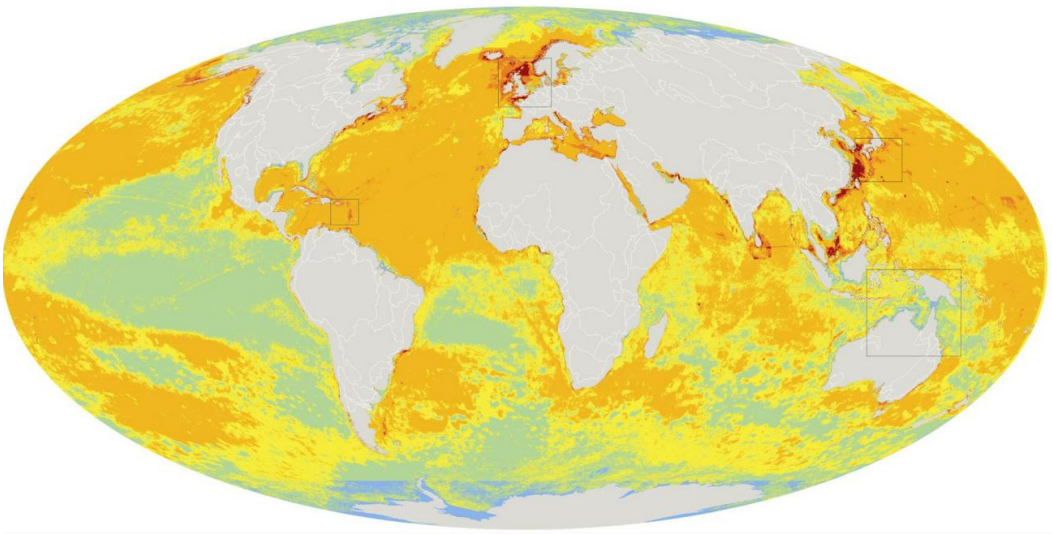
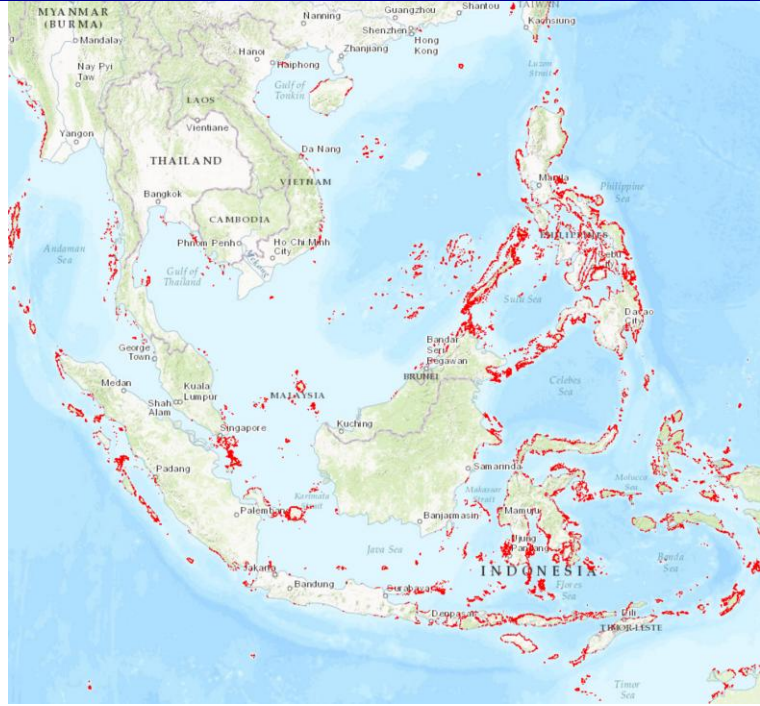


Marine Environmental Governance in Southeast Asia: A Review of Status and Gaps



Very Low Impact (<1.4) Medium Impact (4.95–8.47) High Impact (12–15.52)
Low Impact (1.4–4.95) Medium High Impact (8.47–12) Very High Impact (>15.52)



8th ASEAN REGIONAL FORUM INTER-SESSIONAL MEETING ON MARITIME SECURITY

Manila, 6 April 2016



Centre for International Law
National University of Singapore

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Outline

Introduction: What is the marine environment?

