

Fifth Report of the CODE PROJECT

Part One: SMALL PAPERS ON BIG ISSUES

**Brief Descriptions and Commentaries on Six Leading Issues
Raised by the Most Recent Draft Exploitation Regulations of
the International Seabed Authority**

1 June 2019

INTRODUCTION

The Code Project is a cooperative enterprise of fifteen scientists and legal scholars from ten different nations. Its mission is to provide analyses of the latest drafts of the rules and regulations that together will comprise the Mining Code of the International Seabed Authority (ISA). This month marks the third year of Code Project publications.

There are two components of this, the fifth and most recent Code Project Report:

- Part One consists of six two-page descriptions and analyses of particularly salient issues raised by the new Draft Exploitation Regulations of 25 March 2019. <[ISBA/25/C/WP.1](#)>
- Part Two is an annotated compilation of all the new elements in the 25 March draft.

Attached is the first of those two Code Project components. Its title – *Small Papers on Big Issues* – describes its contents, a collation of brief commentaries and suggestions on topics of special significance to the ISA’s Mining Code.

MEMBERS OF THE CODE PROJECT

David Billett UK, Deep Sea Environmental Solutions

Duncan Currie New Zealand, Globelaw

Andrew Friedman US, The Pew Charitable Trusts

Andrey Gebruk Russia, Shirshov Institute of Oceanography

Leonardus Gerber South Africa, University of Pretoria

Kristina Gjerde US, IUCN Global Marine and Polar Programme

Renee Grogan Australia, World Ocean Council

Aline Jaeckel Australia, University of New South Wales

Daniel Jones UK, National Oceanographic Centre

Laleta Davis Mattis Jamaica, University of West Indies

Nele Matz-Lück Germany, Walther-Schuecking Institute

Telmo Morato Portugal, Instituto do Mar, Universidade dos Acores

Stephen Roady US, Duke University School of Law

Torsten Thiele Germany, Global Ocean Trust

Lily (Xiangxin) Xu China, University of Kiel Law Faculty

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SMALL PAPERS ON BIG ISSUES

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ACRONYMS & ABBREVIATIONS

APEI	Area of Particular Environmental Interest
BEP	Best Environmental Practices
Commission	Legal and Technical Commission
DR	Draft Regulation
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EMMP	Environmental Management and Monitoring Plan
ERA	Environmental Risk Assessment
ISA	International Seabed Authority
REMP	Regional Environmental Management Plan
UNCLOS	United Nations Convention on the Law of the Sea

#1: Regional Environmental Management Plans (REMPs)

Lead Contributors: Aline Jaeckel, Daniel Jones, Andrey Gebruk

There is general agreement that REMPs are necessary elements of the ISA's regime for managing the activities in the Area in accordance with its mandate of environmental protection. The proposition that no mining should occur in any region without a REMP has been endorsed by the Council. It is less clear whether REMPs should be regarded as an intrinsic element of Exploitation Regulations or as an adjunct to them. There also appears to be a consensus that all REMPs should feature Areas of Particular Environmental Interest (APEIs) where no mining can occur. But it is not yet clear how APEIs are to be identified, where they should be placed, and what fraction of the overall regional seabed they should cover.

In February 2019, the Secretary-General posted a report on "Implementation of the Authority's strategy for the development of regional environmental strategies for the Area" <[ISBA/25/C/13](#)> in which he described "key approaches to be applied by the Secretariat to facilitate the development of regional environmental management plans." The Secretary-General also proposed a "tentative schedule" for workshops that would inform REMP-writing for key portions of the Mid-Atlantic Ridge, Indian Ocean, Northwest Pacific, and South Atlantic. Under that schedule, workshops would be completed before the end of 2020. No timetable was proposed for the drafting of REMPs or for their consideration by ISA governing bodies.

REMPs in the Draft Regulations

REMPs as Prerequisites. DR 47(3)(c) and 48(3)(b) imply that an application for a Plan of Work cannot be submitted unless a REMP exists for the region in which the work would take place, but they stop short of saying it explicitly. Any ambiguity should be removed. The Regulations should state that an approved REMP is an essential prerequisite to consideration of a Plan of Work in any region in which mining is proposed.

