DSCC Comments on the draft Standard and Guidelines for Environmental Impact Assessment

TEMPLATE FOR COMMENTS

Document reviewed	
Title of the draft being reviewed:	**Draft Standard and Guidelines for environmental impact assessment process**
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General Comments

DSCC Overview on the Process for Development of the Draft Standards and Guidelines and Summary Overview

Introduction

On 9 April 2021, the International Seabed Authority (ISA) released a further round of Standards and Guidelines for review. This is a summary and overview of the comments by DSCC.

At present, the Standards and Guidelines assume that the draft Regulations are adopted as they were issued in March 2019. Not a single comment from any stakeholder, including Council members, is taken into account. This is an obvious major strategic problem. The draft Standards and Guidelines should be withdrawn.

The ISA said that "The draft regulations on Exploitation of mineral resources in the Area (ISBA/25/C/WP.1) require that certain standards and guidelines be developed by the organs of ISA to support the implementation of the regulations. The standards will be legally binding on contractors and the ISA, whereas the guidelines will be recommendatory in nature."

They said that during the 25th session, the Council requested that the Legal and Technical Commission (LTC) undertake work on standards and guidelines as a matter of priority, noting the proposed process and schedule for the development of standards and guidelines contained in ISBA/25/C/19/Add.1, Annex and Enclosures I and II.

The draft Standards and Guidelines included:

- Draft guidelines for the establishment of baseline environmental data
- Draft standard and guidelines for environmental impact assessments
- Draft guidelines for the preparation of an environmental impact statement
- Draft guidelines for the preparation of an environmental management and monitoring plans
- Draft guidelines on tools and techniques for hazard identification and risk assessment
- Draft standard and guidelines for the safe management and operation of mining vessels and installations
- Draft standard and guidelines for the preparation and implementation of emergency response and contingency plans

This is the second group of Standards and Guidelines to be released. Already three Standards and Guidelines have been released for comments which are found here. DSCC comments can be found here. Those Standards and Guidelines were:

- Draft guideline on the preparation and assessment of an application for the approval of a Plan of Work for Exploitation
- Draft standard and guidelines on the development and application of environmental management systems
- Draft standard and guidelines on the form and calculation of an environmental performance guarantee

The DSCC commented then (in October 2020) that the Standards and Guidelines are premature in that critically, the Standards and Guidelines cannot be developed before the exploitation regulations are finalized. We cited one clear example, the current draft Regulation 26, the Environmental Performance Guarantee. So far, this only applies to mine closure, so has no applicability during the entire period of actual mining. The draft Standard and Guideline follows the current draft text of Regulation 26, as is to be expected. As a result, the draft Standard and Guideline would only apply to mine closures, perpetuating the gap.

That this is the case is clear from the draft Regulations themselves, which provide in Draft Regulations 94 and 95 for the development of Standards and Guidelines. This is only

logical: the adoption of the Regulations should be adopted first, and then the Standards and Guidelines should be developed under them.

Secondly, before the Standards and Guidelines can be negotiated and adopted, the member States of the ISA must agree to a fundamental approach to the protection of the environment. That fundamental approach should be incorporated in the draft Regulations. It would then also guide the development of any standards and guidelines. For instance, that biodiversity loss should not be permitted is clear from the fact that almost 80 Heads of State have signed the Leaders Pledge for Nature to Reverse Biodiversity Loss by 2030 for Sustainable Development and to mainstream this commitment into extractive industries. Secondly, the Standards and Guidelines, as well as the regulations, must align with the Sustainable Development Goals (SDGs), including, in particular, SDG 14 and its Target 14.2 to "by 2020, sustainably manage, and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration, to achieve healthy and productive oceans." States should ensure that the ISA standards, guidelines and regulations should not permit deep-sea mining unless significant adverse impacts on marine ecosystems; degradation of the resilience of marine ecosystems; and impacts from which recovery will be difficult or impossible over meaningful timeframes can all be prevented.

These concerns are reflected throughout the draft Standards and Guidelines, but come through most clearly with the EIA Standard and Guideline. The Background states that:

> The Commission noted that the inclusion of stakeholder consultation in the Standard for an environmental impact assessment process would be inconsistent with the draft regulations on Exploitation of mineral resources in the Area (ISBA/25/C/WP.1) as the draft regulations on Exploitation recommends but does not require stakeholder consultation during the preparation of an environmental impact assessment. The Commission noted that the requirement for stakeholder consultation during the preparation of an environmental impact assessment represents best practice and that it would be difficult for an applicant to satisfy the requirements of an environmental impact assessment without conducting stakeholder consultation during the preparation of an environmental impact assessment. As such, the Commission agreed to retain sections on stakeholder involvement in the guidelines but not the Standard, and will raise this matter when presenting its recommendations on standards and guidelines as part of the Council's consideration of the draft regulations on exploitation of mineral resources in the Area (ISBA/25/C/WP.1).

Draft Regulation 11 states that "1. The Secretary-General shall, within 7 Days after determining that an application for the approval of a Plan of Work is complete under regulation 10:(a) Place the Environmental Plans on the Authority's website for a period of 60 Days, and invite members of the Authority and Stakeholders to submit comments in writing taking account of the relevant Guidelines." Most readers would assume that the Environmental Plans would include the EIA documentation and that consultation would cover the entire EIA process. Schedule 1 defines "Environmental Plans" to mean: "the

Environmental Impact Statement, the Environmental Management and Monitoring Plan and the Closure Plan." Presumably therefore the LTC's position is based on a distinction between the Environmental Impact Assessment Report and Environmental Impact Assessment. Indeed, Regulation 47 provides that "(1) The purpose of the Environmental Impact Statement (EIS) is to document and report the results of the environmental impact assessment process (EIA process)." Annex VIII refers to (g)" an updated environmental impact assessment". If that is distinct from an Environmental Impact Statement, and different again from the "EIA Process", it is very unclear. The Environmental Impact Statement in Annex IV of the Draft Regulations refers to elements that "need to be emphasized in the environmental impact assessment". Is that different from the Environmental Impact Statement as well as from the EIA process?

