

The mechanism of 'reserved areas': overview and practical implications

Pretoria, South Africa, 16 May 2019

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Legal & Technical Commission of the ISA



Task Group for the Extension of the Continental Shelf





Summary:

- Historical setting;
- III Conference on the Law of the Sea and the 'parallel system';
- UNCLOS and the 1994 Agreement;
- Opportunities for developing States;
- Final remarks.



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1961
Yuri Gagarin



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1960's
Marie Tharp
(& Bruce Heezen)

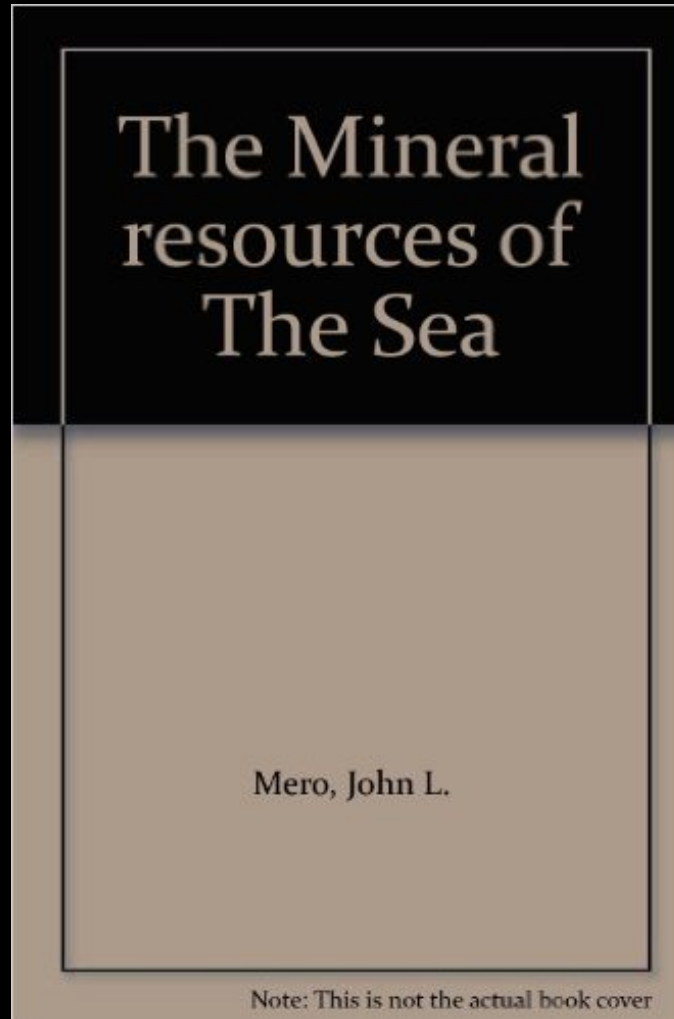


Source: Map of the Atlantic Ocean Floor (Bruce Heezen and Marie Tharp)
<https://news.nationalgeographic.com/2017/02/marie-tharp-map-ocean-floor/>

Source: <https://www.theguardian.com/science/2016/mar/13/terraviva-kate-ravilious-marie-tharp-mid-atlantic-ridge>



“In the oceans lie vast undeveloped resources of many of the materials needed by industry”



1965

John Mero



Arvid Pardo



1970

2749 (XXV) Declaration of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction

Source: <https://www.unmultimedia.org/>

- 1. The seabed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction (hereinafter referred to as the area), as well as the resources of the area, are the common heritage of mankind.*
-
-
- 4. All activities regarding the exploration and exploitation of the resources of the area and other related activities shall be governed by the international régime to be established.*
-
-
- 7. The exploration of the area and the exploitation of its resources shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether land-locked or coastal, and taking into particular consideration the interests and needs of the developing countries.*

1933rd plenary meeting, 17 December 1970



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Third United Nations Conference on the Law of the Sea



Source: <http://legal.un.org/avl/ha/uncls/uncls.html>



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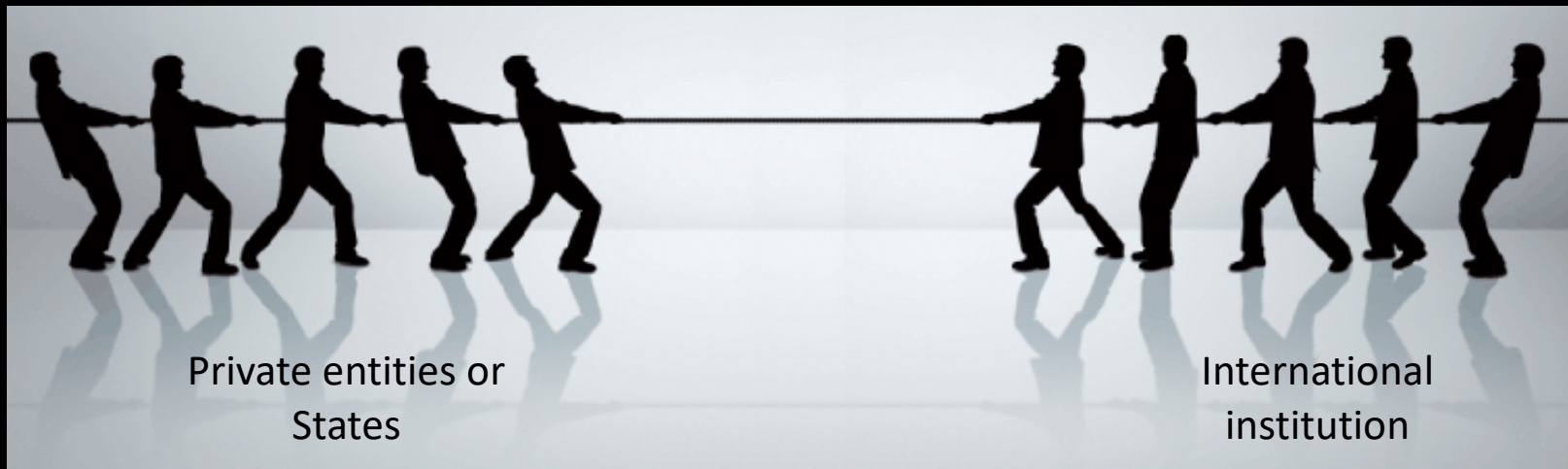
Third United Nations Conference on the Law of the Sea

