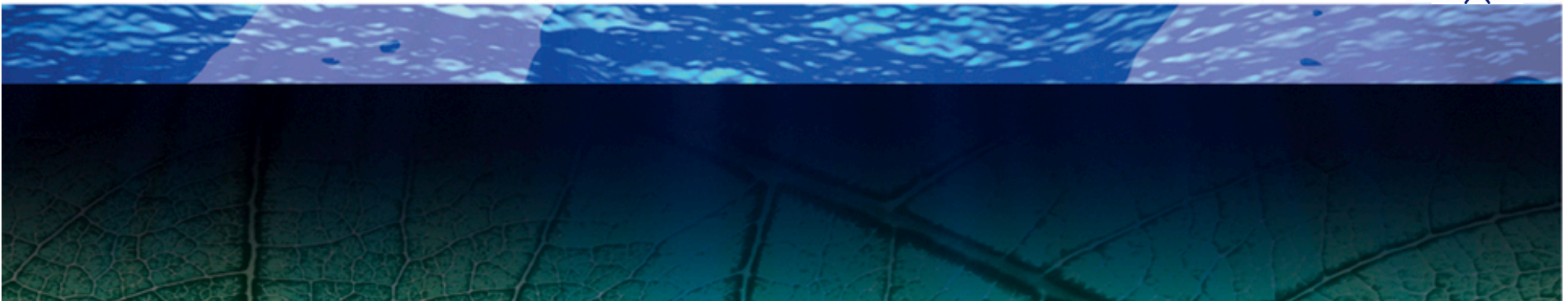


The regulatory regime for deep seabed mining

International Symposium on the Ocean, Green Shipping and Sustainable Energy
Institut Océanographique de Paris, 28-29 April 2011

Gwenaëlle Le Gurun
Legal Officer
International Seabed Authority



Fundamental principles and sources of law

Status of the Mining Code

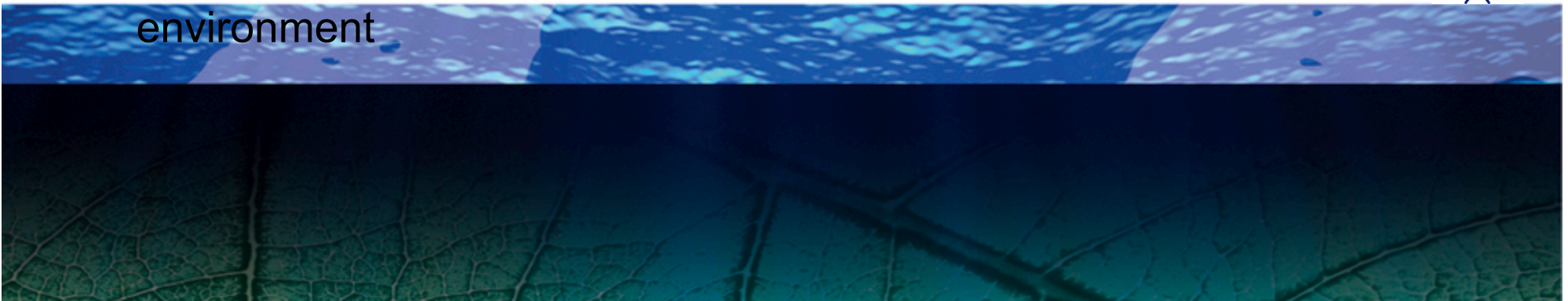
Prospecting and exploration

Environmental protection

Exploitation

The “Reserved Areas”

Deep seabed activities and other activities in the marine
environment



Fundamental principles and sources of law
Fundamental principles

Article 136

The Area and its resources are the common heritage of mankind.

Article 137

No State shall claim or exercise sovereignty or sovereign rights over any part of the Area or its resources.

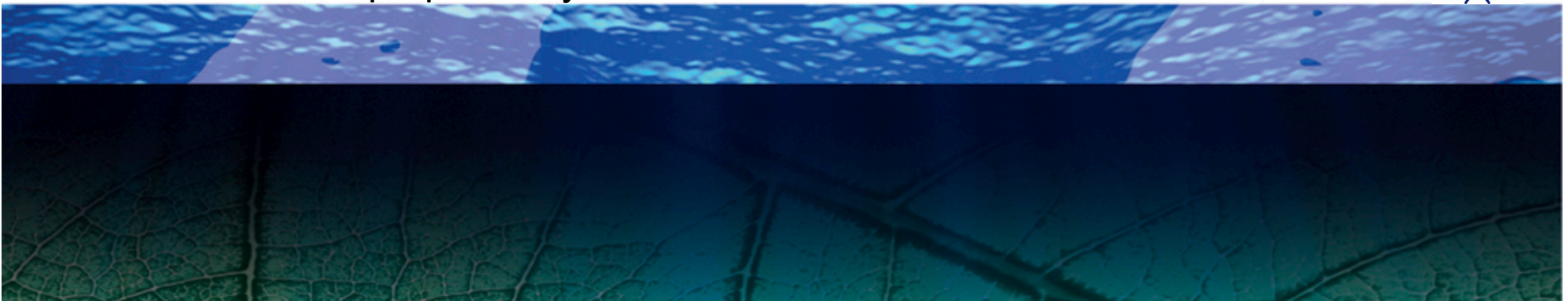
All rights in the resources of the Area are vested in mankind as a whole (represented by the ISA) and no State or natural or juridical person shall exercise mineral rights except in accordance with Part XI.

Article 140

Activities in the Area shall be carried out for the benefit of mankind as a whole.

Article 141

The Area shall be open to use exclusively for peaceful purposes by all States.

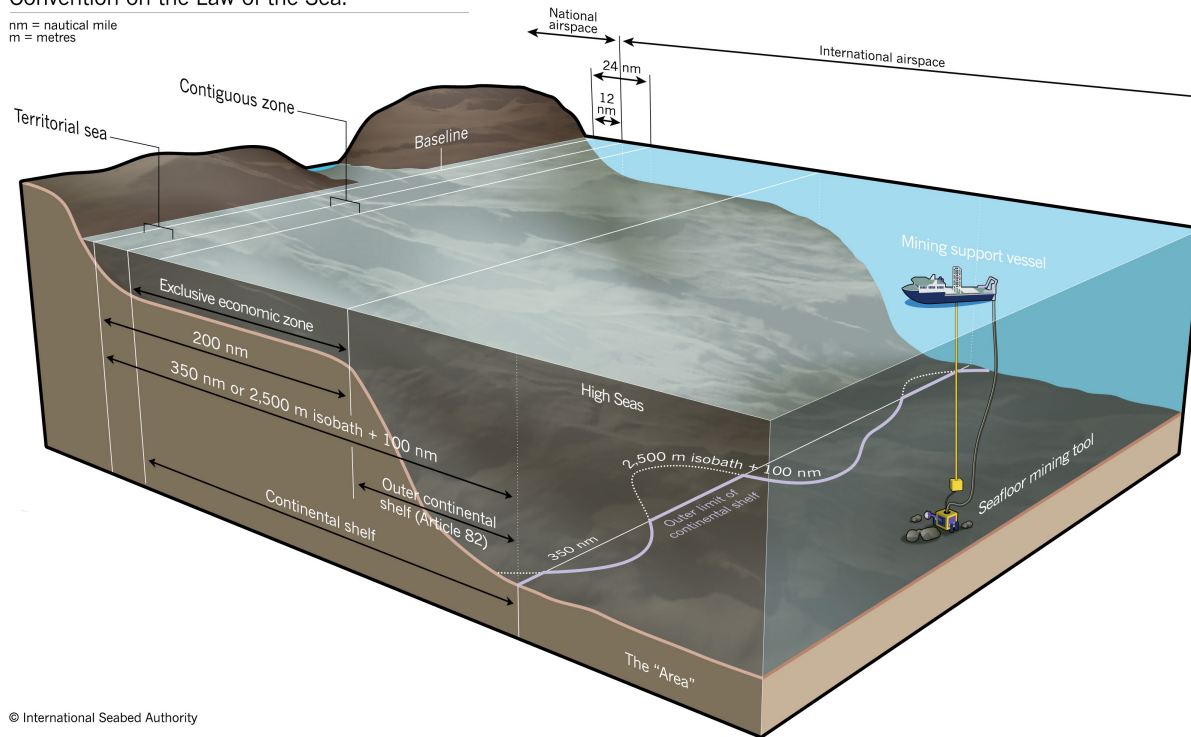


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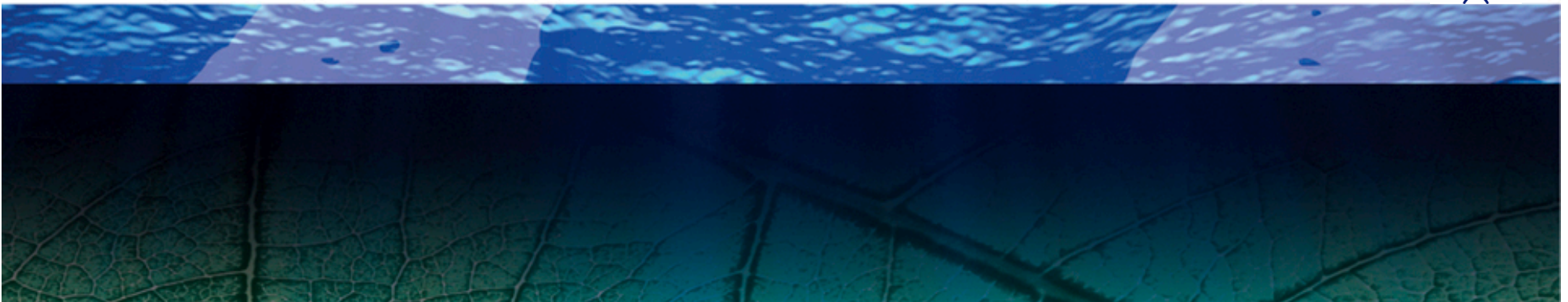
GREEN SHIPPING
SUSTAINABLE ENERGY

Maritime space under the 1982 United Nations Convention on the Law of the Sea.

nm = nautical mile
m = metres



© International Seabed Authority



Fundamental principles and sources of law
Sources of law

1982 UN Convention on the Law of the Sea (Part XI and Annex III)

Rules, regulations and procedures of the International Seabed Authority

1994 Agreement for the Implementation of Part XI of the 1982 Convention

Aim to create a regulatory framework for prospecting, exploration and exploitation similar to terrestrial mining:

Other rules of International law not incompatible with the Convention

- Security of tenure
- Due Diligence
- Environmental protection
- Exploitation on fair and reasonable financial terms



