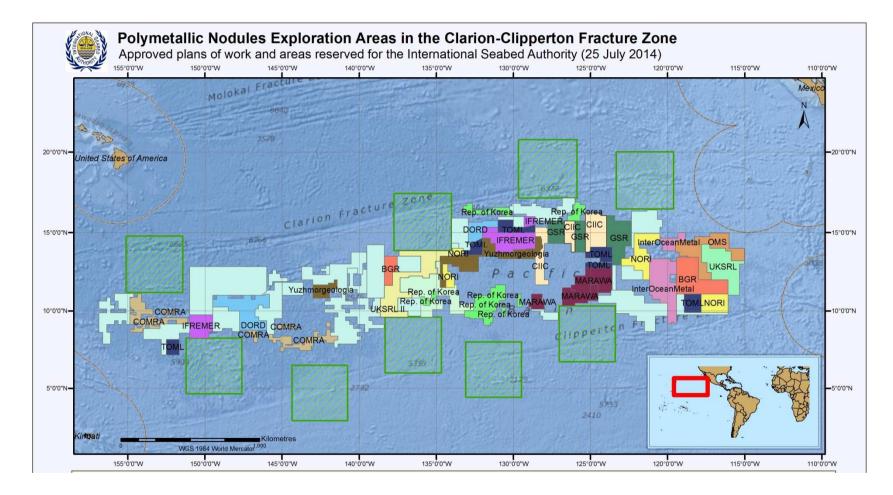
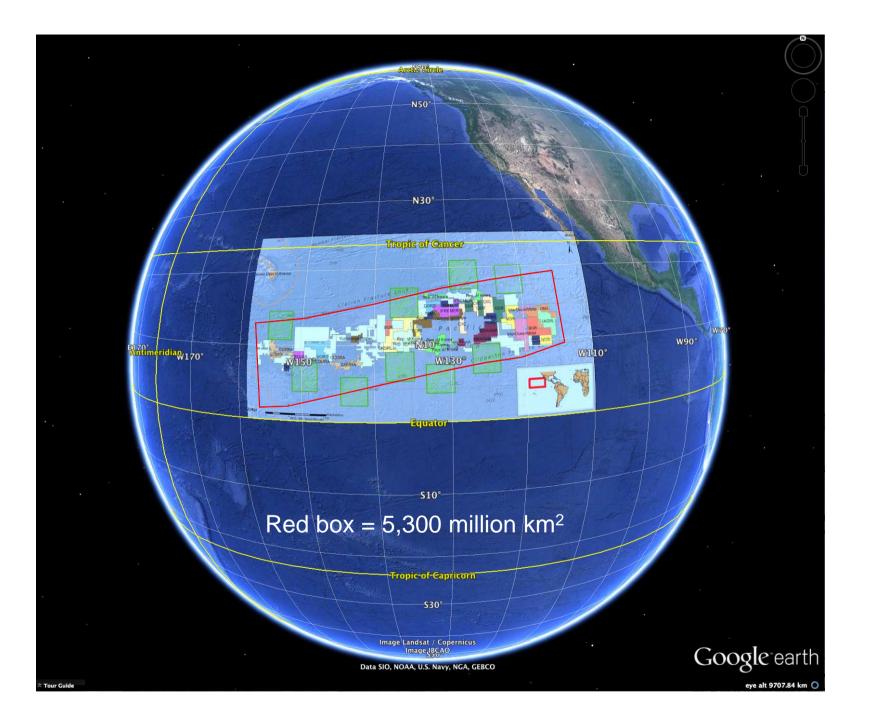
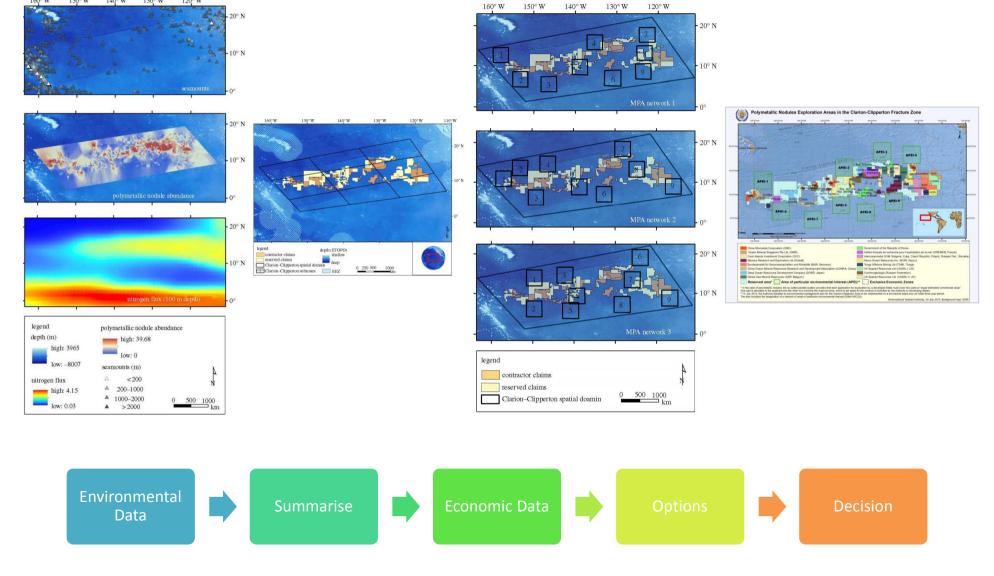
Contractor blocks and APEIs in the Clarion Clipperton Zone



