



Regional Environmental Management Plan Strategy of the International Seabed Authority

SANDOR MULSOW

International Seabed Authority

Director

Office of Environmental Management and Mineral Resources

14-20 Port Royal Street | Kingston | Jamaica

☎ Office: +876 922-9105 ext 254 or SL: +876 948-7909

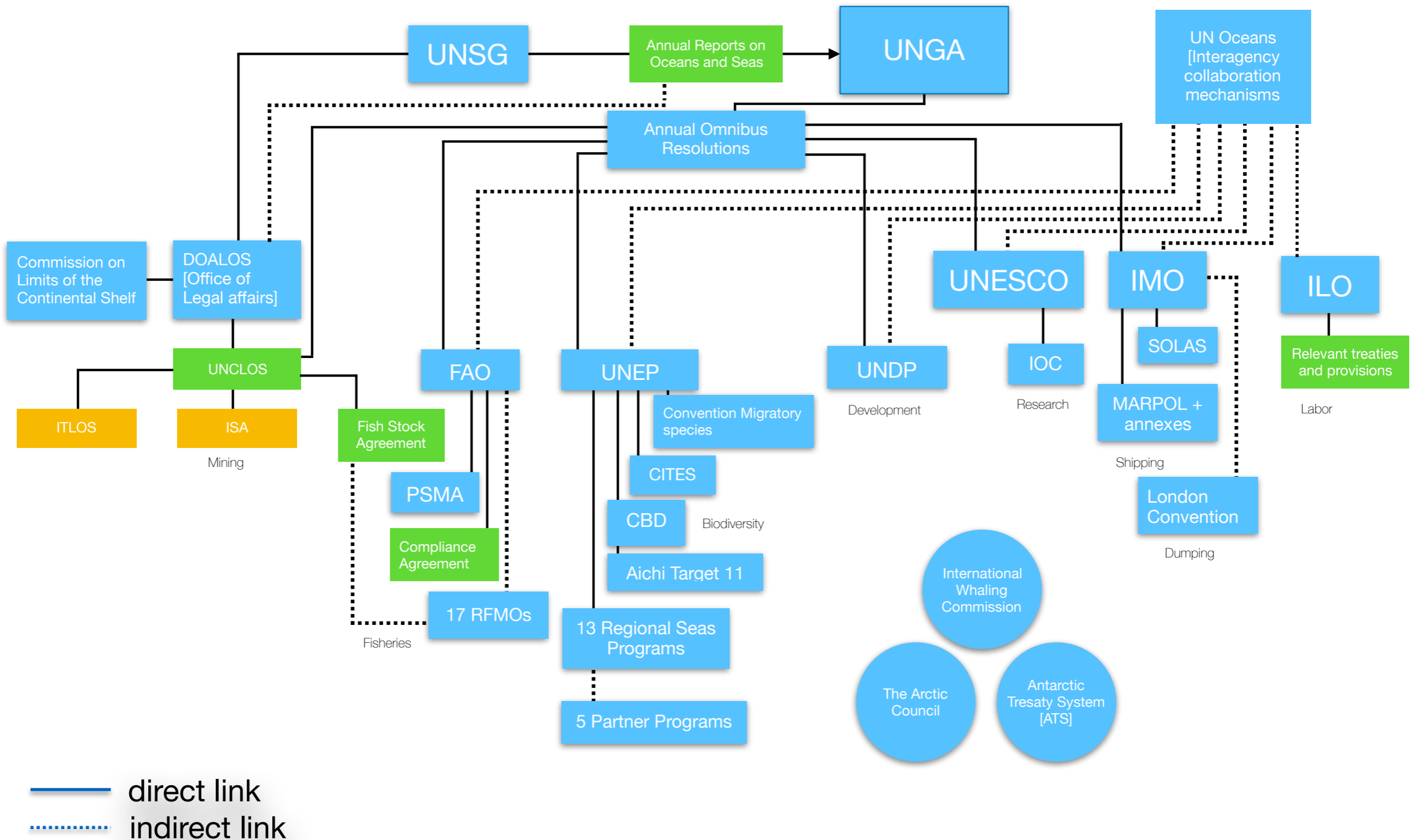