1. **Background: Southeast Asia is a 'hot spot' for many competing uses**
2. **Issues**
3. **Legal and institutional mechanisms at regional level**
4. **International legal framework**
5. **Gaps**

Conclusion

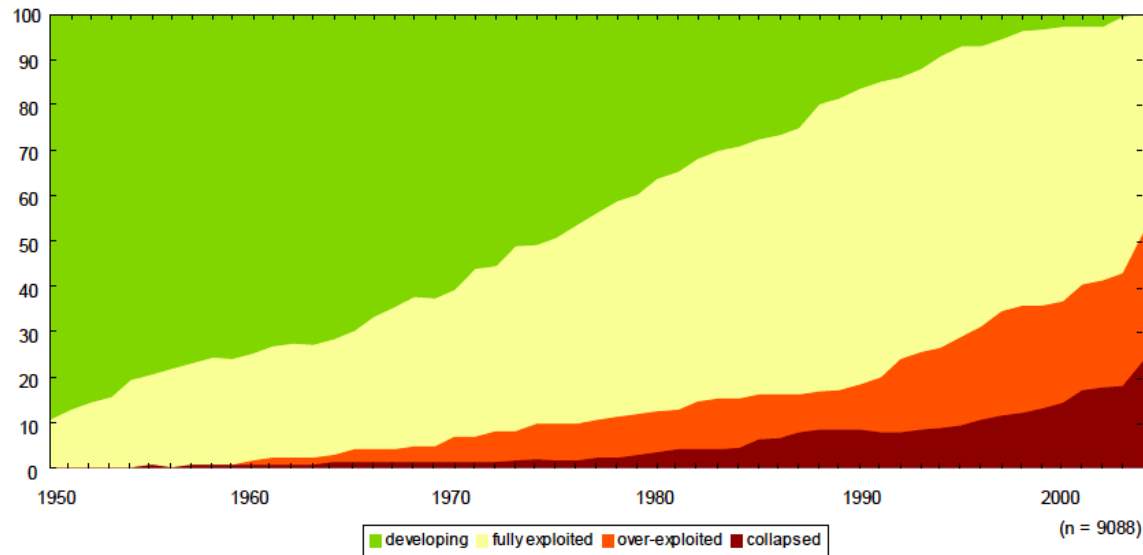


Introduction: What is the marine environment?

- Not defined in the United Nation Convention on the Law of the Sea (UNCLOS)
- However, according to the ISA Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and other subsequent regulations for other minerals:
‘Marine environment includes the physical, chemical, geological and biological components, conditions and factors which interact and determine the productivity, state, condition and quality of the marine ecosystem, the waters of the seas and oceans and the airspace above those waters, as well as the seabed and ocean floor and subsoil thereof’
[adopted in 2000 and amended in 2013]

