Analysis of Draft International Seabed Authority Exploitation Regulations

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Contents

Introduction

The following addresses some main issues arising from changes from the 2018 to 2019 draft regulations, and takes into account the LTC note that accompanied the release of the latest draft.

First, an overview speaks of some general overriding issues. Secondly, principal issues with respect to the latest draft are discussed. Finally, an Annex addresses the draft regulations regulation-by-regulation. As such there is some overlap between the principal issues discussion and the Annex.[1]

Overview

- REMPs need to be incorporated in the regulations and made mandatory
- EIAs need to be defined, scoped, subject to public comment, assessed and revised accordingly, and integrated with the environmental impact statement.
- Effective control needs to be carefully defined.
- The institutional framework and the functioning and capacity of the ISA needs to evolve, as is provided in the 1994 Agreement, and should include an environmental committee.
- A public process for formulation of Standards and Guidelines needs to be established, and standards should be binding.
- Accessible and effective dispute resolution mechanisms should be implemented.
- Plans of work should be flexible, capable of modification in accordance with a described process, and not of excessive duration.
- All documents comprising the Plan of Work should be subject to public comments, which are taken into account.
- The Fundamental Principles need to be carefully defined and mainstreamed into the regulations, so that applications and renewals are measured against them.
- Protection reference zones (PRZs), impact reference zones (IRZs), and protected areas, not limited to areas of particular environmental interest (APEIs), need be defined and mainstreamed into the REMPs, EIAs and EMMPs.
- EMMPs should be revised by the Authority, rather than the Applicant.
- The regulations need to make clear the procedure whereby the LTC considers and responds to public comments on proposed Plans of Work, including the environmental plans.
- The common heritage of mankind needs to be operationalized in the regulations. For instance, the LTC should be required to consider whether the Plan of Work benefits mankind as a whole, by measuring the application against the Fundamental Principles in DR 2, where the common heritage of mankind should be properly expressed, consistent with Article 150(j), to read "maintenance of the principle of the common heritage of mankind".
- Any renewal applications must take into account all the Fundamental Principles, including environmental considerations, should be subject to public review, and should enable the ISA to take into account any new information or circumstance in deciding whether or not to grant a contract extension.

- The Draft Regulation 58 review should be carried out as an independent assessment, with public comment
- A liability regime needs to be established. There has been virtually no discussion of liability to date in Council.

Principal issues with respect to the latest draft

The following raises specific issues with respect to the latest draft compared with the previous draft. The Annex following this section engages in a consecutive analysis of the draft regulations – for instance, some issues were not addressed in the latest draft. As such there is some duplication .

DR 2: The Fundamental Principles are important – indeed, crucial. Regulation 2 is now called "Fundamental Policies and Principles" and added most provisions of UNCLOS Art. 150, including the following:

(v) Increased availability of the minerals derived from the Area as needed in conjunction with minerals derived from other sources, to ensure supplies to consumers of such minerals;

The LTC justified this by saying in LTC/25C/18/advance by saying that it was "In response to stakeholder concerns that reproducing only part of the text of article 150 could be misleading". But there is nothing in Art 150 to stay that its provisions are "fundamental policies and principles" and also the terminology "fundamental policies" is very strange. How can implementation of regulations be judged consistent or inconsistent with a 'fundamental policy'. And more concerning, the ISA by including (v) is increasing the impact of article 150(e).

Also, the LTC have deleted the words "conservation" from the provision previously drafted as "A fundamental consideration for the development of environmental objectives shall be the effective protection and conservation of the Marine Environment, including biological diversity and ecological integrity;"

This is derived from UNCLOS Article 145, which requires the ISA to "ensure effective protection for the marine environment" and provides for "(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." The LTC cited a "request by the Council to maintain the distinction between "conservation" and "preservation" in the regulations". They did not explain more. This does not justify changing the words of Art 145 to delete "conservation".

The Fundamental Principles [and Policies] should be mainstreamed. The current wording is

"(i) Ensure that these Regulations, and any decision-making thereunder, are implemented in conformity with these fundamental policies and principles."

This is still bootstrapping: the fundamental principles must be properly mainstreamed. For instance, DR 12(4) and 13 (which provide for assessment of applications) should require implementation of DR 2. This is crucial: for instance, common heritage of mankind only appears in DR2, whereas DR 12(4) refers to "benefits of mankind as a whole" – which echoes the preamble "interests and needs of mankind as a whole" rather than common heritage of mankind - and the precautionary approach in DR2, and DR 44 (general obligations).

DR 3: The LTC has restricted the obligation for contractors to cooperate with the ISA to provide data and information, to an obligation now only "to use best endeavours."

DR 11: As drafted, it is up to the Applicant to change the Environmental Documents – or not. The ISA has no opportunity to prescribe changes to the Environmental Documents - the only changes made are those the applicant chooses to make. This is unacceptable. At the end of the day, the ISA as regulator must be able to make necessary changes.