These concerns are not minor terminology concerns, as the consequence of the LTC advice is that the EIA process attracts no mandatory public consultation during the process: only the final EIS does. Of course by the time the EIS is published, the EIA is complete. The consequence of this is that there is absolutely no requirement for public consultation in the EIA Standard, which is binding: consultation is only in the EIA Guidelines, leaving it up to the discretion of the Applicant. It is too late to ask the Applicant to go and acquire certain data - this is one reason that public consultation, and independent scientific assessment is needed throughout the EIA stage, including at the scoping stage.

This result is also at variance with DR 44, which requires the promotion of transparency, and the Fundamental Principles [and policies] in DR 2 (e)(vii), whereby "encouragement of effective public participation" is a Fundamental Principle. We note that there is no EIS Standard either - only a (non-binding) Guideline.

All this therefore clearly shows that the Standards and Guidelines need to be developed after the Exploitation Regulations are finalized. As it is, either the draft Regulations, and Standards and Guidelines, are left in this unacceptable state, or they are amended - in which case the Standard and Guidelines will need to be amended, following the amendment of the draft Regulations.

Another fundamental flaw in the process, again due to the "cart before the horse" approach of developing Standards and Guidelines before the Regulations, is that the Standards and Guidelines lack any reference to process. Understandably, the Draft Regulations are deficient there as well. There must be an open hearings process, where submissions can be made, the EIS tested, the EMMP developed; scientific evidence can be challenged, independent scientists called and the Applicant's scientists examined. But in the absence of such a process in the Regulations, there is none in the Standard or Guideline.

Yet another flaw is that the Draft Regulations allow the Applicant/Contractor to draft the documents, including the Environmental Management and Monitoring Plan, and as such much of the decision-making is in fact made by the Applicant/Contractor, rather than the ISA.

1. This Standard and Guideline is premature, as it is based on draft regulations which are not yet agreed. It simply is not viable to negotiate and develop the draft regulations and Standards and Guidelines at once.
2. By analogy with national jurisdiction, that would be like developing the statute (here: the Exploitation Regulations), the regulation (here, the binding Standards) and the Guidelines for implementing the regulation all at once.

   Only when the Exploitation Regulations are agreed and adopted can the Standards and then the Guidelines be developed, negotiated and adopted.

   The draft Regulations themselves have a procedure for adoption of the Standards. In Regulation 94 "1. The Commission shall, taking into account the views of recognized experts, relevant Stakeholders and relevant existing internationally accepted standards, make recommendations to the Council on the adoption and revision of Standards relating to Exploitation activities in the Area, including but not limited to standards relating to: (a) Operational safety; (b) The conservation of the Resources; and (c) The protection of the Marine Environment , including standards or requirements relating to the Environmental Effects of Exploitation activities , and referred to in regulation 45."

   This is to happen under the draft Regulations - which are not adopted. It should not happen now.

   Likewise for Guidelines under Regulation 95: "1. The Commission or the Secretary-General shall, from time to time, issue Guidelines of a technical or administrative nature, taking into account the views of relevant Stakeholders. Guidelines will support the implementation of the Regulations from an administrative and technical perspective."

3. It is completely unacceptable that stakeholder consultation is voluntary rather than required, i.e. included in the guidelines but not the Standard. It is also inconsistent with the Draft Regulations - which themselves are defective in their incorporation of consultation.

   Under draft Article 11, Environmental Plans are to be placed on the website and comments invited. The applicant shall consider the comments and may revise the Environmental Plans or provide responses in reply to the comments and shall submit any revised plans or responses within a period of 30 Days following the close of the comment period. As Environmental Plans are defined to include the EIS, by extension they should include the EIA, since "EIA Process" is defined but "EIA" is not. But if not, this is a very narrow reading and shows that Article 11 is defective and must be corrected.

   This consultation should also apply to scoping: the Scoping Report should be subject to public consultation and reviewed following the receipt of comments.

   There is a general obligation under draft Article 44 on the Authority, contractors and others to "(d) Promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including timely release of and access to relevant environmental data and information and opportunities for stakeholder participation .

In addition, “Encouragement of effective public participation” is a Fundamental Principle in Draft Regulation 2 (e)(vii). It should be “ensured”; not simply encouraged.

4. The split between Standards and Guidelines is confusing and unclear. For example reporting on the scoping to stakeholders is suggested in the Guidelines but not mentioned in the Standard. Which are contractors to follow: The Standards or the Guidelines? Or are they free to choose what suits them?