REMPs and EMMPs. DR 47 and 48 would require an applicant's Environmental Impact Statement (EIS) and its Environmental Management and Monitoring Plan (EMMP) to be *'in accordance with the objectives and measures of the relevant regional environmental management plan'*. An additional provision should specify that review of a Plan of Work by the Commission will assess the applicant's plans for environmental protections to verify consistency with the pertinent REMP.

REMPs and Baselines. Regulations should require a contractor to demonstrate that its baseline data studies are informed by, and are consistent with, those of any REMP in its vicinity and that those baseline studies are included in the regional database that will inform subsequent REMPs.

REMP Objectives and Measures. DR 47 should provide more guidance and specific examples to help describe the *'objectives and measures'* that REMPs should contain. Examples include:

- (a) Region-specific environmental objectives, targets, and thresholds;
- (b) Region-wide monitoring programmes for both contract areas and APEIs;
- (c) Special regionally-appropriate management measures (e.g., protecting specific habitats or restricting mine operations during the breeding season of key species);
- (d) Regional limits on cumulative environmental impacts;
- (e) Facilitation of scientific research in the region.

REMP Updates and Plan of Work Amendments. DR 51’s obligation of “*maintaining the currency and adequacy of the EMMP*” should expressly address the implications for a contractor’s Plan of Work, including its EMMP, whenever a REMP is updated.

REMP Issues Not Covered under the Draft Regulations

APEI Prohibitions. 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 DR 15(2)’s list of benthic areas where the Commission cannot recommend approval for exploitation.

APEI Locations. An important reason for the urgency of REMP-writing as a high priority is to minimize the likelihood of exploration contracts being approved for areas that would be optimal for APEIs. The Council could consider requesting Members not to apply for an exploration contract in any region not yet covered by a REMP.

ISA Decision-Making. The Regulations should clarify that a REMP’s status as a ‘fundamental policy’ (DR 2) requires that each organ of the ISA take account of REMPs, and act consistently with REMPs, as it performs its functions under the Regulations.

Process. 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. The ISA Council should consider a rule that REMPs be based on the regional environmental assessments described in Strategic Direction 3.2 of the ISA’s Strategic Plan 2019-2023. The Council should also consider provisions to operationalize the Strategic Plan’s recommendations (Strategic Directions 1.2 and 4.3) that the development and implementation of REMPs involve consultations with other relevant bodies such as regional fisheries management organisations and regional-seas planning consortia.

More Science. REMPs will be informed by scientific understanding of both contract areas and areas not covered by contracts. Surveys of both are needed to draw the most effective APEIs. Though there is a gratifying rise in interest among the world’s ocean scientists to learn more about the deep sea and the environmental consequences of extracting its minerals, the supply of reputable, relevant deep-sea scientists can’t keep up with the demand. In order to avoid delays in essential surveys, the ISA Regulations should require or incentivize contractors to contribute to large-scale regional assessments.

Rare or Fragile Ecosystems. A REMP should define and locate any rare or fragile ecosystem in its region. In doing so, reference may be made to designations used in other governance systems, e.g., ‘Ecologically or Biologically Significant Marine Areas’ or ‘Vulnerable Marine Ecosystems.’ Regulations for such rare or fragile ecosystems should set strong protection measures.

#2: Environmental Baselines

Lead Contributors: Daniel Jones, David Billett

To anticipate, monitor, and assess the environmental impacts of mining, it is essential to compile an accurate database of the natural conditions before mining begins. In the case of applicants for an ISA exploitation contract, such a database should incorporate information gathered throughout the entire proposed contract area at multiple times.

The database provides information needed to establish an environmental baseline. Robust and reliable environmental baselines are preconditions of credible contractor proposals for mine development and for monitoring and mitigating environmental damage. Collecting baseline data should be a key component of Best Environmental Practices. An unsatisfactory environmental baseline reduces the reliability of the assessments and plans that build upon it. The environmental baseline informs a contractor's Environmental Risk Assessment (ERA), Environmental Impact Statement (EIS), and Environmental Management and Monitoring Plan (EMMP). Environmental baselines are also needed to inform a contractor's Emergency Response & Contingency Plan and its Closure Plan.