1973-1982



Developed
(industrialized)
States

Developing
States



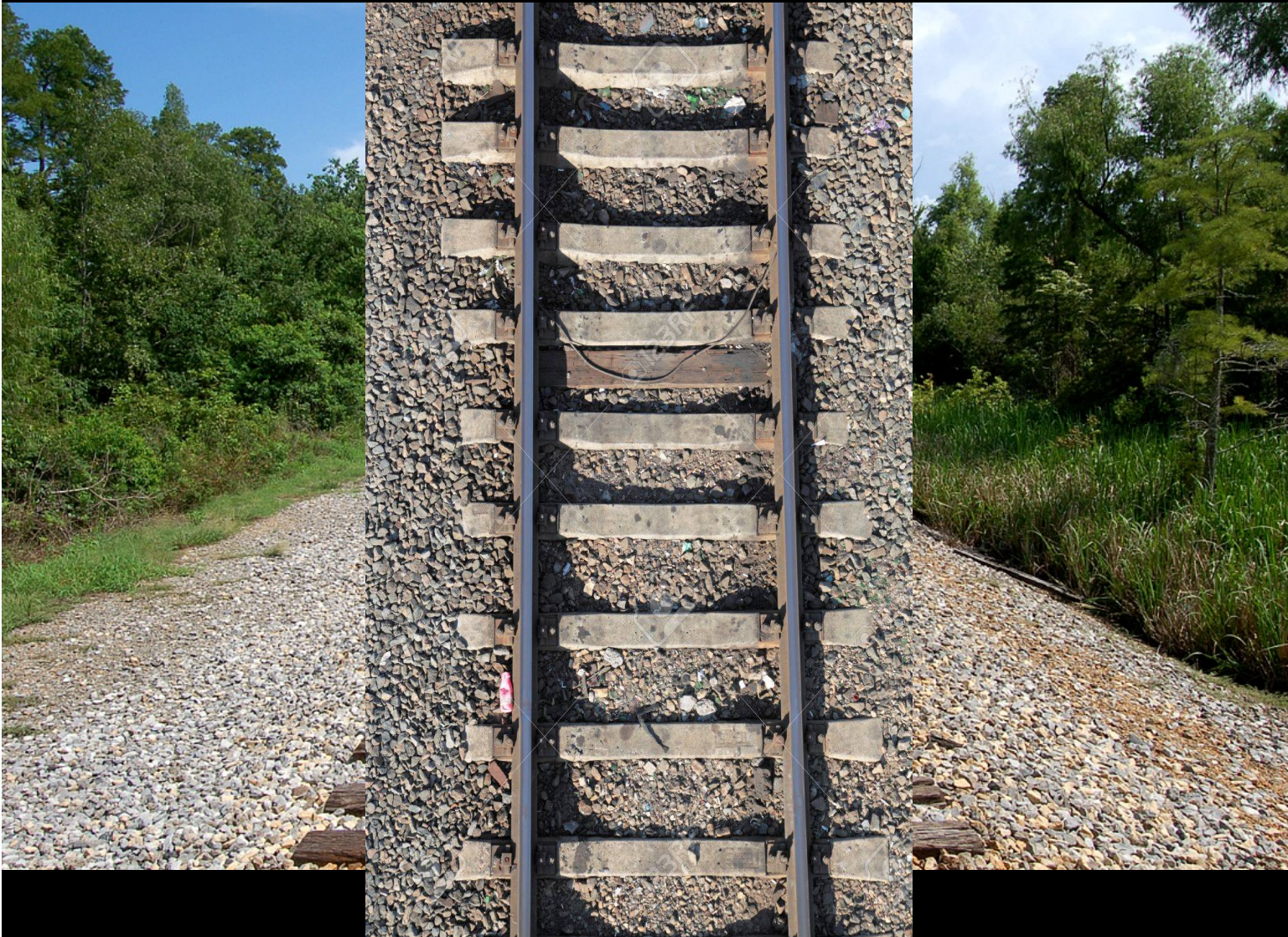


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The 'parallel system'



Henry Kissinger



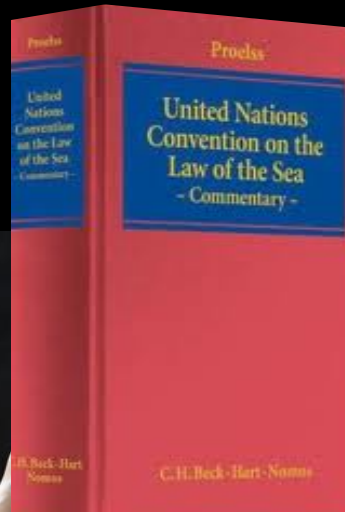
1982



System of exploration and exploitation (Article 153 of UNCLOS)

1. Activities in the Area shall be organized, carried out and controlled by the Authority on behalf of mankind as a whole [...].

*2. Activities in the Area shall be carried out [...]:
(a) by the Enterprise, and
(b) in association with the Authority by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals [...].*