5. There is an artificial split between the EIA process and EIS document. They should be combined. This Standard and Guideline is largely duplicative of the EIS Guideline. The two documents - EIA and EIS - should be combined. Many comments are made on the EIS document that otherwise are relevant here as well. The relationship between the EIA Standard, the EIA Guideline and the Environmental Impact Statement (EIS) Guideline is very confused.
6. The collection of data for the baseline and assessment under the EIA process are critical functions which need review. This is one reason that transparency, and independent science, is crucial for the EIA process, rather than just the final EIS: once the EIS is complete, it is too late to circulate it for comment – the foundation data will or will not have been collected by that time and the analysis is complete. By the time the EIS is published, the EIA is complete. The consequence of this is that there is absolutely no requirement for public consultation in the EIA Standard, which is binding: only in the EIA Guidelines, leaving it up to the discretion of the Contractor. It is too late to ask the Contractor to go and acquire certain data - this is one reason that public consultation, and independent scientific assessment is needed throughout the EIA stage, including at the scoping stage.

7. The Standard does not set a standard of significance. This is one illustration of its inadequacy.

   The Guidelines lack foundation in the Convention including Part XI. Their use of the four-part mitigation hierarchy including mitigation as a primary mechanism, offset, rehabilitation etc. are not based on science or on the requirements of the Convention, including in particular Art 145, 192 and 194(5), or the precautionary approach, and the science of the deep sea. Offset in particular is entirely without foundation. Offset, even when it is appropriate in terrestrial contexts, requires something to be done - biodiversity to be restored, for instance - which otherwise would not be done. Simply stating that an area will not be mined does not amount to an offset even by that yardstick. Nor can an offset be used to justify mining damage, which seems to be the case in the draft. UNCLOS is clear in Article 145 that the environment must be effectively protected and in Article 194(5) that rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life must be protected and preserved.

   Van Dover, C., Ardron, J., Escobar, E. et al. Biodiversity loss from deep-sea mining. Nature Geosci 10, 464–465 (2017). (https://doi.org/10.1038/ngeo2983) has shown that “The relationship between any gain in biological diversity in an out-of-kind setting and loss of biological diversity in the deep sea is so ambiguous as to be

	scientifically meaningless….The four-tier mitigation hierarchy used so often to minimize biodiversity loss in terrestrial mining and offshore oil and gas operations thus fails when applied to the deep ocean. Residual biodiversity loss cannot be mitigated through remediation or offsets and the goal of no net loss of biodiversity is not achievable for deep-seabed mining. Focus therefore must be on avoiding and minimizing harm." They should be entirely redrawn.	
8.	The Standards and Guidelines lack any reference to process; understandably as the Draft Regulations are deficient there as well. There must be an open hearings process, where submissions can be made, the EIS tested, the EMMP developed; scientific evidence can be challenged, independent scientists called and the Applicant's scientists examined.	
9.	There is no provision made for requiring further information, for amending the EIS, or for the EIS being developed at a later stage e.g. a different part of the contract area is intended to be mined, or where work has to be stopped because of unacceptable or unanticipated environmental effects and material changes made in the work program.	
10.	Preventing significant adverse impacts; prevention of harm to the flora and fauna of the marine environment; prevention of the degradation of the marine environment; ensuring no loss of biodiversity; and other relevant commitments for protecting the environment and halting the loss of biodiversity should be the goals of the Standards and Guidelines, informed by scientifically based criteria, indicators and thresholds for ensuring that these goals are met.	
Specific Comments		
Page	**Line**	**Comment**
	Appendix I Standard	
	Para 3	It is completely unacceptable for stakeholder consultation to be optional: to be included in guidelines rather than the standards. See the discussion above. The only place consultation is even mentioned is in para 12 - reporting concerns raised by consultation. But there is no context or framework for the consultation.
3	Lines 87-94	Screening will also be relevant when there has been a Material Change, or when the area or scope of activities has been expanded from the original EIA.
3	lines 96, 125	It should be clear (as should be in the Guidelines) that the Scoping Report should be the subject of public consultation, and reviewed following the receipt of comments.
3	para 9 Line 108	Alternatives analysis should include a no action alternative (no mining). The scoping stage should include a report back of the Scoping Report and consultation with the public before proceeding further (which consultation is missing entirely), since if it omits matters it

		may be too late to address them later. That this is in the Guidelines is unhelpful as either contractors should need to follow them or not; the decision should not be left to them.
4	Lines 135, 140 para 11	Part D e.g. in Paragraph 11 on the EIA process skips a stage: assessment of the current environment. This should explicitly include cumulative impacts from other activities and effects such as climate change, ocean acidification and fisheries.
4	Line 144 Para 12	The EIA must not only focus on the 'high risks' but the significant risks.
4	Line 149 para 13	Where there is modelling the EIA must report assumptions and inputs. "Evidence base" is too vague and uncertain.
5	Line 171, 173	The reference to review and decision-making is extremely brief. But this shows a fundamental issue with both the Standards and Guidelines and the Draft Regulations: the Regulations allow the Applicant/Contractor to draft the documents, including Environmental Management and Monitoring Plan, and as such much of the decision-making is in fact made by the Applicant/Contractor, rather than the ISA. There must be scope for the EIA report/EIS to be rejected or sent back for revision. This abdication of regulatory responsibility underpins all these Standards and Guidelines.
5	line 176 para VI monitoring	Monitoring is a crucial step and should be prescribed by the regulator; not chosen by the applicant.
	Appendix II	**Guidelines**
8	Line 287 etc	There is no assistance given in identifying stakeholders for consultation. It should be made clear that the Scoping Report must be sent out for public comment and reviewed following receipt of comments - not just 'shared with stakeholders'.
8, 32	299, 319, 1109	In referring to "significance and harmfulness of effects" and "An evaluation of significant and harmful effects on the environment, founded on clear and transparent assessment criteria and a robust evidence base" the Guideline hints at but avoids dealing with a central issue: setting a binding standard for significant adverse effects with which all applicants would need to comply. Instead of this, significance is placed into a Guideline which loosely addresses 'significance and harmfulness of effects' without providing a standard, such as a 'significant adverse effect', which is not to be reached, and a standard for how to assess the significant adverse effect standard, using indicators and thresholds.