One might assume that ISA exploration contractors have been collecting relevant environmental data over the years, but the ISA's Exploration Regulations make little provision to ensure that those data are adequate. The Commission, in reporting to the Council, has alluded to failures or inadequacies in exploration contractor data-reporting. But without more detailed information, the Council is unable to pursue compliance measures. The consideration by the Council of Exploitation Regulations presents an opportunity to fill the information gap.

Environmental Baseline Studies and the Most Recent Draft of ISA Exploitation Regulations

Although the ISA's 2017 "Discussion Draft" described baseline studies, the main body of the most recent Draft Regulations makes no mention. Baseline data are referenced only in Annexes that relate to the structure of Environmental Impact Statements and to the development of a Closure Plan.

We recommend that the main body of the Draft Regulations be amended to ensure that:

- Applicants for exploitation contracts submit an environmental baseline study that adheres to the standards of "Best Available Scientific Evidence," "Best Available Techniques," and "Best Environmental Practices" as described in Schedule 1 of the Draft Regulations.
- The list of required Environmental Standards (DR 45) include an additional Standard for environmental baseline studies. The new Standard would require contractors to describe comprehensively the ecological characteristics of the entire exploitation contract area, and that:
 - Data should be collected in a scientifically robust manner, particularly regarding the distribution and number of samples and sampling unit sizes;
 - Data should provide a sufficient basis to inform a monitoring plan;
 - Data collection should follow standardized approaches for baseline data collection that would apply to all contractors.

- The Commission scrutinises a contractor’s baseline at the scoping phase of the EIA (DR 47).
- Applications for exploitation contracts draw attention to any uncertainties in the baseline data and identify strategies to address those uncertainties.
- Environmental baseline studies and the data upon which they rely are made publicly available (per UNCLOS Article 14(2), Annex III). This mandate should cover raw data, metadata and processed data, integrated into appropriate independent databases.
- Stakeholders be encouraged to review the databases and provide comments and suggestions.
- 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.

Integration of Environmental Baselines and Environmental Impact Statements

Annex IV of the Draft Regulations provides a standard form for a would-be contractor’s Environmental Impact Statement. The language of that standard form should be re-examined to ensure it properly incorporates the categories and quality of environmental baseline data required to provide the essential benchmark against which environmental losses can be measured.

For example:

- Prior to supplying the particularized details demanded by Section 4 of Annex IV, an applicant contractor should be asked to present a more general summary of its environmental baseline work. Requiring a description of research activities at the outset of the EIS allows for a closer focus on the narrower specifics required by sections 4 and 5 of the Environmental Impact Statement.
- Applicants should be required in Section 4 of the Environmental Impact Statement (which sets out the baseline) to factor in data variations at different time intervals. This will signal to applicants that multiple visits to the same site will be required to establish an adequate baseline.

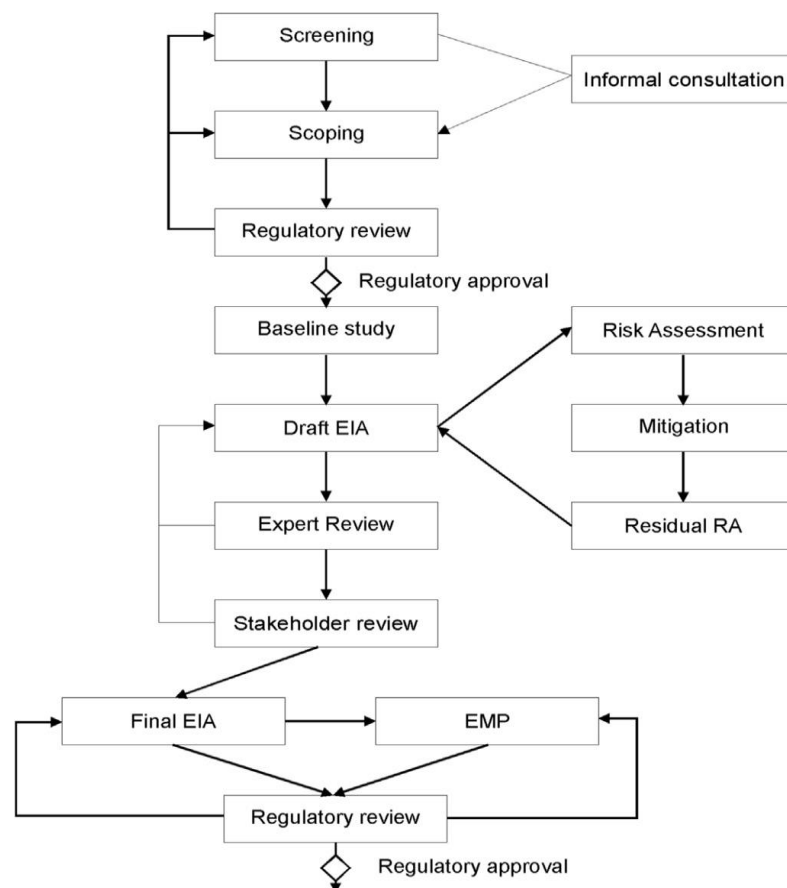
Baselines and Environmental Risk Assessment