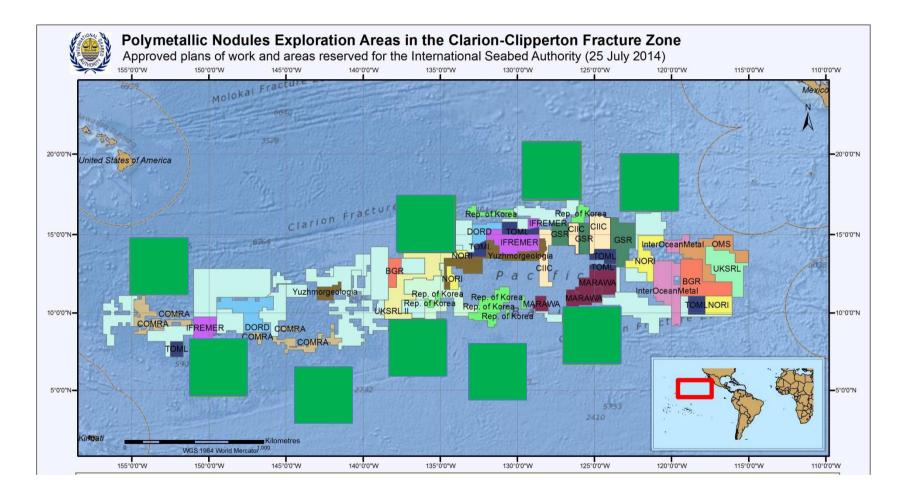
16 signed contracts (1 waiting signature) Total area for exploration ~1.1 million km²





160° W 150° W 140° W 130° W 120° W

Plan for 9 APEIs approved in 2012



Area of Particular Environmental Interest

Accepted design principles underpinning the CCZ-EMP

- 1. Should fit into the existing legal framework of the International Seabed
- 2. Should minimize socioeconomic impacts i.e. respect existing mining claims and be adaptable.
- 3. Should maintain sustainable, intact and healthy marine populations. It should capture the full range of habitats and communities including species life-stages in the CCZ.
- 4. The MPA network should take into account biophysical gradients, which affect the biogeography of marine biodiversity.
- 5. Each MPA should protect a full range of habitat types found within each subregion.
- 6. Each MPA should be large enough to maintain minimum viable population sizes for species potentially restricted to a subregion. 200x200 km box (40,000 km²).
- 7. Surrounded by a buffer zone which was set at 100 km to protect from the impact of plumes generated by the mining activities.
- 8. The boundaries of the APEIs should be straight lines to facilitate rapid recognition and compliance.