✉ Email: smulsow@isa.org.jm |

🌐 Website: www.isa.org.jm



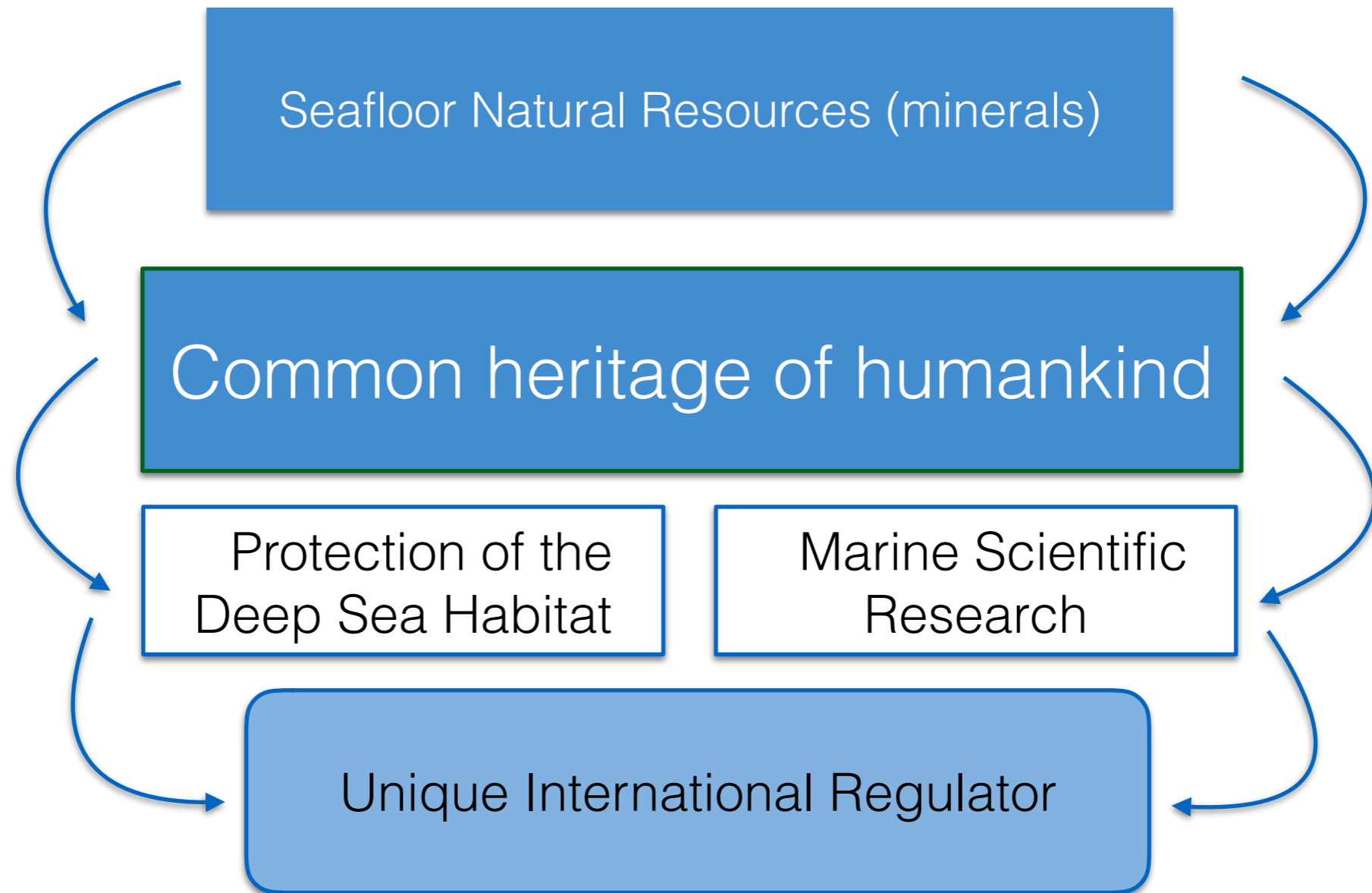


Ocean Governance



ISA Ocean Governance

UNCLOS ➔ *1994 Agreement* ➔ *Part XI: Annex III* ➔ **ISA**



.. as a result; parallel regime was initially imposed to all mineral resources PoW for exploration, but in 2010; this was modified ISBA/16/A/12/Rev.1[15 Nov 2010]

