DOSI Intervention regarding Item 10: Draft Regulations on exploitation of mineral resources in the Area: Fourth meeting of the Informal Working Group on the Protection and Preservation of the Marine Environment

## Annex IV Section 7 - Assessment of impacts on the physical, chemical, and geological environment and proposed Mitigation #26 Delivered 22 March 2023 by Sonigitu Ekpe

Thank you, Madame Facilitator. The Deep-Ocean Stewardship Initiative would like to begin by reminding the council that assessment of impacts and validating of proposed mitigation is currently very difficult, if not impossible, due to significant remaining scientific knowledge gaps that will take decadal scale levels of research.

With regards to section 7(a)ter, as well as para 7.2 bis (a), DOSI recommends the addition of **verification of any modeling**, or other analyses, besides the description of assumptions and limitations of any models.

In para 7.2, there are examples of "major types of potential impacts", two of which, habitat removal and variations in communities' composition, are not an oceanographic parameter. Yet other key impacts, such as release of reactive toxic compounds, which will be associated with the mining plumes, are not included. Perhaps a reference to the relevant Standards and Guidelines for more complete lists is more appropriate with these stated examples only for illustrative, rather than exhaustive, purposes.

Regarding Section 7.13, DOSI recommends the inclusion of synergistic impacts alongside cumulative impacts. As described by Mexico earlier in Council, these two terms are different with regards to how effects from impacts are measured. Cumulative effects are the sum or addition of each single impact with each other. For example, the independent effects of deep-sea mining **plus** the independent effects of climate change. Synergistic effects go beyond cumulative impacts, and refer to when impacts interact to amplify each other. An example synergistic impact might be a heightened level of sensitivity to toxicity by a deep sea species due to increased temperatures from climate change impacts. These synergistic interactions and their impacts are important to understand. If we do not take into account the synergy of effects, we risk underestimating the overall impact on the marine environment.

Lastly, DOSI recommends an addition to Section 7 to require an outline of assessments of uncertainty.

Many thanks, Madam Facilitator.