Current status of implementation of the CCZ-EMP

1	A workshop relating exclusively to the nine areas of particular environmental interest	Yet to be implemented	The secretariat will organize the workshop in
2	International collaboration to develop the areas of particular environmental interest into internationally accepted marine protected areas beyond national jurisdiction	Yet to be implemented	The secretariat of the Authority will organize a workshop with representatives from the secretariat of the Convention on Biological Diversity, the International Maritime Organization, the Food and Agriculture Organization of the United Nations and other stakeholders in 2018
3	A series of workshops focused on specific taxa	Implemented through the workshops on megafauna in Wilhelmshaven (2013), on macrofauna in Uljin (2014) and on meiofauna in Ghent (2015)	The secretariat will publish a technical study with the amalgamated recommendations of the three workshops
4	A workshop to develop specific guidelines for contractors to use in the establishment of impact and preservation reference zones	Yet to be implemented	The secretariat will organize the workshop in 2016
5	The designation by contractors of the required impact and preservation reference zones	To be implemented after the holding of a workshop to develop specific guidelines for contractors to use in the establishment of impact and preservation reference zones	The secretariat will organize a workshop ir 2016 on the proper application by contractors of guidance from the Legal and Technical Commission as soon as possible
-	Setting up a working group to facilitate the establishment of environmental databases using data from contractors and selected external sources	Yet to be implemented	The working group will be set up by the secretariat by
7	Retaining a set of expert consultants to facilitate data standardization, including taxonomic intercalibration, across contractor datasets	Yet to be implemented	The set of expert consultants will be retained by the secretariat by
8	Undertaking cumulative environmental impact assessments	Yet to be implemented	The secretariat will attempt to do so as soon as sufficient environmental baseline data of sufficient quality have been submitted by contractors
9	Assembling the environmental baseline data collected by contractors and disseminating them through publicly available and easily accessible databases		A data management strategy will be implemented and a central data repository will be created by the secretariat by and first databases will be made public by 2018
10	Issuing periodically a publicly available environmental quality status report of the region	Yet to be implemented	A data management strategy will be implemented and a central data repository will be created by the secretariat by 2017 and the first environmental quality status report of the region will be published by 2018
11	The development by contractors of plans to ensure responsible environmental management to enhance the recovery of habitats and faunal communities	Yet to be implemented	Contractors will provide plans before applying for an exploitation permit or submitting a new 5-year work plan
	The inclusion by contractors in their environmental management plans of specific measures that will maximize the potential for the recovery of biota impacted by their activities	Yet to be implemented	Contractors will provide plans before applying for an exploitation permit or submitting a new 5-year work plan
	The application by contractors to apply ISO 14001 principles to the development of their site-specific environmental management plans	Yet to be implemented	Contractors will apply the ISO 14001 principles before applying for an exploitation permit or an extension

Actions identified by the LTC to advance the CCZ-EMP

Evaluate the

- available data
- scientific validity of approach
- the size location and number of areas

Develop guidelines for Preservation Reference Zones (PRZs) and Impact Reference Zones (IRZs) inside the claim area and including selection and monitoring criteria Data availability in APEIs in the Clarion Clipperton Zone

Area No. 1: China Ocean Mineral Resources Research and Development Association (COMRA) (2013)

Area No. 2: No data available

Area No. 3: European Joint Programming Initiative for Healthy and Productive Seas and Oceans (JPI-Oceans) (2015)

Area No. 4: COMRA (2013)

Area No. 5: No data available

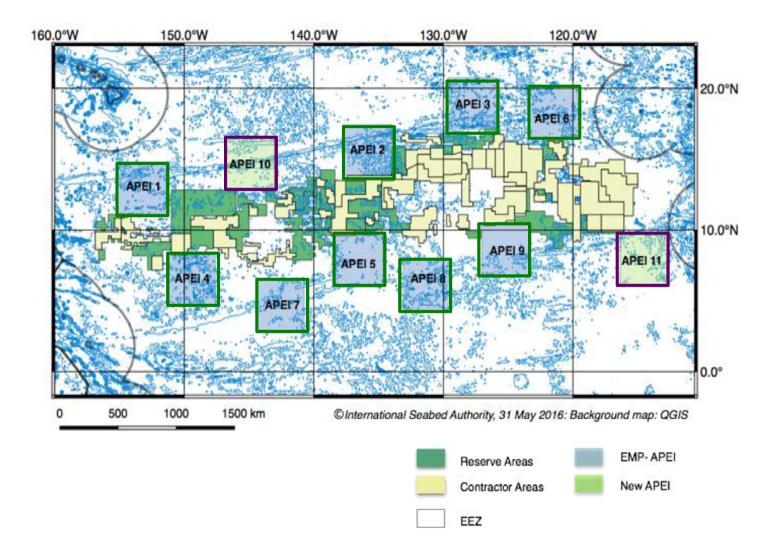
Area No. 6: Global Sea Minerals Resources NV (GSR) (2015), European Union managing impacts of deep-sea resource exploitation project (MIDAS) (2015), UK Seabed Resources Ltd. (UKSRL) (2015); (the latter two misidentified it as area No. 4)

Area No. 7: COMRA (2013)