		This is far more critical as the Applicant itself is able to control the entire process, draft the EIS, and EMMP, and thus itself evaluate significance, where there is no specific threshold to avoid.
23	line 57	This is the only place that independent scientific experts are mentioned - reviewing predictive models. This underlines a fundamental weakness with the Draft Regulations: they do not provide for a mechanism for independent scientific assessment of the Environmental Documents.
29	line 980 (f)	The section on Environmental Performance underpins a fundamental problem with the Standard and Guideline: they are not integrated at all with the Draft Regulations, such as the Fundamental Principles; effective protection of the marine environment; common heritage of mankind, etc. They assume that each application will be granted. Environmental performance is not just a matter of mitigating effects: it is first and foremost a question of whether it measures up to the required Standard (effective protection) etc. Para 79 acknowledges that it will not be possible to set thresholds early on - this is a major problem and for instance means that activities should be able to be stopped or adjusted if effects are unacceptable.
30	1033 - paras 88, 89	The mitigation hierarchy - avoid/prevent; minimize; rehabilitate, restore; offset - has not been developed for deep sea mining or discussed. Rehabilitation or restoration for instance is not an option; nor is offset. It is not consistent with UNCLOS including art. 192, art. 145 and 194(5) of the Convention. For example, the statement that "If an impact cannot be mitigated, it should be minimized or reduced as far as practicable" is without foundation and wrong. It is inconsistent with art. 192 and 145 and 194(5) of the Convention, and with the Draft Guidelines. If an impact cannot be mitigated, the activity should not take place: in terms of Article 145, the environment must be effectively protected, the natural resources of the Area conserved and protected and damage to the flora and fauna of the marine environment prevented: "prevented", not minimized or reduced. As is noted earlier: "Van Dover, C., Ardron, J., Escobar, E. et al. Biodiversity loss from deep-sea mining. Nature Geosci 10, 464–465 (2017). https://doi.org/10.1038/ngeo2983 found that "The four-tier mitigation hierarchy used so often to minimize biodiversity loss in terrestrial mining and offshore oil and gas operations thus fails when applied to the deep ocean."
31	1062	There is ample science that rehabilitation and restoration is not possible in the deep sea.

32	1086	There is no basis for offset in the Convention. The statement that "more likely that offsets are a form of spatial management where protected areas have similar environmental characteristics to impacted areas at either local or regional scale" is entirely without foundation in the Convention, international law, policy or science. To name a few issues, "similar" is not sufficient: it ignores endemism, connectivity, and assumes a knowledge of the deep sea that does not exist. The rest of the section - talking about representativity, connectivity, replication and size - is drawn from knowledge of shallower or terrestrial ecosystems and ignores the deep lack of knowledge of the Area and its ecosystems.

DSCC Comments on the
Draft Guidelines for the preparation of an environmental impact statement

TEMPLATE FOR COMMENTS

Document reviewed	
Title of the draft being reviewed:	Draft Guidelines for the preparation of an environmental impact statement
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General Comments

1. This is premature, as it is based on draft regulations which are not yet agreed. It simply is not viable to negotiate and develop the draft regulations, Standards and Guidelines at once. By analogy with national jurisdictions, that would be like developing the statute (here: the Exploitation Regulations), the regulation (here, the binding Standards) and the Guidelines for implementing the regulation all at once.

   Only when the Exploitation Regulations are agreed and adopted can the Standards and then the Guidelines be developed, negotiated and adopted.
2. In Paragraph 2, the EIS Standard actually states that “In accordance with the Exploitation Regulations, the EIS shall cover the main aspects prescribed in Annex IV and shall be...” yet those Regulations have not been finalized or adopted. The same is true throughout.
3. For instance, DSCC commented on the Draft Regulations that DR 47 should include alternative options including the no-action alternative and measures to avoid impacts where possible. DR 47 should also include a requirement that the EIS clearly demonstrates that a loss of biodiversity will be prevented. In DR 47(1) (d), there are no standards to assess ‘acceptable’ levels of effects.

4. This draft assumes only one EIS: but it is highly likely the 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.

5. Another fundamental objection is that this should be in a Standard, not a Guideline. It cannot be left to the contractor/applicant to decide whether or not to comply with the document, which is what a Guideline does. And there is no Standard. This is worse as the contractor/applicant is permitted to write its own EIS, and own EMMP, so the ISA as a Regulator has insufficient control over the process.
6. This document should be combined with the EIA Standard. The EIS is simply the outcome document of the EIA. It is confusing and counterproductive to have two competing documents essentially for the same process. If there are to be two separate Standards, they need to be re-written so that the EIS relates to the Statement and the EIA relates to the assessment process - at present they are confused. For example, at line 443 (para. 45) specifics of description of species composition and abundance are specified: these should be specified in the EIA Standard, so necessary studies can be carried out there.
7. Even more than the EIA document which almost completely ignored independent scientific assessment, independent scientific assessment is entirely missing here. The EIA process reflected in the EIS must include independent scientific advice, including that which may be brought by stakeholders. Currently it does not.
8. There is no process for requiring contractors to go back and obtain information which is missing (whether or not it was in the Scoping Report, if it is necessary, it must be included).
9. Draft Regulation 47 on the EIS 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. All documents comprising the Plan of Work should be subject to public comments, which should be taken into account. “Encouragement of effective public participation” is a Fundamental Principle in Draft Regulation 2. It should be “ensured”. There is no public review included in the EIS Standard. This is a major omission. All it does it refers to stakeholder engagement activities that took place during the process of the EIA: these are voluntary, being in the Guideline. Yet crucially, DR 11 and the Definitions refer to the EIS - but not the EIA - as being an Environmental Plan. It is almost a game of ‘hot potato’ - the EIA does not include public consultation in the Standard, as the EIS, not EIA process, falls within the DR 11 public consultation article, yet the EIS merely refers to any consultation which may have been undertaken in the EIA process - which, to be clear, is not in the Standard and is only in the Guideline. Consultation should not only include public reviews of the EIS but revision of the EIS following consultations.
10. The EIA/EIS process should benefit by the detailed discussions taking place in BBNJ such as on screening, scoping and the conduct of the assessment. Instead it refers to the EIA report (Article 35 of the BBNJ President’s Text).
11. The EIS should be specifically required to describe the impacts on the environment such as habitats (not just loss of habitats on page 14/line 650)- whether habitats are vulnerable (see the FAO Deep Sea Guidelines on Vulnerable Marine Ecosystems), Ecologically and Biologically Sensitive Areas etc.