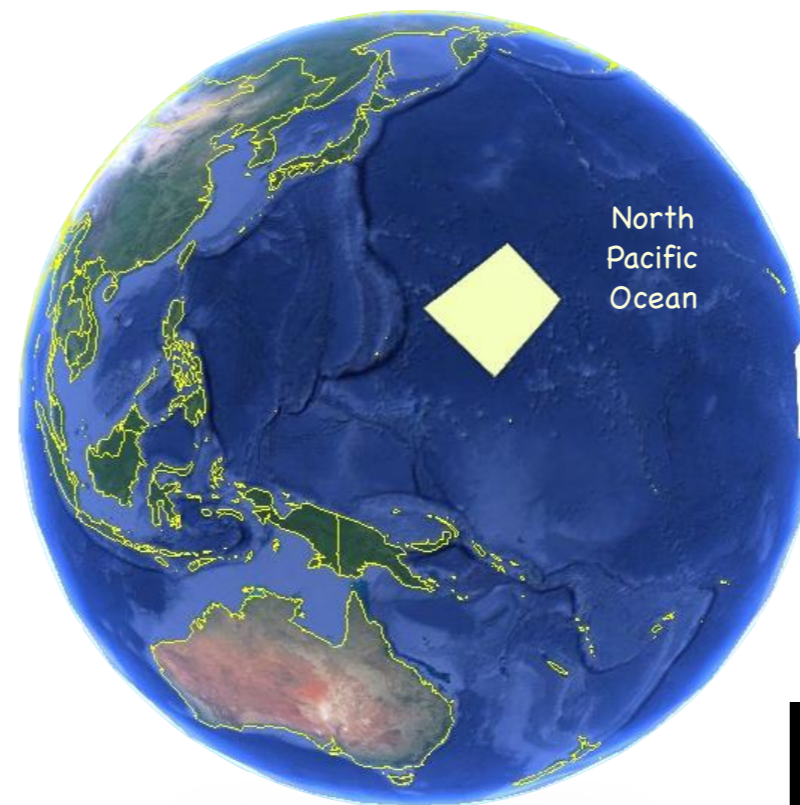


Table 1. Summary of approved plans of work under ISA's Contract Regimes: 1) parallel regime (PR) and 2) equity join venture (EJV)

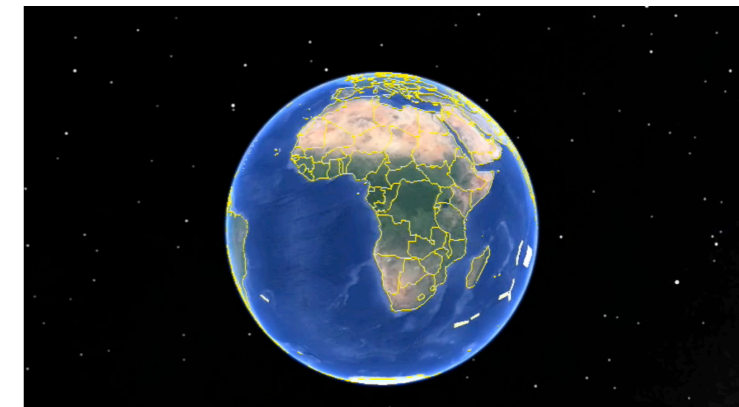
Ore	Contractors	Parallel Regime	Equity Join Venture	Allotted Areas [km ²]	Reserve Areas [km ²]
PMN	17	7	10 (7+3 ^a)	1,241,212	1,313,443
PMS	7	0	7	70,000	0
CRFC	5	1	4	15,000	3,000
Total	29	8	21	1,326,212	1,316,443
		^a Developed Member States with EJV regime			