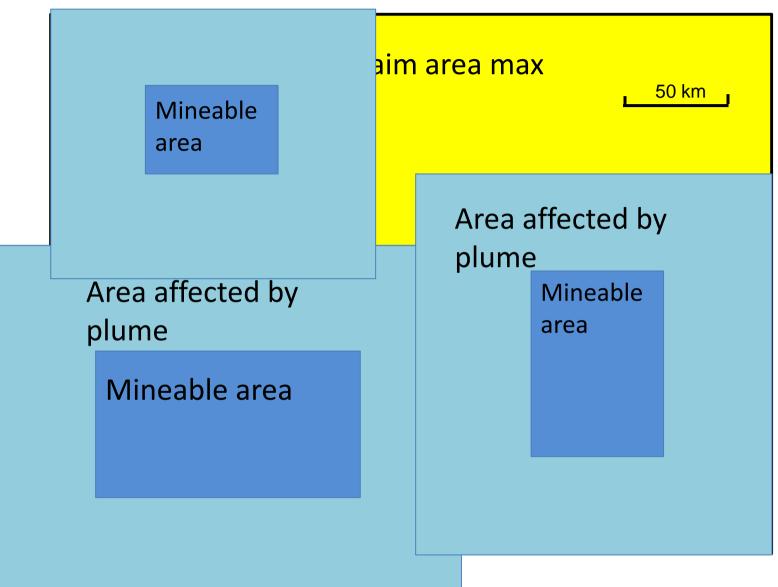
Area No. 8: the Government of the Republic of Korea (in seven years between 1998 and 2013)

Area No. 9: No data available

Size and location and number of APEIs



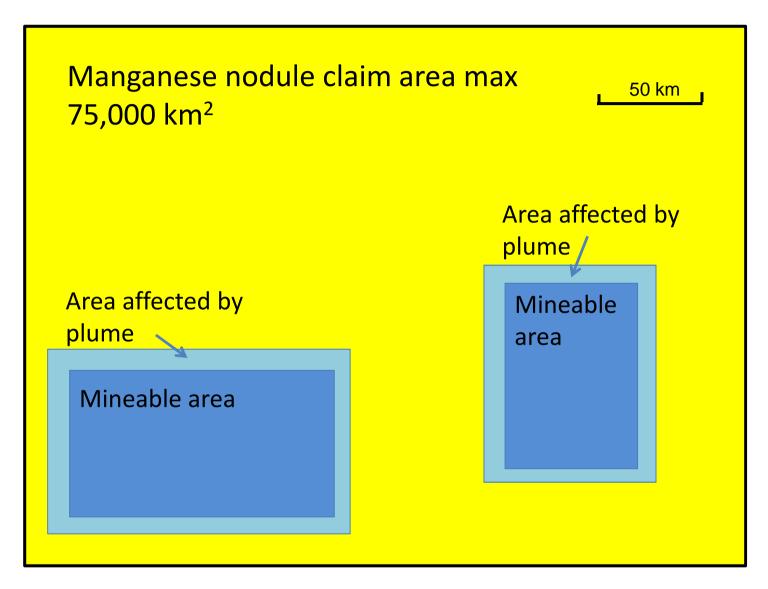
Source: ISBA-22ltc-12



Connection to local scale - potential aerial impact of plumes on the seabed



Potential aerial impact of plumes on the seabed





MANAGING IMPACTS OF DEEP SEA RESOURCE EXPLOITATION

Summary of issues to be addressed in the CCZ-EMP and their relevance for EMPs in general

- 1. The paucity of data for the whole CCZ. This can only be improved by the open sharing of contractor-collected environmental data. Who should collect data in the APEIs?
- 2. The duration of the APEIs, which need to be in perpetuity, or at least in place until mining has ceased in the CCZ
- 3. Mechanisms for monitoring e.g. to ensure that there is no impact from mining on the APEI core areas and to assess how effective the APEIs are in contributing to the environmental goals under which they were established. Who will pay for subsequent monitoring? Who will carry it out? On what frequency? Who will assess the results?
- 4. The effectiveness of the APEIs as part of the overall conservation measures, which will include more local activities as part of the EIA process, such as networks of PRZs and IRZs in the contractor areas.
- 5. How the REMP fits within an overarching SEA that is yet to be developed by the ISA
- 6. The possible need for sub-regional EMPs in such a vast area as the CCZ.
- 7. Mechanisms for working with other relevant international organisations and eventually coastal states in waters adjacent to the Area to establish agreed common principles for conservation measures.
- 8. The need for the process to be open and transparent