



# ISA contract regimes for deep-sea mining

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# Introduction

Contract for approve plans of work

Legal Framework

***UNCLOS-Article 8***; Define purpose and geographical area for mining

Technical Framework [*Interpretation by ISA of UNCLOS*]

ISBA/19/C/17 [amendments; 22 July 2013]

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

ISBA/18/A/11[22 October 2012]

Outcomes:

Regulation for Implementation

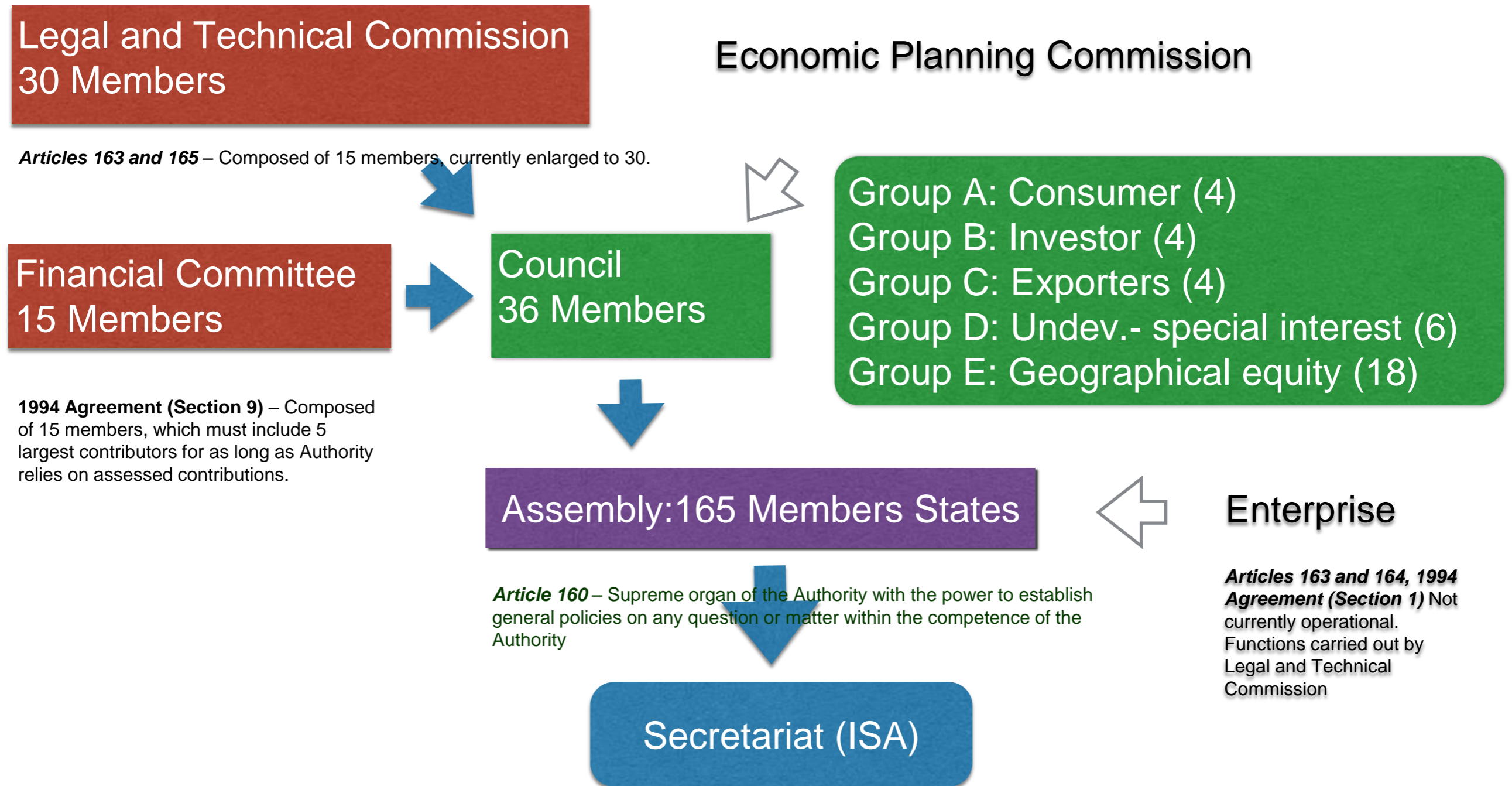
Spatial boundaries/legal bindings

# ISA: Structure & functioning



## Principal Organs

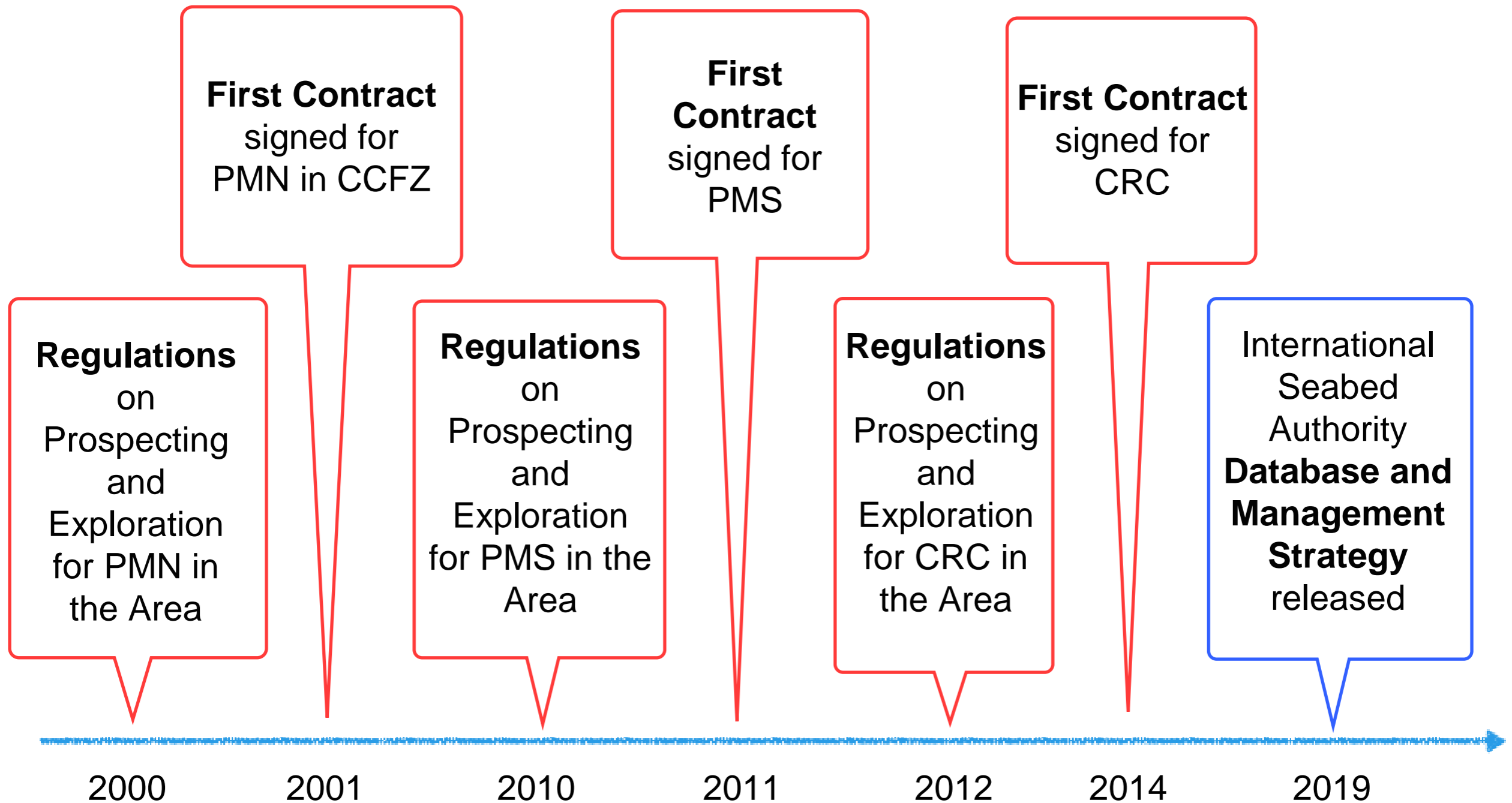