Sections 4, 5, 7 and 8 of Annex IV of the Draft Regulations requires a description of the existing physicochemical and biological environment, an assessment of impacts on those environments, and a proposal to mitigate those impacts. The preambles to each of those sections refer to a “*prior environmental risk assessment*.” The same phrase appears in DR 47. Further Regulations or Standards to clarify and detail this requirement would be welcome.

#3: Environmental Impact Assessments (EIAs)

Lead Contributors: Daniel Jones, Laleta Davis Mattis, Duncan Currie

An Environmental Impact Assessment (EIA) is required of ISA contract applicants by UNCLOS and is a direct obligation for sponsoring States. The EIA constitutes an essential mechanism through which the marine environment is protected by enabling decision-makers to identify harmful effects in advance and to fashion rules and procedures to minimize or mitigate those harmful effects. Below is a simplified diagram of the stages of EIA development.



Source: Durden et al., 2018 DOI: 10.1016/j.marpol.2017.10.013

Processes and Stages. DR 47 describes Environmental Impact Assessments (EIAs) but provides scant detail as to the processes by which they would be conducted. There is no language that closely describes the key stages of EIA development where official green-light approvals would be needed before a contractor could move forward in the overall process. The distinct tasks of screening, scoping, and submitting an Environmental Impact Statement appear as features of a barely differentiated flow rather than as key checkpoints.

Responsiveness. Responsibilities, capacitation and procedures for the ISA to manage iterative interaction with the applicant; information-sharing; independent expert review; stakeholder comments – all remain unspecified. The Draft Regulations are silent on the manner in which the ISA is to monitor and manage the EIA process to ensure that it produces relevant information.

Scoping. Scoping is the process through which the ISA and an applicant agree on the content and extent of a planned EIA. An EIA scoping requirement has been re-inserted in DR 47(1), though little detail is provided. Scoping enables early interventions to preclude sub-standard EIA processes, helps an applicant target research resources, and provides some assurance that a future EIS proposal will not be rejected by the ISA for procedural flaws. Given the importance of the scoping stage, the ISA should propose minimal scoping requirements for incorporation as Standards.

Environmental Risk Assessment. The Draft Regulations note the need for an ‘environmental risk assessment’ (ERA) [DR 47(1)(b); Annex VI 7(2)(b)]. An ERA can constitute an important element of the overall EIA process, particularly in regards to screening, scoping, assessment and mitigation. Further work is needed to clarify ERA timing, roles and requirements.

Timing Issue A. It is anticipated that much, if not most, of a contractor’s EIA work will take place under its exploration contract. And yet the rules for EIAs are being placed in the Exploitation Regulations. What would be the ISA response if an exploration contractor had compiled 15-years’ worth of historic data, only to find that those data do not meet the requirements of the new regulations?

Timing issue B. The Draft Regulations seem to assume that each exploitation contractor will need one EIA that informs one EIS and one EMMP. But it is not unlikely that mining will occur at multiple stages and/or at various sites within one contract area. The Draft Regulations do not appear to anticipate such mid-contract variations.

