition, 12 April 2018. Available at: *https://www.isa.org.jm/files/documents/EN/SPlan/Subs/Comments.pdf*.

[44] On the need and way to improve transparency in the ISA, see Ardron, J. A.; Ruhl, H. A., and Jones, D. O. B. (2018), «Incorporating transparency into the governance of deep-seabed mining in the Area beyond national jurisdiction», *Marine Policy*, 89, 58-66.

[45] For example, see the observations made by the Deep Sea Conservation Coalition, 12 April 2018, especially the Appendix; and Greenpeace et al., 27 April 2018; as well as those by the Institute for Advanced Sustainability Studies (IASS), 12 April 2018. All are available at: *https://www.isa.org.jm/files/documents/EN/SPlan/Subs/Comments.pdf*.

[46] Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (1998), Aarhus, Denmark, 25 June, *UNTS* 2001, vol. 2161.

[47] Exploitation Draft Regulations (ISBA/24/LTC/WP.1/Rev.1), Draft Regulation 46.d).

(a) *Being proactive in regulating uncovered issues, e. g.*, promoting the adoption of a legal regime related to the environmental sustainability of mining in the Area, or about environmental protection of the Area related to the installation of submarine cables. If the ISA manages to effectively address these issues, it can lead to both coherence and expansion of the regime's environmental rules.

(b) *Promoting compliance with legal instruments*, especially those that are already in force, by improving the design of exploration and exploitation contracts in the Area. Clauses must be included to make them more flexible to adapt to new environmental needs. To that end, and in line with the provisions of the Draft Regulation on exploitation of mining resources, the ISA must incorporate mechanisms such as economic incentives to encourage contractors' voluntary compliance with obligations. These incentives could be also used to reward compliance with the Authority's recommendations.

(c) *Increasing collaboration with other regional and global organizations, agencies, committees or programs, whose competences may affect the protection of the Area and its resources*, such as the United Nations Environmental Programme and the International Cable Protection Committee. As reflected in the Memorandums of Understanding that the ISA has concluded to date[48], collaboration between the ISA and organizations with a complementary mandate must be increased. Coordinated action would help to strengthen the effectiveness of environmental protection measures.

(d) *Starting the Environmental Liability Trust Fund planned in the Draft Regulation on exploitation of mining resources*[49]. This fund appears to include the proposal by the Seabed Disputes Chamber in its Advisory Opinion of 2011 to create a special fund to cover damages resulting from acts not prohibited under international law[50]. Beginning the fund now, in the exploration phase, would be desirable, since pre-exploitation activities can also have an impact on the marine ecosystem.

(e) *Reinforcing its commitment to the precautionary principle*. Given the often-irreversible nature of environmental damages, as well as the uncertainty surrounding this marine space, respect for the precautionary principle is particularly

[48] See the *Memorandum of understanding between the International Cable Protection Committee and the International Seabed Authority*, 15 December 2009-25 February 2010, which states: «Both the ICPC and the Authority have a strong interest in the protection of the marine environment from harmful effects arising from their respective activities; Increased cooperation between the ICPC and the Authority would help to avoid potential conflicts between the laying and maintaining of submarine cables and current and future activities in the Area». In 2010, the ISBA concluded a similar agreement with the OSPAR Commission, *Memorandum of understanding between the OSPAR Commission and the International Seabed Authority*. Both are available at: *https://www.isa.org.jm/files/documents/EN/Regs/MOU-ICPC.pdf*.

[49] Exploitation Draft Regulations (ISBA/24/LTC/WP.1/Rev.1), Section 4.

[50] Seabed Disputes Chamber (2011), Advisory Opinion of 1 February on the *Responsibilities and obligations of states with respect to activities in the area*, para. 209.

applicable here[51]. As a result, neither the inclusion of soft obligations in some of the clauses of the exploitation contracts («as far as reasonably possible»)[52], nor the mention to «commercial viability» in the Draft Strategy Plan appears to be aimed in this direction.

5. FINAL REMARKS

Many of the challenges that humanity faces today are related to sustainable development, or the urgent need to meet the needs of present generations without compromising the ability of future generations to meet their own needs. The seabed, and the seabed beyond the limits of national jurisdiction in particular, is a scenario in which this challenge is going to be especially evident in the coming years, and in fact it is already becoming apparent.

Nevertheless, two factors that distinguish this fight from others that are going to take place in other spheres of international interest are on the one hand, its status as CHM; and on the other, the existence of an international organization that is responsible for implementing it on behalf of humanity.

Although the general obligations arising from the common heritage of mankind statute are clear, the challenge is their practical implementation in the management of the Area and its resources[53]. To that end, it is necessary to place the protection of the marine environment at the very center of the concerns of the ISA, particularly now that it is addressing the legal regime that will allow the resources of the seabed to be exploited[54]. As has been proposed, it is therefore advisable to implement some internal measures and prioritize some external actions. Only then will the Authority be able to play a crucial role in attaining the SDGs, as it has claimed[55].

Finally, it must be remembered that States also have the responsibility to ensure that activities carried out in the Area comply with the legal regime of Part XI, including regulations[56]. Collaboration between States and the Authority is therefore necessary to ensure the defense of the general interest in order to protect the marine environment.

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[51] This is established by the Regulations approved by the Authority, which contain similar stipulations. For example, see the Cobalt-rich Ferromanganese Crusts Regulations (ISBA/18/A/11), Regulation 33, para. 2.

[52] As contained, for example, in *ibid.,* Regulations 5 and 33, para. 5.

[53] See, among others, Franckx, E. (2010), *op. cit.,* 552.

[54] In this sense, the participants in the recent session of the ISA of March 2018 reiterated the urgency to pay attention to «the need to strengthen the draft regulations with regard to the implementation of the common heritage of humankind and the protection of the marine environment». ISA (2018), *Earth Negotiations Bulletin* (ENB-IISD PART I FINAL BULLETIN), 9 March, 1.

[55] In its Appendix, the ISA's 2019-2023 Strategic plan includes a list of what may be the Authority's main contributions to achievement of the ODSs. In particular, and in relation to Goal 14, it points out that within the framework of its competences, the Authority can have an influence on «increasing scientific knowledge, developing research capacity, transferring marine technology and advancing a common and uniform approach, consistent with the Convention and international law, to the sustainable use of ocean resources», Strategic plan of the Authority for the period 2019-2023 (ISA/24/A/10), 20, Appendix I.

[56] UNCLOS, Arts. 139.1 and 153.4.