The regulatory regime for deep seabed mining *Outline*

Fundamental principles and sources of law

Status of the Mining Code

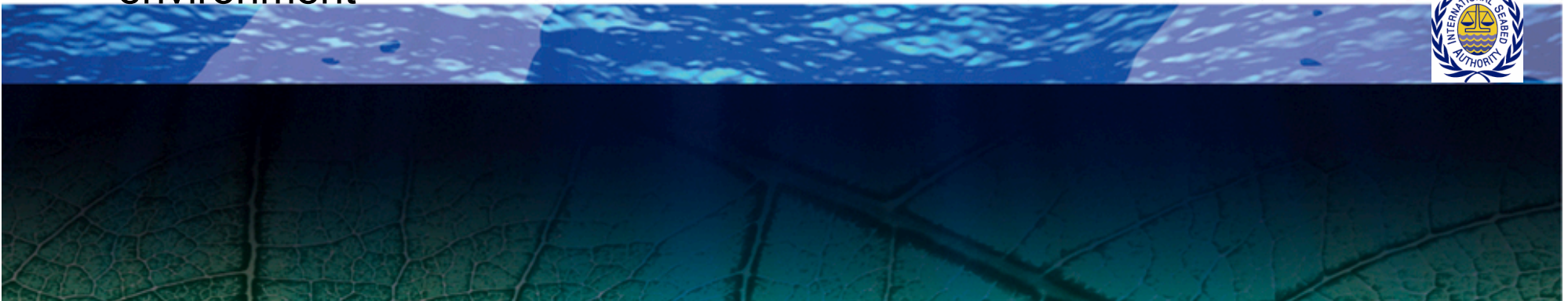
Prospecting and exploration

Environmental protection

Exploitation

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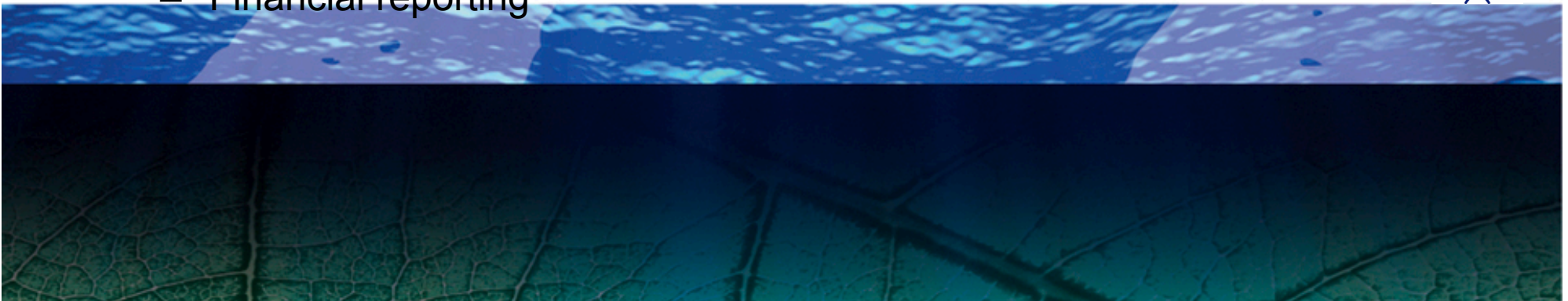
Deep seabed activities and other activities in the marine environment



The Mining Code *Definition and content*

The comprehensive set of rules, regulations and procedures issued by the International Seabed Authority to regulate prospecting, exploration and exploitation of marine minerals in the Area.

- Regulations on:
 - Prospecting
 - Exploration
 - Exploitation
- Rules and procedures
 - Environmental recommendations
 - Data standards
 - Financial reporting
- Covering:
 - Polymetallic nodules
 - Polymetallic sulphides
 - Cobalt-rich crusts
 - Other resources



Outline

Fundamental principles and sources of law

Status of the Mining Code

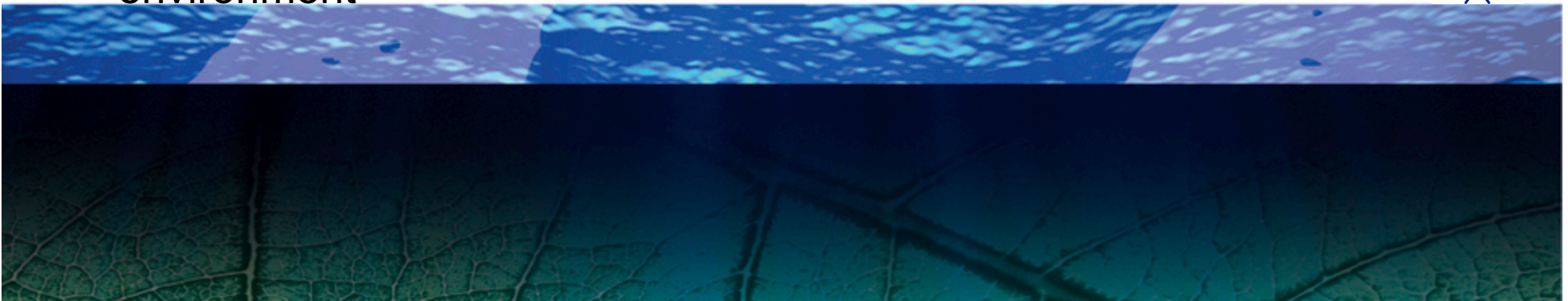
Prospecting and exploration

Environmental protection

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Deep seabed activities and other activities in the marine environment



Prospecting and exploration *Overview*

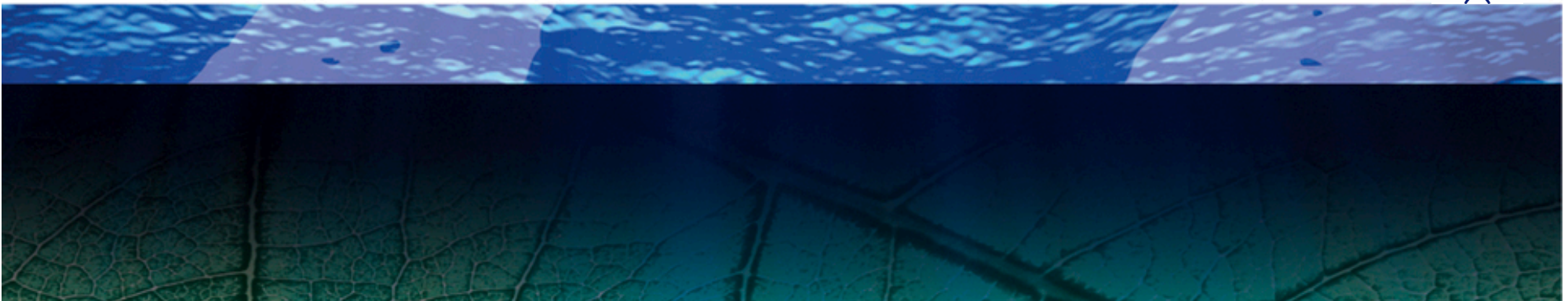
Current regulations cover prospecting and exploration phases for polymetallic nodules and polymetallic sulphides.

❑ **Prospecting**

- Searching for mineral deposits with no exclusive rights.
- Requires written notification to the Secretary-General.
- Most prospecting may be undertaken as MSR.

❑ **Exploration**

- Searching for and evaluating potential of mineral deposits with exclusive rights under a contract.
- Priority over other applicants for exploitation rights.



Prospecting and exploration

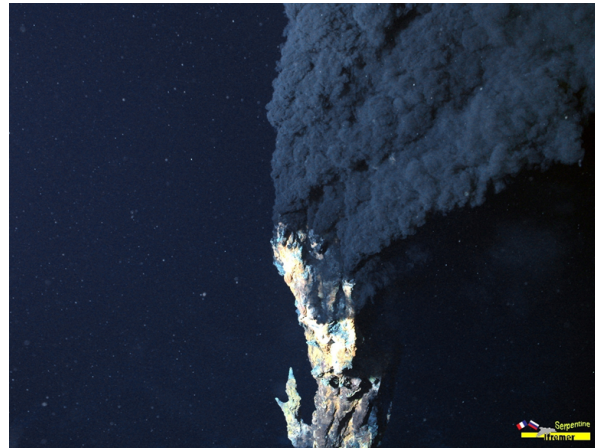
Overview

Current regulations cover prospecting and exploration phases for polymetallic nodules and polymetallic sulphides.

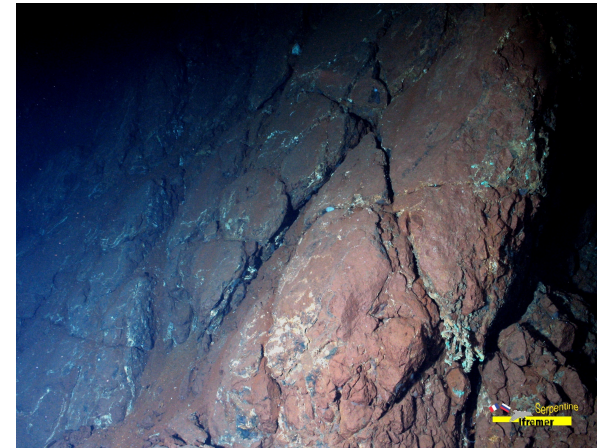
*Polymetallic nodules
(2000)*



*Polymetallic sulphides
(2010)*



*Cobalt-rich crusts
(2011)?*



Regulatory framework largely identical, differences reflect different nature of resources



Qualified Applicants

**Prospecting and
Exploration
*Application criteria***

State Party to the 1982 Convention or
State enterprise sponsored by a State
Party or
Natural or juridical person possessing the
nationality of a State Party and sponsored
by a State Party.

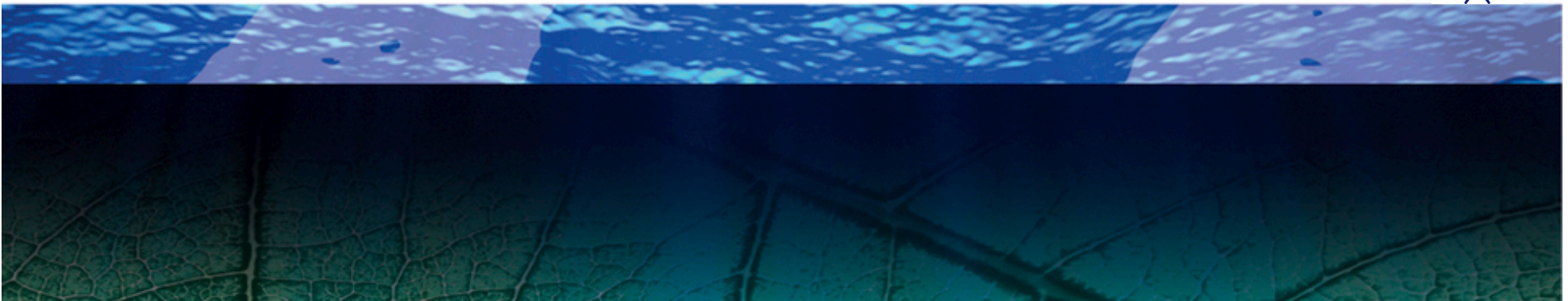
State Sponsorship

Fundamental requirement.

Sponsorship by State of which applicant is
a national or State having effective control
(may be more than one sponsoring State).