EIS Details. The Draft Regulations’ requirements for EIS content and underpinning evidence are relatively vague. This imprecision may lead to significant application disparities and insufficiencies. More specific levels of detail should be required.

EMMP Details. DR 48(1) states the purpose and summarises the content of an EMMP. Wording should be added to clarify that EMMPs must include specific plans for monitoring the environmental impacts of mining (not just the effectiveness of the mitigation measures, as currently drafted). The Regulations should also require contractors to compare monitoring data on a year-to-year basis.

Identifying uncertainty. There is scant empirical knowledge about the impact of specific deep-sea mining projects on the environment. The Draft Regulations should require applicants to assess uncertainty in EIA predictions and risk assessments, and to identify proposed methods to address uncertainty.

Project-specific environmental objectives. ‘Environmental objectives’ are referenced three times in the Draft Regulations [DR 2(e)(i), DR46(2)(a) and Annex VII paragraph 2(a)]. The meaning of the term is not elaborated, but from the nature of the references it would appear that “environmental objectives” implies that each would-be contractor would develop its own environmental objectives for its own Plan of Work. An applicant’s ‘environmental policy’ is also mentioned (Annex IV, section 11 and Annex VII, paragraph 2(d)). More guidance and specificity from the ISA about these objectives and policy requirements should be provided.

#4: Standards and Guidelines

Lead Contributors: Laleta Davis Mattis, Renee Grogan

Mandatory or Recommended?

DR 94 (“Adoption of Standards”) indicates that Standards are legally binding. But what does “legally binding” mean in this context? How does the ISA propose to arrive at a final decision on whether there has been a violation of a Standard? What are the repercussions or sanctions when a contractor is found to be in non-compliance with a Standard? What if the non-compliant party is an ISA organ or member State? And if Standards are legally binding, why are they not listed in the definition of ‘Rules of the ISA’ [Schedule 1 to the Draft Regulations]? The Draft Regulations would benefit from further work to define Standards more clearly and operationalize them more effectively.

DR 95 (“Issue of Guidelines”) implies by omission that Guidelines -- intended to “*support the implementation of the Exploitation Regulations from an administrative and technical perspective*” -- are **not** binding. Unlike earlier drafts of the Regulations, the Standard Contract Terms of the most recent draft do not require contractors to “*observe [Guidelines] as far as reasonably practicable.*”.

If Standards are binding but Guidelines are not, as Draft Regulation 95 would indicate, the references to “Guidelines” that appear throughout the Draft Regulations should be clarified and made consistent with the key terms (“rules,” “regulations,” “procedures”) found in Article 145 and elsewhere. The necessity of doing so can be appreciated by comparing the various formulations in which “Guidelines” appears in the Regulations, including:

- ‘taking account of’ Guidelines [DR 4]
- ‘in accordance with’ Guidelines [DR 8]
- ‘as set out in’ Guidelines [DR 18]
- ‘as specified in’ Guidelines [DR 20]
- ‘according to’ Guidelines [DR 26]
- ‘consistent with’ Guidelines [DR 31]
- ‘prescribed by’ Guidelines [DR 38]
- ‘in light of’ Guidelines [Schedule 1]

To help ensure that Guidelines are duly observed, the ISA should establish procedures for contractors to demonstrate compliance with the Guidelines absent good cause for not being able to do so. Or the ISA could use Guidelines as a means of compliance assurance: where a contractor can demonstrate its adherence to a Guideline, it could create a presumption that the resulting outcome is compliant with ISA rules. In both cases independent verification by the Commission should be required.

Standards or Guidelines?