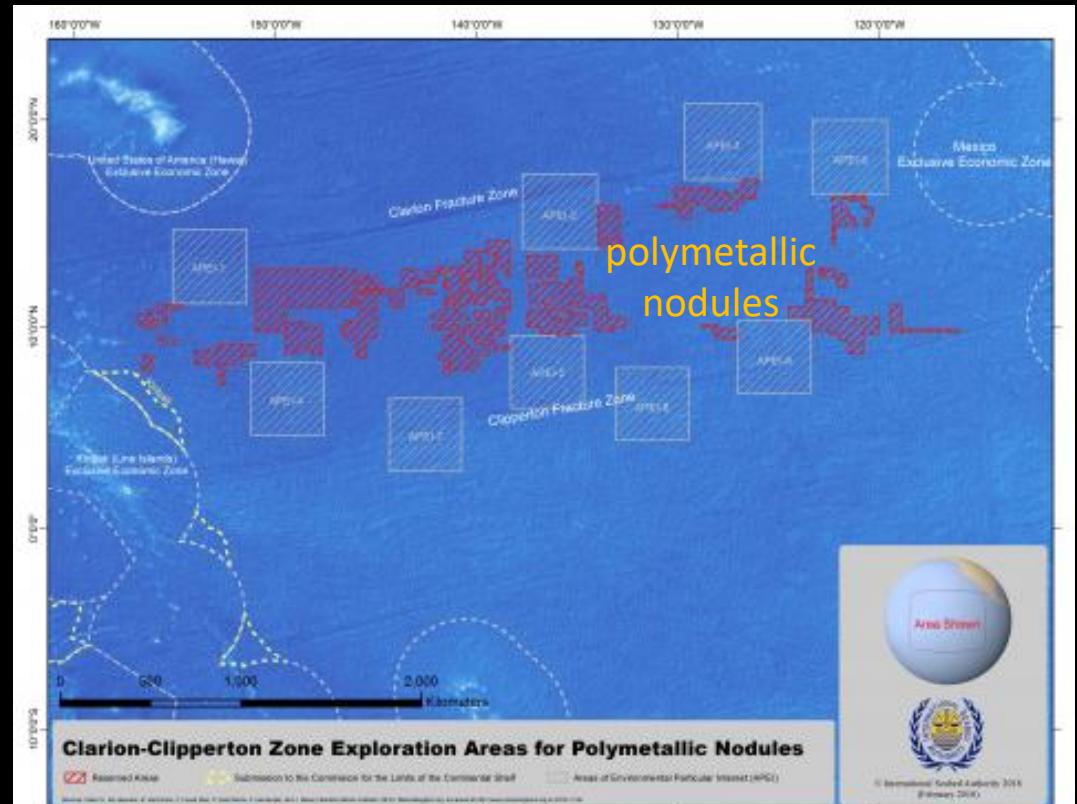
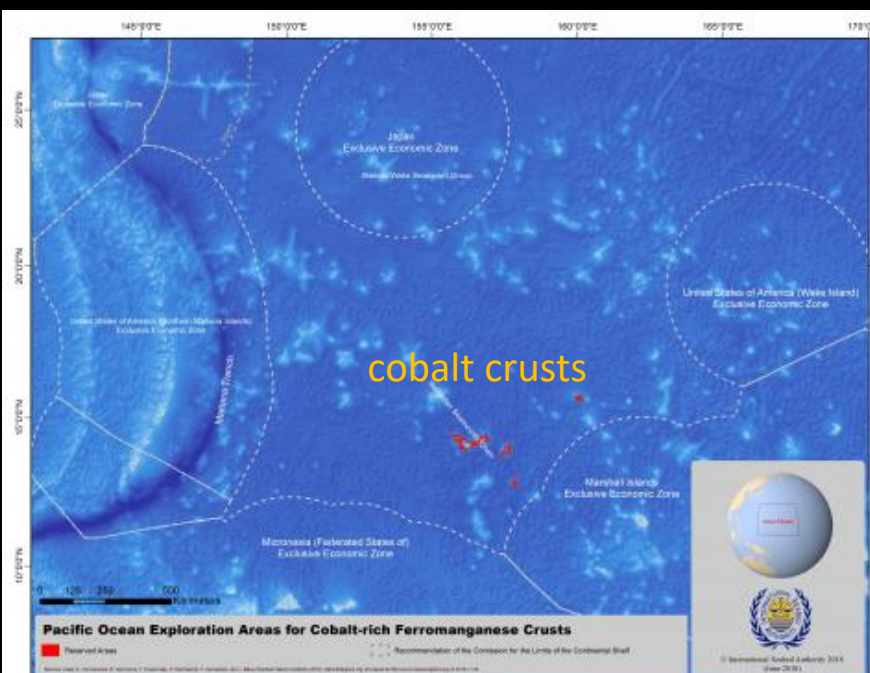
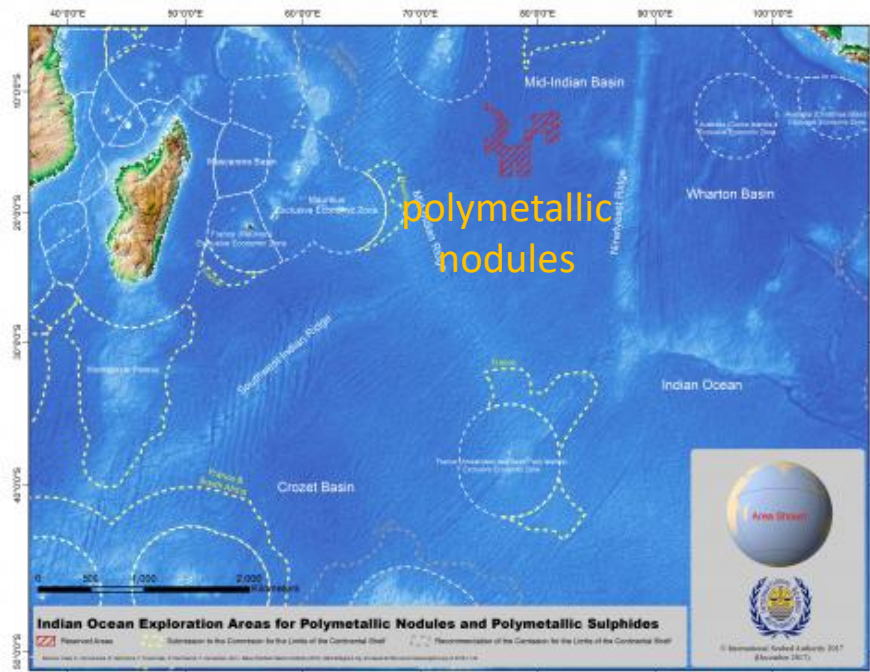


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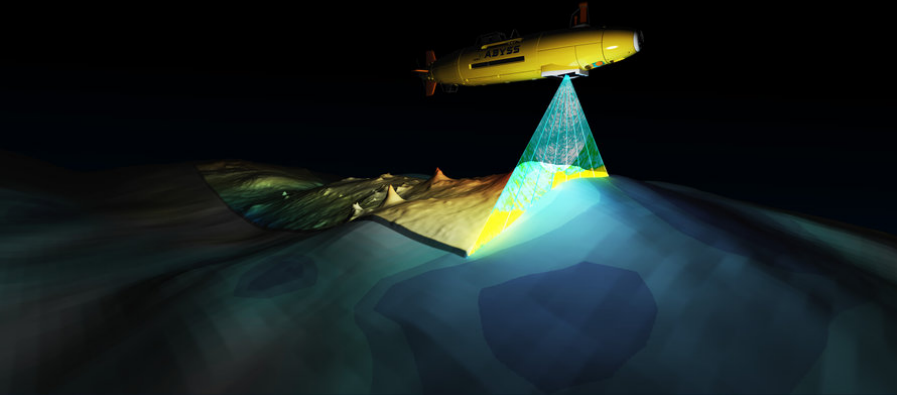
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Reservation of areas (Article 8 of Annex III, UNCLOS)

Each application, other than those submitted by the Enterprise or by any other entities for reserved areas, shall cover a total area, which need not be a single continuous area, sufficiently large and of sufficient estimated commercial value to allow two mining operations [...].