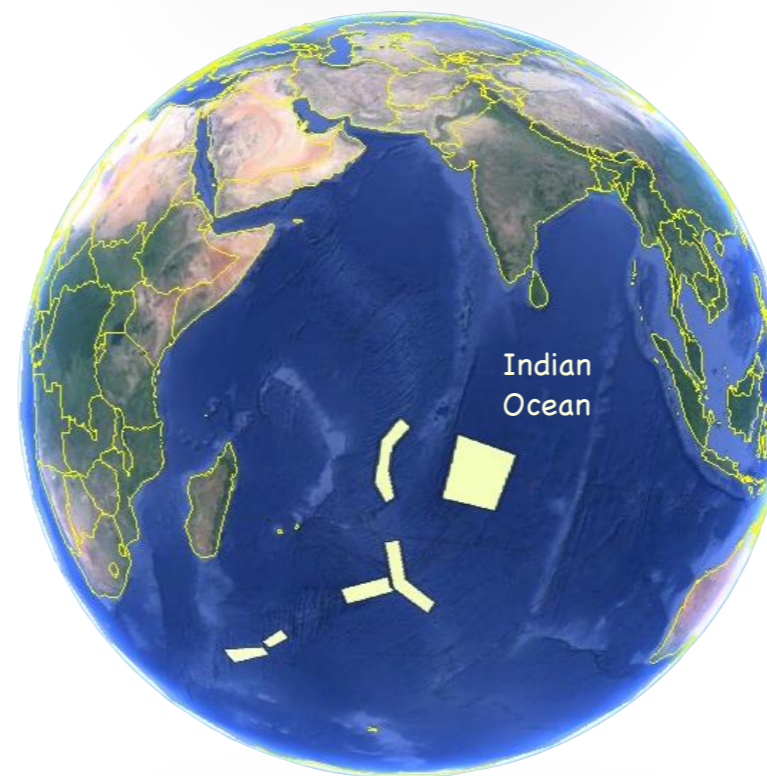
PMN: 16 Contracts



CC: 4 Contracts



PMS: 3 Contracts
CC: 1 Contract



PMS: 4 Contracts
PMN: 1 Contract

PMN: Manganese Nodules
PMS: massive sulphides
CC: Cobalt Crusts

Article 8: Reservation of Areas

1. All, except for reserved areas and *Enterprise*; area requested for mining activities shall cover a sufficiently large area, not be a single one, to allow 2 mining site operations.
2. The applicant should indicate 2 commercially equal areas to ISA; within 45 days ISA designates which becomes a reserve area solely for the conduct of activities by the Authority/Enterprise/association with developing states

UNCLOS-Annex III:Art 8; Thereafter Designated the Parallel Regime

ISBA/16/A/12/Rev.1 [15 Nov 2010]

Assembly adopted Regulations on Prospecting and Exploration for Polymetallic sulphide in the Area.

Regulation 17: Data and information to be submitted before the designation of a reserve area

Regulation 19: Equity Interest in a joint venture arrangement; into effect when exploitation takes place. Outcome: no reserved area for developing countries

Regulation 12: Total area covered by the application

1.Blocks [10 x 10km], not to exceed 100 blocks [10,000 km²]

