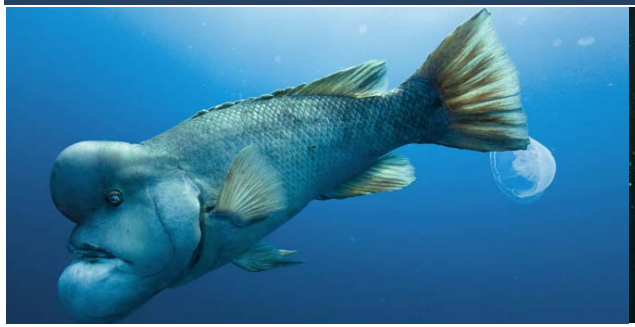
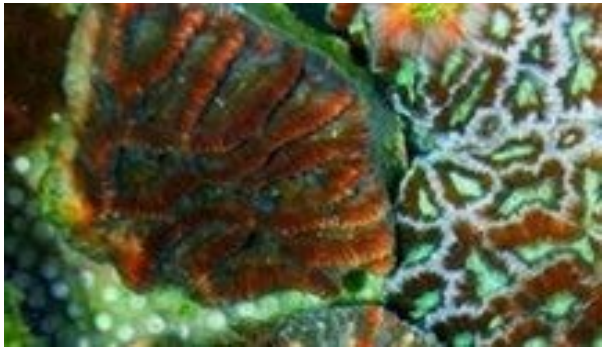
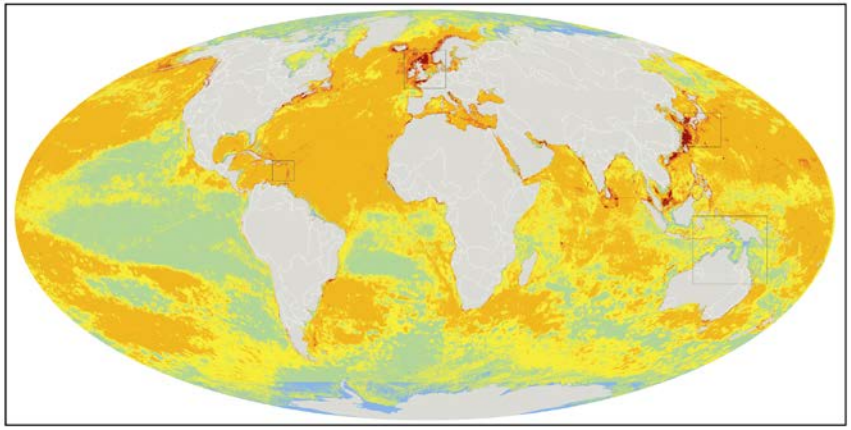
The international legal framework for the protection and sustainable use of marine biological diversity





PANEL ON THE MARINE ENVIRONMENT

Conference on Attaining the Sustainable Development Goals

Asia Pacific Centre for Environmental Law, 20th Anniversary Celebrations

Singapore, 10-11 November 2016

Youna Lyons and Denise Cheong

Centre for International Law

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Outline

Introduction - Marine vs. terrestrial biodiversity

1. **UNCLOS, the cornerstone of the protection of marine biodiversity, a subset of the marine environment**
2. **Conservation treaties**
3. **Instruments that regulate ocean uses and activities**
4. **A fragmented but coherent framework with some gaps and serious weaknesses**
5. **Biodiversity Beyond National Jurisdiction (BBNJ)**

Conclusion

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Introduction – Marine vs. Terrestrial Biodiversity

- **Most comprehensive and legally binding definition of biodiversity is in the Convention on Biological Diversity (CBD)**
- ***Biodiversity*** means the variability among living organisms (…) and the ecological complexes of which they are part; this includes *diversity within species, between species and of ecosystems.*
- **Emphasis on the number of species (species richness) and their distribution, a terrestrial approach to biodiversity**
- **The marine realm has generally less endemism (except in some insular locations) due to the movement of organisms in the water column**
- **There are also less species in the ocean but a larger representation of taxa. So marine biodiversity studies rely on different types of assessment (incl. geomorpholy, phylogenetics and species assemblages)**

I- UNCLOS

Is the cornerstone of the protection of the marine environment and biodiversity 1/4

