
Stakeholder Survey Submission to the United National International Seabed Authority (UN ISA).

Benjamin Kahn
May 2014
Dear Sir, Madam,

I welcome the opportunity to provide feedback on this timely and important issue, namely the sustainable development of a completely new and large-scale marine industrial sector. In this submission you will find my contributions and referenced reports of relevance to this important survey.

This submission is a contribution to the Survey

**Part B: Environmental management terms and obligations**

**Part D: General considerations – stakeholder communication and transparency**

And also includes recommendations relevant to

**V. The review process**

However, considering the relatively short time frame given for feedback -in between other project commitments and field work - and

a) The potential for population-level impacts by DSM activities on marine life and critical habitats of endangered, threatened and protected species (including residential and migratory cetaceans such as blue, Bryde’s, beaked and sperm whales.

b) The complexity of the poorly understood deep-sea and pelagic ecosystems where DSM currently operates or is being considered (incl. Bismarck Sea and Solomon Sea, Fiji and others, see below for detailed studies),

I would strongly suggest the ISA arrange a series of regional workshops where all the questions raised in the survey questionnaire can be discussed with all interested and affected stakeholders. No major developments in DSM policy framework can be advanced without such broader and in-depth stakeholder engagement in DSM regions of special interest.
The Asia Pacific region should be priority for such a workshop as things are moving fast here and potential impacts may reverberate through a highly diverse marine ecosystem that has already been recognized as a global marine conservation priority – The Coral Triangle.

I would like to highlight three technical reports (included in the shortlisted reference list):

A co-authored report, in my view one of the most comprehensive studies to date on Deep Sea Mining’s large-scale tenements in the Coral Triangle and SW Pacific regions. These tenements have significant overlap with Ecologically and Biologically Sensitive Areas (EBSAs) and Priority Conservation Aras (PCAs).


A study on the overlap between offshore industries (oil and gas and deep-sea mining tenements, international shipping traffic) and priority marine areas, based on 41 global and regional databases (Kahn and Vance-Borland 2013). Over 40 GIS datasets obtained (from reefs to seamounts, MPAs to high catch areas for tropical tunas) and digitized (i.e., oil and gas blocks, shipping lanes, Deep Sea Mining tenements), overlap analysis for PCAs (priority conservation areas incl. EBSAs, MPAs, known habitats for numerous species of concern with emphasis on sea turtles and marine mammals) and MEBs - Marine Exploitation Blocks as well as international shipping lanes.

This comprehensive report includes the SW Pacific region as well as a country-by-country Coral Triangle Initiative analysis (incl. EEZ) and overview/summaries. The report also includes three spatial scenarios; analyses of the impact of a large scale oil spills on:

a) Fisheries (the tropical tuna CPUE hotspot in the Sulu Sea)
b) Marine tourism (Bali - Komodo) and
c) Priority marine conservation sites (Raja Ampat, Papua).
The report’s findings and recommendations on DSM (clearly listed in the report) are also to be included in this submission.

Secondly, a review and technical report on best practices for seismic surveys in sensitive marine areas is also highly relevant to DSM, as numerous development and operational activities will use seismic tools and the area of operation is often in mega bio-diverse marine regions within the Coral Triangle and SW Pacific (Kahn 2010). Its recommendations on minimizing ocean noise are also to be included in this submission.

Thirdly, a statement of concern, as presented and accepted as submission the World Bank’s Extractive Industries Review (EIR) on “Potential environmental and socio-economic impacts of Submarine Tailing Disposal (STD) in regions of intense marine resource use and exceptional coastal and oceanic marine bio-diversity” (Kahn 2003). Again, a number of these concerns and potential impacts are of relevance to DSM as well, and are to be included in this submission as well.

Kindly find below additional references and a brief on our work on oceanic cetaceans - whales and dolphins - and their associated habitats in east Indonesia and other parts of the Coral Triangle.

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2 i.e. p7, “Over 50% of the total area within CT Deep Sea Mining blocks is also designated as PCA (50.1%). Thus although DSM is considered an offshore activity and is not associated with the coast, when overlap is compared by block type there is relatively more overlap with PCAs for CT DSM blocks than the Oil and Gas blocks. This is likely to be due to the overlap of DSM with the habitats of wide-ranging marine life such as marine turtles, oceanic cetaceans and tuna fisheries, and DSM proximity to several important marine corridors (in the Bismarck Sea, which has the highest density of DSM tenements in the CT). In the much larger South West Pacific region there are few Oil & Gas blocks and none of them overlap with PCAs. However, 10.9% of the area of DSM blocks in the SWP is also designated as PCAs. Thus from an industry perspective it seems reasonable to expect that this study will provide companies with a better awareness of the scale of overlap, and the need to work towards mitigation of potential risks to sensitive species and habitats. And other sections of the report; i.e. Marine Extraction Blocks (MEBs) in the South West Pacific: Introducing Deep Sea Mining (DSM), p.9)
Our activities and expertise on oceanic ecosystems in relation to endangered species management and marine spatial planning are further detailed below (Appendix 1). We have also worked closely with oil and gas project and the shipping industry as both these sectors have overlapping issues with cetaceans and pelagic ecosystems as well.

I look forward to your confirmation of the acceptance of this submission and I hope we can further work together on additional stakeholder engagements in Asia-Pacific region, and help develop an adequate regulatory policy framework for Deep Sea Mining and its development and operational activities.