Transfer of technology (Article 144 of UNCLOS)



Source: Geomar (© T. Kwasnitschka, N. Augustin, M. Klischies)

1. *The Authority shall take measures in accordance with this Convention:*

(a) to acquire technology and scientific knowledge relating to activities in the Area; and

(b) to promote and encourage the transfer to developing States of such technology and scientific knowledge so that all States Parties benefit therefrom.



Source: Nautilus Minerals

2. *To this end the Authority and States Parties shall [...] promote:*

(a) programmes for the transfer of technology to the Enterprise and to developing States with regard to activities in the Area, including, inter alia, facilitating the access of the Enterprise and of developing States to the relevant technology, under fair and reasonable terms and conditions;

(b) measures directed towards the advancement of the technology of the Enterprise and the domestic technology of developing States, particularly by providing opportunities to personnel from the Enterprise and from developing States for training [...]

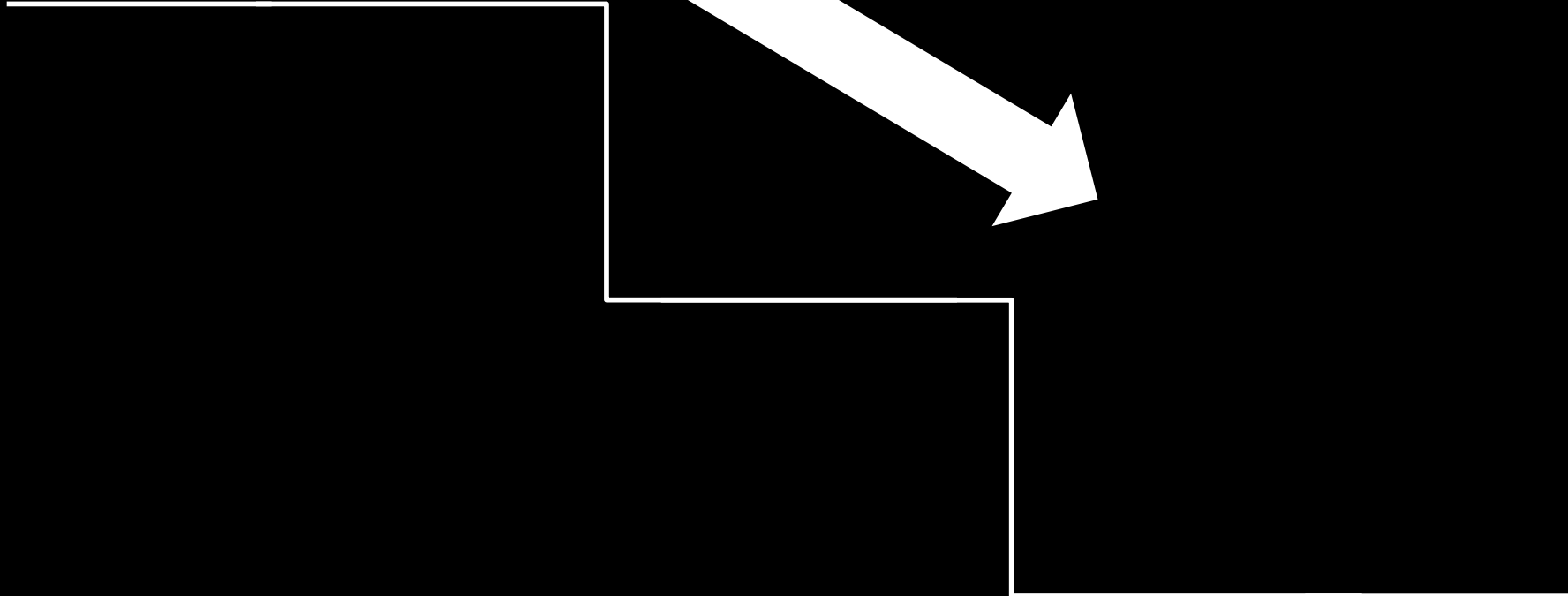


Agreement on the Implementation of Part XI of the Convention

1994



The Enterprise
 The Review Conference
 Transfer of technology





The 'pioneers'

Sponsoring State/Contractor	Polymetallic nodules
China, COMRA	2001
Russia, YMG	2001
Japan, DORD, JOGMEC	2001
Government of India	2002
France, IFREMER	2001
Government of the Republic of Korea, KIOST	2001
Bulgaria, Cuba, Czechia, Poland, Russian Federation, Slovakia, IOM	2001

Asia-Pacific Group (China, Japan, India, Republic of Korea) ✓

Eastern European Group (Bulgaria, Czechia, Poland, Russian Federation, Slovakia) ✓

Latin American and Caribbean States Group (Cuba) ✓

Western European and Other States Group (France) ✓

African Group (47 members) ✗



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Map No. 4045 Rev. 8.1 UNITED NATIONS
July 2018