*Established under the United Nations Convention on the Law of the Sea 1982 and the 1994 Agreement for the Implementation of Part XI of the Convention*



# ISA: Structure & functioning



## International Seabed Authority timeline



## 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/19/C/17[22 July 2013]

*Council decided to amend Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters*

**Regulation 25:** Total area covered by the application

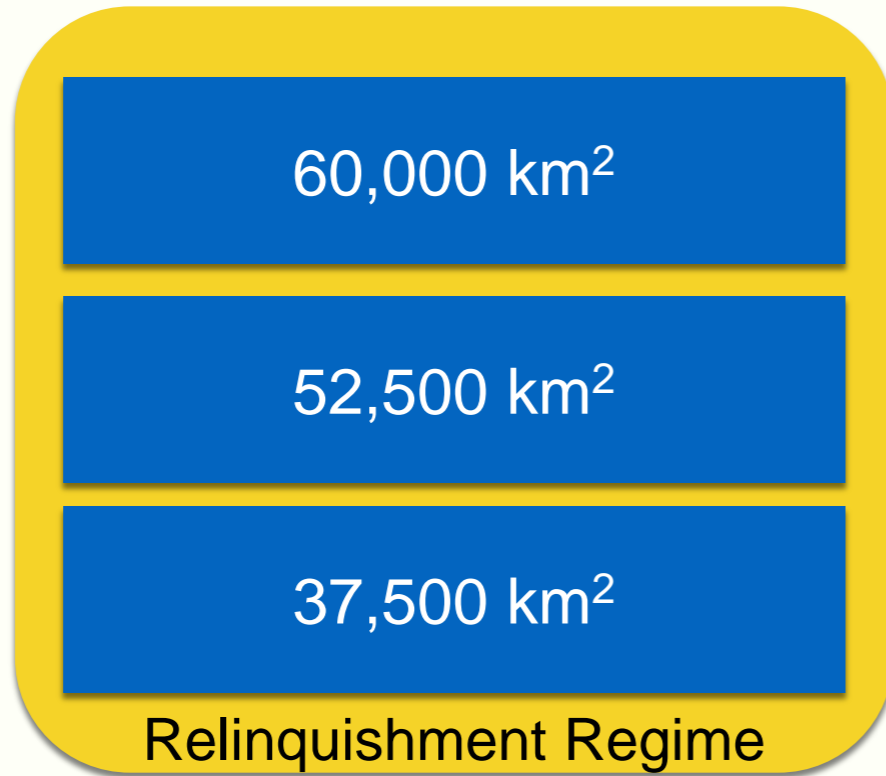
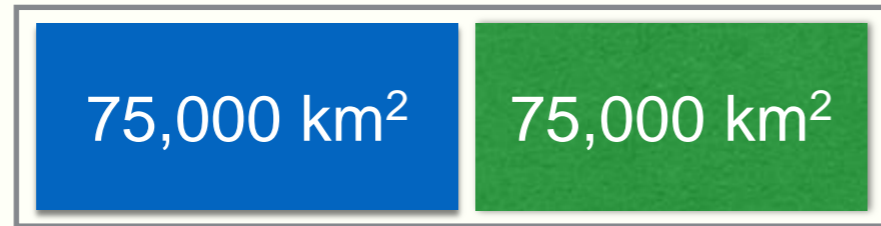
1. Total area not to exceed 75,000 km<sup>2</sup>
2. After 3 years, should relinquish 20%\* [15,000 km<sup>2</sup>)
3. After 5 years, should relinquish 10% [7,500 km<sup>2</sup>]
3. After 8 years, should relinquish 20% [15,000 km<sup>2</sup>]