UNCLOS' marine environment includes marine biodiversity

- **Overarching obligation to protect and preserve the marine environment is provided in the first article of Part XII of UNCLOS dedicated to the protection of the marine environment (art. 192)**
- **It is further described as including an obligation to take measures "necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species"(art. 194(5))**
- **UNCLOS also sets out the obligations of States to protect and preserve the marine environment from pollution generated by specific activities (dumping, shipping, seabed mining, etc.)**
- **Pollution is defined very widely to include the introduction by man, directly or indirectly, of substances or energy into the marine environment (…) which result or is likely to result in (…) harm to living resources and marine life (...)**
- **Therefore the obligation to protect and preserve the marine environment includes the protection of marine biodiversity**

I- UNCLOS

Is the cornerstone of the protection of the marine environment and biodiversity 2/4

The CBD operationalizes components of the obligation to protect the marine environment, esp. re. identification of marine biodiversity

- **The objective of the CBD is the conservation AND sustainable use of biodiversity**
- **However, it essentially provides guidance for the identification of areas of a particular biodiversity value that warrant a certain level of protection**
- **Unlike UNCLOS, it does not regulate uses of these areas**
- **Identification of Ecologically and Biologically Sensitive Areas under the CBD (EBSAs) is a mere scientific exercise which does not necessarily mean that a Marine Protected Area should be designated in the areas identified [clear in the COP resolutions that adopted and discussed the criteria]**
- **Regulation of uses and activities are left to the relevant sectoral regime**
- **UNCLOS is the only instrument that seeks to regulate all the activities at sea**

I- UNCLOS

Is the cornerstone of the protection of the marine environment and biodiversity

UNCLOS provides 'teeth' to the obligation to identify, conserve and sustainably use marine biodiversity

- UNCLOS' obligation to protect and preserve the marine environment is a precondition to the right to exploit living and non-living resources
- The standard of this obligation to protect and preserve the marine environment is described in UNCLOS for some activities and some types of pollution but not for all
- In order to assess whether States had breached this obligation, International courts/tribunal have interpreted it as an obligation of due diligence
- An obligation 'to deploy adequate means to exercise best possible efforts, to do the utmost to obtain this result'
- 'Due diligence' is a 'variable concept' that 'may change over time as measures considered sufficiently diligent at a certain moment may become not diligent enough in light, for instance, of new scientific or technological knowledge'

I- UNCLOS

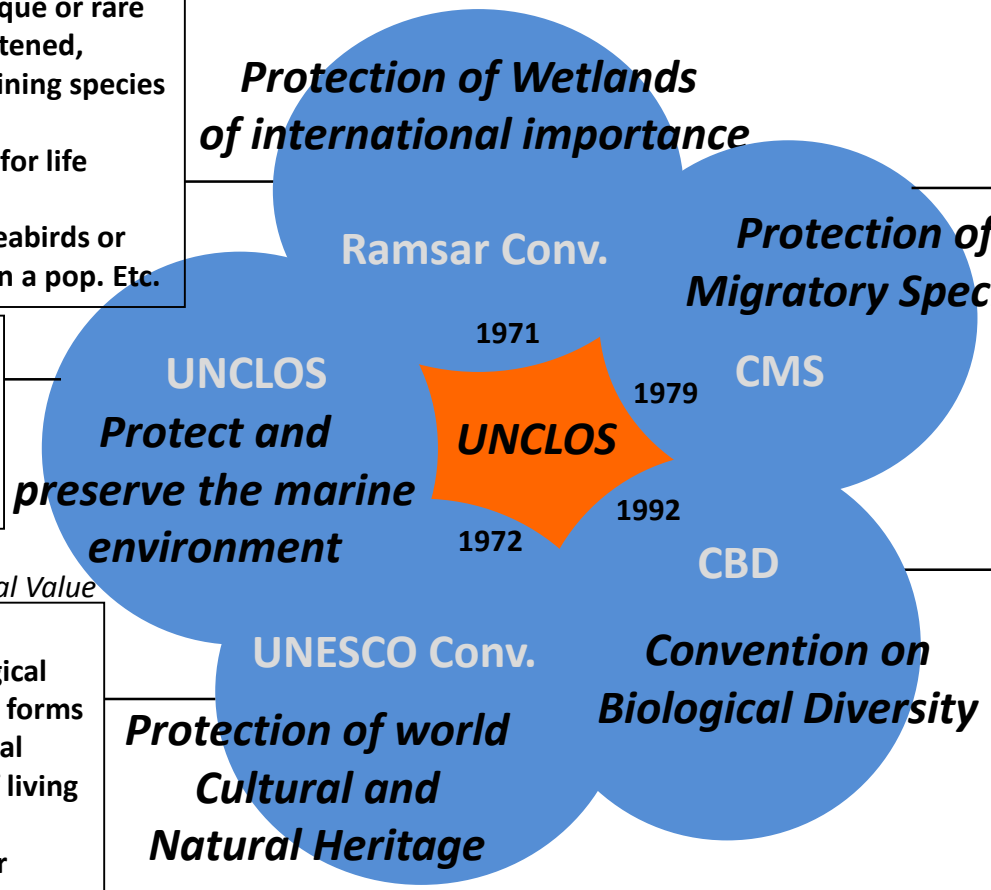
Is the cornerstone of the protection of the marine environment and biodiversity 4/4