Democratic Republic

- Kiribati
- Solomon Islands
- Tuvalu
- Vanuatu

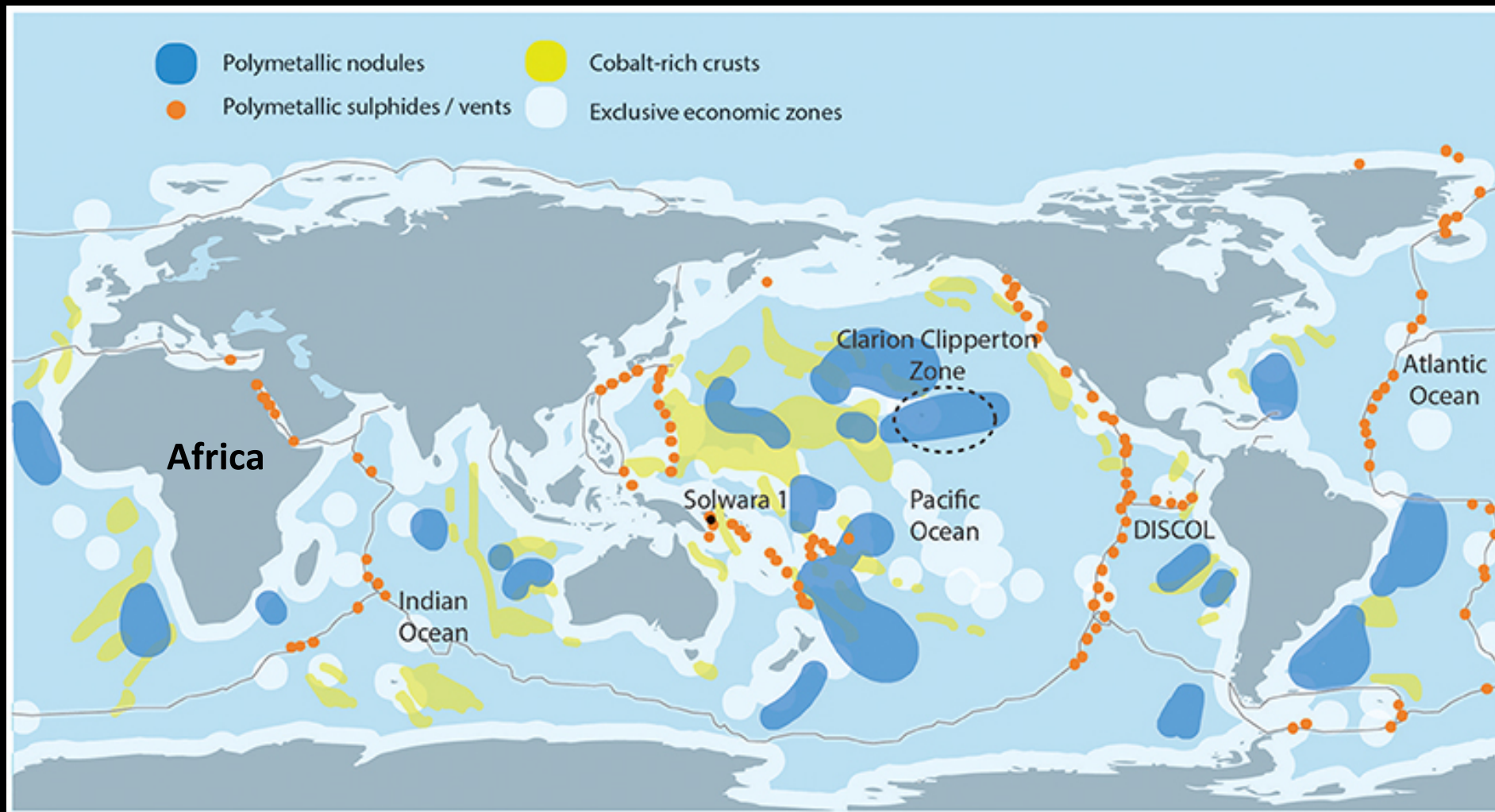


The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined.

Note: T

June 2017



Source: Miller et al. (2018); Hein et al. (2013).



Regulations on Exploration of mineral resources in the Area

Regulation 16, *Polymetallic Nodules*

Data and information to be submitted before the designation of a reserved area

1. Each application shall contain sufficient data and information, as prescribed in section II of annex II to these Regulations, with respect to the area under application to enable the Council, on the recommendation of the Legal and Technical Commission, to designate a reserved area based on the estimated commercial value of each part. Such data and information shall consist of data available to the applicant with respect to both parts of the area under application, including the data used to determine their commercial value.

[...]



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Regulations on Exploration of mineral resources in the Area

Regulation 16, **Polymetallic Sulphides**, **Cobalt Crusts**

Applicant's election of a reserved area contribution or equity interest in a joint venture arrangement

Each applicant shall, in the application, elect either to:

(a) Contribute a reserved area to carry out activities pursuant to Annex III, article 9, of the Convention, in accordance with regulation 17; or

(b) Offer an equity interest in a joint venture arrangement in accordance with regulation 19.



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Regulations on Exploration of mineral resources in the Area

Annex II - Application for approval of a plan of work for exploration to obtain a contract

Section II - Information relating to the area under application

18. Attach a chart [...] dividing the total area into two parts of equal estimated commercial value.

19. Include in an attachment sufficient information to enable the Council to designate a reserved area [...], including:

(a) Data on the location, survey and evaluation of the [polymetallic nodules, polymetallic sulphides, cobalt crusts] in the areas, including:

e.g. geological and physical properties, abundance, thickness, tonnage, average grade, drill core data, used techniques, etc

(b) Information concerning environmental parameters (seasonal and during test period) including, inter alia, wind speed and direction, water salinity, temperature and biological communities.



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Regulations on Exploration of mineral resources in the Area

Regulation 17, 18, 18

Applications for approval of plans of work with respect to a reserved area

1. *Any State which is a developing State or any natural or juridical person sponsored by it and effectively controlled by it or by any other developing State, or any group of the foregoing, may notify the Authority that it wishes to submit a plan of work for exploration with respect to a reserved area.*

[...]



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Sponsoring State/Contractor	Polymetallic nodules	Polymetallic sulphides	Fe-Mn Crusts
China, COMRA	2001*	2011	2014
Russia, YMG	2001*		
Japan, DORD, JOGMEC	2001*		2014
Government of India	2002*	2016	
France, IFREMER	2001*	2014	
Government of the Republic of Korea, KIOST	2001*	2014	20178
Bulgaria, Cuba, Czechia, Poland, Russian Federation, Slovakia, IOM	2001*		
Germany, BGR	2006	2015	
Nauru, NORI	2011		
Tonga, TOML	2012		
Government of the Russian Federation		2012	
Belgium, GSR	2013		
United Kingdom, UKSRL	2013, 2016		
Ministry of Natural Resources and Environment of the Russian Federation			2015
Kiribati, MARAWA	2015		
Singapore, OMS	2015		
Cook Island, CIIC	2016		
Brasil, CPRM			2015
China, CMC	2017		
Poland		2018	

Any African State to come in ?