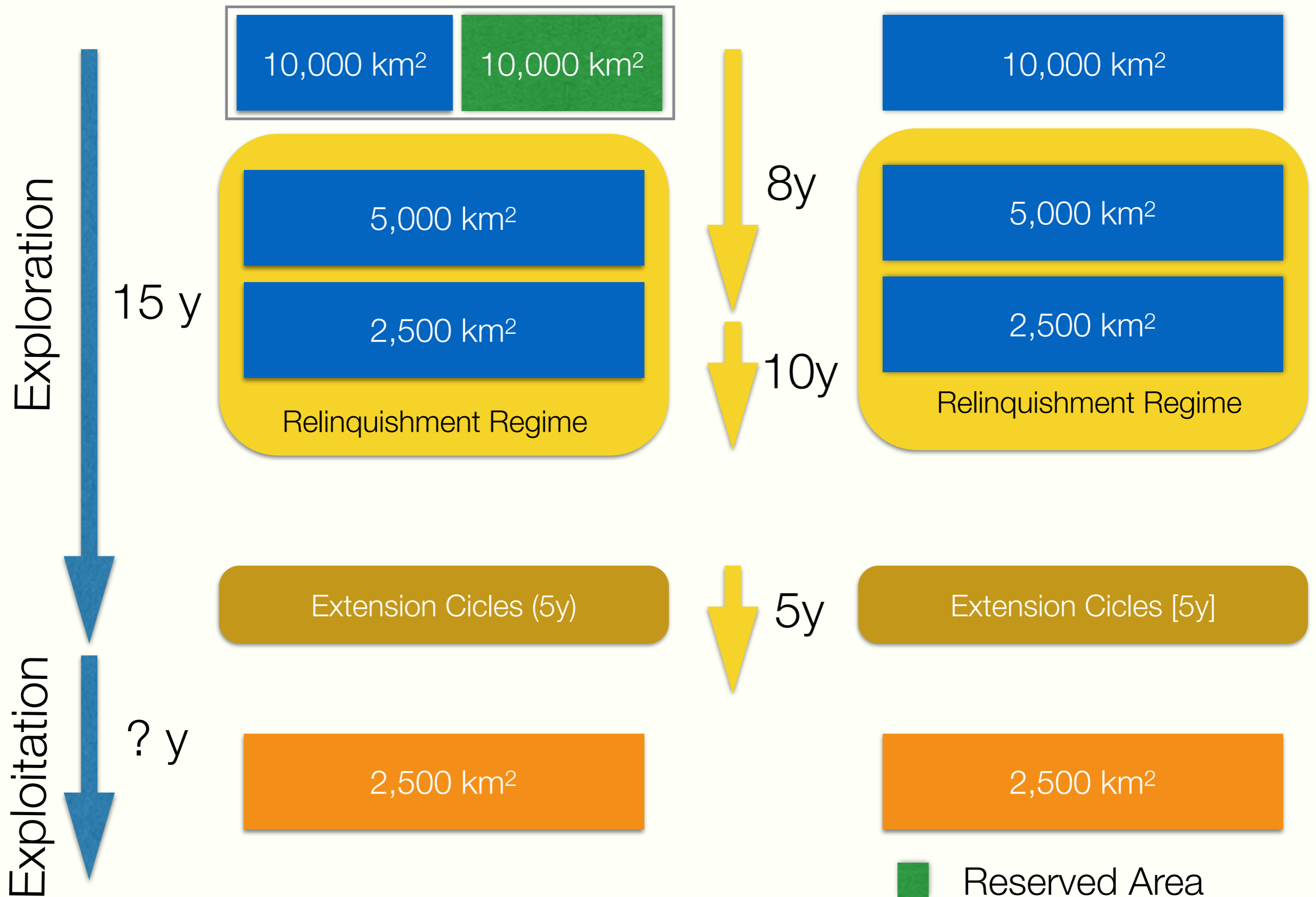
Regulation 27: Size of area and relinquishment

1. After 8 years, should relinquish at least 50% [5,000 km²]
2. After 10 years, should relinquish at least 25% [2,500 km²]

PMS: parallel regime

Developed MS

Developing MS



Defines methodologies/samplers/techniques

Mining operations will take place around hydrothermal vents; not clear yet if active or inactive sites will be mined at Mid-Ocean ridges

Slow-ultraslow MOR are the target for mining; geological guidance

Active hydrothermal vents biogeochemical signature reach km's scale

Active vents coverage is quite small, 40-50 km² scale

Defines geographical areas for mining

Still not clear signal of mining site at MOR,

Clusters of blocks are all linked to active vents; few block incursion beyond 5 mill isochrone

North Atlantic and Indian Ocean Ridges are current targets



Mandate

The International Seabed Authority (Authority) is the only international organization mandated by the United Nations Convention on the Law of the Sea (the Convention) to administer, on behalf of the States Parties to the Convention, the mineral resources in the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction (the Area), and to supervise current exploration activities as well as future mining activities in the Area. As such, under international law only the Authority is designated to act on behalf of mankind as a whole.

Legal Context

Under the Convention, State parties have a general obligation to protect and preserve the marine environment (Article 192; UNCLOS). This overarching obligation encompasses responsibilities to prevent, reduce and control pollution of the marine environment from any source, to monitor the risks or effects of pollution and to assess the potential effects of activities under State parties jurisdiction and control that may cause substantial pollution of or significant and harmful changes to the marine environment.