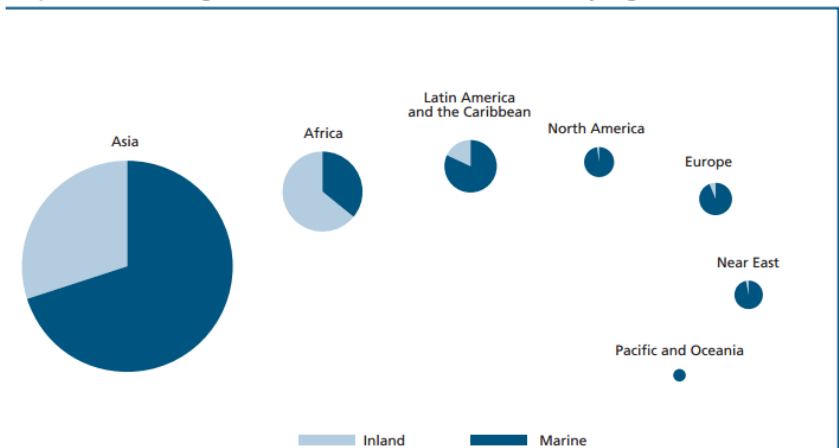
I- Background

1. Intensive use for competing activities : for fisheries, shipping, offshore mining, pipelines, coastal and marine tourism, waste disposal, etc.



Number of stocks by status (in %) from S Heileman on South China Sea LME on NOAA's website <http://coral.aims.gov.au/info/diversity-patterns.jsp>: http://www.lme.noaa.gov/index.php?option=com_content&view=article&id=82:lme36&catid=41:briefs&Itemid=72

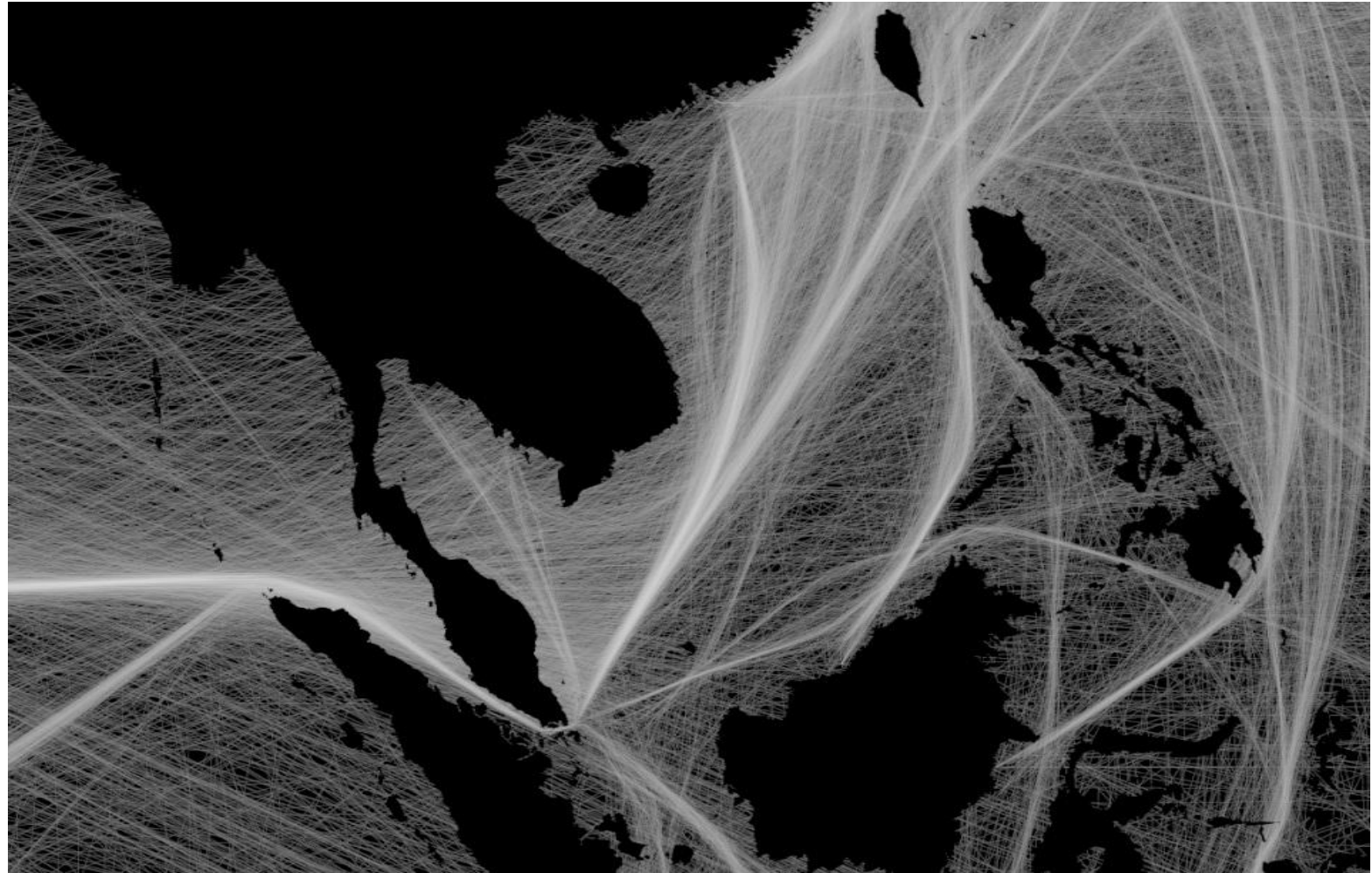
Proportion of fishing vessels in marine and inland waters by region in 2012