Specific Comments		
Page	**Line**	**Comment**
7	Line 278	Adding the effect of plumes on marine life is crucial, as are modelling of plumes, testing of marine life for susceptibility, details of current/tides/eddies/oceanographic testing and assumptions, depth of discharge of returned sediment, composition of sediment, toxicity of sediment.
7	318	Alternatives analysis must include the no action alternative.
9	398	Noise must include ambient sound levels at relevant locations, specific frequencies to be emitted at relevant locations, sound levels at those locations, and effects on marine mammals and fish which may be present at those locations.
10	421/para 43	A comprehensive list of known species must be provided - not simply "as comprehensive...as possible". Midwater must be to all affected depths: not just 200 metres deep to 50m.
10	428	Specific marine mammal surveys and fish surveys must be completed informing of marine mammals and fish which may be present at all relevant depths and locations and at different times of the year. This also informs assessments of noise impacts and the susceptibility of the marine mammals and fish to noise and disturbance.
14	635	Nowhere is there required an analysis of the toxicity of released metals either on the seafloor from the mining activity or in the water column from the sediments released. No assessment of toxicity is possible without knowledge of the toxicity of the contents of the emitted plumes.
14	650	The EIS should be specifically required to describe the impacts on the environment such as habitats (not just loss of habitats) whether habitats are vulnerable (see the FAO Deep Sea Guidelines on Vulnerable Marine Ecosystems), Ecologically and Biologically Sensitive Areas etc.
16	725/para 9	The section on product stewardship shows that the contract needs to be able to be refused or terminated if the products are shown to be unnecessary or inconsistent with the SDGs. Currently the draft Exploitation Regulations do not allow this.
16	743/para 10	Consultation is not compulsory (see the discussion in the EIA Standard and Guideline and in the introduction to these comments). Consultation should be compulsory and conducted throughout the EIA process and should also not only include public reviews of the EIS and but also revision of the EIS following consultations.

DSCC Comments on the
Draft Guidelines for the preparation of environmental management and monitoring plans

TEMPLATE FOR COMMENTS

Document reviewed	
Title of the draft being reviewed:	Draft Guidelines for the preparation of environmental management and monitoring plans
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General Comments	

1. As with the other standards and guidelines, this guideline is premature. It is purportedly based on draft regulations which are nowhere near agreed. It should be developed after the Exploitation Regulations are finalized and adopted. There are fundamental problems with the development of EMMPs.
2. The environmental management and monitoring plan is probably the most important document: it controls the mining operation as well as the monitoring of it. Draft Regulation 48 is therefore a crucial regulation, and is deficient: EMMPs must include specific plans for monitoring the environmental impacts of mining - not just the effectiveness of the mitigation measures.
3. It will change depending on the EIA process. Crucially, the amendment and the review of the EMMP should be carried out by the assessing body - currently the LTC- rather than the Contractor. Yet Draft Regulation 48 provides for none of these. But Draft Regulation 11 does include EMMPs in Environmental Plans, which are then subject to comment after being put onto the ISA website. But then, the comments are merely provided to the applicant “for its consideration”- whether and how it considers public comments is simply up to the applicant. It “may”

revise the Environmental Plans or provide responses in reply to the comments and shall submit any revised plans or responses within a period of 30 Days following the close of the comment period. That is entirely unacceptable and grossly inadequate.

4. The EMMP should be drawn up and amended by the assessing body (currently the LTC), not the Contractor/Applicant. 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 (see DR 20) 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 ultimately be carried out by the assessing body - currently the Legal and Technical Commission (LTC). (See DR 48)
5. The EMMP should be developed as part of a transparent assessment process by a standalone assessment body with appointed experts in relevant disciplines, such as through a Scientific or Environmental Committee - not be developed by the Applicant. 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 in ISBA/25/C/18 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) of the Convention: 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". (see DR 11)
6. Yet despite all these considerations there are zero - zero - provisions about consultation in the EMMP Guideline. For this reason alone, it should be withdrawn.
7. This is inconsistent with Draft Regulation 11, which provides, inter alia, that the Secretary-General must "(a) Place the Environmental Plans on the Authority's website for a period of 60 Days, and invite members of the Authority and Stakeholders to submit comments in writing taking account of the relevant Guidelines". Environmental Plans are defined to include EMMPs, as well as EIS and the Closure Plan. It is also inconsistent with DR 2(e)(vi) (the principle of "Accountability and transparency in decision-making") and DR 44(d) ("(d) Promote accountability and transparency in the assessment, evaluation and management of Environmental Effects from Exploitation in the Area, including timely release of and access to relevant environmental data and information and opportunities for stakeholder participation).
8. All documents comprising the Plan of Work should be subject to public comments, which should be taken into account - by the Contractor, but also by the ISA, which should be the regulator. As currently drafted, the Contractor is, to a large extent, self-regulating.
9. The regulations need to make clear the procedure whereby the assessing body - currently the LTC -considers and responds to public comments on proposed Plans of Work, including the environmental plans, including ensuring that a detailed