Due diligence obligation to apply a precautionary approach, best envt'l practices and protect threatened and endangered species

- This due diligence obligation has also been interpreted as including the obligation to apply a precautionary approach and best environmental practices
- When interpreted in the context of the obligation to take measures necessary to protect and preserve rare or fragile ecosystems and endangered species, it has been further described as including:
  (1) an obligation to prevent harvesting of species that are recognised internationally as being at risk of extinction and requiring international protection and,
  (2) an obligation to prevent the destruction of the habitat of depleted, threatened or endangered species
- This ruling concerns the harvesting of giant clams and sea turtles in the SCS but it also applies to other endangered species: dugongs, rays and sharks, napoleon wrasse, hard and soft corals, dolphins, etc. It also extends to fisheries practices that destroy their marine habitats

II- Conservation Treaties

Identify marine sensitive env.



- Representative, unique or rare
- Important for threatened, endangered or declining species
- Biological diversity
- Special importance for life history of species
- Supports >20,000 seabirds or >1% of individuals in a pop. Etc.

- Threatened and endangered migratory species
- Migration routes and corridors
- E.g. dugongs, sea turtles, sharks

- Rare or fragile ecosystems
- Habitat of depleted, threatened or endangered species and other forms of marine life

EBSAs

Ecologically and Biologically Significant Areas

- Uniqueness and rarity
- Special importance for life history of species (and pop)
- Importance for threatened, endangered, declining species/hab.
- Vulnerability, fragility, sensitivity
- Biological Productivity
- Biological Diversity
- Naturalness
- Representativity
- Connectivity
- Replicated ecological features
- Adequate viable site

OUVs *of Outstanding Universal Value*

- Ex. of major stages of earth history/ecological and biological processes in the dvpt of land forms
- Ex. of ecological and biological processes in the evolution of living systems
- Significant natural habitat for biodiversity

Maritime States must engage in the identification of sensitive marine environments under UNCLOS and conservation treaties in order to manage them adequately