Various stakeholders have sought clarity about what content is required by (binding) Standards and what content is merely encouraged by (non-binding) Guidelines. The current Draft Regulations move some important aspects of the regulatory regime away from Standards and into Guidelines:

- Contractor training obligations (DR 7 and DR 37);
- Stakeholder consultations on proposed Environmental Plans (DR 11);
- Commission assessments of an applicant’s financial and technical capabilities (DR 13);

- Documents required in an application for contract renewal (DR 20);
- The content of a feasibility study (DR 25);
- Rules to determine the form and amount of Environmental Performance Guarantees (DR 26);
- Requirements for a contractor's safety management system (DR 30) and environmental management system (DR 46);
- "Reasonable regard" for other uses of the Marine Environment (DR 31);
- Contractor insurance policies (DR 36);
- Assessment frameworks for permitted / prohibited mining discharges (DR 50);
- Formats for a contractor's periodic performance assessments of its Environmental Management and Monitoring Plan (DR 52).

Voluntary guidelines may seem to be (and often are) reasonable alternatives to mandatory standards. But they can also present difficulties [Gerber, L. J. and Grogan, R. L. *Challenges of operationalising good industry practice and best environmental practice in deep seabed mining regulation. Marine Policy*, 18 September 2018]. In the context of ISA Regulations, voluntary guidelines could result in failure to achieve a consistent approach to environmental management by all contractors. Guidelines could induce prolonged adjudications by the ISA to determine on a case-by-case basis whether contractors employing differing means have each achieved requisite performance. The ISA might have to shoulder an unanticipated dispute-resolution burden. Particularly in a nascent industry with a limited-resource regulator, it would seem imprudent to rely on a voluntary regime to the degree called for in the latest Draft Regulations.

Development of Standards and Guidelines

Draft Regulation 45 suggests a list of environmental issues that must be covered by Standards. The list appears *ad hoc* and incomplete, however, and it remains unclear why these few environmental matters were selected for inclusion.

During the first half of this year's ISA Annual Session (February 2019), numerous Member States and Observers supported the propositions that *ad hoc* technical working groups be empanelled to assist in developing Standards and Guidelines, and that all ISA stakeholders be afforded the opportunity to present their views on the recommendations submitted by those working groups.

#5: Transparency and Accountability

Lead Contributors: Duncan Currie, Aline Jaeckel

“To ensure that environmental law is effective [it] needs to be nurtured in a manner that builds strong institutions that engage the public, ensures access to information and justice, protects human rights, and advances true accountability for all environmental actors and decision makers.”

Environmental Rule of Law: First Global Report, UNEP (2019).

“We need institutions at all levels that are effective, transparent, accountable and democratic.”

UN General Assembly Resolution A/RES/66/288 ‘The Future We Want’

Transparency and accountability are prerequisites of good governance. Their core elements include (i) availability of information; (ii) access to, and participation in, policy deliberations; and (iii) opportunities to challenge decisions and decision-making processes. Transparency enables the collection and distribution of pertinent information, enhances public awareness, and promotes balance among stakeholder interests and influences.

UNCLOS requires the ISA to ensure that mining in the Area is carried out for the benefit of humankind as a whole [Article 140] while preventing damage to the marine environment [Article 145]. The drafting of ISA Exploitation Regulations that comply with both of those mandates presents a valuable opportunity for the ISA to affirm a strong institutional commitment to governance that maximizes transparency and accountability.

Steps Forward

The latest Draft Regulations incorporate important and welcome new elements:

- DR 2’s affirmation of the fundamental principles of ‘*accountability and transparency in decision-making*’ and ‘*encouragement of effective public participation*’ (though the latter formulation should substitute ‘*ensuring*’ for ‘*encouragement of*’).
- DR 3’s requirement that the ISA ‘*develop, implement and promote effective and transparent communication, public information and public participation procedures.*’
- DR 38’s requirement that contractor annual reports be published in the Seabed Mining Register.

Suggested Improvements

Stakeholders. DR 94, 95, 107 and Annex IV feature a new term: ‘Relevant Stakeholder.’ It is a vague formulation with the potential to reduce transparency. The term ‘Stakeholder’ should be used without qualification.

Timing. DR 11’s encouragement of stakeholder reviews of final Environmental Plans is positive and important, but the opportunity to conduct those reviews could come too late to be meaningful. The ISA’s 2017 Discussion Paper on environmental regulations envisioned public comments during a contractor’s EIA scoping phase (which occurs prior to, and sets the scope of, the EIA). That essential opportunity has been omitted from the current draft.