# PMN

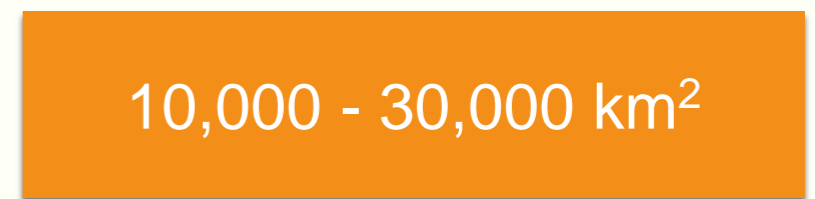
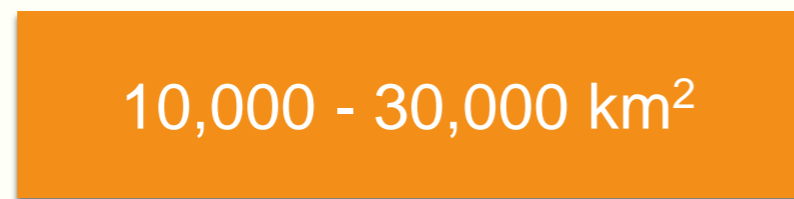
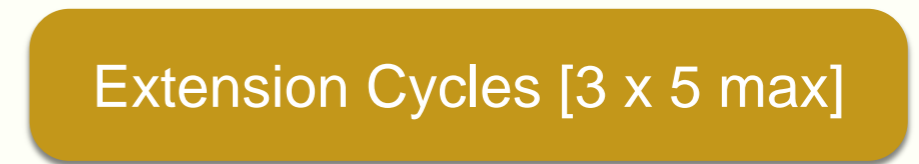
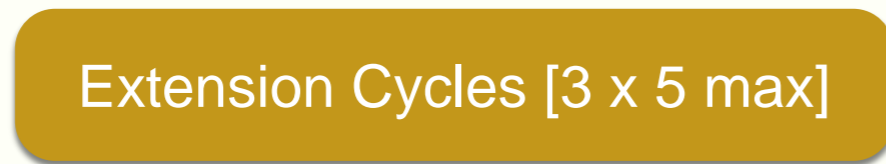
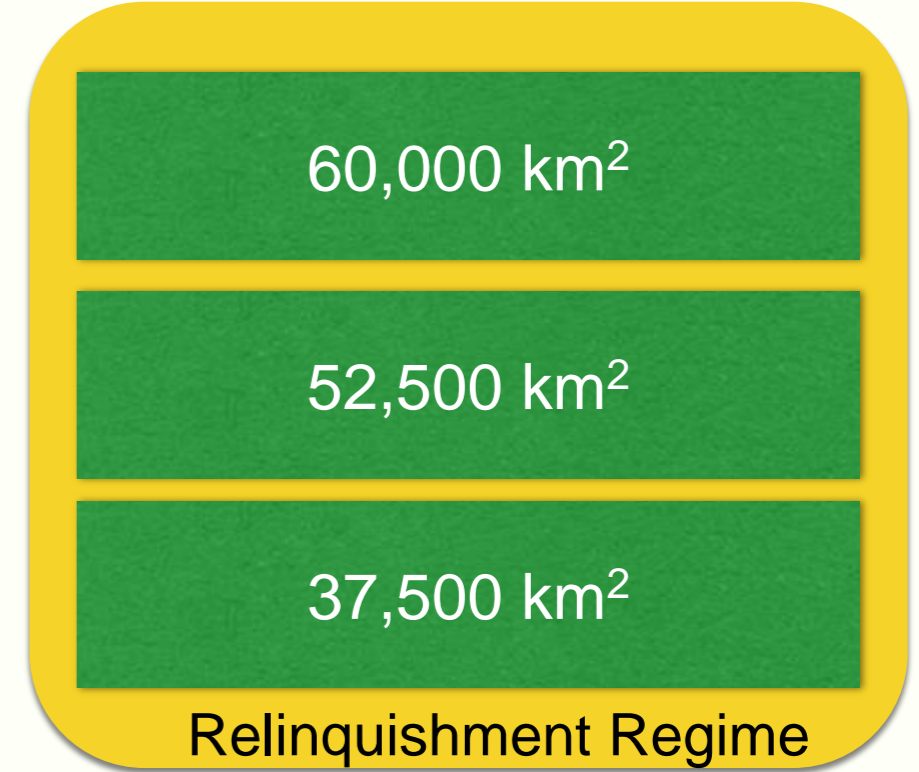
## Developed MS