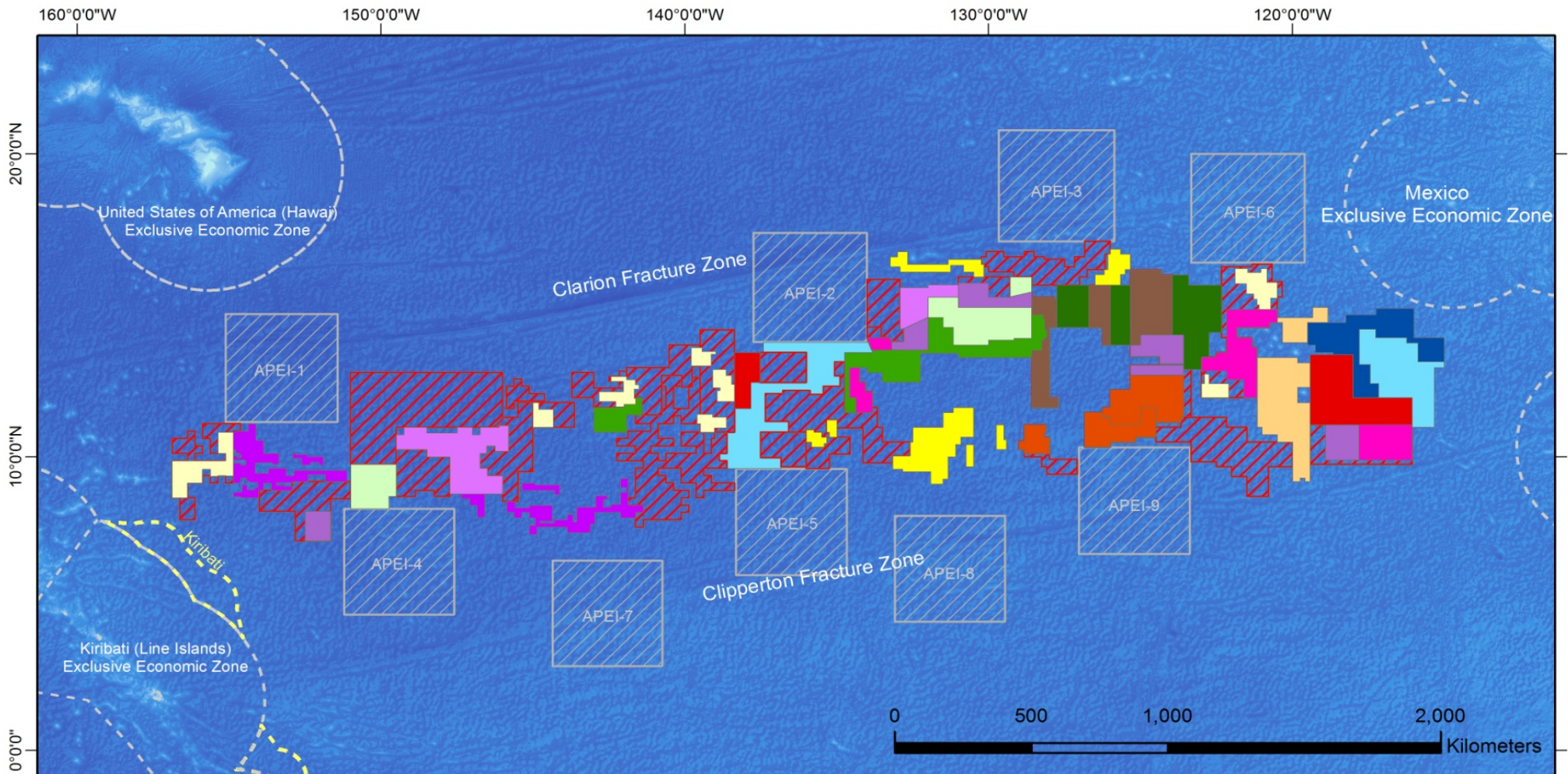


Advisory Opinion of the Seabed Disputes Chamber of ITLOS on “Responsibilities and Obligations of States sponsoring persons and entities with respect to activities in the Area”



(see Freestone, 2011)

«Laws, regulations, and administrative measures must be in force at all times that the contract with the Authority is in force. These measures cannot simply be contractual arrangements with the sponsored entity. They must be at least as stringent as those adopted by the Authority and certainly no less effective than international rules.»