DSCC has long advocated that there is a role for an Environmental or Scientific Committee in examining the EIA, EMMP and other environmental documents. In turn, Belgium has proposed the use of experts. The LTC responded that "While the Commission sees merit in seeking inputs from external experts to complement the expertise within the Commission, the Commission was conscious to avoid establishing a mechanism that would be overly bureaucratic and formalistic." Having outside experts is not formalistic or bureaucratic: it is essential with all the scientific uncertainties. This is supported by Article 165(2)(e): The LTC is to "make recommendations to the Council on the protection of the marine environment, taking into account the views of recognized experts in that field"

DR 12: This is actually a crucial provision, despite being named 'general'. The important consideration is in the first (there are two, in a numbering error) DR 12(4): this is given special status in DR 13, yet rather than provide for incorporation of the Fundamental Principles [and Policies], instead requires "regard to the principles, policies and objectives relating to activities in the Area as provided for in Part XI and annex III of the Convention, and in the Agreement and in particular the manner in which the proposed Plan of Work contributes to realizing benefits for mankind as a whole.". This potentially sets the Fundamental Principles [and Policies] listed in DR2 against the (other, undefined) principles, policies and objectives in the Convention. It should simply refer to the Fundamental Principles [and Policies], possibly in addition to the provisions of the Convention. Worse, the second half of the sentenced may at first sight be thought to be referring to common heritage of mankind, but it does not use those words, and could be reflecting "the interests and needs of mankind as a whole", paragraph 5 of the Preamble, instead of the following paragraph, being the common heritage of mankind, or something else different or broader than common heritage of mankind. This is a good illustration why DR 12 and 13 should simply incorporate DR 2, which should be carefully drafted.

DR 13: (now combined with former DR 14): The newly combined DR 13 and 14 should be renamed "Assessment of Applicants and Applications" if it is to be continued to be merged: the current DR 13(4) is clearly an assessment of the application, not the applicant.

Secondly, DR 13 should simply provide for the assessment of compliance with the Fundamental Principles [and Policies] contained in DR2 (e.g. the precautionary approach is not included in DR 13, but is in the Fundamental Principles [and Policies]: the new DR 13(4) (e) now does provide for "Provides, under the Environmental Plans, for the effective protection for the Marine Environment in accordance with the rules, regulations and procedures adopted by the Authority, in particular the fundamental policies and procedures under regulation 2" but these are at the same level as e.g. "(a) is technically achievable and economically viable". The Fundamental Principles [and Policies] should be just that: fundamental, not on the same level as other considerations.

This wording (inadvertently, one presumes) requires the LTC to consider whether the Environmental Plans will *inter alia* promote the '[i]ncreased availability of the minerals derived from the Area…' which is clearly not an appropriate criterion for assessing effective protection of the marine environment

DR 12(4)(a) requires the LTC to determine whether a Plan of Work is technically achievable and economically viable, but not environmentally sustainable. As they are potentially in conflict, it is clear under Article 145 that the effective protection should be "ensured," not balanced against economic viability.

DR 14: This should enable the ISA to make the amendments, not 'request' the applicant to amend its Plan of Work. As noted elsewhere, the ISA is in the role of a regulator, not allowing the Applicant to choose its conditions. In response to the suggestion that the ISA can reject the application if suggested wording is not accepted, that is not entirely correct. Firstly, if the regulations allow the Applicant to reject the proposal (as they currently do in DR 14(2), the Applicant cannot be legally faulted for availing itself of an option granted in the Regulation. Secondly, again, under DR 15(1), if the Commission determines that the applicant meets the criteria set out in regulations 12 (4) and 13, it *shall* recommend approval of the Plan of Work to the Council. Firstly, there are no criteria set out in DR 12(4). Secondly, the only applicable criteria on environmental matters is in 12(4)(e): "(e) Provides, under the Environmental Plans, for the effective protection for the Marine Environment in accordance with the rules, regulations and procedures adopted by the Authority, in particular the fundamental policies and procedures under regulation 2." That formulation, by not granting a discretion, sets the scene for the Applicant to argue that it has met the criteria in DR 12(4)(e), for instance because certain criteria in DR 2 are met (such as "(v) Increased availability of the minerals derived from the Area as needed in conjunction with minerals derived from other sources , to ensure supplies to consumers of such minerals;"

Far better to grant the LTC a discretion.

DR 15: (1) Reads that "1. If the Commission determines that the applicant meets the criteria set out in regulations 12 (4) and 13, it shall recommend approval of the Plan of Work to the Council." Instead, there must be discretion, taking into account the many uncertainties (including cumulative impacts that may be caused by adding a new mining project to other activities in the region), potential environmental damage, precautionary approach and 30 year contract terms.