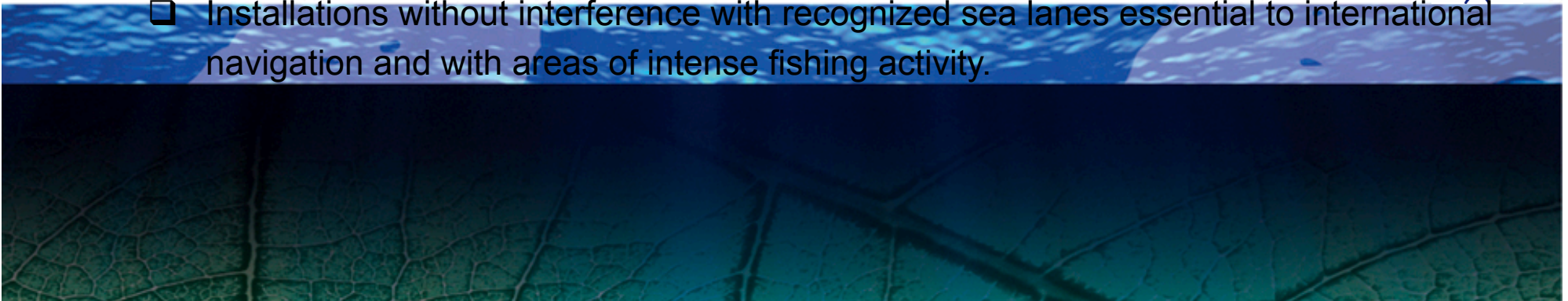
Evidenced by certificate of sponsorship.

Declaration of responsibility.



**Prospecting and exploration
Content of application for exploration
license**

- Information on financial capability.
- Information on technical capability.
- Proposed 15-year exploration program.
- Detailed five-year plan with anticipated annual actual and direct expenditure on exploration.
- Proposal for oceanographic and environmental baseline studies and preliminary environmental impact assessment.
- Proposed measures to prevent pollution (contingency plan).
- Undertaking of good faith.
- Fee (US\$ 250,000 per application for nodules, US \$500,000 or variable fee for sulphides).
- List of coordinates and chart of proposed area.
- Installations without interference with recognized sea lanes essential to international navigation and with areas of intense fishing activity.



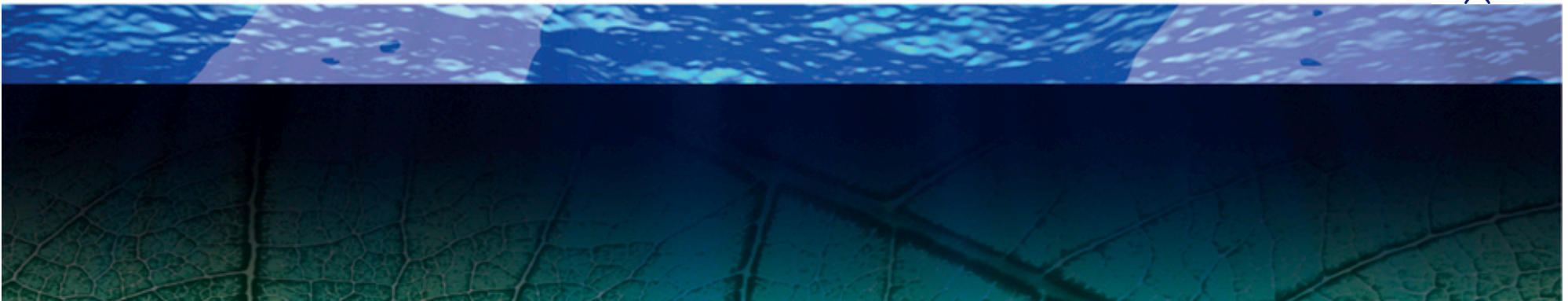
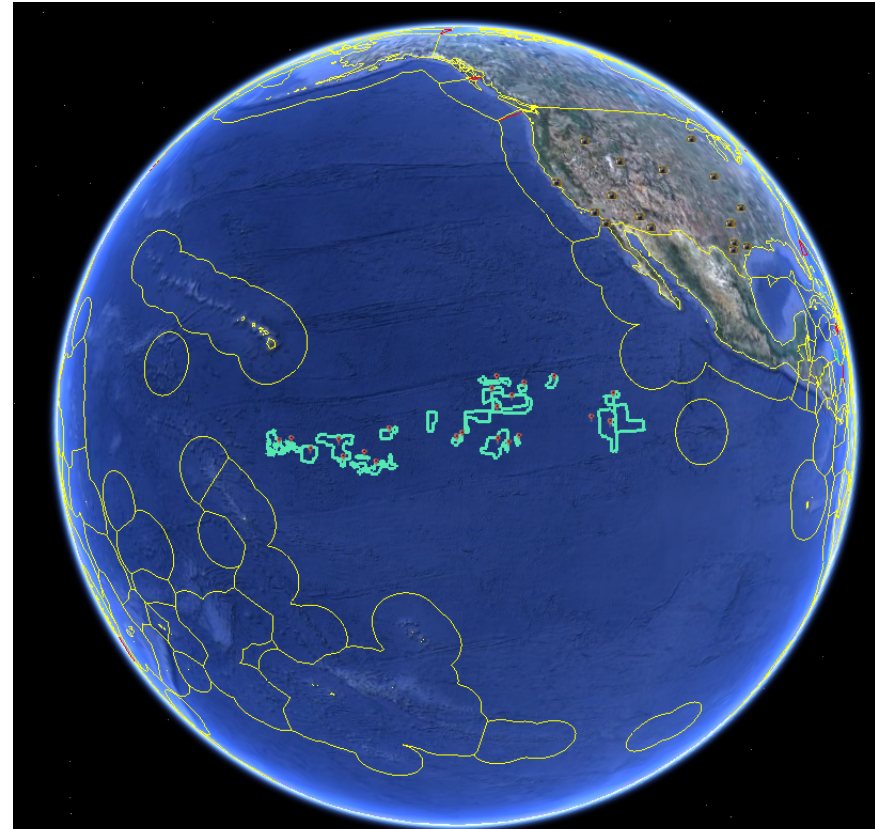
**Prospecting and exploration
Polymetallic nodules – size of area for
exploration**

Applicant must offer two sites of equal estimated commercial value (one for the contractor, one to be

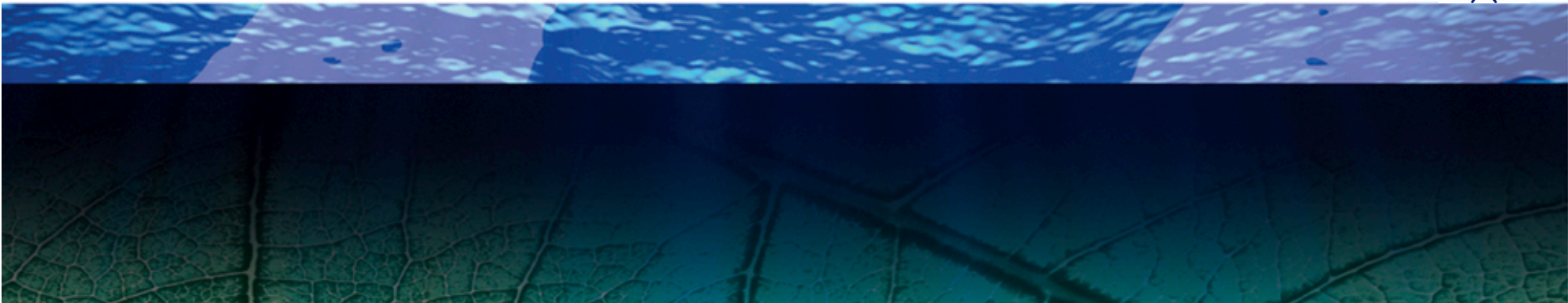
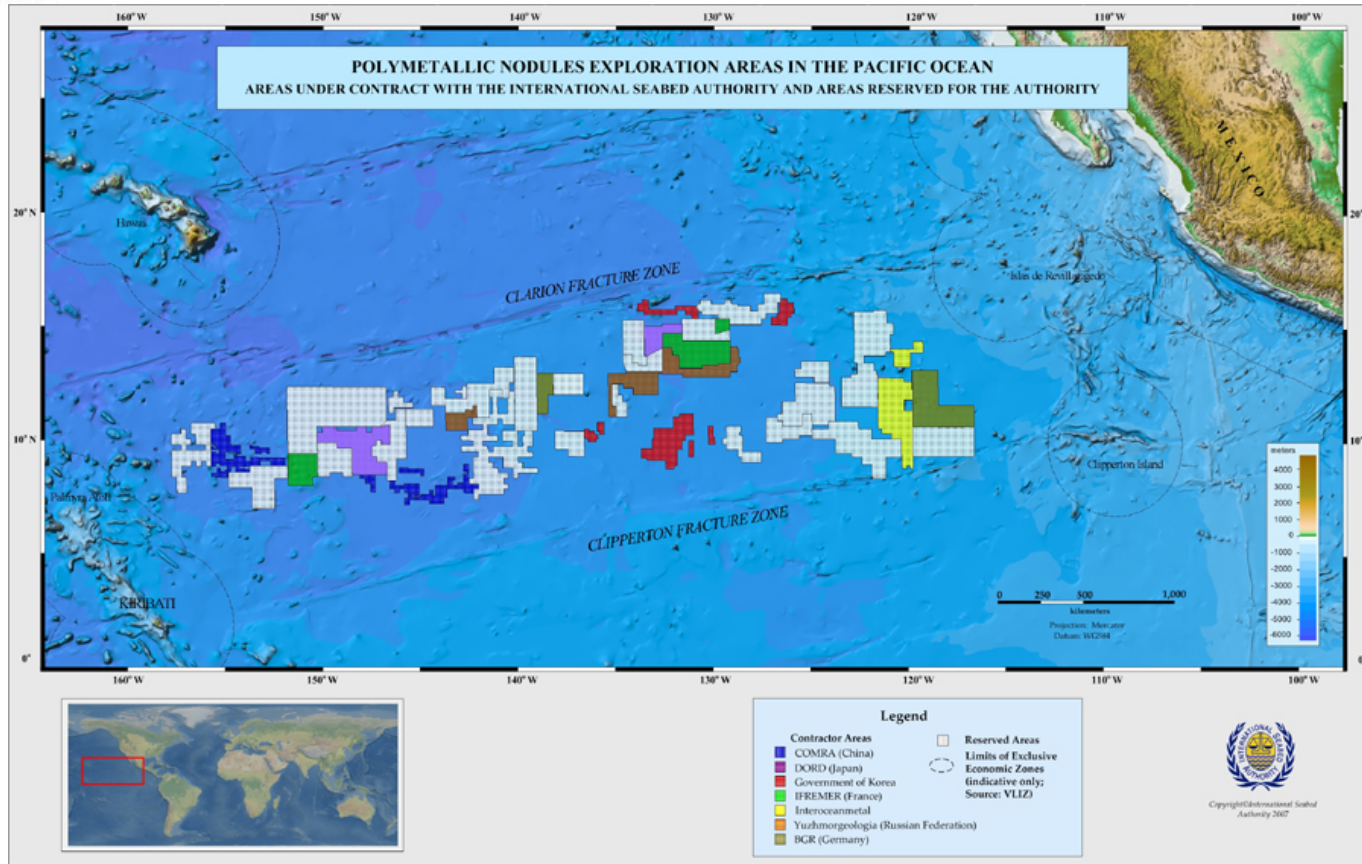
Each site to be not more than 150,000 Km² in size, relinquish to 75,000 Km²