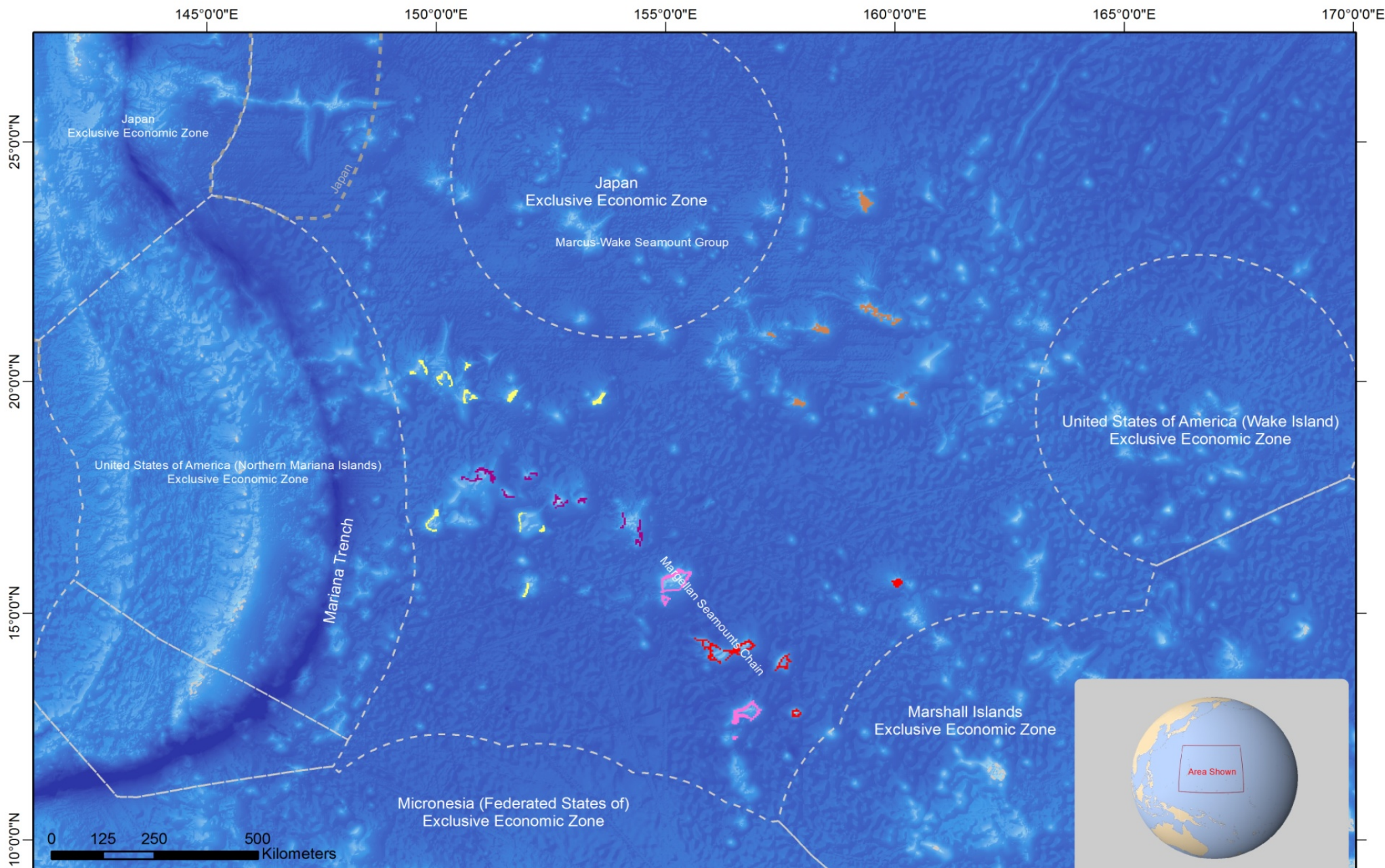
Clarion-Clipperton Zone Exploration Areas for Polymetallic Nodules

- | | |
|---|---|
| Bundesanstalt für Geowissenschaften und Rohstoffe (BGR; Germany) | Interoceanmetal (IOM; Bulgaria, Cuba, Czech Republic, Poland, Russian Fed., Slovakia) |
| Cook Islands Investment Corporation (CIIC; Cook Islands) | Marawa Research and Exploration Ltd (Kiribati) |
| China Minmetals Corporation (China) | Nauru Ocean Resources Inc. (NORI; Nauru) |
| China Ocean Mineral Resources Research and Development Association (COMRA; China) | Ocean Mineral Singapore Pte Ltd (OMS) |
| Deep Ocean Resources Development Company (DORD; Japan) | Tonga Offshore Mining Ltd (TOML; Tonga) |
| Global Sea Mineral Resources NV (GSR; Belgium) | UK Seabed Resources Ltd (UKSRL; UK) |
| Government of Republic of Korea | Yuzhmorgeologia (Russian Federation) |
| Institut Français de Recherche pour l'Exploitation de la Mer (IFREMER; France) | Reserved Areas |
| | Submission to the Commission for the Limits of the Continental Shelf |
| | Areas of Environmental Particular Interest (APEI) |



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(February 2018)

Sources: Claus S., De Hauwere, B. Vanhooime, F. Fouza Dias, P. Oset Garcia, F. Hernandez, and J. Mees (Flanders Marine Institute) (2016). MarineRegions.org. Accessed at <http://www.marinerregions.org> on 2016-11-24



Pacific Ocean Exploration Areas for Cobalt-rich Ferromanganese Crusts

- China Ocean Mineral Resources Research and Development Association (COMRA; China)
- Government of Republic of Korea
- Japan Oil, Gas and Metals National Corporation (JOGMEC; Japan)
- Reserved Areas
- Government of the Russian Federation
- Recommendation of the Commission for the Limits of the Continental Shelf

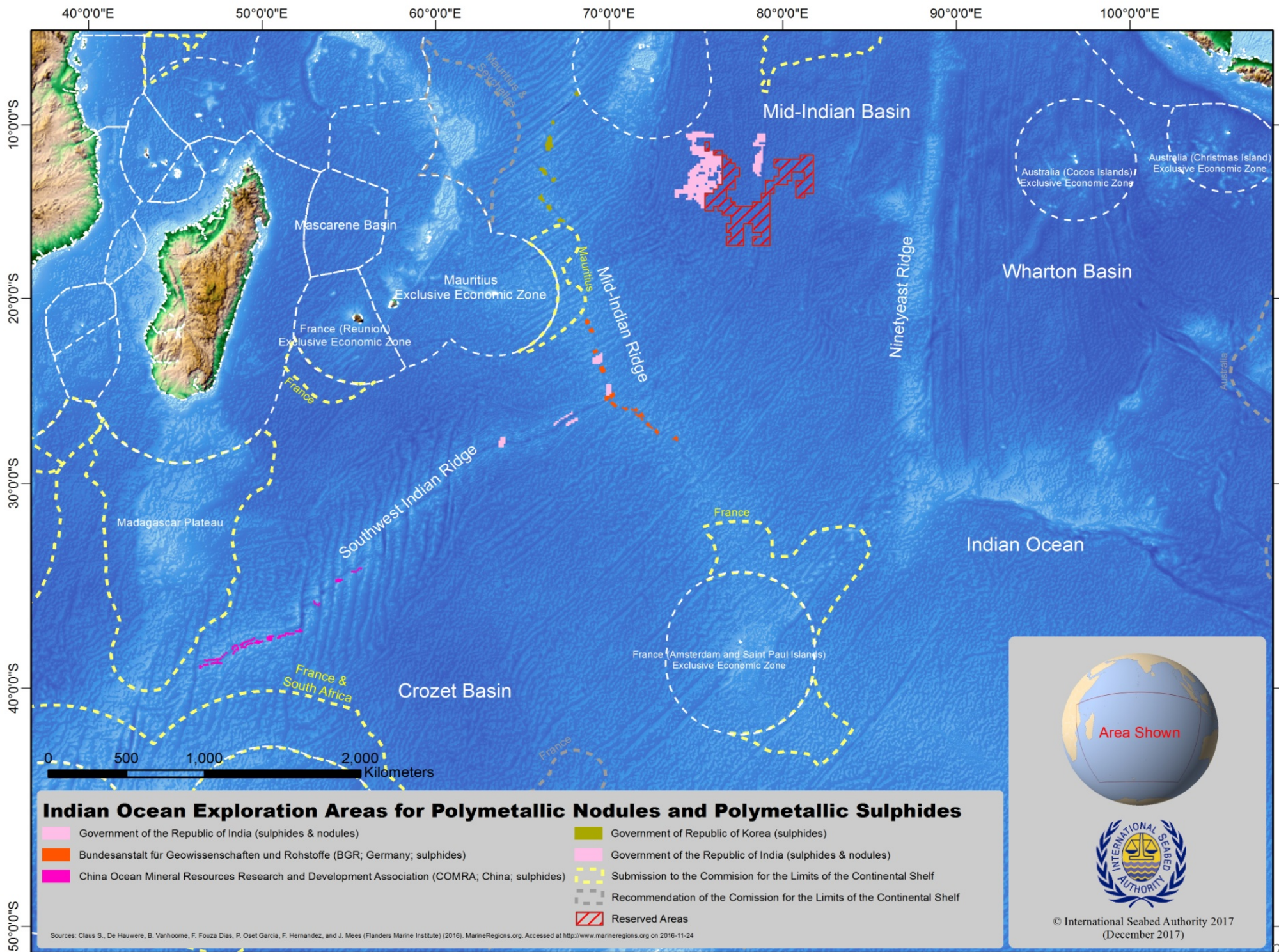
Sources: Claus S., De Hauwere, B. Vanhoorne, F. Fouza Dias, P. Oset Garcia, F. Hernandez, and J. Mees (Flanders Marine Institute) (2016). MarineRegions.org. Accessed at <http://www.marinerregions.org> on 2016-11-24