DR 20: DSCC has long said that 30 years for a contract period is too long given the many uncertainties inherent in deep sea mining. Yet instead of reducing a possible contract time, the latest draft regulations in effect increased it (to a maximum of 30 years) by adding "and including a reasonable time period for construction of commercial-scale mining and processing systems," without adding countervailing considerations, such as uncertainties. And worse, the indefinite extensions are all but automatic, with no discretion: in effect, mining contracts are indefinite. DR 20(6) provides that "[t]he Commission shall recommend to the Council the approval of an application to renew an exploitation contract, and an exploitation contract shall be renewed by the Council, provided that […] (the only criterion relevant to the environmental protection is that "[t]he Contractor is in compliance with the terms of its exploitation contract and the Rules of the Authority…), and DR 20(7) provides that "7. Each renewal period shall be a maximum of 10 years", clearly envisaging more than one renewal period, with no qualification or limitation of the number of periods.

DR 21: Change of sponsorship: no provision is made for liability for existing damage when sponsorship is terminated. A former provision was deleted which has provided that "7. Nothing in this regulation shall relieve a Contractor of any obligation or liability under its exploitation contract, and the Contractor shall remain responsible and liable to the Authority for the performance of its obligations under its exploitation contract in the event of any termination of sponsorship." The LTC provided no explanation for this deletion.

DR 24: This still provides that "a "change in control" occurs where there is a change in 50 per cent or more of the ownership of the Contractor, or of the membership of the joint venture,

consortium or partnership, as the case may be, or a change in 50 per cent or more of the ownership of the entity providing an Environmental Performance Guarantee." This is absurd: a change in control can occur with 1% or any other share far below 50% (e.g. if one party owns 49.9% and one owns 50.1%, a change of control could take place by 0.2%)

A change of control is important as for financing/security reasons, for instance, or through sale and purchase, a completely separate party may end up carrying out the mining than that which applied for and was granted the Contract. This may also require a new sponsorship arrangement with a different sponsoring State. Yet DR 24 now only provides that "4. Where the Secretary-General determines that following a change of control, a Contractor may not have the financial capability to meet its obligations under its exploitation contract, the Secretary-General shall inform the Commission accordingly. The Commission shall make a report of its findings and recommendations to the Council." There is no provision for discretion other than whether "the Contractor will continue to be able, and in particular will have the financial capability, to meet its obligations under the exploitation contract or Environmental Performance Guarantee". Instead, DR 24 should provide that a change of control always triggers a Council review and prior consent under DR 23.

DR 40 As drafted, this may permit the contractor to undertake corrupt or bribery activities insofar as the sponsoring State does not expressly prohibit this by law.

DR 43 The LTC has deleted "effective control" (formerly "lawful obligations under any national law to which it is subject by reason of effective control, incorporation or otherwise, including the laws of a sponsoring State and flag State."; now "lawful obligations under any national law to which it is subject.") This has introduced uncertainty whether failure to comply with obligations under which it is subject by reason of effective control other than that of the sponsoring State is a breach of the regulations. The LTC gives no reasons for this change.

DR 47 While the EIA process has finally been introduced, there is no clarity even over who is responsible for overseeing the EIA process and who carries out the EIA, other than stating that the applicant or contractor prepares the EIS. Scoping has finally been re-inserted, which is a good thing, but this provision has a long way to go. There is no public review included.

DR 52 The contractor conducts its own performance assessment of its own Environmental Management and Monitoring Plan. This is unacceptable. The performance assessment should be independent of the contractor. Also, the 2 year period has been deleted: 2 years was already too long. Now it is subject to what the Contractor chooses to put in its own Plan.

DR 54: The Environmental Liability Trust Fund has been recast as an Environmental Compensation Fund, with functions including research, education and training programs and funding of research into restoration – all of which will deplete the fund, and all of which should be carried out by contractors from their own funds. This is completely at odds with what was recommended by the Seabed Disputes Chamber in the Advisory Opinion, being needed to cover a gap left when for instance a contractor is insolvent.

To be very clear: there must be two funds: a Liability Fund and an Environmental Fund.

DR 56: Funding of the Fund: MIT in the Financial Workshop in February recommended funding by contractors at a rate of 1% ad valorem value of ore extracted. But this would mean that the Fund is necessarily underfunded for decades until it reaches the recommended $500 million. Rather, the Fund should be directly funded by the Contractor of its own revenues, under the polluter pays principle.

The LTC acknowledges this needs more discussion: "The Commission has asked that the secretariat reflect on the discussions around this topic, with a view to advancing the rationale, purpose and funding of such fund, and how to ensure the adequacy of such fund through its funding."

DR 58: Reviews can only result in contractors amending their own Plan of Work. They should be able to result in the ISA amending them (with Council approval etc.

DR 94: It is now provided that Standards are legally binding. This has been a strong DSCC recommendation.

However, DR 94, 95, 107, and Annex IV have introduced a new term "relevant stakeholders". This is a new restriction on stakeholders and should be replaced with 'stakeholders'.