## Developing MS

Exploration  
15 y  
Exploitation  
30 y

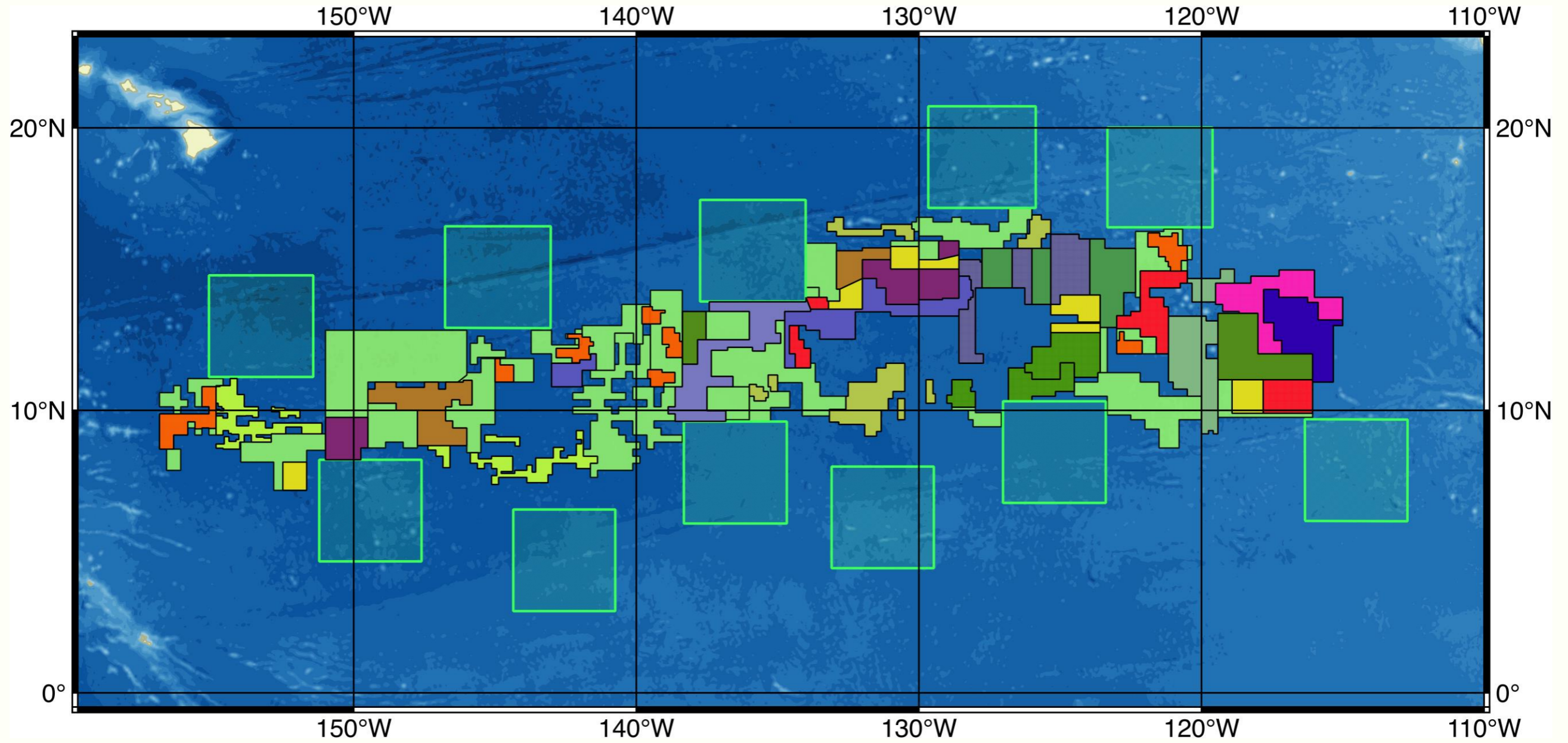


3y  
5y  
8y  
5y



Reserved Area

# PMN: Approved Plans of Work



## 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 tak

**Regulation 12:** Total area covered by the application

1. Blocks [10 x 10km], not to exceed 100 blocks [10,000 km<sup>2</sup>]

**Regulation 27:** Size of area and relinquishment

1. After 8 years, should relinquish at least 50% [5,000 km<sup>2</sup>]
2. After 10 years, should relinquish at least 25% [2,500 km<sup>2</sup>]