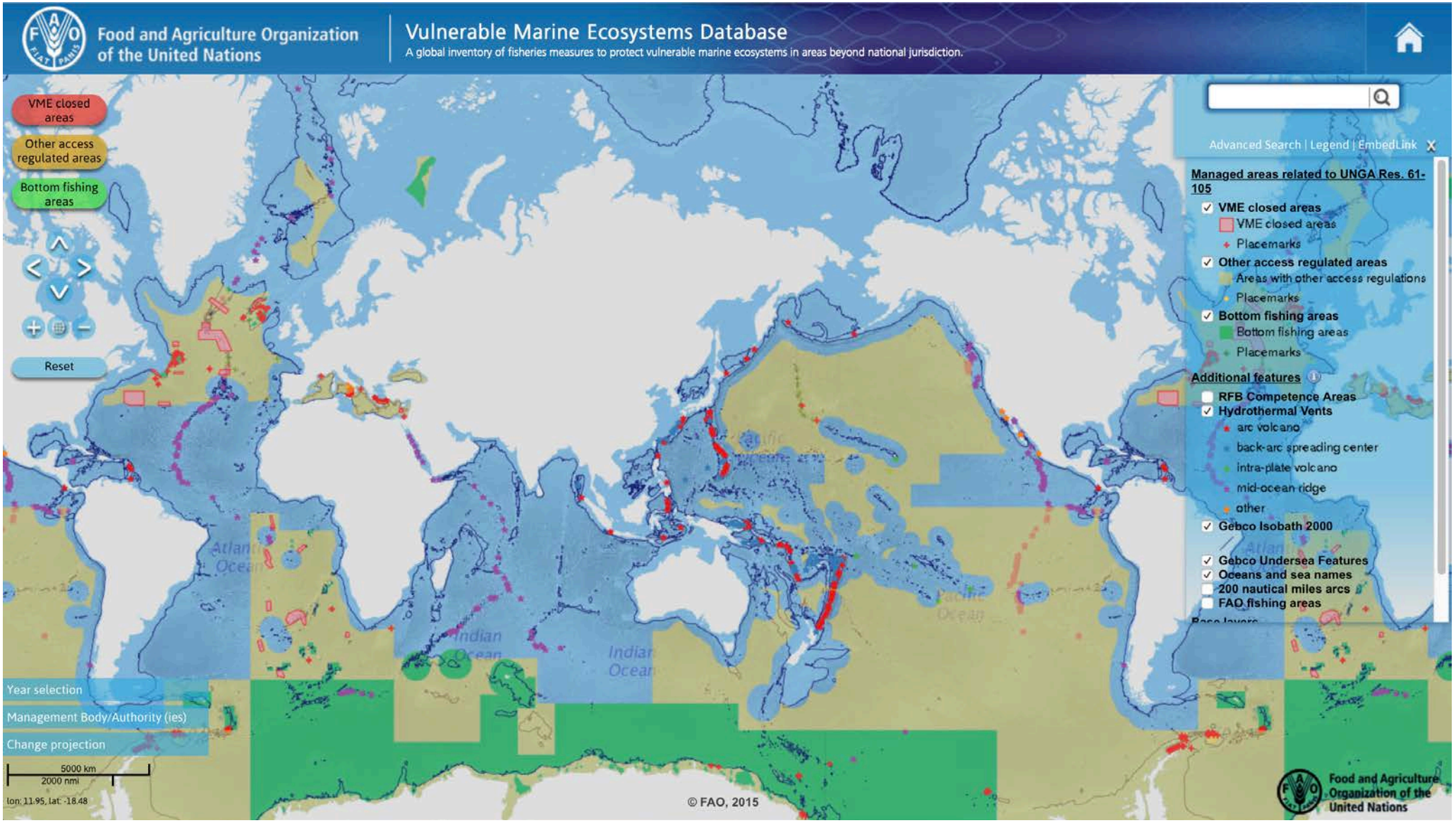
III- Instruments that regulate ocean uses

Lower pollution threshold accepted in sensitive areas

Shipping (IMO)	**Special Area under MARPOL, Routeing measures** **Particularly Sensitive Sea Areas (PSSAs)** **More stringent rules under Ballast Water Mgt Convention**
Deep Seabed Mining (ISA)	**Areas of Particular Environmental Interest (APEIs)**
High Seas Fisheries (FAO)	**Vulnerable Marine Ecosystems (VMEs)**