Other observations

"Mining Area" and "Contract Area" definitions ignore the fact that the area impacted may be far greater than the contracted mining area (e.g. included the water column and any area impacted by the mining plume)

"Incident" has had the word "situation" deleted and now reads:

"Incident" means a ~~situation~~ an event, or sequence of events where activities in the Area result in: (b)Serious Harm to the Marine Environment or to other existing legitimate sea uses, whether accidental or not, or a situation in which such Serious Harm to the Marine Environment is a **reasonably foreseeable** consequence of the situation;

Note: foreseeability should not be a requirement. Causation is the nexus.

Annex A: Analysis of Exploitation Regulations Draft of 27 March 2019

With Explanation Note by LTC

ISBA/25/C/WP.1

Draft Regulation	***Issue***	***Recommendation***
2.5, Annex 4(d), Annex 7(1)(c), Annex 8(4), 13	REMPs	The DRs do not yet making them compulsory or a prerequisite for granting mining rights. REMPs should be a prerequisite for approving Plans of Work. The LTC did remove 'if any' from several places in the 2019 draft, possibly in this direction. The Draft Regulations fail to specify that no prospecting, exploration or exploitation can take place within an APEI. This could be remedied by including those prohibitions under draft Regulation 15(2)'s list of areas where the Legal and Technical Commission cannot recommend approval for exploitation. The draft Regulations do not prescribe a process by which REMPs should be developed, reviewed, and overseen. No timelines are set, and no scenario is described for the establishment and revision of APEIs.
5(1)(b), 6, 7 (2)(b), 24, 40,	Effective control	Effective control arises in the Convention. Annex III Article 4(3) as well as Article 9(4) with respect to reserved areas, and Article 139 with respect to compliance and liability, and Article 153(2)(b) with respect to the Enterprise. It is therefore important that the Exploitation Regulations ensure that the criteria and procedures for implementation of the sponsorship requirements are be set forth in the rules, regulations and procedures of the Authority (Annex III Article 4(3).) There is still no discretion about effective control, which term is undefined. The current provisions continue to omit the substantive requirements in DR14 (dropped in 2018) and leave no discretion to the Authority in case of a change in sponsoring state. A contractor could obtain a new sponsoring State without giving reasons.

		While under DR 6, where an applicant has the nationality of one State but is effectively controlled by another State or its nationals, each State shall issue a certificate of sponsorship. There is no such requirement now where the applicant changes sponsoring State: thus potentially avoiding this control. Likewise, the applicant by changing the sponsor would avoid the requirement for a declaration that the sponsoring State assumes responsibility in accordance with Articles 139 and 153 (4) of the Convention and Annex III, Article 4(4), of the Convention. (DR 3(3)) Also, by putting the change of sponsor requirements in the contract, they are no longer part of the approval or review process. Control could be defined in terms of shareholding, voting rights or directorships. One common criterion is that effective control was about whether an entity or a person has the power to effect or make changes in a company, such as the power to appoint and remove directors. Effective control and change of control would also be relevant to the issue of monopolization. Effective control can be defined in economic or regulatory terms. If it is defined in regulatory terms, it is all but meaningless: it is a simple matter of paperwork. For meaningful due diligence and control of authorities, effective control must be defined in economic terms. For example, one definition could be: "Effective control" shall mean the exclusive right to appoint the majority of the directors or to determine the outcome of decisions relating to the financial, management or policy decisions exercisable by a person or persons acting individually or in concert, directly or indirectly, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements or in any other manner. A State exercises effective control over a Contractor if the beneficial shareholders exercising effective control have the nationality of that State." (Effective control could also be defined in terms of beneficial ownership.) "National" (currently undefined) could be defined as: "National" means a natural person who has the nationality of a Sponsoring State or a juridical person who is under the effective control of a Sponsoring State. Regulation 5 (1) (b) should then read:

		States parties, State enterprises, Nationals, when sponsored by such States, or any group of the foregoing which meets the requirements of these Regulations. DR 6(1) could read: 1. If more than one State has effective control, as in the case of a partnership or consortium of entities which are effectively controlled by more than one State, each State involved shall issue a certificate of sponsorship. In addition, the annual report in DR 38 should include a statement disclosing whether effective control has changed.
	Protected Areas	It is important that environmental management plans can incorporate protected areas within claims, in addition to PRZs and IRZs. Definitions of IRZs should ensure all impacts are included, as recommended by scientists at the International Seabed Authority Workshop on the Design of Impact Reference Zones and Preservation Reference Zones, in Berlin, 27-29 September 2017. Depending on scientific recommendations and information and advice received during the EIA process, it may be necessary to ensure that certain areas, such as particularly vulnerable, endemic or rare species or ecosystems, (rare or fragile ecosystems are to be protected and preserved under Article 194(5), and the natural resources of the Area are to be protected and conserved and damage to the flora and fauna of the marine environment prevented, under Article 145) are not subject to either mining or effects from mining at any time, and are monitored to ensure their continued protection, and where necessary follow-up action where monitoring shows unacceptable impacts in or beyond mined areas all need to be comprehensively addressed.
Institutional Framework		The institutional mechanism of the ISA will need considerable evolution, which is provided for in the 1994 Agreement. Australia has suggested a scientific or environmental committee; Belgium has suggested independent experts. This will be indispensable for implementation of the exploitation regulations. Likewise, transparency requires that the LTC holds its sessions in public, closing sessions only when matters of commercial confidence are under discussion. In addition, the current structure and staffing of the ISA does not allow for the kind of day-to-day regulation, inspections and enforcement functions which will be necessary. The structure and function of the ISA will also have to address potentially conflicting ISA functions such as issuing mining contracts, effectively being a contractor itself (via the Enterprise), receiving and distributing