Extracted from FAO State of World Fisheries and Aquaculture 2014

I- Background

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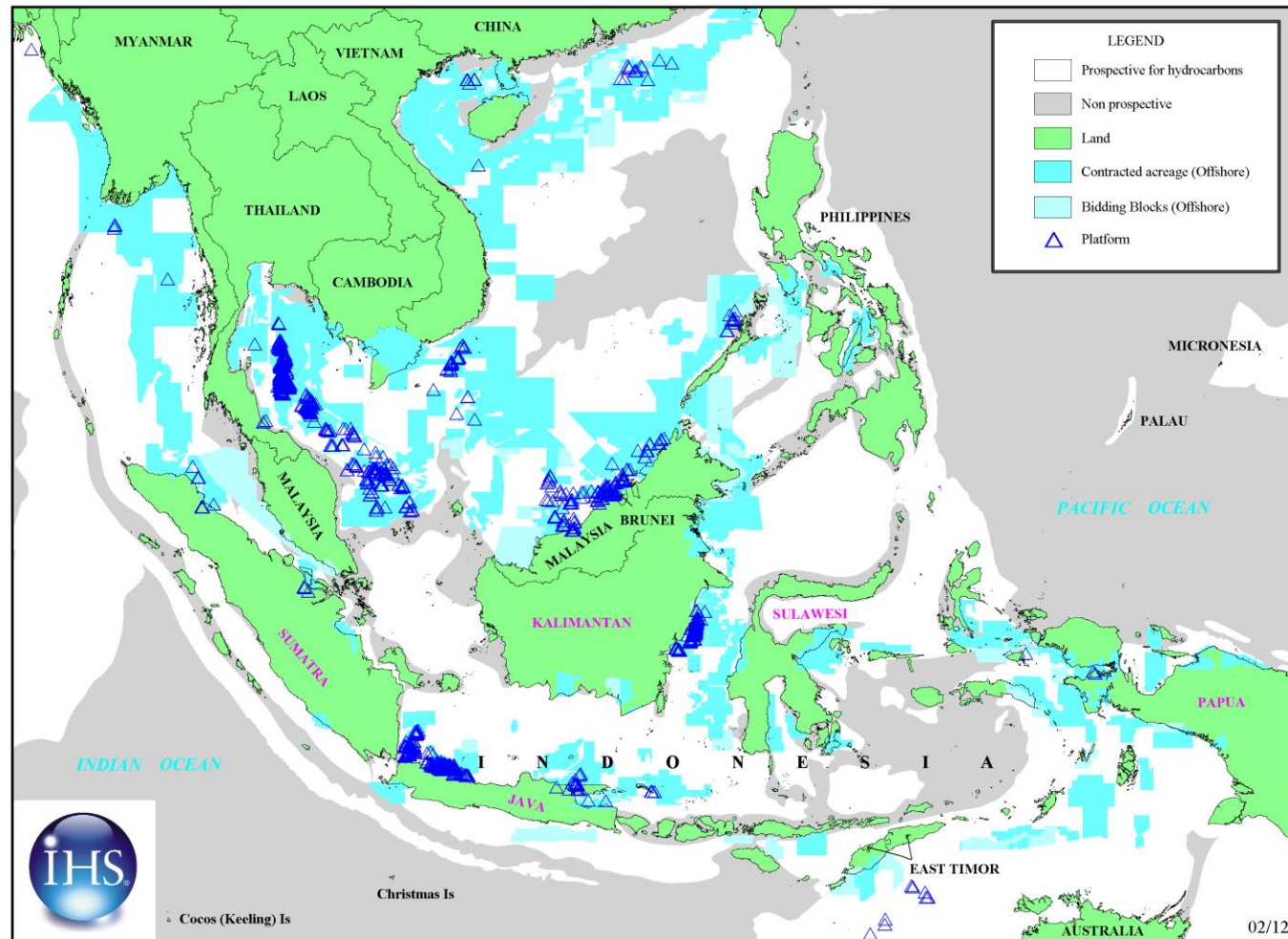