III- Instruments that regulate ocean uses

Examples of VMEs for fishing



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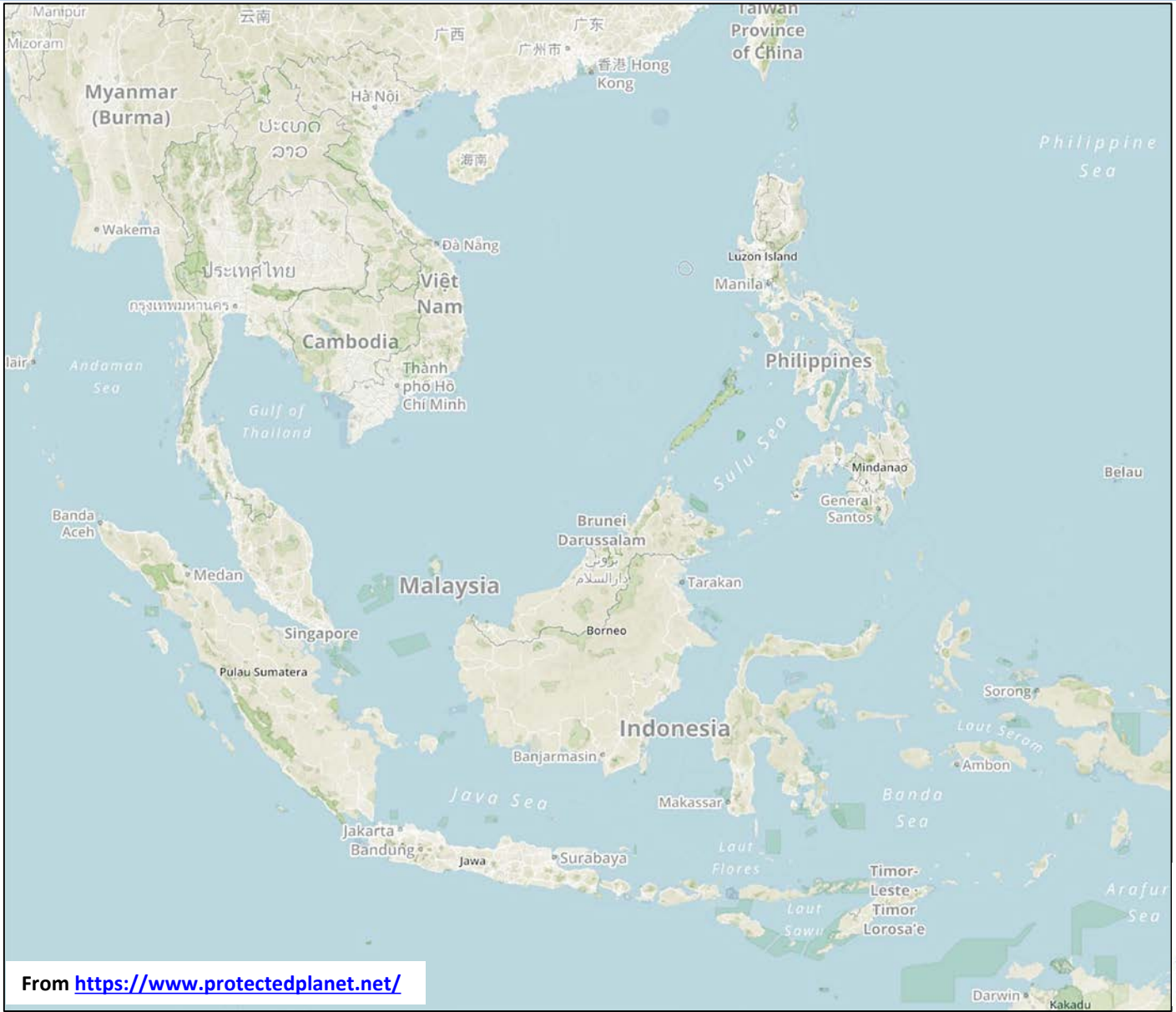
High Seas Fisheries (FAO)	**Vulnerable Marine Ecosystems (VMEs)**
Dumping (COP LC/LP)	**Avoiding sensitive areas when determining dumping sites (e.g. critical habitats)**
International Trade of Wildlife (CITES)	**Stringent scrutiny and rules for international trade of species listed as potentially threatened or endangered in Appendices**

UNCLOS provides the underlying framework for these and other activities that can also be regulated by regional seas instruments

III- Instruments that regulate ocean uses

Moving towards mapping of all protected areas



From https://www.protectedplanet.net/

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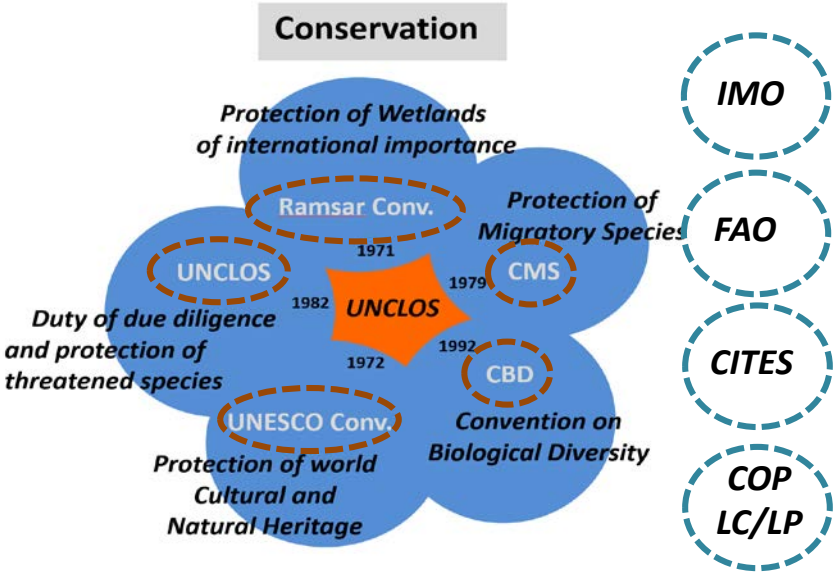
IV- A fragmented but coherent framework