		royalties and other payments, administering the Funds, as well as environmental permitting and management. These are all challenging issues which have yet to be addressed.
2	Fundamental Principles	The change in wording from "Fundamental Principles" to "Fundamental Policies and Principles" makes no sense: the term "fundamental policy" both implies that some policies are fundamental and not, and somehow would require regulators to balance fundamental and non-fundamental policies. DR 2 (vi) is currently: "(vi) Accountability and transparency in decision-making; " This should also include implementation, monitoring, compliance etc. The Fundamental Principles [and Policies] should be mainstreamed. The current wording: "(i) Ensure that these Regulations, and any decision-making thereunder, are implemented in conformity with these fundamental policies and principles." Is bootstrapping: instead, for instance, DR 13 should require implementation of DR 2. This is particularly important, as the precautionary approach currently is not a matter for assessment under DR 13 – is only in DR 2 and 44 (general obligations) The wholesale inclusion of UNCLOS Art. 150, to include for instance "(v) Increased availability of the minerals derived from the Area as needed in conjunction with minerals derived from other sources, to ensure supplies to consumers of such minerals;" is unjustified and appears to be intended to justify seabed mining by reference to alleged need. There is nothing in Art. 150 to indicate that every provision in that Article is fundamental, and certainly nothing to suggest that a postulated need for minerals is a fundamental principle. This is contrary to SDG 12, which calls for sustainable consumption and production patterns, as well as 2019 Global Resources Outlook calling for de-linking resource use from growth. The deletion of 'conservation' is inconsistent with Article 145, which provides for "ensure effective protection for the marine environment" and "(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."

		In (vii), "encouragement" of public participation is not enough: it should instead read "ensuring" public participation.
4	Compliance notice/Coastal States	Firstly, "serious harm" is too high a threshold: Article 142 provides for "due regard" to coastal States, and for consultations. There is no test of "serious harm" for coastal States in the Conventin. Moreover the threshold for a compliance notice in DR 4 should not be that [the applicable test] [Serious Harm[is 'likely' (revised paragraphs 3 and 4). A more appropriate test is suggested with respect to disapproving areas, where 'substantial evidence indicates' the risk of [serious harm] to the marine environment (UNCLOS Art 165(2)(l).)
DR 7(3)(a), 18(7),40(2)(k), Annex II	Data	Data from EIAs conducted during exploration (e.g. equipment testing) and including data collected should also be included in an application.
10	Prelim review by SG	The review by the S/G does not indicate whether it is a procedural or substantive review. If it is substantive review, a lot more detail needs to be specified – is it a review for compliance with the EIA, EIS , EMMP – e.g. is baseline adequate? No transparency.
11	Environmental Plans	The Authority should revise environmental plans in DR 11.2, rather than the Applicant. This is fundamental: the Applicant contractor should not be in control of all environmental plans and revisions; the ISA should be. This objection runs throughout the Draft Regulations.
12	General	This is actually a crucial provision, despite being named 'general'. Important is the consideration in DR 12(4): this is given special status in DR 13, yet rather than provide for incorporation of the Fundamental Principles [and Policies], instead requires "regard to the principles, policies and objectives relating to activities in the Area as provided for in Part XI and annex III of the Convention, and in the Agreement". This potentially sets the Fundamental Principles [and Policies] against the principles, policies and objectives in the Convention. It should simply refer to and require compliance with the Fundamental Principles [and Policies], possibly in addition to the provisions of the Convention. The first DR 12(4) (there are two) refers to "benefits of mankind as a whole" – which echoes the preamble "interests and needs of mankind as a whole" rather than common heritage of mankind. This is another reason DR