ISA-led Consultations. DR 47 (Environmental Impact Assessments) should require contractors and sponsoring States to identify and consult with stakeholders during their EIA process. It should also require the ISA to hold separate and independent consultations with stakeholders upon receipt of an applicant’s EIS. Public review should be explicitly required for other key ISA regulatory decisions, including renewals of exploitation contracts (DR 20) and approval of a final closure plan (DR 60).

Consideration of Stakeholder Responses. Opportunities to comment should be paired with assurances that comments can inform decision-making. For example: DR 11(3) implies that the Commission must consider public comments on an applicant’s environmental plans. But there should be no ambiguity: public comments should be added to the list of required considerations specified in DR 12(4). The Commission should be obliged to provide substantive responses to those comments in its recommendations to the Council.

Environmental Data. DR 2(v) and DR 44(d) promote public access to environmental data. DR 89 establishes a (rebuttable) presumption that environmental data submitted to the ISA are public information. These provisions are welcome, but they need to be operationalized, preferably through legally binding Standards that specify information-disclosure requirements, establish uniform data standards, and facilitate public access. DR 3(a) should be amended to *require* States and contractors to cooperate with the ISA to provide data to the public, not merely to use their “*best endeavours*.”

Confidential information. DR 89 allows a contractor (in consultation with the Secretary-General) to declare large swathes of information as confidential. As counterbalance, the Draft Regulations should be amended to:

- (a) require a contractor to describe, in general and non-prejudicial terms, any information redacted or withheld on the basis of confidentiality;
- (b) establish a procedure for member States and other stakeholders to challenge confidentiality designations or non-disclosures; and
- (c) remove the unnecessarily restrictive limitation of 30 days for the Secretary-General to question a contractor designation of confidentiality.

Information to Council. The Draft Regulations should specify the character and level of information to be included in Commission recommendations to the Council on applications for Plans of Work. They should include a record of the Commission’s deliberations and its assessments of inputs received (including dissenting views). Commission recommendations should be sufficiently detailed to enable the Council to make considered decisions, and to facilitate stakeholder analyses. Where the Commission recommends approval of a Plan of Work for Exploitation, that Plan of Work and the draft contract should be provided to the Council.

Publication Requirements. The Draft Regulations should require that the following documents be made publicly available:

- (i) Key decisions taken by the Council, including their rationales;
- (ii) All compliance reports, including inspector reports, and notices of incidents or notifiable events and copies of compliance notices, and
- (iii) An ISA annual report summarising major developments for a public audience.

ISA Procedures. The Draft Regulations should establish a general obligation for the ISA to maximize transparency and accountability, including in its procurement of consultants and sub-contractors and in its organisation of meetings and working groups.

Access to Justice. The Draft Regulations make no mention of an administrative review mechanism for ISA decisions. The Council should consider the establishment of a process -- short of formal dispute resolution -- whereby contractors, as well as other stakeholders, could raise points of contention. Such a process would be in addition to, not a substitute for, the formal dispute resolution mechanisms as stipulated in Part XV of UNCLOS.

#6: Liability for Environmental Harm

Lead Contributors: Duncan Currie, Xiangxin Xu

In Search of Detail

Though the Draft Regulations faithfully employ the language of UNCLOS on liability and compensation for environmental harm, they provide scant additional guidance.

Annex X of the draft Regulations [Standard clauses for Exploitation contracts] affirms that contractors are liable ‘for the actual amount of any damage [...] arising out of its wrongful acts or omissions’ (UNCLOS Article 22 Annex III). There is no elaboration of the meanings of ‘actual amount’, ‘damage’, ‘wrongful acts,’ and ‘omissions.’ Nor is there mention of the legal and administrative mechanisms that would assign responsibility and enforce compensation or remediation. This imprecision invites disputes. Who is liable and according to what standard? Who can sue whom, and on what grounds? What damage is eligible, and what remedies are available? Who decides?