With coordination mechanisms needed at int'l, reg'l and nat'l levels



Regulation of pollution/management of activities	
Ship-source pollution: Oil, garbage, sewage, other toxic substances, invasive species, etc.	1973/78 MARPOL (Annexes 1 to 6) 1990 OPRC, IOPC Fund and Bunker Convention 1996/2010 HNS and 2000 OPRC-HNS (other toxic sub.) 2001 AFS, 2004 Ballast Water Management Conv. 2009 Ship Recycling Convention, etc.
Fisheries and Trade Shared and straddling stocks, overfishing, destruction fisheries practices, IUU, illegal trade of marine wildlife	1995 Fish Stock Agreement 2009 FAO Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing 1973 Convention on the Trade in Endangered Species (CITES)
Disposal of waste: Dredged sludge, sewage, bulk waste	1972 London Convention and 1996 Protocol on Dumping of Wastes and other Matters

Regional coordination and cooperation

National coordination for coherent implementation by agency in charge

Transport? | *Trade & Industry?* | *Fisheries, Forestry/ Agriculture?* | *Environment?* | *Energy?* | *Other?*

IV- A fragmented but coherent framework 2/2

Gaps and weaknesses

Three types of issues:

1. **Issues that concern activities that have not been envisaged at the time UNCLOS was negotiated and therefore do not have a sectoral regime with rules and guidelines; e.g. bioprospection (for MGRs) or aquaculture developments in the High Sea and to some extent ocean fertilization**
2. **Impacts from activities that were envisaged but require implementation agreements between States – These are gaps in implementation and typical examples are fisheries and pollution from offshore activities**
3. **Impacts of activities that fall outside the scope of an individual sectoral regime, for instance, ability to take into account cumulative impacts given limited mandates of regulating bodies – These are often linked to combined gaps in implementation and coordination**

V- Biodiversity Beyond National Jurisdiction

Main Issues

- **In 2015, the UNGA decided to develop an internationally binding legal instrument under the UNCLOS on the *conservation and sustainable use of biodiversity beyond national jurisdiction***
- **A Preparatory Committee was established to make substantive recommendations to the UNGA on the elements of a draft text by the end of 2017**
- **Two main threads of discussions:**

  1- Access to Marine Genetic Resources by developing States who would like to prevent appropriation of MGRs by developed States through patents

  2- Area-based management of the marine environment in Areas Beyond National Jurisdiction (including MPA networks and EIAs)

V- Biodiversity Beyond National Jurisdiction

Main Issues

- **Biodiversity in the context of bioprospection:**

  Exploitation of MGRs should not threaten marine biodiversity as it is not so much about racing to secure large volumes of the resource than it is about gaining new knowledge from samples obtained during research cruises which although infrequent, are costly to embark on; limited impact to the marine environment provided that Marine Scientific Research is undertaken in responsible ways

- **Biodiversity in the context of the protection of the marine environment**

  See previous slide on the gaps and weaknesses in the global framework

Summary and Reflections

- The protection of marine biodiversity is a subset of the protection of the marine environment and cannot be managed in isolation
- Areas that meet the criteria of ecological and biological significance should be considered together with other areas that would meet different criteria under other treaties
- Impact from different activities must be considered to determine activities that need to be restricted and identify the relevant sub-regime
- Tension between conservation and development is particularly acute for developing States and in time of economic recession
- However, the obligation to protect with due diligence is clear
- Greater political will is needed, together with science-based solutions that address legal and policy questions

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Thank you!

Questions?

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Source: Census of Marine Life:
http://www.comlmaps.org/extra/ngs/Ocean_Life_Diversity_Distribution-300dpi.pdf

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