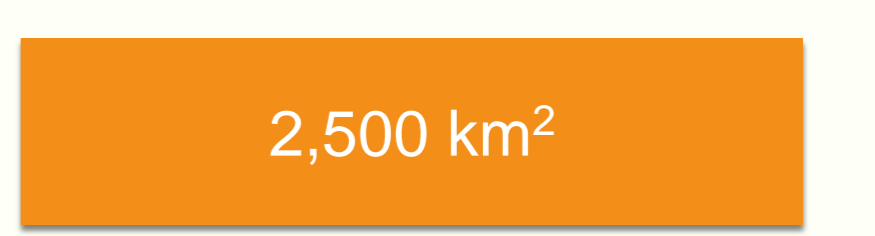
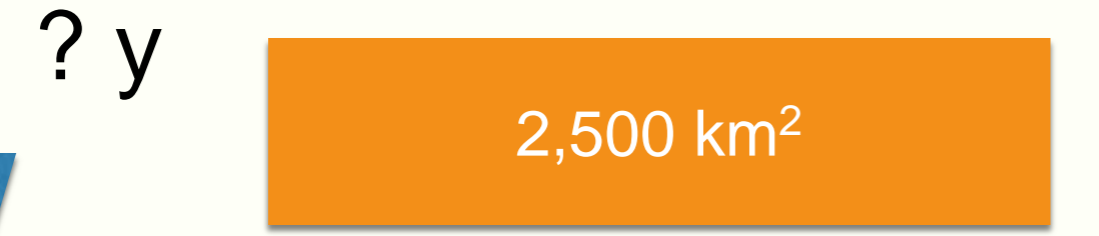
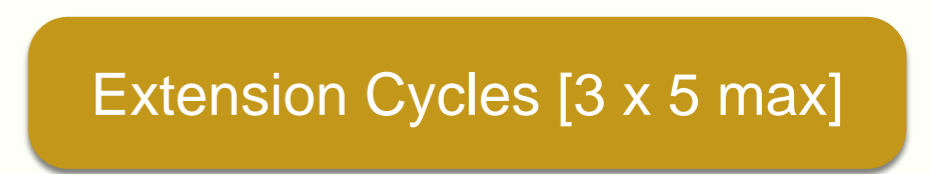
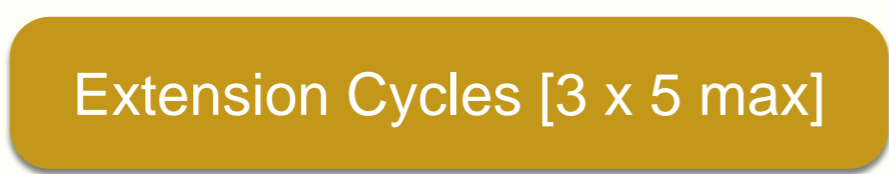
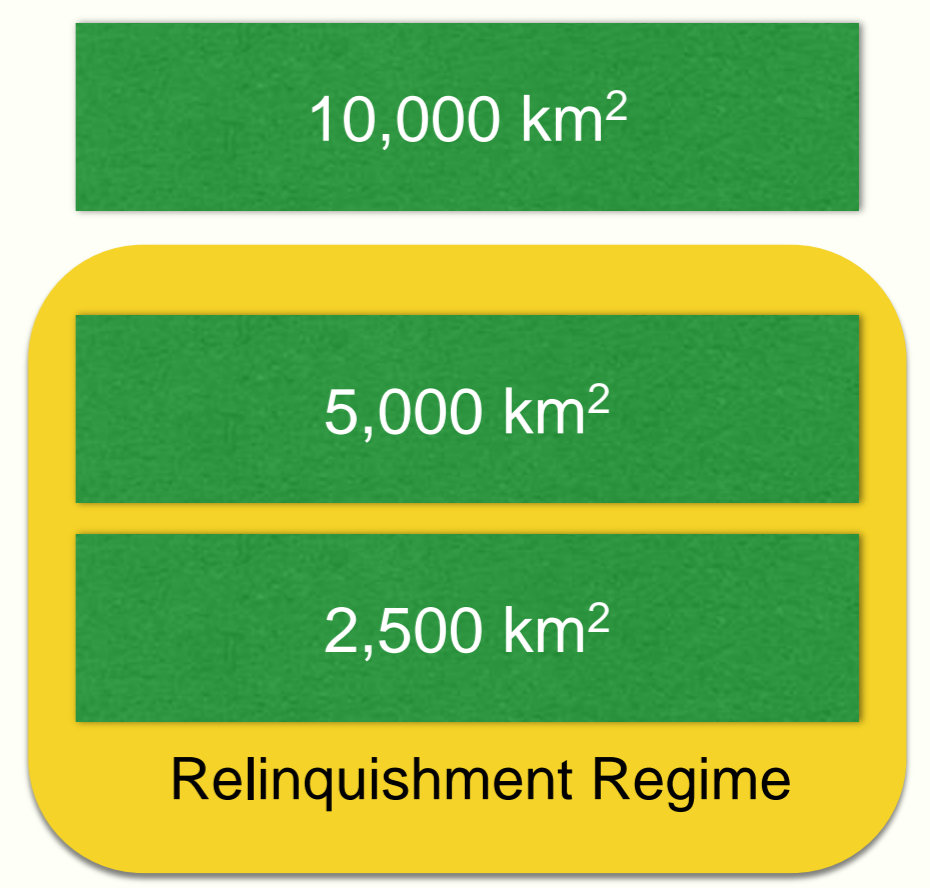
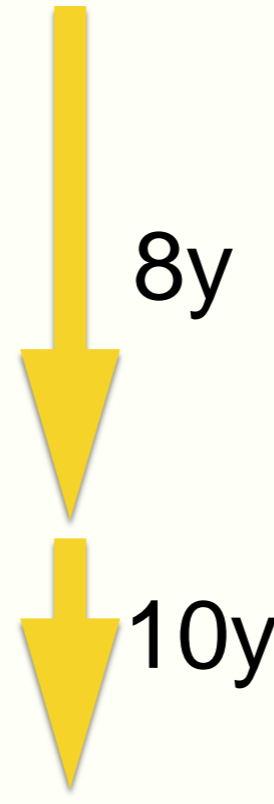
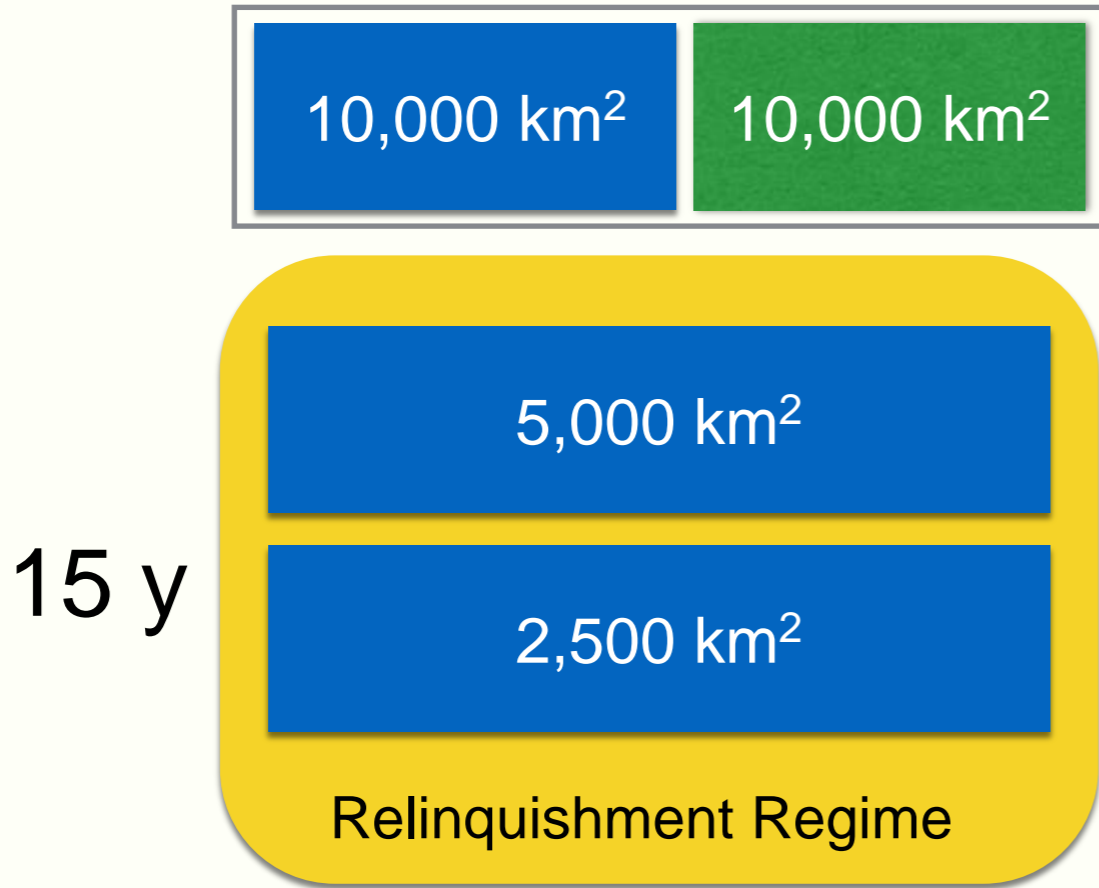