		12 and 13 should simply refer to DR 2 rather than reformulate the considerations. The review in (misnumbered) DR 12(4)(*bis*), like DR 14, should take into account public comments. An application for Exploitation not be recommended for approval unless and until the Commission has satisfied itself as to the adequacy of the baseline data in line with the relevant Standards. This is a substantive determination which should not be made by SG under DR 10.
13	Assessment	Firstly, the newly combined DR 13 and 14 should be renamed "Assessment of Applicants and Applications" if it is to be continued to be merged: the current DR 13(4) is clearly an assessment of the application, not the applicant. Secondly, DR 13 should simply provide for the assessment of compliance with Fundamental Principles [and Policies] (e.g. the precautionary approach is not included in DR 13, but is in the Fundamental Principles [and Policies]: the new DR 13(4) (e) now does provide for "Provides, under the Environmental Plans, for the effective protection for the Marine Environment in accordance with the rules, regulations and procedures adopted by the Authority, in particular the fundamental policies and procedures under regulation 2" but these are at the same level as e.g. "(a) is technically achievable and economically viable". The Fundamental Principles [and Policies] should be just that: fundamental, not on the same level as other considerations. DR 12(4)(a) requires the LTC to determine whether a Plan of Work is technically achievable and economically viable, but not environmentally sustainable. As they are potentially in conflict, it is clear under Article 145 that the effective protection should be "ensured," not balanced against environmental sustainability. The Draft Regulations should require compliance with the fundamental principles (in DR 2), which should be enlarged to include, but not be limited to, REMPs, Article 145 in all its facets, Article 192, Article 194(5), the ecosystem approach as well as the precautionary approach, and the LTC and Council should measure proposed Plans of Work in their entirety against the fundamental principles.
14	Amendments to a proposed Plan of Work	This should enable the ISA to make the amendments, not 'request' the applicant to amend its Plan of Work.

15	Commission's Recommendation for approval of a Plan of Work	(1) Reads that "1. If the Commission determines that the applicant meets the criteria set out in regulations 12 (4) and 13, it shall recommend approval of the Plan of Work to the Council." Instead, there must be discretion, taking into account the many uncertainties, potential environmental damage precautionary approach and 30 year contract terms. The Recommendation in DR 15 should take into account compliance with the Fundamental Principles in DR 12 and the LTC should retain a general discretion to approve or deny a Plan of Work. If reasonable and practical mitigation measures are insufficient to achieve the fundamental principles (including the effective protection of the marine environment and protection and preservation of rare and fragile ecosystems and the habitat of depleted, threatened or endangered species), then the Plan of Work should not be approved. Likewise, if the baseline is inadequate, the Plan of Work should not be approved. If a Plan of Work is approved, and after work commences, it is shown that assumptions with respect to harm to the marine environment were wrong, then there must be mechanisms to amend and when necessary suspend or cease operations to protect the marine environment. Regulation 15 should require the Commission to provide sufficient detail as to the Plans of Work and a record of the LTC's deliberations to be placed before the Council in order to facilitate informed decision-making about whether or not to approve a Plan of Work, or take compliance action etc. This should include: • a record of the LTC's deliberations, what inputs they've received, what they've taken into account, how they have weighted / assessed these etc. The Regs should recognise that some of the confidential info might need to be shared with the Council (under conditions of confidentiality), and • a draft contract. • A requirement for Council decisions relating to Plans of Work (e.g. contract award) to be published with reasons.
20	Term, Flexibility	The ability to change the EMMP and other necessary parts of the Plan of Work, particularly in light of new information, new developments and new science is crucial to flexibility and adaptability.

		DR 20 provides for a maximum term of 30 years. The ISA needs to be able to set a shorter period. The 1994 Agreement provides for a term of exploration contracts of 15 years (Annex, Section 1, Paragraph 9). This may be a guide for the default term. 30 years is a very long time given the current lack of knowledge of the deep-sea environment. Any further 10 year period should be able to be modified in the same way as the initial term. There must be a discretion for renewal, rather than the current "(6)… shall be renewed by the Council (subject to the conditions). For example, the environmental conditions, or numerous other issues may preclude a renewal. Any renewal should taken into account the Fundamental Principles [and Policies]. Currently, the contract must be renewed for consecutive 10 year terms indefinitely. This makes the contract in essence indefinite in its term. Public comment needs to be included in the review. These also apply to the contract Section 9 (renewal)
13, 33	Impact Area	The Draft omits the concept of an Impact Area. Impacts of mining may go beyond the mined area, or even a contract area. The term Project Area (Annex VII paras 3.1, 30) should be defined accordingly.
15	Reserved areas	While reserved areas are excluded from applications, nowhere is provision made for application for reserved areas.
21	Termination of Sponsorship	The sponsorship of a contractor may be terminated for cause such as breach or other malfeasance. It should lead to termination of contract: the situation has fundamentally changed. Termination of sponsorship should entail termination or at least suspension of contract, as it is a fundamental change under the Convention, whereas DR 21.3 was amended to add "nor shall such termination affect any legal rights and obligations created during such sponsorship." (Article 153(2)(b) provides for activities in the Area "when sponsored by such States". The latest draft has removed the wording "Nothing in this regulation shall relieve a Contractor of any obligation or liability under its exploitation contract, and the Contractor shall remain responsible and liable to the Authority for the performance of its obligations under its exploitation contract in the event of any termination of sponsorship." This should be re-inserted.