Objectives

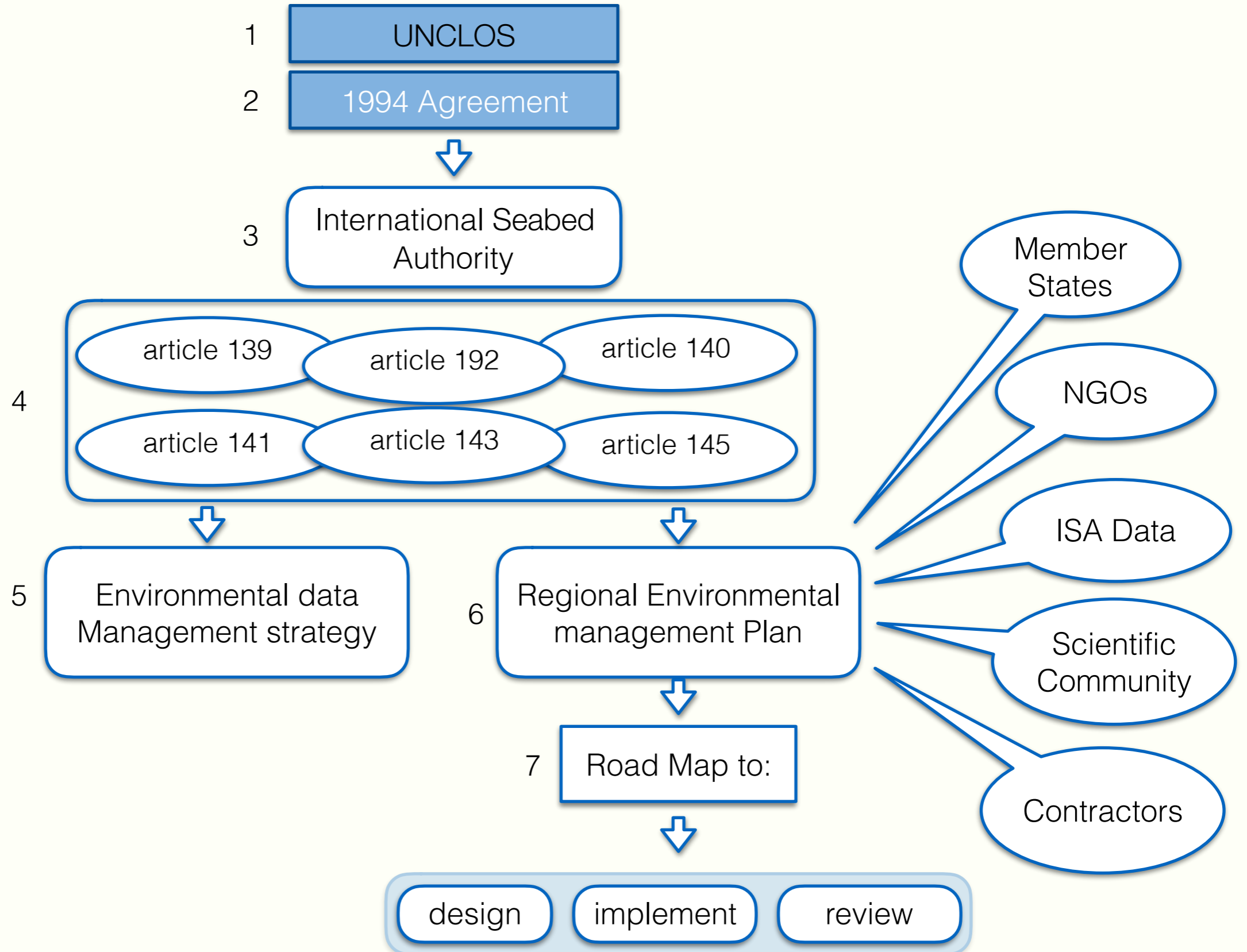
- a. Ensure that relevant organs of the Authority as well as contractors and their sponsoring States are provided with proactive area-based and non-area based management tools to support informed decision-making that balances resource developments with protection;
- b. Contribute to the effective protection and management of biodiversity in marine areas beyond national jurisdiction and help to build the resilience of deep-sea benthic ecosystems to the impacts of climate change on the ocean; and
- c. Ensure that a clear and consistent mechanism is established in order to identify particular areas thought to be representative of the full range of habitats, biodiversity and ecosystems structures and functions, and provide those areas with appropriate levels of protection; APEIs