Area Shown



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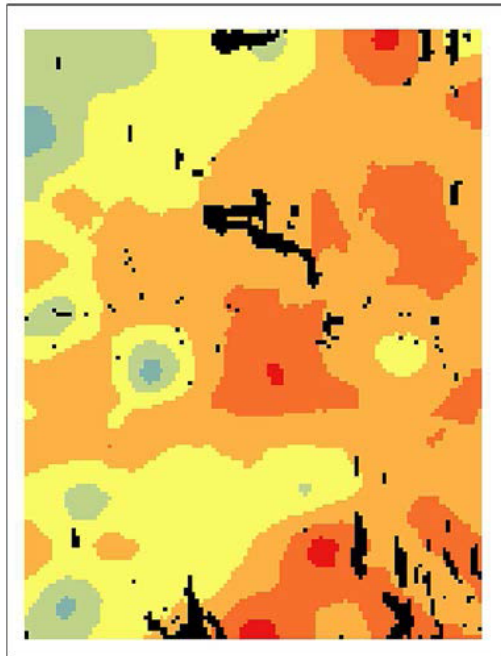




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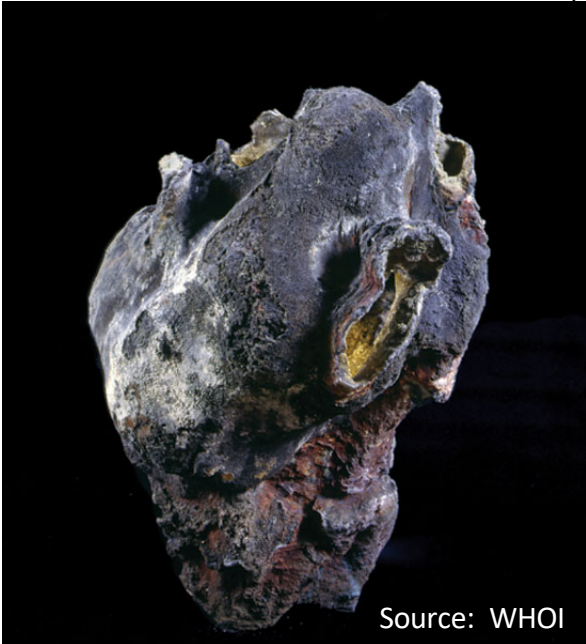
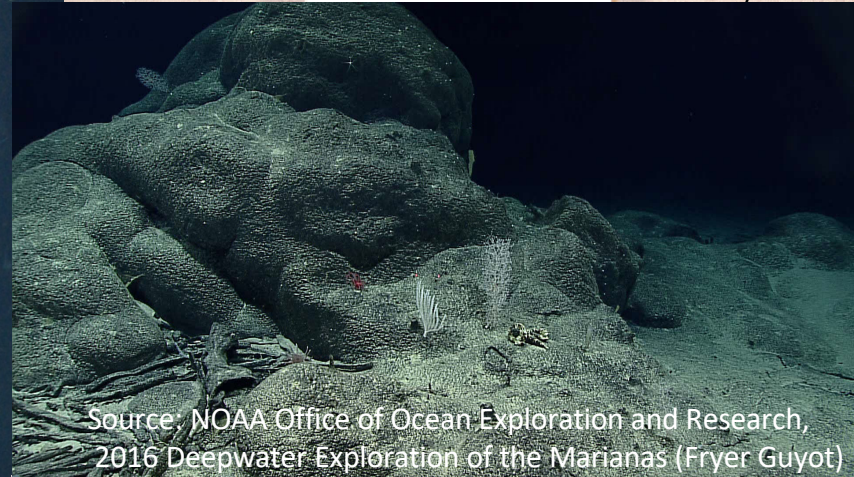


0 1.25 2.5 5 7.5 Kilometers
Volkman & Lehnen, 2017

The 'equal' commercial value



Courtesy: National Science Foundation
Source: WHOI



Source: WHOI





Final remarks

- Some African coastal States will have access to marine mineral resources from the deep sea as expected from the extension of their continental shelf beyond 200 nautical miles;
- However, the 'parallel system' as included in UNCLOS may also provide an opportunity for the participation of developing States in the activities in the Area;
- The reserved areas enclose resources, which commercial value was already estimated as being similar to an area already being explored under a contract;
- It may seem an impossible target for some African States, but...



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**It *always* seems
impossible until it's done.**

- Nelson Mandela