24	Change of Control	A change in control does not require a change in 50% of the ownership. A change in control can occur with a far smaller change in ownership: if one party owns 49%, a change of control could take place with transfer of 1% ownership. New Paragraph 4 reads "Where the Secretary-General determines that following a change of control, a Contractor may not have the financial capability to meet its obligations under its exploitation contract, the Secretary-General shall inform the Commission accordingly. The Commission shall make a report of its findings and recommendations to the Council." Change of control relates to more than financial capability – it is fundamental to the Plan of Work.
28	Maintaining production	This provide that "the Contractor shall temporarily reduce or suspend production whenever such reduction or suspension is required to protect the Marine Environment from Serious Harm or a threat of Serious Harm or to protect human health and safety." This test is too high: a contractor should be required, not just permitted, to reduce or suspend production to protect the marine environment in any circumstances.
36	Insurance	The inclusion of terms and quantum as specific in the Guidelines is a step forward, but it is crucial that the ISA must approve insurance policies. That is not yet provided for.
38	Report	There should be a review process attached to reports. Currently, the annual report is simply submitted.
43	Compliance with other laws and regulations	This draft has deleted the clause that "Contractors shall comply with all laws and regulations, whether domestic, international or other, that apply to its conduct of activities in the Area." This should be reinserted, to ensure compliance with domestic and international laws and regulations, and to enable the ISA to take action where it is on notice that national laws have been breached. This may include flag state laws pertaining to vessel standards, or labour conditions for workers, for example.
45	Development of Environmental Standards	The list of environmental standards is too narrow and the current list of environmental quality objectives, monitoring procedures and mitigation

		measures should be the subject of a workshop, and should be open ended.
46	Environmental Management System	This should allow for alteration. The regulations should require the ISA to issue a Standard document setting out minimum requirements for an EMS, and should require compliance by contractors with that Standard.
47	EIS	While the EIA process has finally been introduced, there is no clarity even over who is responsible for overseeing the EIA process and who carries out the EIA, other than stating that the applicant or contractor prepares the EIS. Scoping has finally been re-inserted, which is a good thing, but for instance, specific provision needs to be added for a standard on baselines, requirement for adequate baselines and review when baseline information is inadequate. This Regulation requires major review. There is no public review included. It cannot be left to the public review of the EIS in DR 11. A hearing process needs to be included, as does provision for independent scientific advice. More detail is needed on assessing the completeness of documents, expert/independent scientific review, revision of the environmental documents prior to the DR 11 review, hearings etc This draft assumes only one EIA: but highly likely contractor has undertaken baseline studies for part of contract area - mining will likely occur at multiple stages and/or at various sites within one contract area.
48	EMMP	EMMPs must include specific plans for monitoring the environmental impacts of mining -not just the effectiveness of the mitigation measures The review of the EMMP should be carried out by the LTC
50	Restriction on Mining Discharges	It should be noted that mining discharges are permitted where allowed under the Environmental Management and Monitoring Plan (EMMP). This underlines the importance of development of an appropriate EMMP. The exception in paragraph 2 of "reasonable measures are taken to minimise the likelihood of Serious Harm to the Marine Environment" should not be restricted to serious harm but should be to minimise all environmental harm.

52	Performance Assessment	The ISA, or independent third party, should carry out the compliance assessment, not the contractor. Currently the only requirement is that the report is to be made public. It should also require public comment. Also the 2 year frequency has been deleted. It should at least allow for yearly reviews: not be subject to the Environmental Management and Monitoring Plan (which may provide for inadequate periods, at least in hindsight).
54	Environmental Compensation Fund	The Environmental Liability Trust Fund has been recast as an Environmental Compensation Fund, with functions including research, education and training programs and funding of research into restoration – all of which will deplete the fund, and all of which should be carried out by contractors from their own funds. This is completely at odds with what was recommended by the Seabed Disputes Chamber in the Advisory Opinion, being needed to cover a gap left when for instance a contractor is insolvent. To be very clear: there must be two funds: an Liability Fund and an Environmental Fund.
57	Modification of a Plan of Work by a Contractor	This gives the Secretary-General a significant power of to approve a change in the contract by considering that the change may not be material. It is one-sided to allow a contractor to introduce a material change but not the ISA.
58	Review	The review should include independent reviews, as were provided for in earlier drafts (before the 2018 draft), including independent scientific assessment. The review should provide for publication of the review and comments from stakeholders: making public the results of the review does not suffice. The list of triggers in DR 58(1) should also include new information relevant to the marine environment. The review should be able to result in changes being made: in the current draft, under DR 58(3), the only result is "Where as a result of a review the Contractor wishes to make any changes to a Plan of Work." This is grossly inadequate. The result needs to result in the Secretary-General recommending changes to the Plan of Work to the LTC and Council.
89	Confidential Information	The process in DR 89.4 should allow objection by the Secretary-General at any time. 30 days may be far too short: an issue may arise weeks or months later. Moreover, there should be a procedure for stakeholders to object to the designation of information as confidential. The academic exemption in DR 89.2(f) should be deleted:

		environmental information should not be withheld from the public or stakeholders for academic reasons. There should be an accessible and simplified dispute procedure; not recourse to courts and ITLOS which is inappropriate to determine individual matters relating to confidential information: an administrative procedure is necessary. DR 89(3) gives the Secretary-General discretion to agree with a Contractor that data may remain confidential beyond 10 years following its submission to the ISA. This at the very least needs a review procedure.
94, 95, 107, Annex IV	'Relevant stakeholders'	This new term is a restriction on public participation and should be amended to 'stakeholders'.
95	Guidelines	There must be an approval process for Guidelines, including by Council. These are important, and can have important implications: for instance, insurance terms and quantum are a matter for the Guidelines. Guidelines are part of the Rules, Regulations and Procedures, which need to be adopted by Council under Article 162 and approved by the Assembly under Article 160. (Article 160(2)(ii)), Article 162(2)(o), and Article 165(2)(f))
106	Dispute Settlement	Part XII and DR 106 on dispute settlement are inadequate. There should be accessible, cost effective access to dispute settlement procedures. An accessible and cost-effective administrative review mechanism (as discussed in the previous Draft Regulations) should be provided for. A process accessible to stakeholders and the Authority, as well as Contractors, to resolve disputes short of a formal dispute resolution mechanism, would be a useful mechanism to improve governance and compliance. Whether it is binding depends on the process and its application. From the point of view of efficiency, as a principle, decisions should be binding, and if necessary reviewable, at last resort, by the Seabed Disputes Chamber. But there may be also be scope for Aarhus or Espoo-type non-binding compliance mechanisms, whereby disputes and compliance matters can be resolve by a compliance committee in a non-binding way designed to enhance compliance. There is also scope for expert panels to determine factual issues.

		All dispute resolution mechanisms must be transparent. Arbitration is commonly closed and confidential, and this would be entirely inappropriate in the area which is the common heritage of mankind. While this is provided for in Article 187, it is now clear that disputes over the interpretation of a contract are a matter of public interest, and that transparency requires that they be determined in public, with access by stakeholders, none of which is available with commercial arbitrations, which are typically closed. Section V of Part XI dispute resolution should be used only as a last resort.
107	Reg Review	It must be clear that amendments to regulations apply to existing contracts. All stakeholder, not just 'relevant' stakeholders, should be involved.
Schedule 1 Definitions	Environmental Effect	The definition of "Environmental Effect" includes an inappropriate restriction on cumulative impacts to "cumulative effect arising over time or in combination with **other mining** impacts." This implies cumulative impacts only include mining impacts. Cumulative impacts must include impacts from other anthropogenic activities as well as effects such as ocean acidification. "Mining" should be deleted. So it should read: "Environmental Effect" means any consequence in the Marine Environment arising from the conduct of Exploitation activities, being positive, negative, direct, indirect, temporary or permanent, or cumulative effect arising over time or in combination with other effects or impacts.
	"Marine Environment"	Species, biodiversity and ecosystems should be added to this definition (to "Explanation as to the reason and implications behind the removal of 'genetic' components from the definition of 'Marine Environment' would be helpful. Does this deletion imply that genetic material is not considered to form part of the Marine Environment for the purposes of the Regulations (including those provisions that seek to protect the Marine Environment from harm from Exploitation)"
	"Serious Harm"	This term needs to be better defined and operationalised through specific criteria of significant adverse effects.
	'Good' industry practice	"Good industry practice" should be "Best Industry Practice". The criterion "degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected to be applied by a skilled and experienced person engaged in the marine mining

		industry" is too weak and would only catch the worst practice, and is inconsistent with 'Best Environmental Practice". Instead, the definition should require (adapting the OSPAR definition of Best Available Technique) the "employment of the latest widely accepted stage of development (state of the art) of processes, of facilities or of methods of operation, consistent with the Fundamental Principles, including using skill, diligence, prudence and foresight which is and would reasonably be expected to be applied by a skilled and experienced person engaged in the marine mining industry."
Appendix VII	EMMPs, EIAs and Standards	EMMPs should be prepared in accordance with the Guidelines, Good Industry Practice and Best Available Techniques; and Standards, and Environmental Impact Assessments, Statements and Closure Plans should be prepared in accordance with applicable Standards.

[1] The helpful comments of Hannah Lily of the Pew Charitable Trusts are acknowledged, but any errors are of the author.