May be in any geographical configuration and need not be a single area

Eight contracts issued to date (seven in CCZ and one in Indian



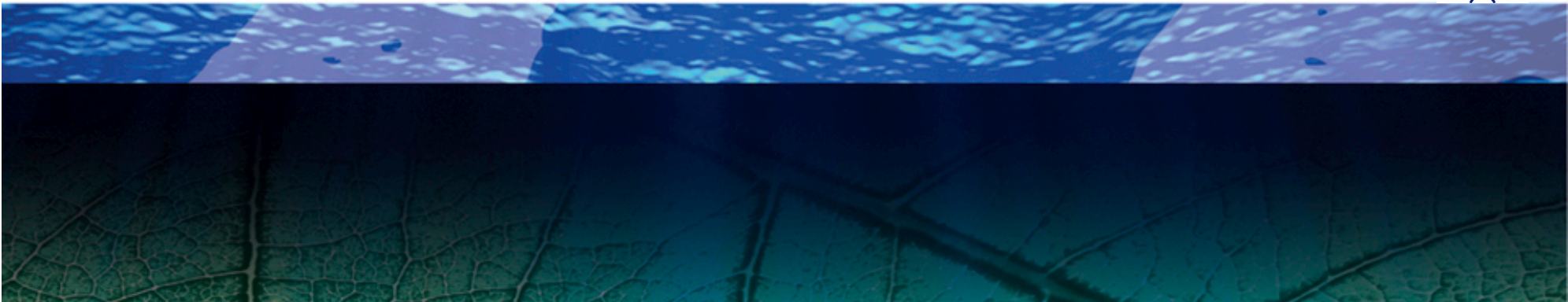
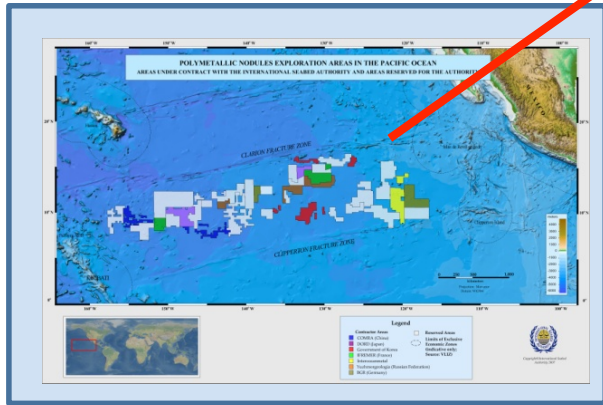
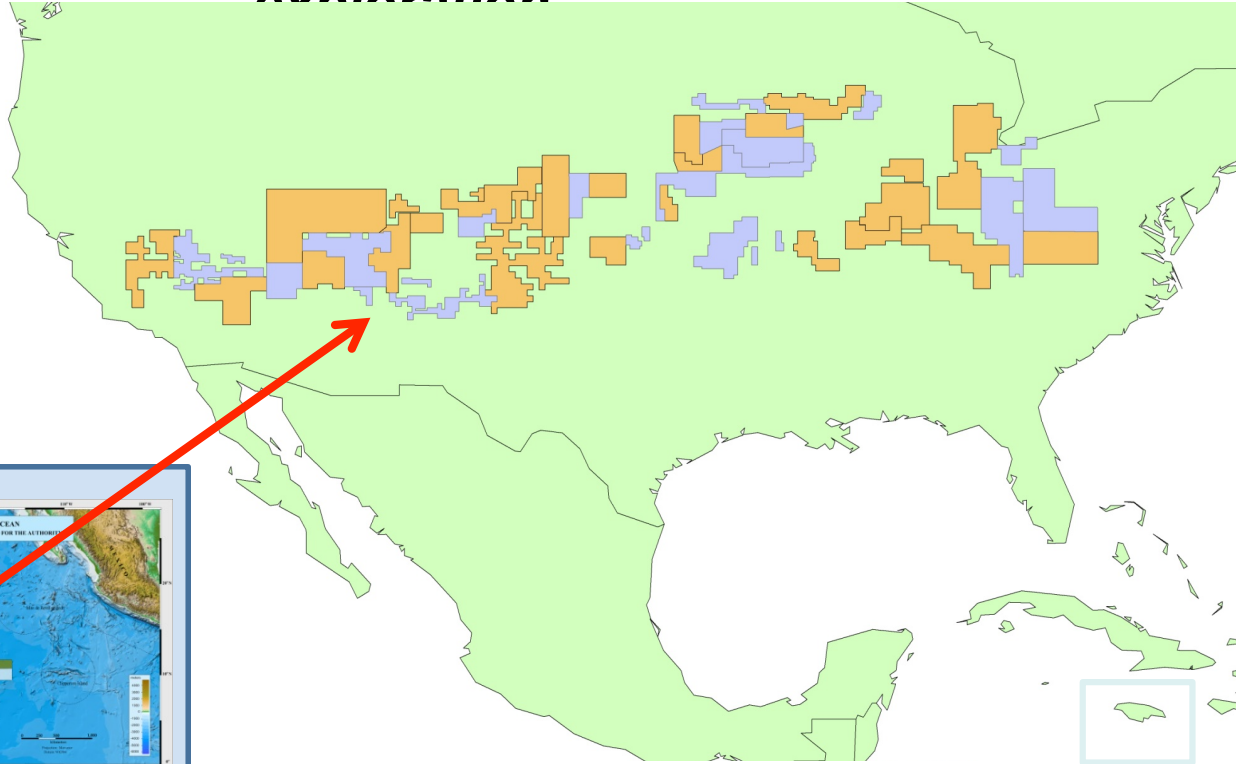
Prospecting and exploration
 Polymetallic nodules – size of area for exploration



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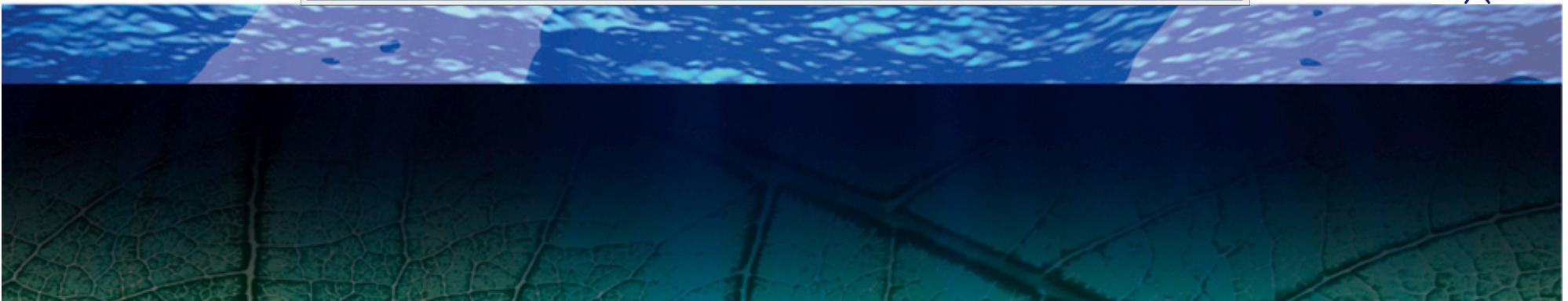
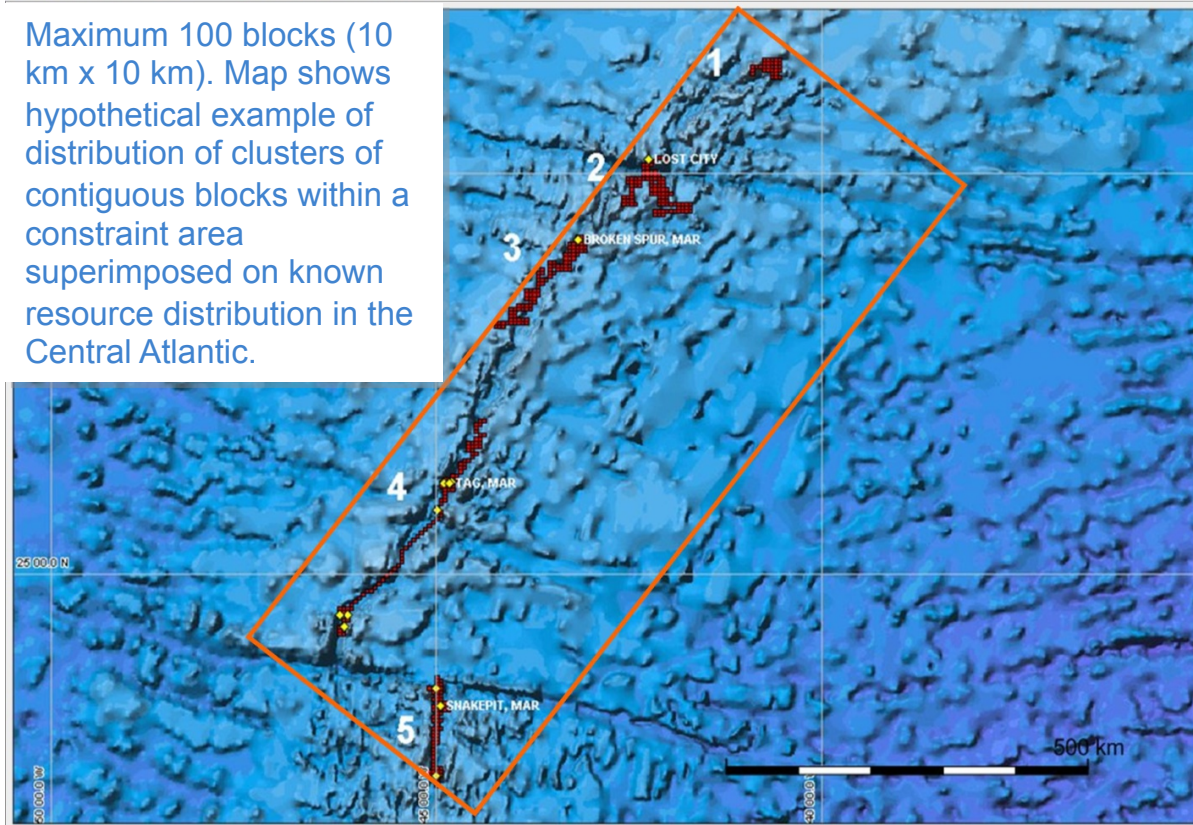
GREEN SHIPPING
SUSTAINABLE ENERGY