	record and rationale is provided by the LTC for any recommendations regarding approval or otherwise of a Plan of Work. Currently they do not.	
Specific Comments		
Page	**Line**	**Comment**
1	56	This illustrates why the Guideline is premature: the definition of "Environmental Effects" is deficient. 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. In relying on this faulty definition, the Guideline is faulty.
2	79	The precautionary principle, not approach, should be used throughout. Many Member States and observers have stated a firm position on this. This is another reason the Guideline is premature: this issue has not been resolved.
	113	This Standard refers to Fundamental Policies. There was a lot of opposition to expanding Fundamental Principles to Fundamental Policies. This is another example of why this Standard is premature.
2	121, 134	It is unclear why "Regulation 52" is being referred to. Is draft Regulation 57 intended?
2, 4	128, 214	There are no constraints on adaptive management. Even Annex VII Para (g) proposed using adaptive management "if appropriate". The description of adaptive management in page 4 includes some references but not others. For instance Jaeckel (2016), cited by the Guideline, observed that ". It may be queried whether adaptive management could really be applied without flexible contracts". This query is not answered. It is also insufficiently qualified by the precautionary principle. Adaptive management should only be used where consistent with the precautionary principle. Adaptive management should only be used if it is capable of reducing risk and uncertainty within reasonable time scales and before serious harm has occurred. To enable adaptive management, a step-by-step approach could include the establishment of (a) environmental baselines; (b) precautionary thresholds; (c) robust monitoring; (d) periodic reviews; (e) procedural safeguards including

		transparency and reporting; and (f) automatic response from the regulator. As the New Zealand Supreme Court stated, "there must be an adequate evidential foundation to have reasonable assurance that the adaptive management approach will achieve its goals of sufficiently reducing uncertainty and adequately managing any remaining risk. The threshold question is an important step and must always be considered."(NZ Supreme Court case of Sustain Our Sounds v King Salmon [2014] NZSC 40, paragraphs 124-125.) The Court developed the following test to identify whether instead of AM the precautionary approach requires an activity to be prohibited until further information is available: (a) 'the extent of the environmental risk (including the gravity of the consequences if the risk is realized); (b) the importance of the activity (which could in some circumstances be an activity it is hoped will protect the environment); (c) the degree of uncertainty; and (d) the extent to which an adaptive management approach will sufficiently diminish the risk and the uncertainty. An assessment needs to be made of the extent of the risk of potential mining, the degree of certainty involved, and, most importantly, the extent to which an adaptive management approach would sufficiently diminish the risk and the uncertainty. If adaptive management would not sufficiently diminish either the risk or the uncertainty – such as because of the magnitude of the risk or the insufficiency of information – adaptive management would not be suitable and the EMMP (and Plan of Work) should not be approved. In addition, where environmental baseline information indicates a risk of serious harm (e.g. a risk of extinction of endemic species), adaptive management would not be suitable.
7	296, 389	Monitoring does not include environmental monitoring as such: it only includes validation monitoring, compliance monitoring and long-term monitoring. There must be continuous monitoring of all environmental effects. This should also be stated in para 44. The monitoring should not only be to evaluate the characteristics of the "returned water" (a misnomer; it is sediment discharge) plume and the "operational" plume (better called the mining or collector-caused plume). It should also be of the effects of the plumes. Moreover, the parameters to be monitored - suspended sediments, at different distances and depths, composition of the plume, dispersal of the plume - all need to be monitored. This item needs a lot more work.

8	344	The Guideline states that "The EMMP may need to be modified following the collection of additional data and throughout the monitoring program". Yet there is no reference to Draft Articles 11 and 57 regarding amendment of the EMMP. This underlines the problems in developing the Guideline before the regulations are adopted: It is one-sided to allow a contractor to introduce a material change but not the ISA (57). And 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.
9	398 ff, 413	The performance assessment underlines that this Guideline is premature. Draft Regulation 52 provides that 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. There is no publicity and no consultation of the performance assessment.
11	471	There is no public notification or other consultation following notifiable events.
11	493	As noted earlier, it should not be up to the Contractor to decide how often performance assessments are carried out. The earlier stated 2 years in DR 52 should be reinstated into the Draft Regulations. This is unacceptably vague: "In the context of deep seabed mining, Contractors should plan to carry out performance assessments more regularly as control measures" (line 501). More regularly than what? Clearly a review period should be specified.
12	518	The review must be carried out by independent competent persons - if the Contractor has a choice, it will usually choose its own people.
12	559	The discharge should be stated to need to comply with specific conventions, not "any relevant conventions, standards, legislation or instruments."
	565	The waste discharge includes the enormously damaging sediment return waste. It is too vague to say it is generally governed by MARPOL and the London Convention (Convention on the Prevention of Marine Pollution by Dumping of 567 Wastes and Other Matter). The London Convention - and Protocol - exempt "III(1) (c) (London Convention) and I(4)(c) (Protocol) "the disposal of wastes or other matter directly arising from, or related to the exploration, exploitation and associated off-shore processing of sea-bed mineral resources".