# PMS

## Developed MS

## Developing MS

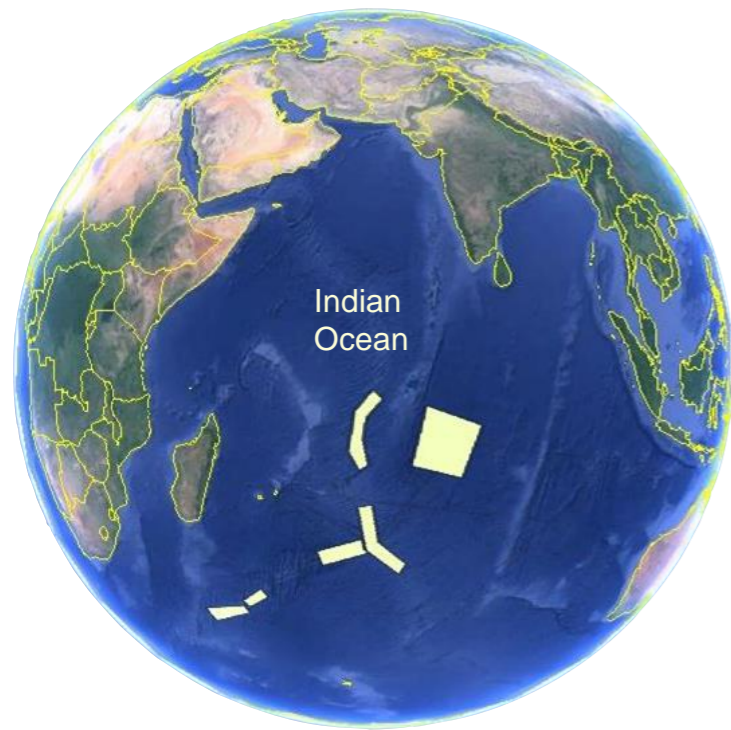
Exploration  
Exploitation



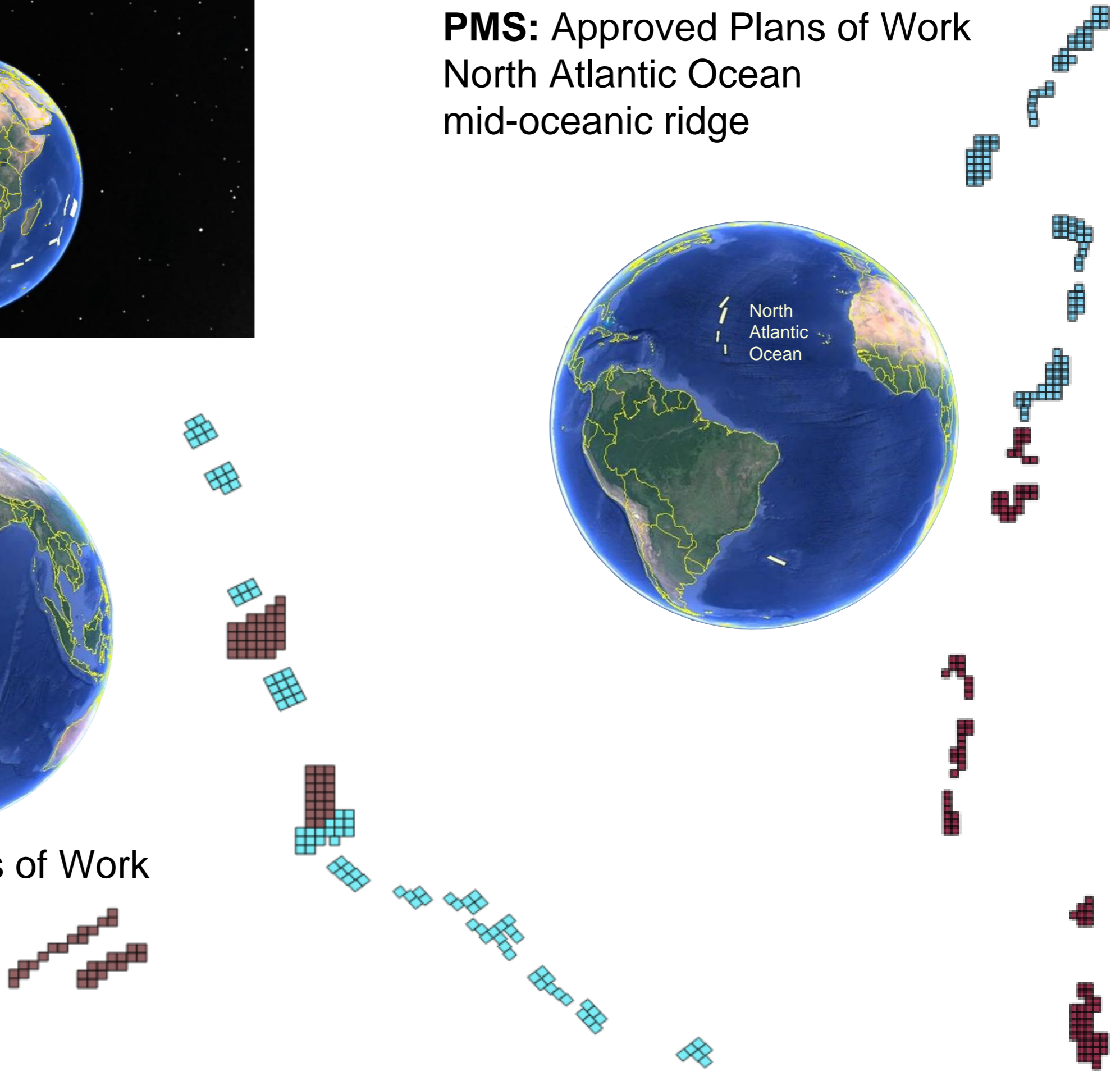
Reserved Area



**PMS:** Approved Plans of Work  
North Atlantic Ocean  
mid-oceanic ridge



**PMS:** Approved Plans of Work  
Indian Ocean  
mid-oceanic ridge



# Cobalt-rich Ferromanganese Crust

## 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/18/A/11[22 Oct 2012]

*Assembly adopted Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts 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 tak