Yours truly, Benjamin Kahn

Director
APEX Environmental
Coral Triangle Oceanic Cetacean Program
IUCN Species Survival Commission - Cetacean Specialist Group
IUCN World Commission on Protected Areas
Adjunct Research Fellow, Curtin University, Centre of Marine Science and Technology, Perth, Western Australia
Appendix 1: Shortlisted References (as ranked by relevance to DSM).


Kahn, B. 2014. Shortlist of near-shore yet deep-sea habitats that may be included in ecoregional conservation initiatives and Marine Spatial Planning, according to CBD and CARR principles. APEX Environmental Technical Brief 2014. 2pp.


Kahn, B. 2009a. The Savu Sea Marine National Park: Management recommendations for critical deep-sea habitats for blue and sperm whales, oceanic cetaceans and


Appendix 2: Organizational profile and expertise on oceanic ecosystems in relation to endangered species management and marine spatial planning.

APEX Environmental is an organization with extensive expertise in oceanic whale and dolphin surveys, cetacean ecology research, conservation, management, policy development and training. Our main area of interest is within The Coral Triangle (CT) where we have been working since 1998. The CT includes the coasts, reefs and open seas of six countries: Indonesia, the Philippines, Malaysia (Sabah), Papua New Guinea, the Solomon Islands and Timor Leste. These waters are regarded by experts as the world's richest marine environment and account for 30 percent of the world's reefs, 76 percent of global reef building coral species and more than 35 percent of coral reef fish.

Marine megafauna in the CT includes 6 species of marine turtles and over 30 species of marine mammals. The Coral Triangle Oceanic Cetacean Program aims to expand the existing knowledge of the Earth's most abundant yet least known marine ecosystem - the open ocean - with particular emphasis on "deep-sea yet near-shore" habitats such as
seamounts, pinnacles and persistent upwelling zones. One of our priority areas are the Indo-Pacific migratory corridors of east Indonesia, Timor Leste, Papua New Guinea and the Solomon Islands; and the importance of these narrow yet deep passages for large migratory marine life, in particular Blue and Sperm whales; in addition we focus on how to integrate productive oceanic and deep-sea habitats within MPA Networks and Seascape initiatives.

In addition to our work on marine mammals, we have also assisted with numerous regional marine conservation programs such as ecoregional Marine Spatial Planning, Integrated Ocean Management, Marine Protected Area (MPA) Network development and design, MPA management plans and zonations, national fisheries reviews, capacity building assessments, best practice reviews for offshore industries (in particular the energy sector: seismic surveys, oil and gas exploration), shipping and marine tourism development.

These activities are geared towards providing innovative solutions for nature-based industries that have minimal environmental impact, are cost-effective and provide long-term ecological and economical sustainability. Educational and training activities focus on tropical marine mammal conservation issues in SE Asia and the South Pacific Islands.

APEX Environmental is a member of several expert groups at the IUCN (International Union for the Conservation of Nature) and large-scale initiatives including:

- IUCN World Commission on Protected Areas (WCPA): Trans-Boundary Conservation Specialist Group.
- IUCN Species Survival Committee (SSC): Cetacean Specialist Group
- Coral Triangle Initiative Seascapes Technical Working Group
- South Pacific Whale Research Consortium (SPWRC).

**Appendix 3: Background information to the Deep Sea Mining stakeholder consultations by the UN International Seabed Authority (ISA).**

The ISA is undertaking stakeholder consultations as it commences development of a regulatory framework for the future recovery of mineral resources from the seabed in
international areas.

The ISA survey covers:

- Financial terms and obligations
- Environmental management terms and obligations
- Health and safety and maritime security
- Stakeholder communication and transparency

The deadline for contributing to the UN ISA survey is 16 May 2014. The stakeholder consultation survey and feedback form is found at:


The Introduction of the survey document describes the principles, processes and goals:

The International Seabed Authority (ISA) wishes to engage with current and future stakeholders as it commences the development of a regulatory framework for the future recovery of mineral resources from the Area.

Accordingly, you are invited to participate in this survey. The ISA would also encourage you to forward this document to other persons who you consider may wish to participate. This is important as the ISA wishes to identify possible new and future stakeholders and to encourage widest possible engagement. This survey is the first in a series of stakeholder engagements anticipated by the ISA.

The objectives of this survey are as follows:

- to identify a broad stakeholder base through submissions received;
- to begin a process of stakeholder engagement and consultation for activities in the Area;
- to benefit from the early views and expert opinions from the stakeholder base.

These objectives, and a commitment to the principles of fairness and transparency, will
allow the ISA to begin development of a regulatory framework which incorporates contemporary best practice.

Going forward the ISA intends to foster and progress a "learning" environment and adaptive approach through stakeholder engagement. It is hoped that this will unlock new ideas and sustainable solutions contributing to both a robust regulatory framework for the exploitation of seabed mineral resources and at the same time contribute to overall ocean governance and management.

The development of the Area and its minerals resources is unique. The development of a universally acceptable exploitation framework is a challenge. However, this challenge presents an opportunity – an opportunity to get it right. An opportunity to incorporate “what we know” and to build a flexible and adaptive mechanism that accommodates future learnings and experience.

Shortlisted programs and databases with relevance to INDEEP WG Themes are listed at:

http://www.indeep-project.org/links