DSCC Comments on the
Draft standard and guidelines for the preparation and implementation of emergency response and contingency plans

TEMPLATE FOR COMMENTS

Document reviewed	
Title of the draft being reviewed:	Draft standard and guidelines for the preparation and implementation of emergency response and contingency plans
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General Comments

1. Like the other Standards and Guidelines, this Standard and this Guideline are premature. This is seen in that they reflect the draft Regulation 33, which uses a reasonably foreseeable test. "The Contractor shall not proceed or continue with Exploitation if it is reasonably foreseeable that proceeding or continuing would cause or contribute to an Incident, or prevent the effective management of such Incident." The test should include situations where a risk is likely.
2. Draft Article 33 should refer to the ability of the Council to issue an emergency order pursuant to Article 165(2)(k) of the Convention. It does not, and nor does the Standard.
3. Draft Article 34(2) provides that "The Contractor shall, as soon as reasonably practicable, but no later than 24 hours after the Contractor becomes aware of any such event, provide written notification to the Secretary-General of the event, including a description of the event, the immediate response action taken (including, if appropriate, a statement regarding the implementation of an Emergency Response and Contingency Plan) and any planned action to be taken."

		Appendix I lists notifiable events such as “9. Unauthorized Mining Discharge” and “10. Adverse environmental conditions with likely significant safety and/or environmental consequences.” Yet there is no provision for notification to the public or to Council, anywhere in the draft Standards or Guidelines.
Specific Comments		
Page	**Line**	**Comment**
		Appendix I: Standard
7	245	The notification process should include making public the notifications, as well as communicating them to Council.
8	261	The ‘reasonably foreseeable’ test should be supplemented with ‘likely’ or if the Contractor is otherwise aware of a risk which may give rise to an incident. This applies to draft Regulation 33 underlying this Standard.
8	284	The results of the audits should be publicly available.
		Appendix II: Guideline

DSCC Comments on the Draft Guidelines on tools and techniques for hazard identification and risk assessments

TEMPLATE FOR COMMENTS

Document reviewed	
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General Comments	
1. It is not accepted that the objective of the regulatory framework is to "reduce the risk of incidents as much as reasonably practicable, to the point where the cost of further risk reduction would be grossly disproportionate to the benefits of such reduction" (para 3). This is drawn, presumably, from Draft Article 33. But the environment should be effectively protected without cost being a consideration. There is no basis in UNCLOS for damaging the environment beyond a certain cost threshold. 2. This illustrates that the formulation of these Standards and Guidelines is premature. The draft exploitation regulations should be finalized and adopted before the Standards and Guidelines are developed. Otherwise the foundations simply are not there, as seen with this example. 3. At present, the Standards and Guidelines assume that the draft Regulations are adopted as they were issued in March 2019: not a single comment from any stakeholder, including Council members, is taken into account. This is an obvious major strategic problem. The draft standards and Guidelines should be withdrawn.	
4. Likewise, the reference to the ALARP principle is misplaced, to the extent that it addresses risks to the marine environment, since the objective is effective	

		protection of the marine environment, under Article 145 of UNCLOS. Article145 is not qualified by 'as long as the damage is as low as reasonably practicable'.
Specific Comments		
Page	**Line**	**Comment**
1	64	"Good industry practice" should read "best industry practice". The definition in the Draft Regulations is deficient: "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." Again, this shows that the Regulations need to be developed before the Standards and Guidelines.
2	95	"7. This guideline should be read in conjunction with the Exploitation Regulations," is inadequate - the Regulations (when adopted) govern - not simply be 'read in conjunction' with the Guideline.
3	115	"10. Two of the fundamental policies and principles of the Exploitation Regulations" - there is widespread support for deleting "fundamental policies" and reverting to "fundamental principles". The policies need to be taken out of the Fundamental Principles Article so that the fundamental principles are indeed fundamental, and not simply policies to be weighed against other policies. Again, this shows that the Regulations need to be developed before the Standards and Guidelines.
4	165	"C. The importance of stakeholder consultation": This heading should be adopted for all Standards and all Guidelines. However, the Guideline needs to operationalize the consultation - conduct it and respond to it.
6	218	It should not be left to the Contractor to determine risk criteria - it is for the Guidelines.
7	227	"One particular aspect of deep seabed Exploitation that complicates the assessment of environmental impacts is that there is a lack of scientific certainty associated with deep sea species and ecosystems". This should be recognized in the other Standards and Guidelines. The

		application of the precautionary principle (not approach, which is the term used here) requires that the activity not be conducted: "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". The only measure that will prevent the serious or irreversible damage in the face of such uncertainty is deciding not to undertake the activity. While there are precedents for the safety of surface vessels, this ignores the difficulties of working at such depths, which cannot be further specified since the technologies are not known. The reference to the ALARP principle is misplaced, to the extent that it addresses risks to the marine environment, since the objective is effective protection of the marine environment, under Article 145 of UNCLOS. Article 145 is not qualified by 'as long as the damage is as low as reasonably practicable'.
12	420	It should not be left to contractors to assess environmental consequences, such as potential effects on the ecosystem. That is the function of the EIA and EIS.
14	481	"The precautionary approach requires addressing and preventing environmental risks at early stages, even if uncertainties remain." As previously stated, the only way to prevent environmental damage, such as destruction of the benthos and substrate, damage from the operational and return plumes, toxicity and noise, is not to undertake the mining activity. The Contractor cannot be expected to do this: that is why the contracts should not be awarded at this stage.
15	544	Cumulative risks are inadequately defined in the draft Regulations (Schedule 1): they should not be restricted to mining impacts. Cumulative impacts must include other activities such as fishing or cables, climate change, ocean acidification, de-oxygenation and other stressors. 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." As stated before, this underlines that the Standards and Guidelines are premature.
17	610	Monitoring should be specified in the EMMP.