**Regulation 12:** Total area covered by the application

1. Blocks [20 km<sup>2</sup>], not to exceed 150 blocks [3,000 km<sup>2</sup>]; extended within 550 x 550 km

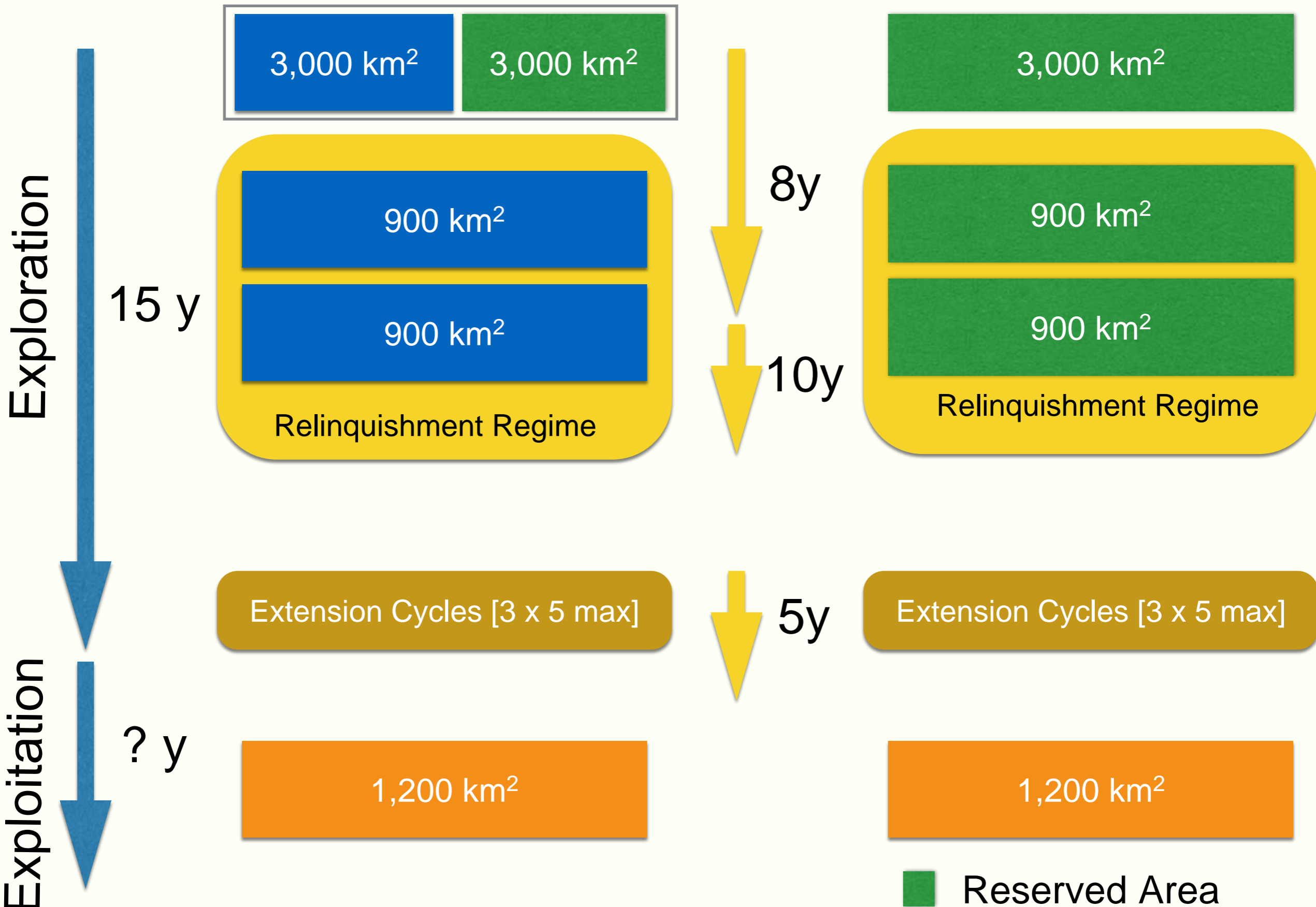
**Regulation 27:** Size of area and relinquishment [not need to be contiguous, sub-blocks]

1. After 8 years, should relinquish at least 30% [900 km<sup>2</sup>]
2. After 10 years, should relinquish at least 30% [900 km<sup>2</sup>]