If these crucial points are left to the discretion of individual sponsoring States, without harmonisation by the ISA, there could arise a risk of inconsistent treatment, ‘sponsor-shopping’, and denial of access to justice. The ISA Council may be well-advised to call upon the Secretariat and Commission to propose more particularized and detailed text. The Council may also want to consider a formal invitation to sponsoring States to share relevant information on what recourse is available in their national legal systems for prompt and adequate compensation for harm that may arise from their sponsored Contractor’s activities.

Standards of Liability

A fundamental task is to establish a standard of liability. In an infant industry, where the unforeseen can be assumed, a causation-based standard – as opposed to a fault-based standard – would seem to be the prudent choice. A causation-based standard also incentivizes risk reduction, a particularly important consideration in a context where harm may be irreversible. Under a causation-based standard, a ‘wrongful act or omission’ (UNCLOS Article 22, Annex III) would mean an act or omission attributable to a contractor that results in damage, irrespective of bad intentions or negligence.

The next task might be to devise standards for assessing and quantifying damages. Recoverable damages could be defined. They might include: costs of reinstatement, lost profits, costs of reasonable measures to prevent further harm, pay-out in lieu of actual reinstatement, and/or measures to compensate for pure ecological loss and harm to the living resources of the Area.

The ISA may also wish to contemplate operationalizing its own liability. According to UNCLOS Article 22, Annex III, the ISA is liable for “wrongful acts” in the exercise of its powers and functions. Should “wrongful acts” be interpreted in the same way for the ISA as for a contractor? Could environmental damages be attributed to ISA wrongful acts? Could the ISA be liable for a contractor’s losses resulting from a wrongful contract variation or termination by the ISA?

Transboundary Harm

Stakeholder concerns on the Regulations' approach to possible transboundary harm do not appear to have been addressed in the most recent draft (*see DR 4*). As matters stand, it is the burden of an affected coastal state to both raise an alarm and provide evidence. This may be challenging if relevant data are held only by the contractor, ISA, and the sponsoring State. A system in which a coastal State would be able to apprehend Serious Harm only after it has occurred does not meet minimum standards of a precautionary approach .

In addition, the Draft Regulations do not address harms which may not meet the threshold of 'serious' but which may nonetheless affect the marine environment and activities within State jurisdiction. There are no provisions for redress, nor is any regulatory action triggered where harm occurs or is likely but where no breach of contract has yet been established.

Environmental Compensation Fund

Draft Regulations 54 and 55 recast the former Environmental Liability Trust Fund into an 'Environmental Compensation Fund'. Yet the purposes of the new Environmental Compensation Fund [DR 55(a)-(e)] make no mention of payments for harm caused, but instead detail purposes unrelated to compensation, such as research, training and education. Perhaps the current formulation combines what were originally envisioned as two funds in earlier drafts: a Liability Fund and a Sustainability Fund. If so, this approach strays from the conviction of many ISA stakeholders that there should be a separate fund to serve as the dedicated source of financial compensation to cover situations in which harm has occurred, but a Contractor is not able to meet the full amount of damages identified. Any 'Environmental Compensation Fund' that omits financial compensation marks a departure from everyday usage.

Perhaps because of this, Commission Note ISBA/25/C/18 states that further discussion on the Fund is warranted. Such a discussion should cover:

- (i) rules that spell out Contractors' obligations to make payments into the fund (separate from other ISA fees and payments) before mining commences, and
- (ii) rules to govern how the Fund contributions are calculated, collected, and administered, and when and how disbursements or reimbursements can be made.

Effective Control

UNCLOS Article 139 requires ISA contractors either to possess the nationality of States Parties or to exist as entities "effectively controlled" by States Parties or their nationals. A recent Liability Working Group Paper on Effective Control [<https://www.cigionline.org/series/liability-issues-deep-seabed-mining-series>] observed that UNCLOS treats nationality and effective control as distinct concepts. The authors of that paper noted different possible interpretations of 'effective control': economic control (evidenced by the contractor's corporate structures) or regulatory jurisdiction (evidenced by the contractor's place of incorporation). The Draft Regulations do not provide a process or rules for determining 'effective control'. It would make sense to add them soon to avoid ambiguity or dispute.

Editor's note: This white paper was updated on Aug. 27 2019, to reflect Dr. Aline Jaeckel's change of affiliation to University of New South Wales.