18	673	What is Guideline 3?
19	695	Relevant stakeholders are not specified in Regulation 3 other than as "Undertaking educational awareness programmes for Stakeholders" in 3(f)(4. They should be.
20	767	"Design the risk management program to reduce the risk of Incidents as much as reasonably practicable, to the point where the cost of further risk reduction would be grossly disproportionate to the benefits of such reduction, taking into account the relevant guidelines". As noted before, this is not consistent with the Convention, which does not provide for cost thresholds to conducting damaging activities.
21	778	The precautionary "approach"' should read "principle". This underlines that when damage cannot be prevented, the mining activity should not take place.

Draft Standard and Guidelines for the safe management and operation of mining vessels and installations

TEMPLATE FOR COMMENTS

Document reviewed	
Title of the draft being reviewed:	Draft Standard and Guidelines for the safe management and operation of mining vessels and installations
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General Comments	
1. Like the other Standards and Guidelines, this draft Standard and this draft Guideline are premature. Articles 94 and 95 provide for a process for the development of standards and guidelines under the regulations - but the regulations are not yet finalized, or adopted. The Standard and Guideline assume the March 2019 draft is adopted as it is - with no comments from any Member State or observer implemented or taken into account.	
2. The Standard is exceptionally short (not even one page). It places the Safety Management System entirely into the hands of the Contractor. As such it is not a Standard; it is an abdication of regulatory control. This matters: for example it would apply to the risers, which would carry sediment some 4000 metres or more up and thousands of metres back down, at enormous risk to the marine environment. It also applies to the operation of the collectors, which will be capable of causing enormous damage to the seabed as well as generating enormous operational plumes in doing so. 3. There is no consultation provided for in the development of the Safety Management system.	
4. Like the Standard, the Guideline is also exceptionally short and general and places the management of the operations and risk in the hands of the Contractor.	

Specific Comments		
Page	**Line**	**Comment**
2	16	“Protection of the marine environment” should read “effective protection of the marine environment”.
2	19	This should refer to and be integrated with the draft Guidelines on tools and techniques for hazard identification and risk assessments.

Draft Guidelines for the establishment of baseline environmental data

TEMPLATE FOR COMMENTS

Document reviewed	
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General Comments

1. The Standards and Guidelines are premature. The draft Regulations have not been adopted, or are even close to being finalized. As such, developing and finalizing Standards and Guidelines is premature.
2. This is seen in the statement that (line 74) "4. These Guidelines should be read in conjunction with the Exploitation Regulations, the relevant Exploration Regulations, other relevant International Seabed Authority rules, regulations and procedures, as well as other relevant Standards and Guidelines". The Regulations should be followed, not simply read in conjunction with the Guidelines. At the very least, the Guideline should state that in the case of any consistency, the Regulations govern.
3. The baseline is the crucial foundational element for the EIA process. This document should be a standard rather than a guideline. There is a great deal of data that must be gathered, and "must" is the operative term. A lack of comprehensive baseline information will make it difficult, if not impossible, to assess what the impacts of mining are likely to be, or fully monitor the impacts of mining once it begins. If there is insufficient knowledge of the species and ecosystems and their characteristics (e.g. rarity, endemism) and dynamics (e.g. connectivity) potentially impacted by mining in the first place, it would be impossible to monitor the full range of mining impacts, including, for example, whether mining permitted by the ISA would result in driving species extinct. In addition, if the decision as to which data are collected and which are not is left to the Contractor, that will mean a wide variance in EIA quality and likely substandard EIA. This is one reason that transparency is crucial for the EIA process, rather than just the final EIS: once the EIS is complete, it is too late to circulate it

for comment – the foundation data will or will not have been collected by that time. By the time the EIS is published, the EIA is complete. The consequence of this is that there is absolutely no requirement for public consultation in the EIA Standard, which is binding: only in the EIA Guidelines, leaving it up to the discretion of the Contractor. It is too late to ask the Contractor to go and acquire certain data. This is one reason that public consultation, and independent scientific assessment is needed throughout the EIA stage, including at the scoping stage.

4. It is too vague to state that "Some elements may not apply to all mineral types". The application of the guidelines needs to be clearly stated. Which elements are applicable to which mineral types? There should be a separate Guideline for each type of mining.

Specific Comments

Page	Line	Comment
4	65	It is too vague to state that "Some elements may not apply to all mineral types". The application of the guidelines needs to be clearly stated.
4	93	"The Area" should be expanded to include the water column.
14	470	Far more detail on the modelling inputs, sediment assumptions, current, upwelling etc to identify the distribution, travel and composition of the discharge as well as operational plumes is needed.
22	815	Assessment of the water column at all depths the discharge sediment may travel, not just the release points is essential.
39	1518	Marine mammal surveys are required to identify species (not just sensitive or protected species) and susceptibility to noise including to different frequencies and at what depths they may be encountered. Fish surveys, fish migration (potentially through the return plume) and susceptibility to the plume contents such as heavy metals, the plume itself (suffocation; difficulty finding prey); susceptibility to noise all need to be added.