Guidance Principles

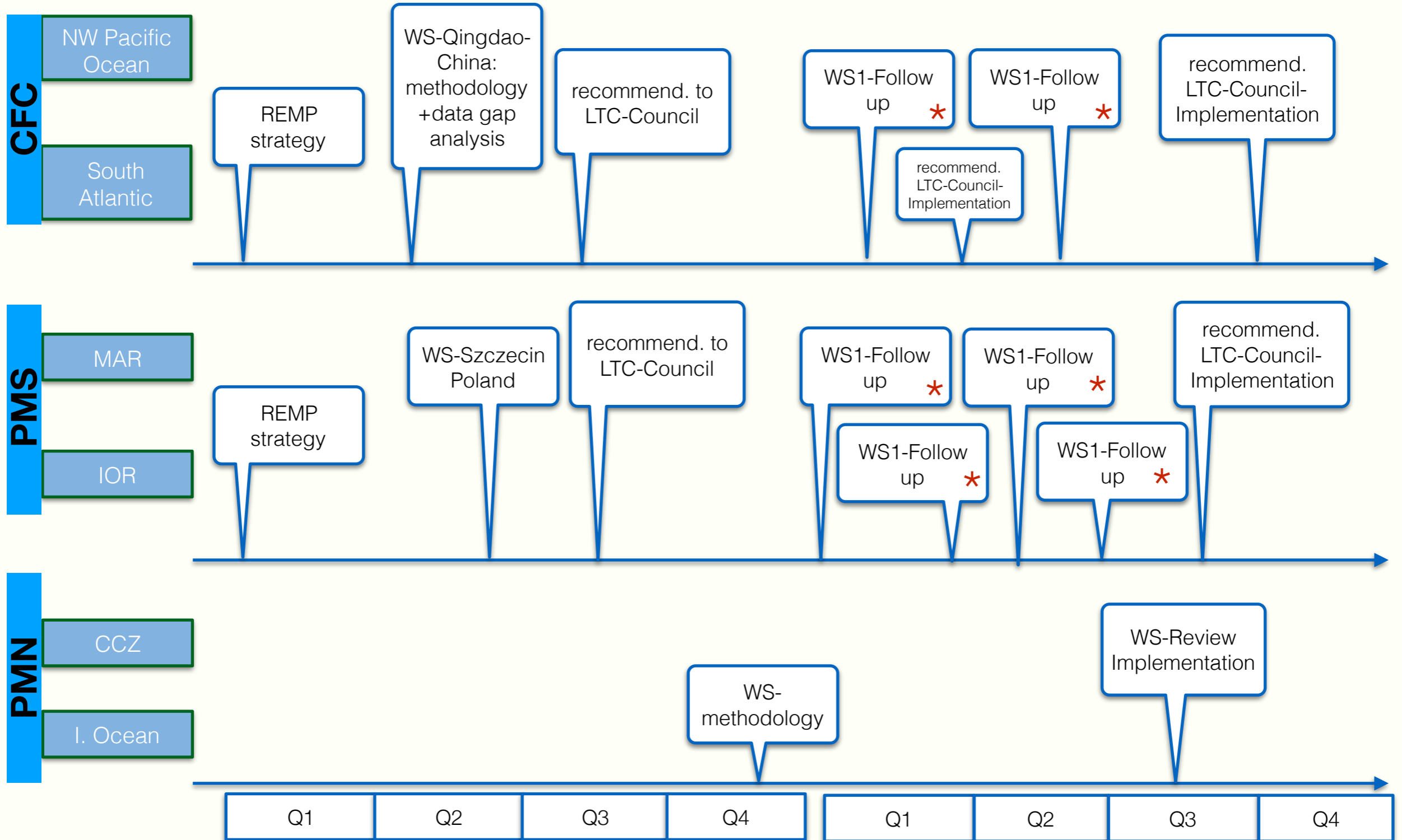
1. Common heritage of mankind. The Area and its resources are the common heritage of mankind. All rights to the resources of the Area are vested in humankind as a whole, on whose behalf the Authority shall act;
2. Precautionary approach. Principle 15 of the Rio Declaration on Environment and Development²⁰ specifies that where there are threats of serious or irreversible damage to the environment, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation;
3. Protection and preservation of the marine environment. All States have a duty to protect and preserve the marine environment;
4. Prior environmental impact assessment. The prior assessment of activities that may have significant adverse impacts on the environment;
5. Conservation and sustainable use of biodiversity. All States have a duty to conserve and sustainably use marine biodiversity;
6. Transparency. The Authority shall enable public participation in environmental decision-making procedures in accordance with the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 1998, and its own rules and procedures.