From the National Center for
Ecological Analysis and
Synthesis:

<http://www.nceas.ucsb.edu/globalmarine/impacts>

I- Background

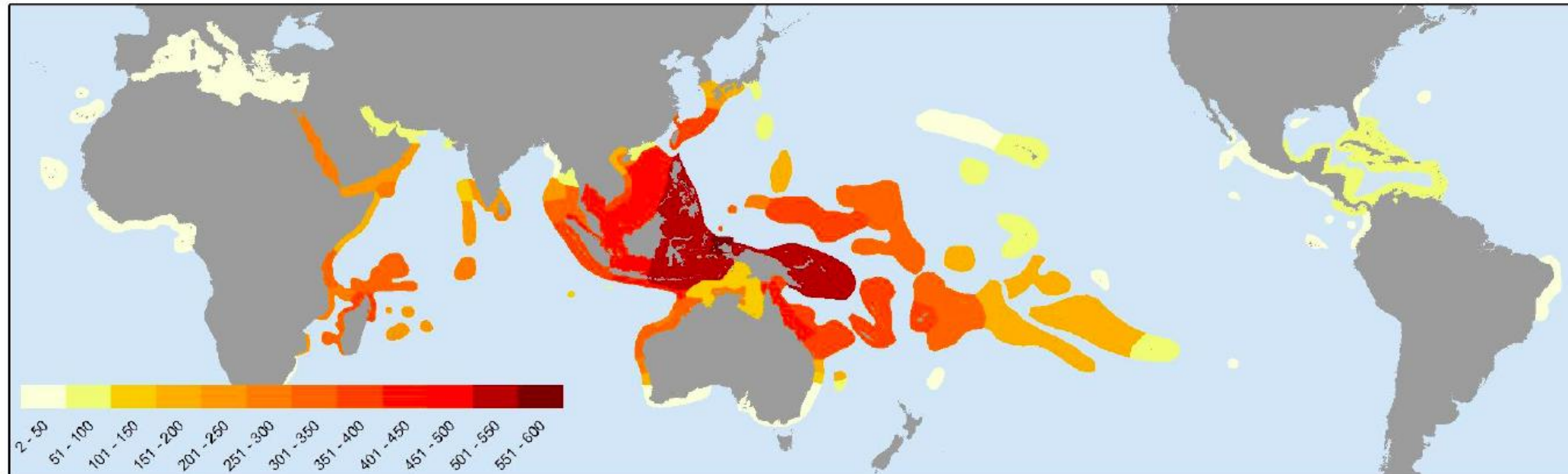
1. Intensive use for competing activities : for fisheries, shipping, offshore mining, pipelines, coastal and marine tourism, waste disposal, etc.