Prospecting and exploration Polymetallic nodules – size of area for exploration

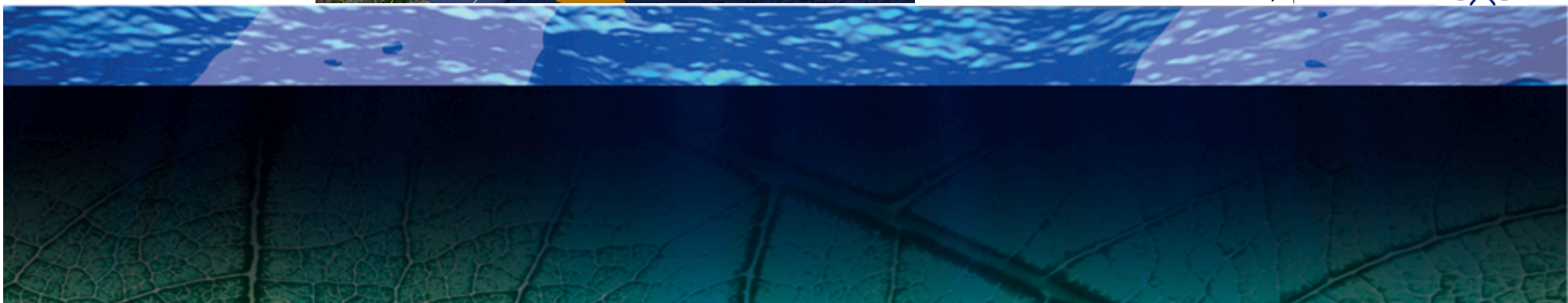
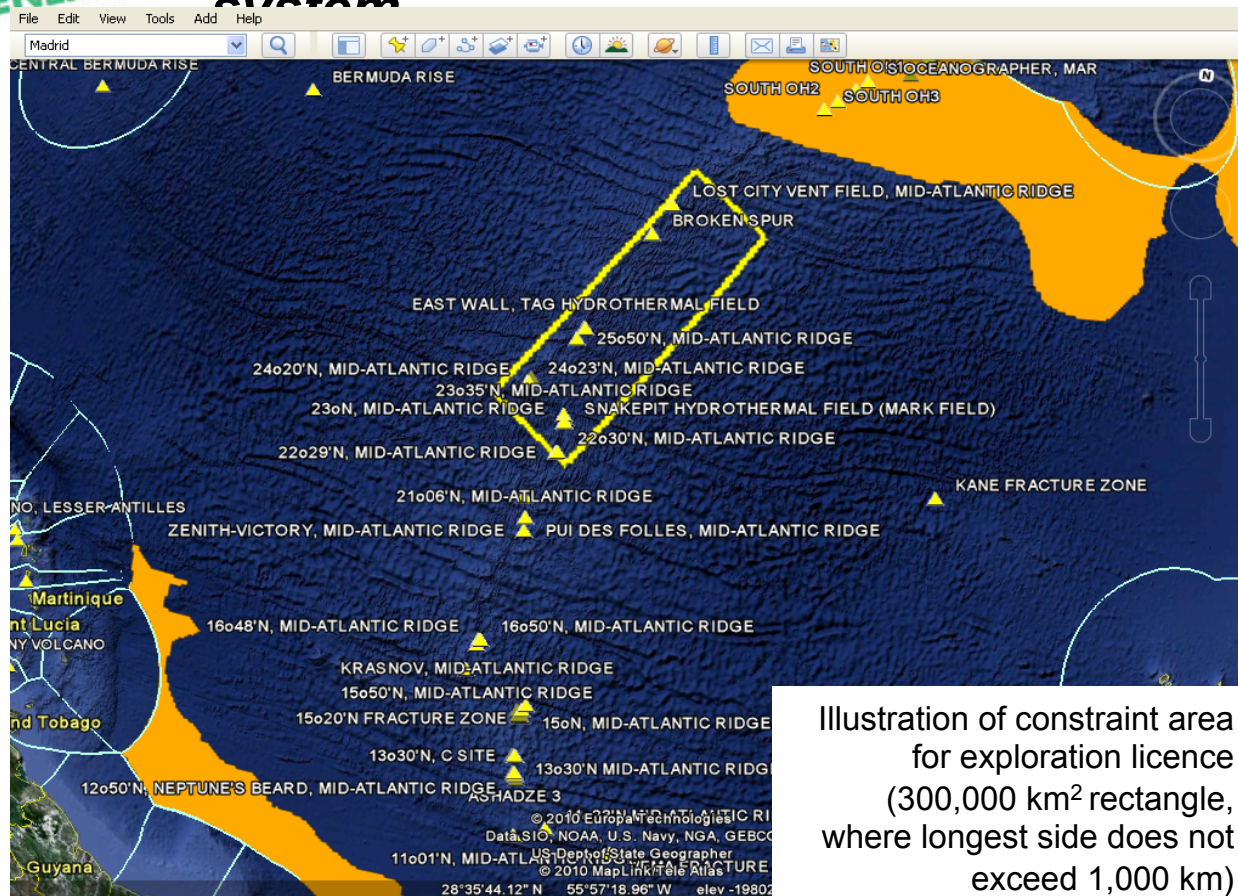


Prospecting and exploration *Polymetallic sulphides – block allocation system*

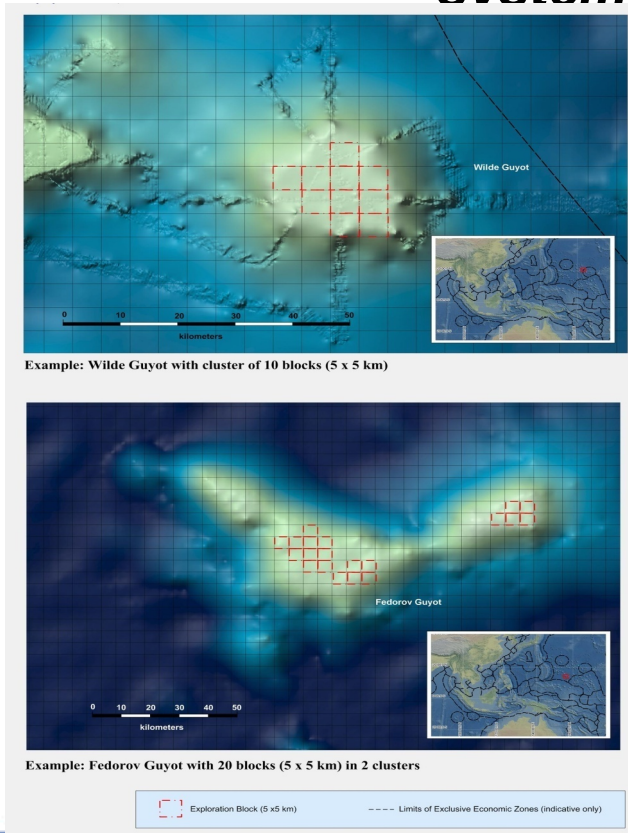
Maximum 100 blocks (10 km x 10 km). Map shows hypothetical example of distribution of clusters of contiguous blocks within a constraint area superimposed on known resource distribution in the Central Atlantic.



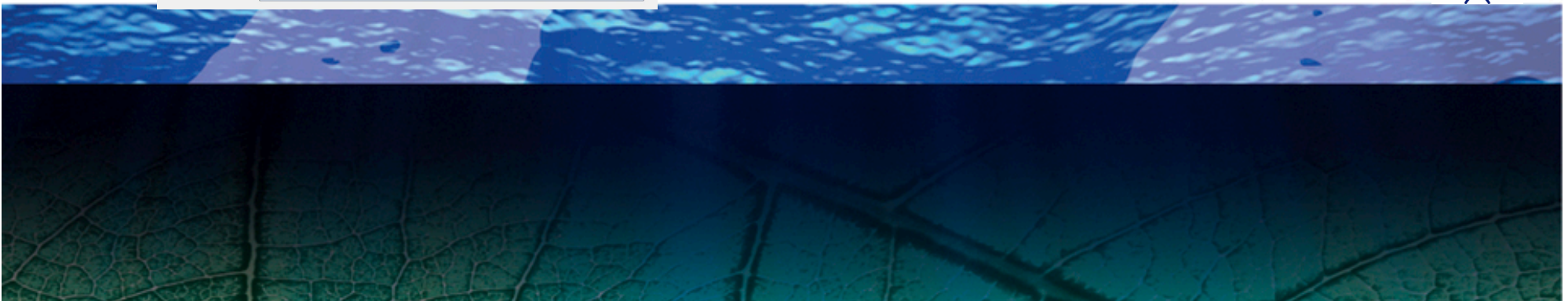
**Prospecting and exploration
 Polymetallic sulphides – block allocation
 system**



Prospecting and exploration *Cobalt-rich crusts – block allocation system*



- ❑ Regulations under development: possibly to be adopted in 2011.
- ❑ Proposal is 100 exploration blocks where each block is 5 x 5 km in size, organized into 8 clusters of contiguous blocks.
- ❑ Total exploration area 2,500 Km², to be relinquished down to 500 km²
- ❑ Option to offer joint venture in lieu of reserved area.

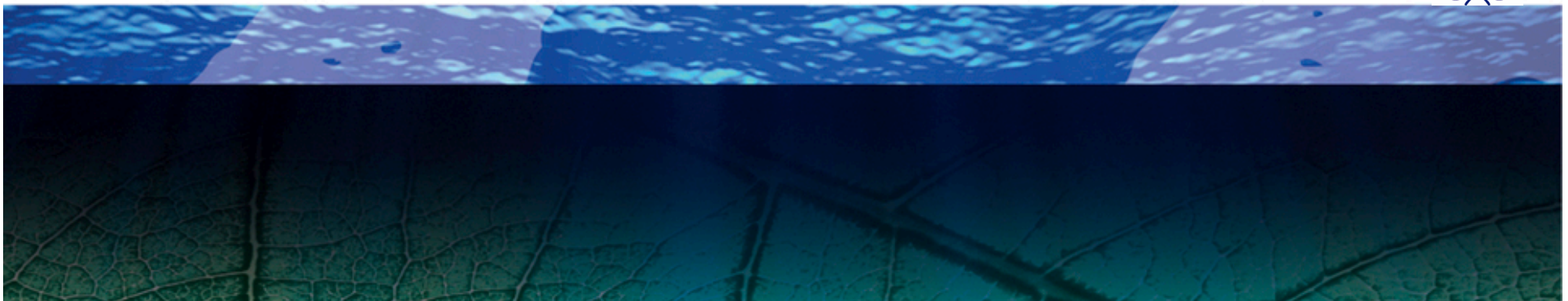


**Prospecting and exploration
Consideration of applications for exploration
licenses**

Legal and Technical Commission reviews and makes recommendation to the ...