Regional Environmental Management Plan Strategy

1. UNCLOS most important achievement was declaration of Natural Resources in the area as common heritage of humankind
2. Important agreement on Part XI; basis for ISA creation
3. ISA instrument of DOALOS, was created in 1996
4. Major articles UNCLOS, basis of ISA mandates
5. Organized and standardize information for supporting ISA Management Plans in the Area
6. Regional Environmental Management Plan Creation through workshops, WG, tech./ Research studies.
7. Strategy's outcomes, submitted to LTC and Council for approval and budgeting. Becomes a new Program for the Secretariat.



Regional Environmental Management Plan Strategy



* WS recommended from Methodology + gap analysis

2018

timeline

2019

Comparison of abut in the area: conservation vs protection



Table 1. Area base management tools comparison

	MPA	EBSA	VME	APEI	PSSA
Goal	To provide for the protection, restoration, wise use, understanding and enjoyment of the marine heritage of the world	geographically or oceanographically discrete areas that provide important services to one or more species/ populations of an ecosystem or to the ecosystem as a whole, compared to other surrounding areas or areas of similar ecological characteristics	A marine ecosystem should be classified as vulnerable based on the characteristics that it possesses. The following list of characteristics should be used as criteria in the identification of VME	to maintain sustainable populations and to capture the full range of habitats and communities	protection through action by IMO because of its significance for recognized ecological, socio-economic, or scientific attributes where such attributes may be vulnerable to damage by international shipping activities.
criteria	Naturalness	Naturalness:	Functional significance of the habitat		Uniqueness or rarity
	Biogeographic importance	Uniqueness or rarity	Uniqueness or rarity	Areas representative of the full range of ecosystems, habitats, communities and species of different biogeographic regions;	Critical habitat
	Ecological importance	Special importance for life history stages of species:	Fragility	Areas of sufficient size to protect and ensure the ecological viability and integrity of the features for which they were selected.	Dependency
	Economic importance	Importance for threatened, endangered or declining species and/ or habitats:	Life-history traits of component species that make recovery difficult	to protect 30 to 50 per cent of the total management area	Representativeness
	Social importance	Vulnerability, fragility, sensitivity or slow recovery:	Structural complexity		Diversity
	Scientific importance	Biological productivity			Productivity
	International or National - significance	Biological diversity:			Spawning or breeding grounds
	Practicality/feasibility				Naturalness
					Integrity
					Fragility
					Bio-geographic importance
					Social or economic dependency
					Human dependency
				Cultural heritage	
reference	IUCN, 1991	UNenvironment,WCMC- CBD	FAO 2009	ISBA/17/LTC/7	IMO, 2006

Concluding remarks



- a. The authority has clearly the mandate and legal framework to undertake REMP in the Area.
- b. Polymetallic Massive Sulphides (active) are well defined, siting scheme presents geographical constraints (blocks), ABMT for REMP needs to be carefully chosen;
- c. REMP strategy is a dynamic one, must be updated constantly, not in substance but on implementation and review;
- d. REMP strategy calls for consensus on the recommendations of Workshops outcomes (Qingdao and Szczecin) in designing methodologies, cost-effective data gathering (gap analysis) initiatives, others;
- e. The authority will coordinate, organize outcomes proposed by workshops in methodology/design and other, initiatives recommended by Szczecin 2018 Workshop for Polymetallic Massive Sulphides;
- f. CCZ EMP will be reviewed and reshaped as REMP and a workshop convened to implement it. Same strategy will be used for Indian Ocean nodule fields.
- g. APEIs clearly defined on protection and representativeness of area under intervention.