Courtesy of IHS (2011)

I- Background

2. The SCS has a rich biodiversity: the 'global apogee of marine biodiversity' or the 'centre of biodiversity of the World'



Biodiversity of reef building corals, showing the location of the Coral Triangle (Veron: <http://coral.aims.gov.au/info/diversity-patterns.jsp>). Colours indicate total species richness per ecoregion.

The maximum band of hard coral diversity is 500-600 species recorded. The SCS is in the 400-500 band which is still very high.

June 2015 article by D. Huang and al. proposes that the SC may include 571 known species of reef coral
Extraordinary diversity of reef corals in the South China Sea, Marine Biodiversity 45: 157-168

II- Issues

- **Compounded impact of all activities and pollution sources**
- **Fisheries management: there are less fish and they are of a smaller size, destructive fishing practices, overfishing, IUU**
- **Ship-source pollution: e.g. oil sludge on beaches**
- **Ocean pollution, including land-based pollution and plastic debris**
- **Offshore mining (incl. oil and gas): locally important pollution and risk of transboundary pollution**
- **Degradation of all marine habitats from combined impact of coastal development, aquaculture, marine tourism, destructive fisheries practices and climate change**
- **Lack of environmental management of areas subject to sovereignty and maritime boundaries disputes**
- **Increasing competition for marine resources as a source of political flashpoints**
- **'Paper parks' (MPAs with no clear management plan, institutional ownership, legal/compliance and enforcement mechanisms to ensure restriction of uses)**

III- At Regional Level

- **Numerous regional declarations and policy documents that emphasize the importance of the protection of the marine environment and sustainable use of marine resources**

2005 Putrajaya Declaration of Regional Cooperation for the Sustainable Development of the Seas of East Asia (PEMSEA) (...); 2015 ASEAN EAS Statement on Enhancing Regional Maritime Cooperation

2015 ASEAN Guidelines for Preventing the entry of fish and fishery products from IUU fishing activities into the supply chain; 2015 ASEAN Blueprint 2015

- **No binding regional sea agreement for the conservation and sustainable use of maritime activities (in Southeast Asia nor wider East Asia nor for smaller semi-enclosed sea basins, except Pacific side), No RFMO**
- **Several programs on different scales and issues, driven by different actors**
2015 Sustainable Development Strategy for the Seas of East Asia / SDS-SEA
Coral Triangle Initiative and the Sulu-Sulawesi Action Plan, etc.
- **Numerous bilateral and specialized agreements on specific issues or practices such as for fisheries or oil and gas exploitation purposes**
- **A complex web of regional institutions with different geographical scope and mandates: ASEAN, UNDP driven programs, PEMSEA, UNEP initiatives (COBSEA), IOC-WESTPAC, SEAFDEC, Asia-Pacific Forum, CSCAP, etc.**

IV- International Legal Framework

UNCLOS and customary international law

- **Obligation to protect and preserve the marine environment [Art.192] / Right to exploit their natural resources [living and non-living] in accordance with the duty to protect the marine environment [Art. 193]**
- **Obligation to take all measures that are necessary to prevent, reduce and control pollution of the marine environment from any source [Art.194(1)]**
For shipping pollution, these laws must be as effective as, conform with and give effect to international rules and standards;
For dumping of waste and for pollution from seabed activities, these laws must be no less effective than global rules and standards [Art.208-211]
- **Protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life [Art. 194(6)]**
- **Also, a General duty to cooperate on activities that may cause transboundary pollution (Malaysia-Singapore Land Reclamation case)**
- **And an obligation to monitor the risks or effects of pollution [Art.204-206]**
- **And an obligation to publish the results [Art. 205]**