Council, which shall approve the application unless disapproved by two-thirds majority including a majority in each chamber

Then a Contract issued by Secretary-General in standard format



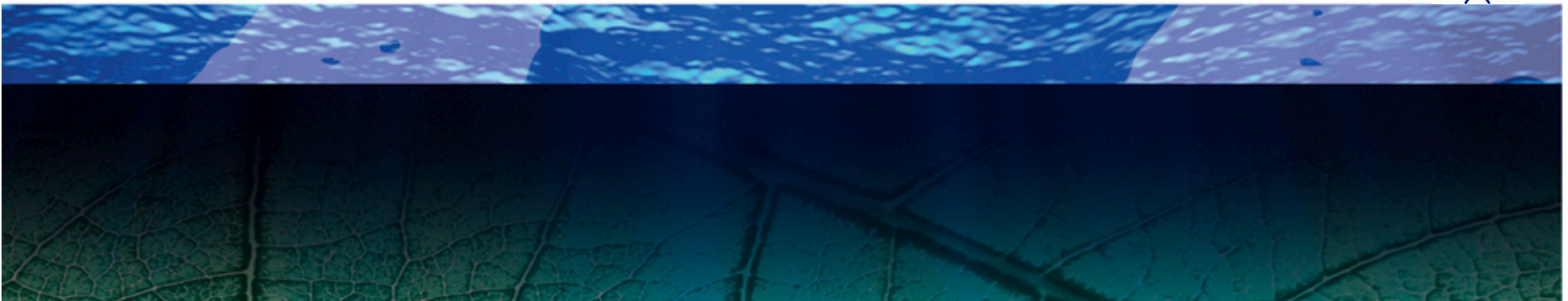
Prospecting and exploration
Content of standard exploration contract

- Standard contract terms in Annex 4 of Regulations.
- 15 year duration, extension for 5 years in ‘exceptional circumstances’.
- Schedule of progressive relinquishment of exploration area
- Mandatory training programme for personnel of developing countries.
- Annual reporting requirement to the Authority.
- Minimum exploration expenditure requirement.
- Preference over other applicants for exploitation of same area.
- Strict limitations on use of and access to confidential data, e.g. commercially sensitive data on ore grade, abundance and metal content. Note that environmental data not considered confidential, but proprietary data (e.g. equipment design) always considered confidential.



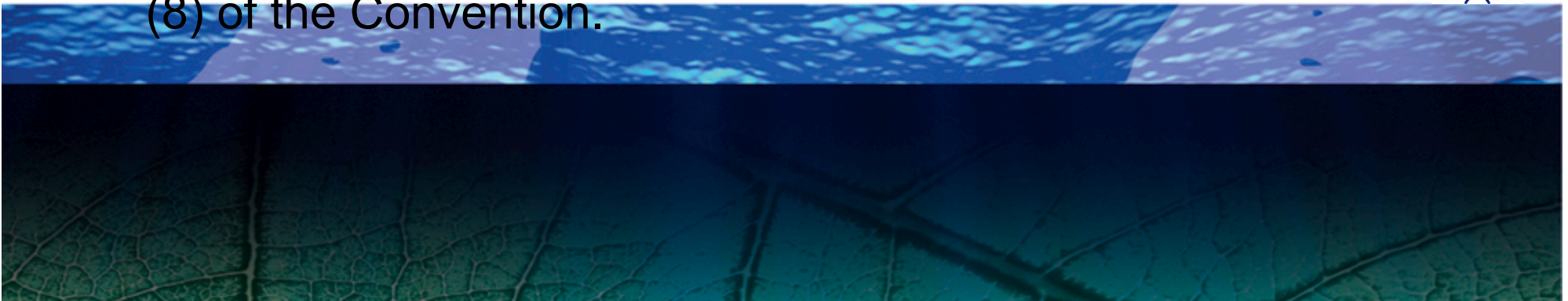
Prospecting and exploration
Suspension and termination of contract

- ❑ Contract may be suspended or terminated in case of:
 - Termination of sponsorship;
 - Serious persistent and wilful violations;
 - Failure to comply with final binding decision of Court or Tribunal;
or
 - Insolvency.
- ❑ Monetary penalties may be imposed by Council for breach of contract.
- ❑ Disputes to be settled in accordance with Part XI, Section 5, of the Convention, including recourse to Seabed Disputes Chamber.



Prospecting and exploration *Responsibility and liability*

- Contractor liable for damage arising from wrongful acts or omissions.
- Authority liable for damage arising from wrongful acts or omissions, including vicarious liability under article 168 of the Convention.
- Sponsoring States liable unless taken “all necessary and effective measures to ensure compliance” (includes adequate national regulatory system).
- Personal liability on members of Legal and Technical Commission and Secretariat staff for abuse under article 168 (8) of the Convention.



The regulatory regime for deep seabed mining

Outline

Fundamental principles and sources of law

Status of the Mining Code

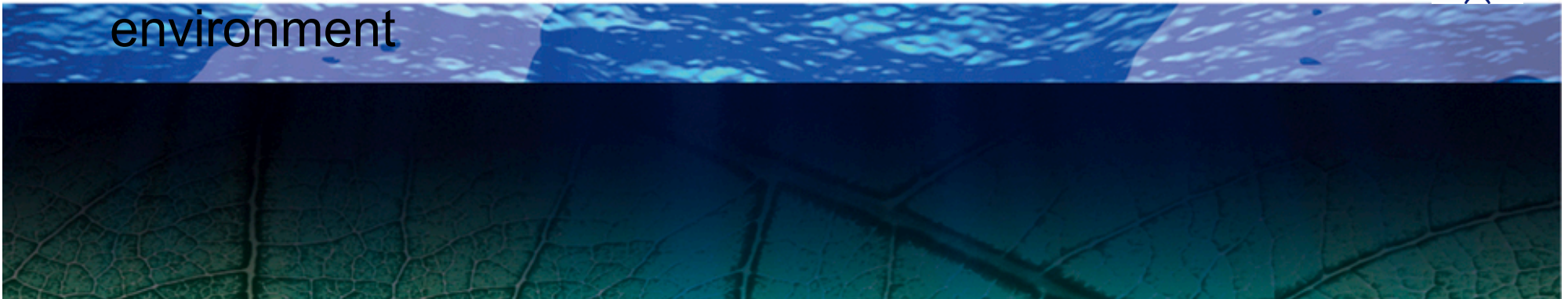
Prospecting and exploration

Environmental protection

Exploitation

The “Reserved Areas”

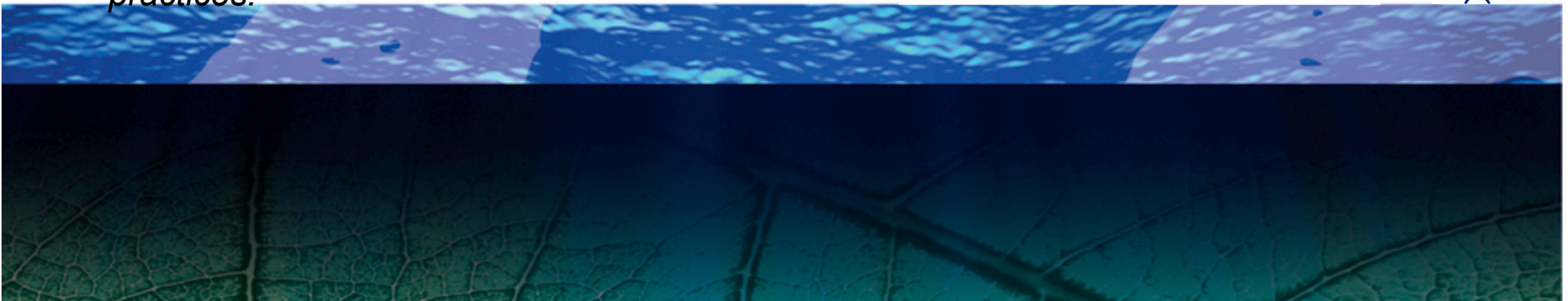
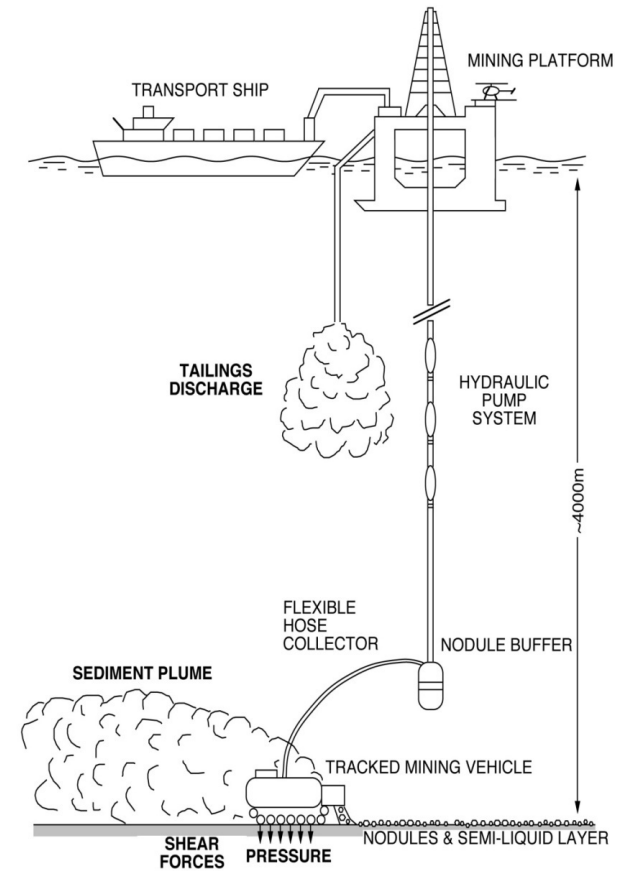
Deep seabed activities and other activities in the marine environment



Environmental protection *Fundamental responsibility*

Reg 33(1): The Authority shall, in accordance with the Convention and the Agreement, establish and keep under periodic review environmental rules, regulations and procedures to ensure effective protection for the marine environment from harmful effects which may arise from activities in the Area.

Reg 33(2): In order to ensure effective protection for the marine environment from harmful effects which may arise from activities in the Area, the Authority and sponsoring States shall apply a precautionary approach, as reflected in principle 15 of the Rio Declaration, and best environmental practices.