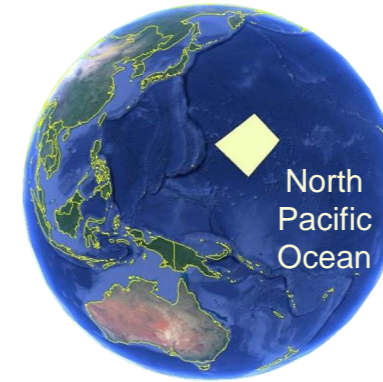
# Cobalt-rich Ferromanganese Crust

## Developed MS

## Developing MS



# CRC: Approved Plans of Work NW-Pacific



# CRC: Approved Plan of Work South Atlantic Ocean

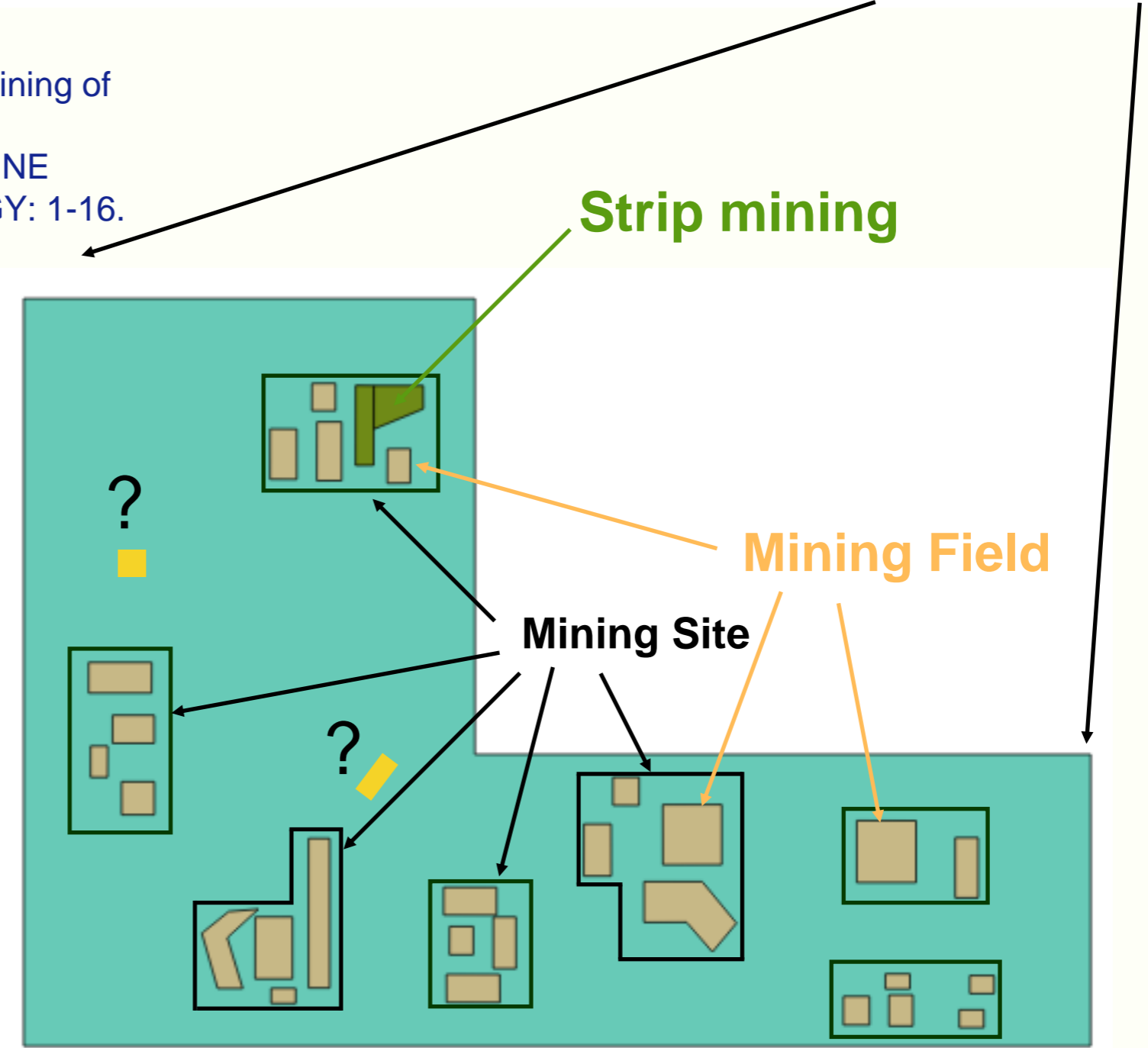


# Case study: Mining Plan for PMN, CCZ [Blue mining EU]



Production key figures for planning the mining of manganese nodules.  
S. Volkmann and F. Lehen. 2017. MARINE GEORESOURCES & GEOTECHNOLOGY: 1-16.

Mineral Resource Classification:  
potential reserve.  
No CRIRSCO Report



# Concluding Remarks

1. Article 8 of UNCLOS define terms (regimes) of contract implementation for approval plan of works.
2. There are 2 regimes for APW: parallel regime - Reserved Areas and equity joint venture - no reserved areas.
3. ISBA/19/C/17 [amendments; 22 July 2013]; SBA/16/A/12/Rev.1[15 November 2010]; SBA/18/A/11[22 October 2012] Defined geographical areas as well as legal binding of any APW for any of the Ores
4. The above rules-regulations provide the an interpretation of UNCLOS;, that set boundaries for mining fields, mining site, mining plans.
5. The above rules and regulations, set the limits - geographical- that need to be accounted for on the definition of ABMT dealing with EMP that has to provide guidelines to the future mining code.
6. Mining Industry profits by depleting mineral assets, the knowledge of which is imperfect prior to the commencement of extraction. It is therefore essential that the **industry communicates the risks** associated with investment **effectively and transparently** in order to earn the level of **trust** necessary to **justify its activities**.