IV- International Legal Framework

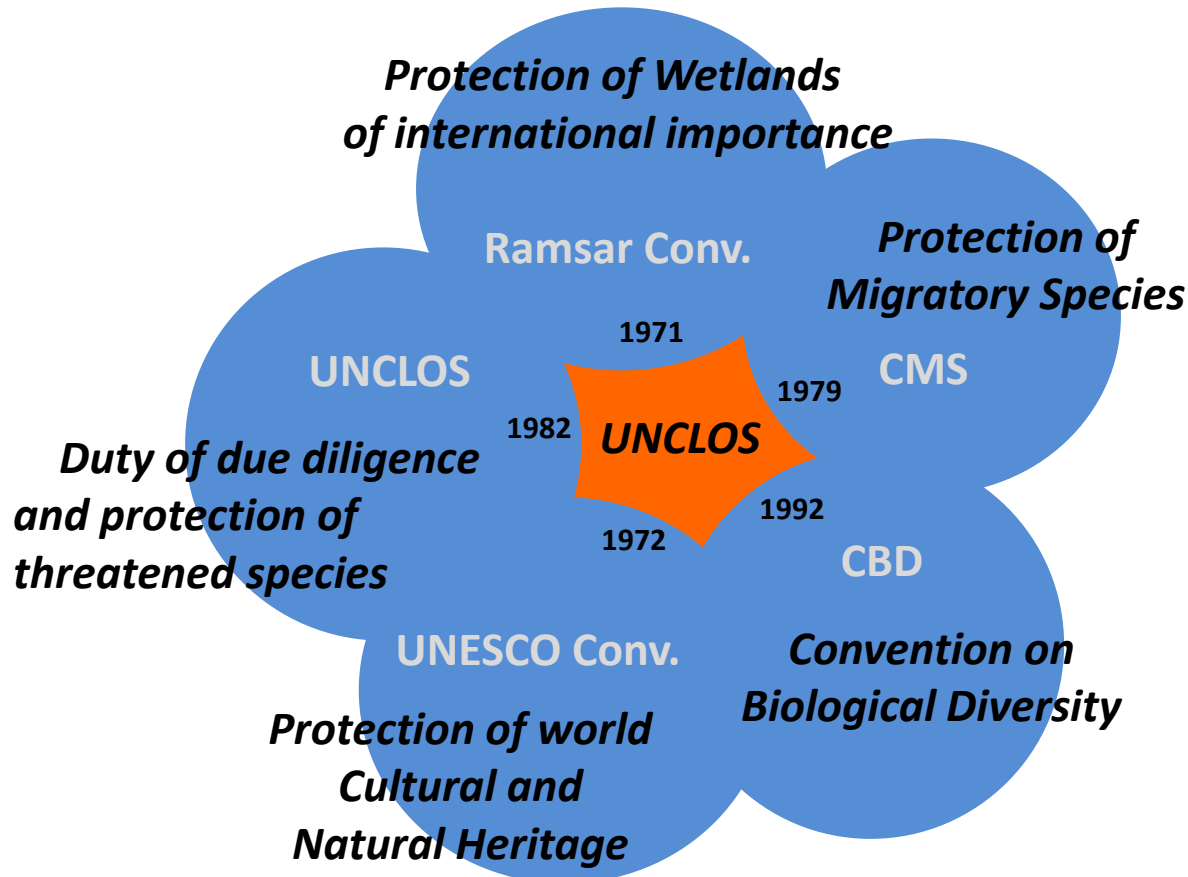
UNCLOS and customary international law

- ‘Obligation to ensure’ that activities are so conducted as to not cause damage to the marine environment is an obligation of due diligence according to the ICJ
- 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’
- Due diligence also includes the Obligation to apply a precautionary approach and best environmental practices
- Obligation to preserve and protect thus includes an obligation of due diligence

IV- International Legal Framework

Treaty law

Conservation



- Focused on protection
- No indication on activities to be restricted

Frequent Focal Point:

- Ministry of environment or equivalent

IV- International Legal Framework

Treaty law

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.