Environmental protection
Obligations and responsibilities on all parties

The Authority

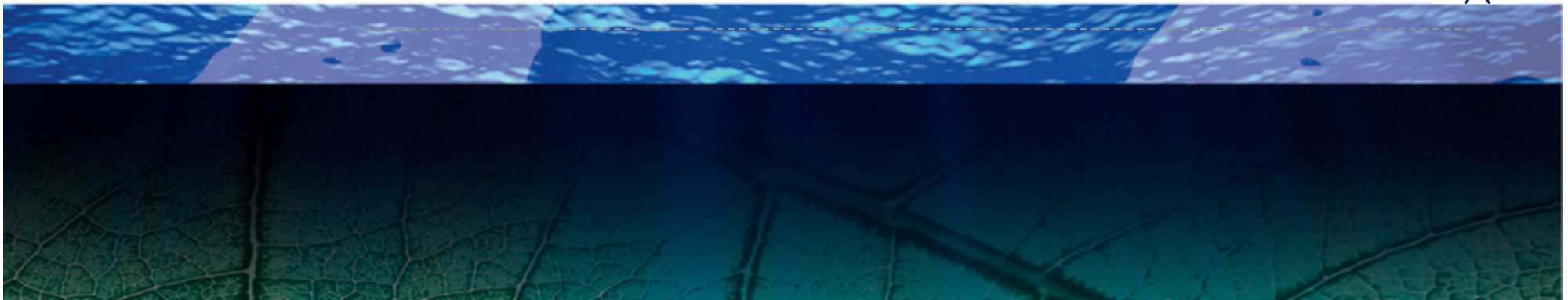
- Establish and keep under review environmental rules, regulations and procedures.
- Apply a precautionary approach.
- Develop and implement programmes for monitoring and evaluating impacts of mining on marine environment.

The Contractor

- Include environmental information with application (Reg. 20).
- Take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment, applying a precautionary approach and best environmental practices.
- Cooperate with Authority in establishment and implementation of monitoring and evaluation programmes.
- Gather environmental baseline data and establish baselines, taking account of any recommendations issued by the Legal and Technical Commission.
- Report annually to the Authority.

The Legal and
Technical
Commission

- Make recommendations to Council on implementation of Regulation 33(1) and (2).
- Consider annual reports of contractors.
- Issue Recommendations for Guidance of Contractors.
- Other powers under article 165.



The regulatory regime for deep seabed mining

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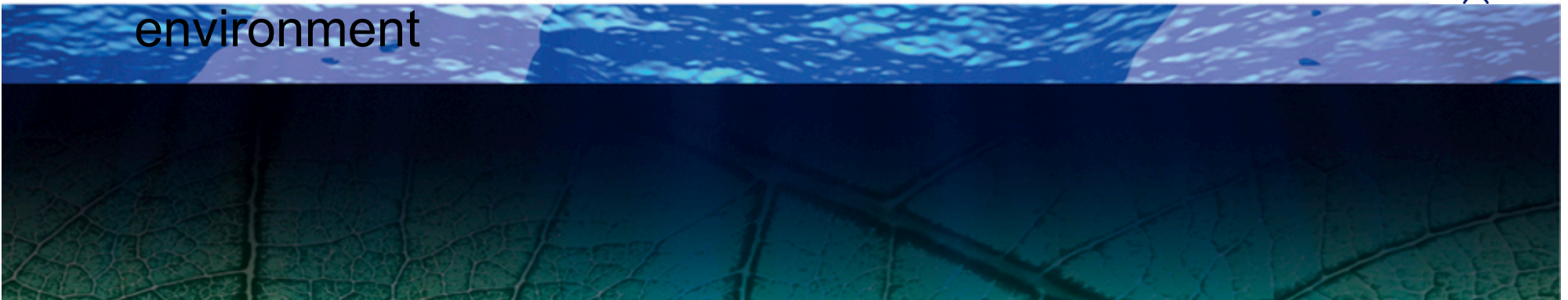
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Deep seabed activities and other activities in the marine environment



Exploitation *Future work for the Authority*

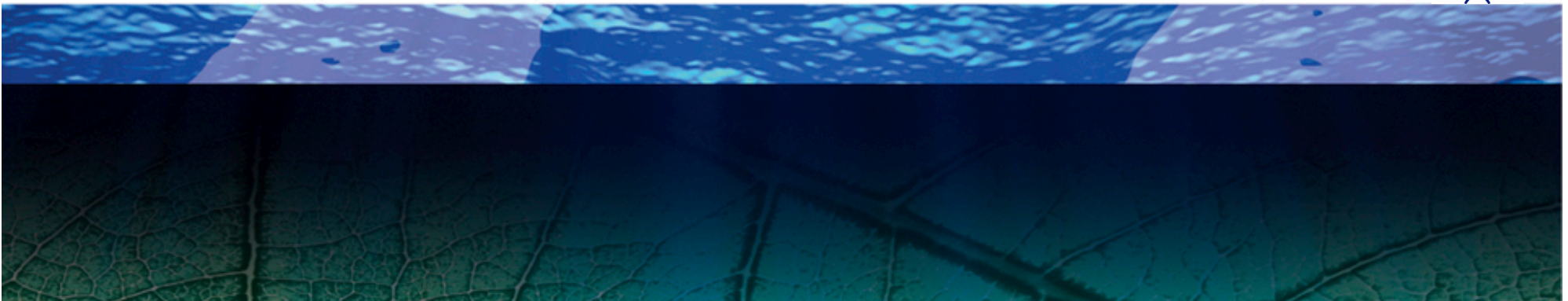
Regulatory framework for exploitation does not exist.

❑ **Exploitation**

- Recovery for commercial purposes and extraction of minerals.
- Construction of mining, processing and transportation systems.
- To be conducted under licence from Authority.

❑ **Financial terms (1994 Agreement, Annex, Section 8)**

- System should be fair to both Authority and contractor and comparable to land-based mining.
- System should not be complicated.
- Should be an annual fixed fee.
- Consideration should be given to royalty system.



The regulatory regime for deep seabed mining

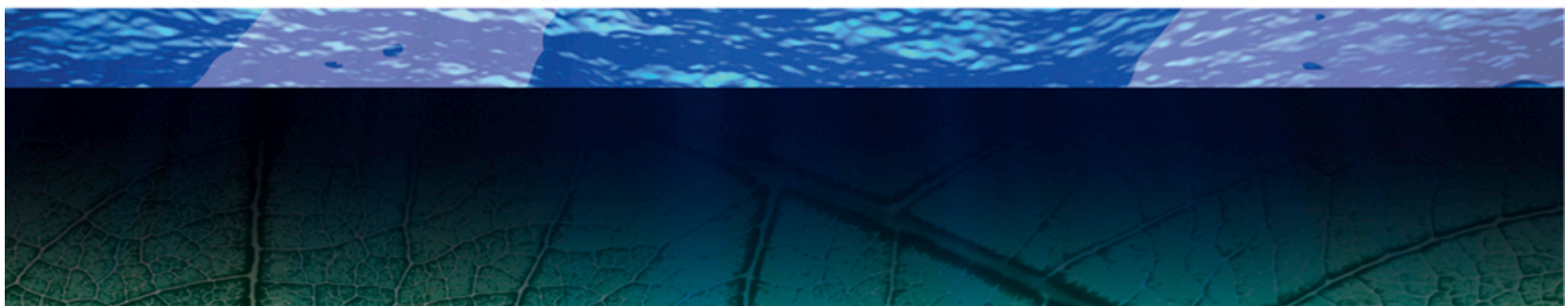
Outline

Fundamental principles and sources of law

- Status of the Mining Code
- Prospecting and exploration
- Environmental protection
- Exploitation

The “Reserved Areas”

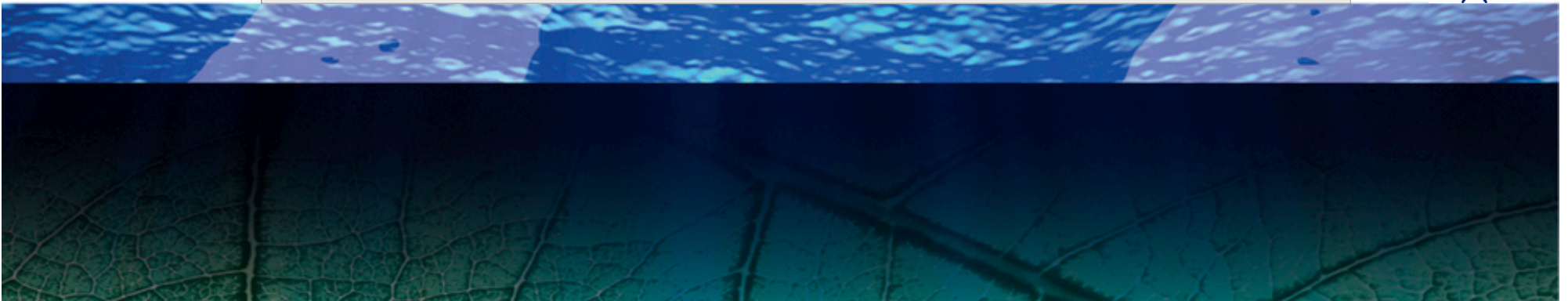
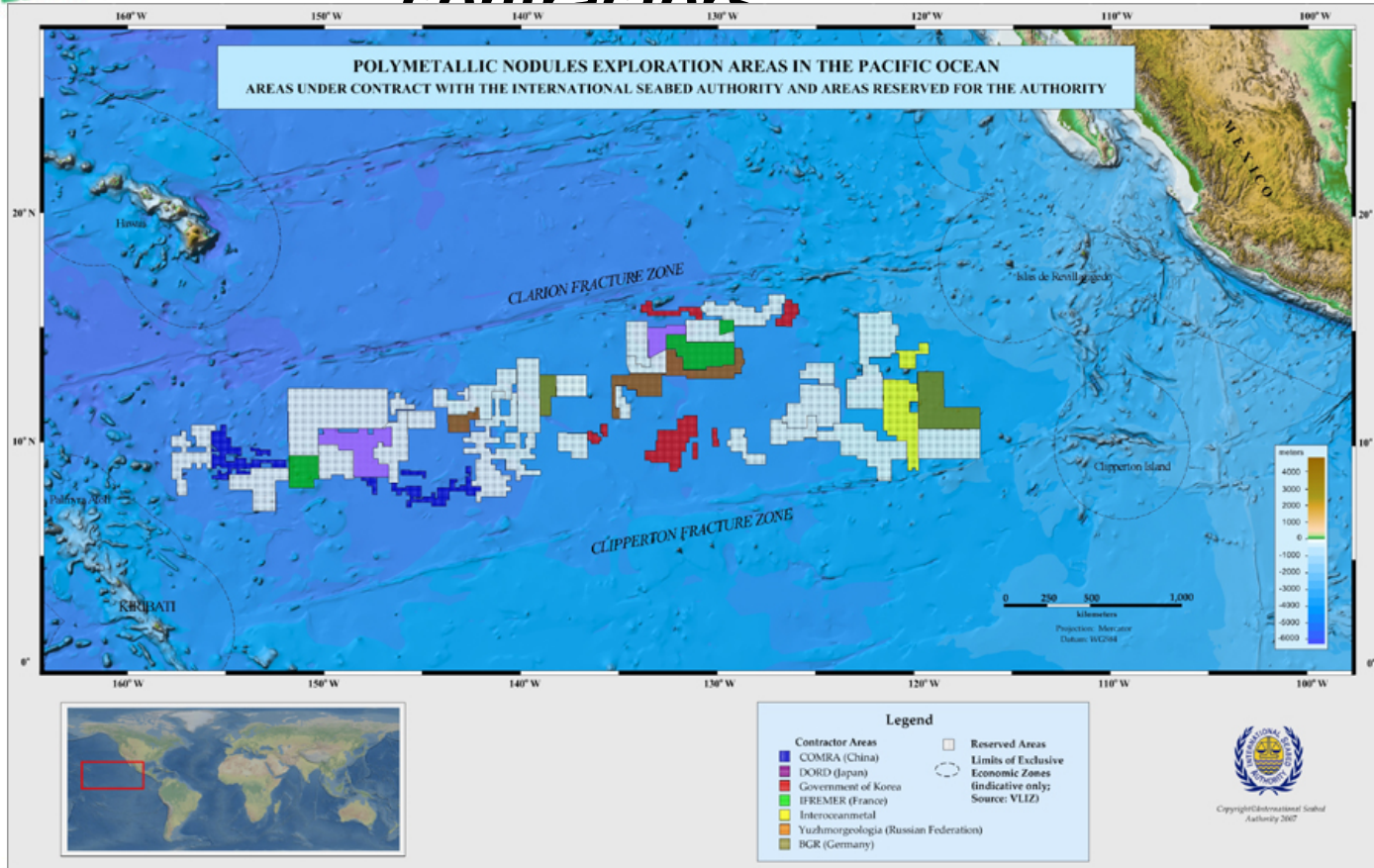
Deep seabed activities and other activities in the marine environment



