

DOSI Synopsis of Berlin Workshop

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Strategic planning (ISA Env. Strategy): Aline Jaekel gave an excellent talk on this topic. The SEA proposed was overarching and global in scale. This is where high-level environmental objectives must be laid out (though some feel they are already present in UNCLOS and that is sufficient). Big questions remain about who does the highest level strategic planning, when and how.

Regional environmental assessment/ planning: More emphasis was placed here. It became clear that this will be the fundamental planning element with the greatest chance to ensure 'preservation of the marine environment' required by UNCLOS. DOSI should have a voice here about strategies and preservation networks. Also about climate change and cumulative impacts/ecosystem services. Beyond APEIs, we might suggest that the contractor environmental plans designating Preservation Reference Zones inside the claim areas become part of a regional protected area network and are integrated with APEIs to achieve the regional goals. Sometimes that will be the only chance for specific habitats (eg., high grade/high density nodules or sulfides), that are otherwise fully claimed. AND/OR we might need to look at creating smaller APEIs to squeeze them into unclaimed areas. There are also a lot of issues to consider about how to generate the necessary data for regional planning, study of APEIs, and a possible role for the science community, as well as challenges of regional governance, appropriate transparency.

Serious harm and harmful effects was tackled and dismissed after the first day. It's unclear how much concern there is about these definitions - everyone agreed they were tough to arrive at. An important contribution from scientists is to make sure that those elements we think are going to be the best indicators of harmful effects and serious harm should emerge in the guidelines that accompany the environmental regulations as part of the EIA baseline, monitoring guidance, regional planning efforts, and link to the highest level environmental objectives.

Environment Impact Assessment: Right now the EIA template is NOT fit for purpose in deep water. It emphasizes shallow/coastal groups and impacts, and does not accommodate the ecosystem-based approach, even though the Draft Env. Regs advocates for this. Eva and Lisa recommended changes (e.g., addition of microbes, protists (forams), and a new section on Ecosystem processes.

Preservation reference zones and impact reference zones: It is clear there is no guidance yet - this is another area where DOSI can weigh in with science. There is contractor strategy being discussed - we should work with them and integrate ecological principles, disturbance theory etc. Again - they should be considered in a regional context as well. There appears to be no agreement on role of Preservation Reference Zones in terms of contract scale management - this would seem to be urgent to clarify their potential role, and to get it into the regs. There is supposed to be a workshop coming up on this, and we should be sure to get as many DOSI experts there as possible.

Adaptive management: how to start small enough to test, and condition permission to mine on permissible outcomes is still a huge and unclear issue—what will be acceptable outcomes, and how to include these in the contract?

Other topics - and whether this is suitable for Deep-seabed mining, and if so how to implement..., Pilot Mining Test... how, who etc. Mitigation/Restoration.

Lisa: My personal thought after listening to everything is that it is urgent to get the large-scale spatial protections in place as soon as possible, and develop them with a very conservative assumption that the areas approved for exploitation mining (direct footprint) will not provide future ecosystem functions and services. This would not preclude measures to minimize harm and enhance recovery - but I don't think we should count on them. Antje's presentation showed clear impact for decades in microbes, meio, macro and megafauna after very small scale disturbance in the nodule province.

Kristina:

Serious harm—we are still light years away from any functional indicators (or at least I think) that give you fair notice of when there is a 'substantial risk' of serious harm, so that specific sites can be put off limits or contractors can pause, modify their operations. Michael Lodge seemed to think the provisions for 'emergency orders' would suffice but those only come into play upon an 'incident'. So how do you design something that detects accumulating harm in time to stop it before it comes serious.

Agree with Lisa that large-scale spatial protection and management will be key.

Again, the impacts of plumes are unknown. Would be eager to start promoting a workshop on plume impacts including on the deep pelagic realm.

Eva:

Serious harm, I totally agree with the indicators and thresholds issue. I do not see how the term can be operationalized (and how we can have early warnings that we are going towards serious harm, before it is too late) without measurable indicators. I did mention this at one of the plenary sessions, but it did not seem to be of much concern, and some people seem to think we can just move on without these indicators in place. So I am wondering if legal aspects link to the reality of the ecology of the system.