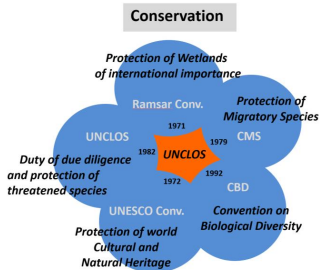
Fisheries and Trade:
Shared and straddling stocks, overfishing, destruction fisheries practices, IUU, illegal trade of marine wildlife

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

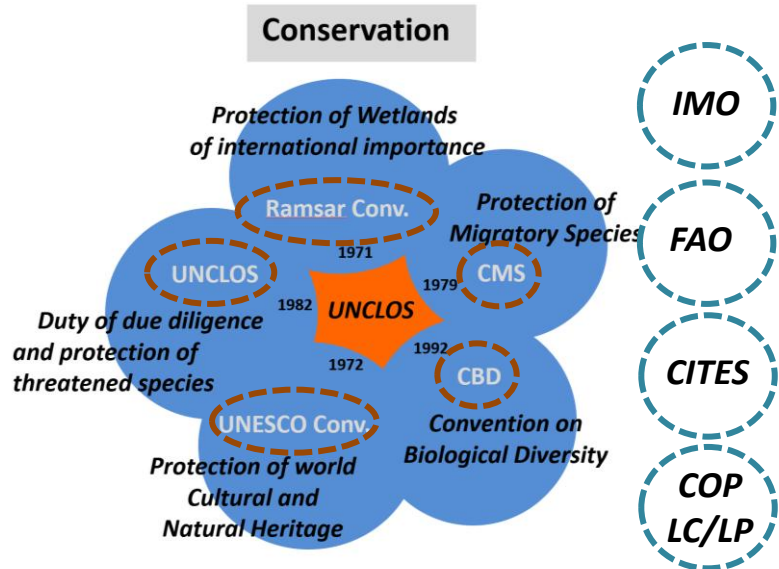
1972 London Convention and 1996 Protocol on Dumping of Wastes and other Matters

AND Numerous Guidelines from relevant international authorities



IV- International Legal Framework

Treaty law



Regulation of pollution/management of activities

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Disposal of waste: Dredged sludge, sewage, bulk waste	1972 London Convention and 1996 Protocol on Dumping of Wastes and other Matters

National agency in charge

Transport?

Trade & Industry?

Fisheries, Forestry/
Agriculture?

Environment?

Energy?

Other?

V- Gaps and Areas for Improvement

- Gaps in international regulations: land-source pollution, pollution from offshore activities, areas beyond national jurisdiction
- Gaps in regional ratification/accession/adhesion to international treaties: Fish stock agreement, OPRC, London Convention, etc.
- Gaps in regional implementation of treaties: e.g. no RFMO in the SCS and Sulu-Sulawesi, lack of reception facilities for the implementation of MARPOL and regional sensitivity mapping for the implementation of OPRC
- Gaps in coordination mechanism at national level and development of a clear integrated ocean policy and marine spatial planning (aka MSP)
- Gaps in environmental baselines, sharing of scientific knowledge (especially that gathered by the industry) and an institutional network to centralize that knowledge and share it
- Gaps in assessment of compound impacts from all activities
- Gaps in monitoring, compliance and enforcement

Conclusion

- Improve connection between regulation of uses and conservation planning
- Join treaties that are globally accepted
- Develop regional implementation framework for international instruments such as OPRC and MARPOL
- Focus on specific issues such as the creation of an RFMO for shared stocks, the mapping of sensitive habitats where there is a risk of transboundary pollution from oil (shipping and offshore mining) and impact assessment/monitoring of activities that may result in transboundary pollution
- Develop an institutional network for knowledge sharing in SEA
- Create a regional knowledge centre to centralise, share data relating to the ASEAN marine environment (can be virtual) from all coastal States and



that operate in the region to (start to) establish base

www.cil.nus.sg



Thank you!

Questions?

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

CIL

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National University of Singapore