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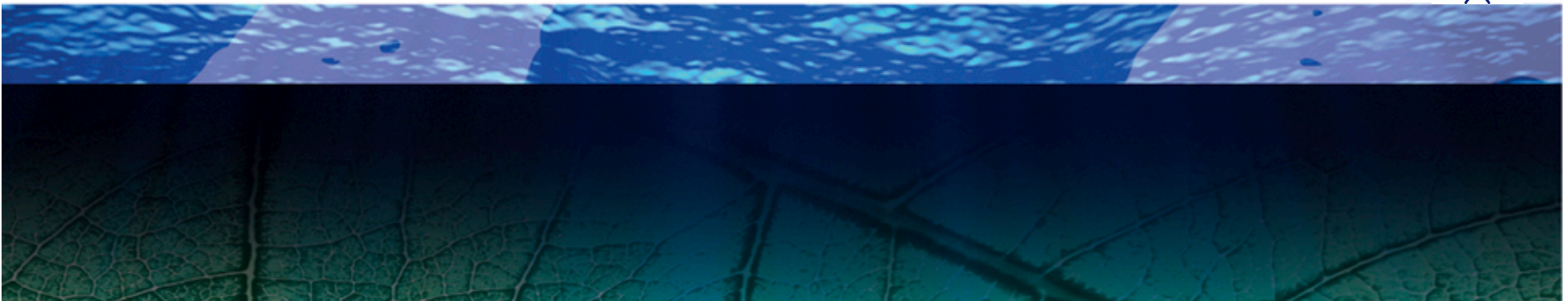
GREEN SHIPPING
SUSTAINABLE ENERGY

The “Reserved Areas” Areas contributed by existing contractors



The “Reserved Areas” *Annex III and 1994 Agreement*

- Reserved Areas open to application by:
 - The Enterprise;
 - Any developing State Party;
 - A natural or juridical person sponsored by and effectively controlled by a developing State Party.
- Advantage is that reserved areas known to have commercial value: no need for prior prospecting to identify potential site.
- If not used within 15 years, may revert to original contributor.
- Same contract terms and conditions apply as to any other contractor.



The regulatory regime for deep seabed mining

Outline

Fundamental principles and sources of law

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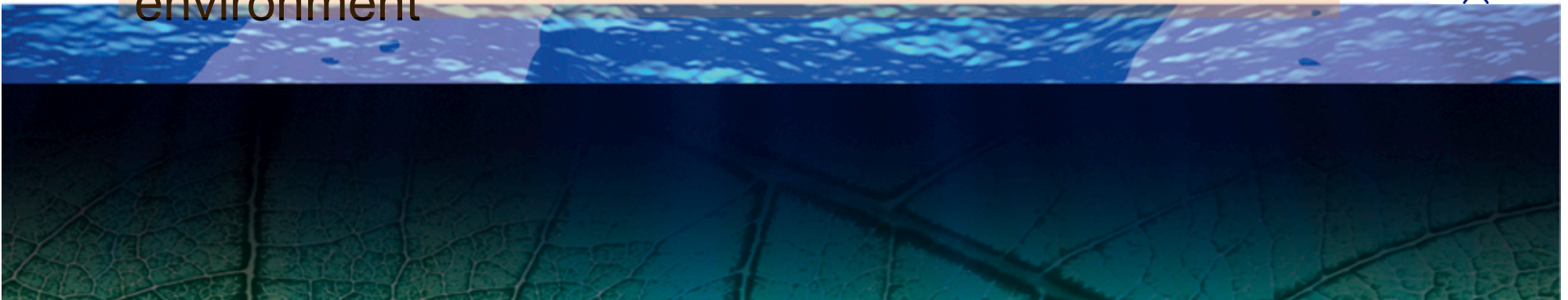
Prospecting and exploration

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Exploitation

The “Reserved Areas”

Deep seabed activities and other activities in the marine environment



Deep seabed activities and other activities in the marine environment

Article 147

- Activities in the Area to be carried out with reasonable regard for other activities in the marine environment.
- Other activities in the marine environment to be conducted with reasonable regard for activities in the Area.

Article 87

- Freedom of the high seas (freedom of navigation, freedom of overflight, freedom to lay submarine cables and pipelines, freedom to construct artificial islands and other installations, freedom of fishing, freedom of scientific research) to be exercised by all States with due regard for the interests of other States in their exercise of the freedom of the high seas, and also with due regard for the rights under the LOSC with respect to activities in the Area.

Illustrations

- MoU ISA/International Oceanographic Commission of UNESCO.
- MoU ISA/International Committee for the Protection of Cables.
- MoU/OSPAR Commission (exchange of information, observer status; consultations with respect to the establishment of MPAs on the high seas; participation in the 2010 workshop on an environmental management plan for of a representative network of areas of particular environmental interest in the Clarion Clipperton Fracture Zone)
- Similarities of criteria for the selection of a representative network of areas in the CCZ (CBD criteria/FAO guidelines/ ISA criteria).



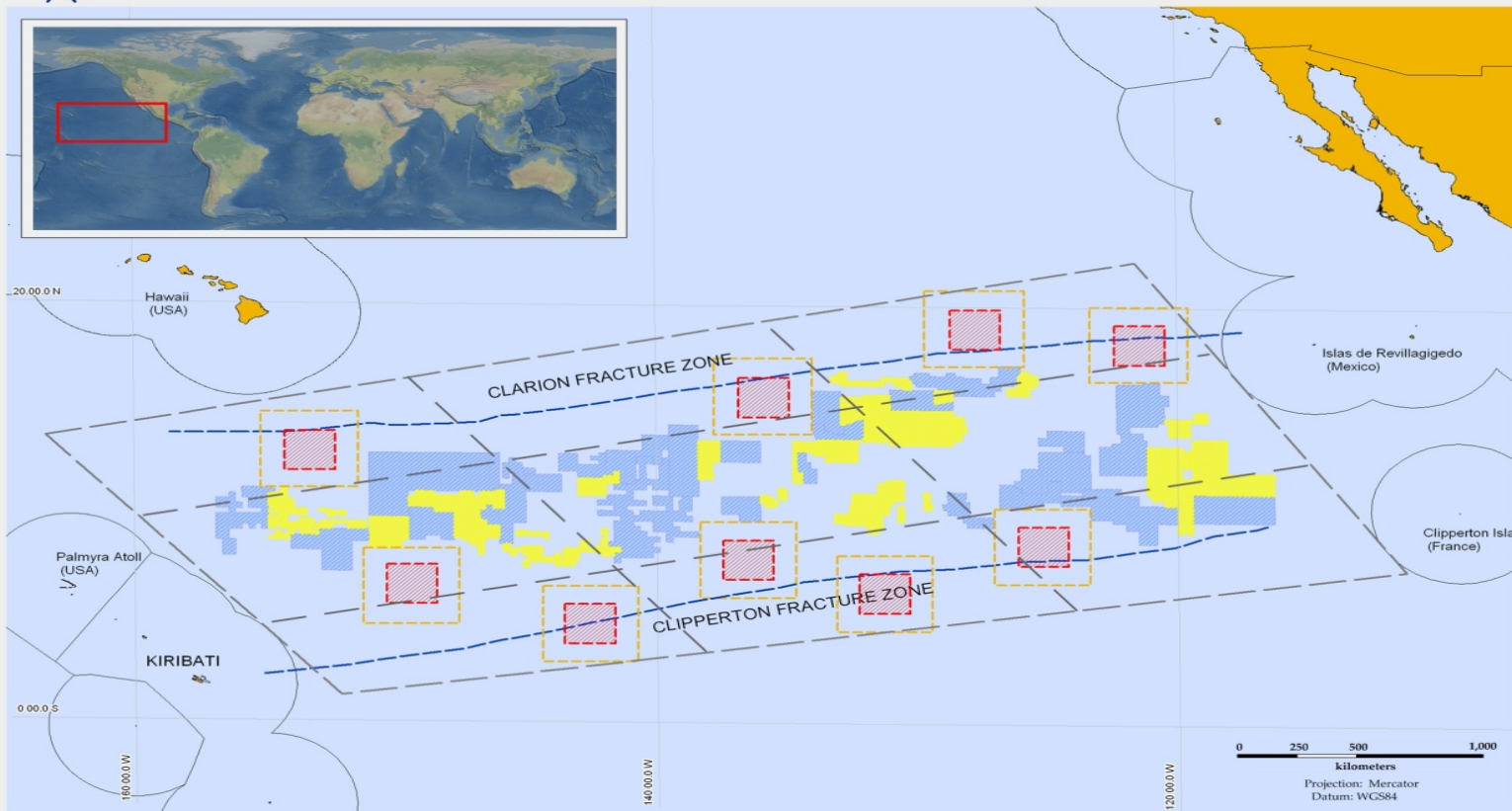
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Biogeographic Provinces and Proposed Areas of Particular Environmental Interest in the Clarion-Clipperton Fracture Zone

15 November 2010



- APEI core area (200 x 200 km)
- Buffer zone (400 x 400 km)
- Biogeographic Province
- Area reserved for the Authority
- Area under contract with the Authority



The regulatory regime for deep seabed mining

Conclusions

- Deep seabed mining regime is a Conventional regime.
- Contractual nature of relationship with Authority.
- Strong similarities to national mining regimes.
- Equal access to dispute settlement.
- Regulations for nodules and sulphides completed.
- Regulations for cobalt crusts should be completed in 2011.
- To date, regulations cover prospecting and exploration only.
- Need to develop terms and conditions for exploitation.
- What about resources for which no regulations exist?
- Cooperation among relevant organizations for a consistent approach for the management of marine activities.

