

Protecting Coral Reefs and other Sensitive Marine Areas from the Impacts of Climate Change and Ocean Acidification



Climate Change and the Law of the Sea

13-14 Mars 2018, Singapore

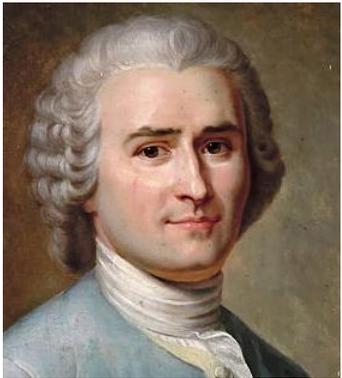
Youna Lyons, *NUS Centre for International Law*

1755 Lisbon earthquake, tsunami and fires



Voltaire

The condition of man is to
'suffer, submit in silence, adore and die'



**Jean-Jacques
Rousseau**

'Nature did not construct 20,000 buildings of six to seven stories there and if the inhabitants of this great city had been more equally spread out and more lightly lodged, the damage would have been much less and perhaps of no account'

Resilience

the magnitude of the disturbance that a system can absorb without fundamentally changing

Is the international legal framework supporting resilience building of sensitive marine areas?

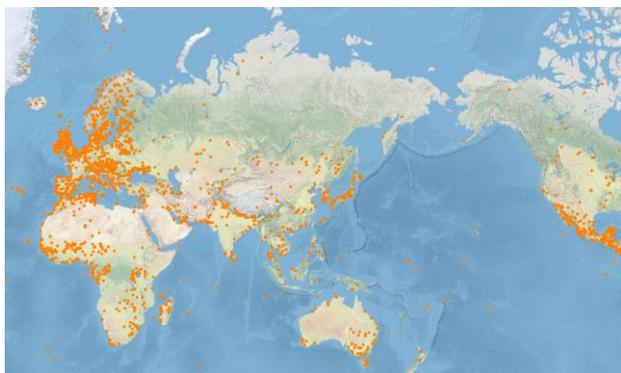
-
- Part 1 – Legally adopted scientific criteria to identify sensitive marine areas**
 - Part 2 – Other scientific criteria to identify sensitive marine areas**
 - Part 3 – Expected measures: can they effectively respond to climate change impacts?**

Part 1- Legally adopted scientific criteria

1/4



Wetlands of international importance



- 169 State Parties
- 2,289 sites globally, 40%+ are marine and coastal
- 319 sites in Asia; 44 are coastal and marine



World Cultural and Natural Heritage



- 193 State Parties
- 1,073 sites globally, 49 are marine and coastal
- 22 marine and coastal sites in APAC



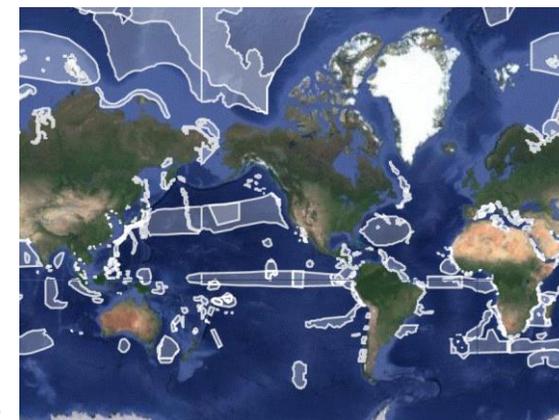
Convention on migratory species

- 126 State Parties to the main instruments
- Other parties to species-specific instruments
- 647 species listed
- 55 marine migratory species in SCS



Convention on Biological Diversity

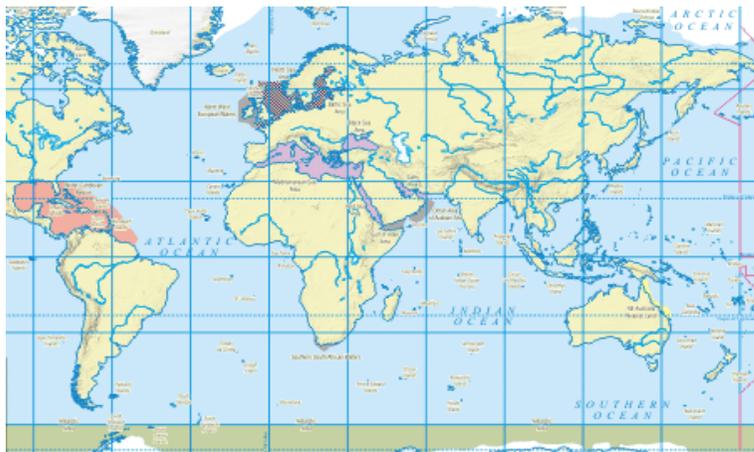
- 196 State Parties
- 279 Ecologically or Biologically Significant Areas



Part 1- Legally adopted scientific criteria

2/4

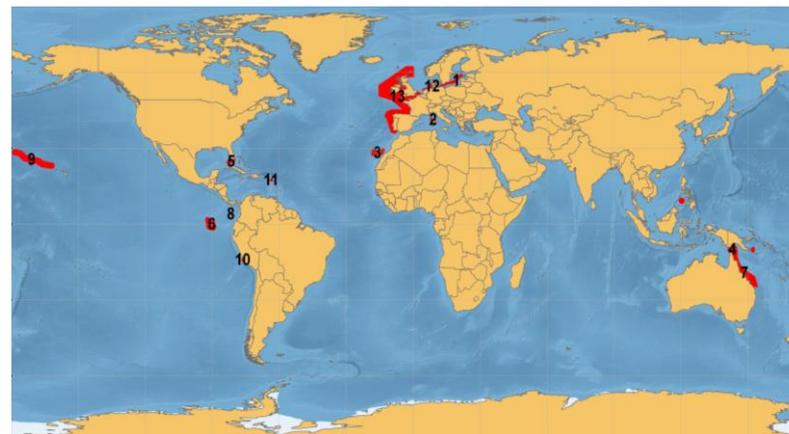
Special areas under MARPOL



- 140/155 State Parties
- Restriction/prohibition of discharge of oil/noxious liquid substances/sewage/garbage



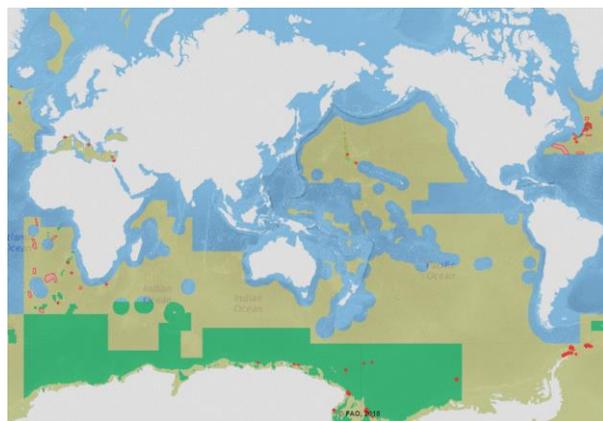
Particularly Sensitive Sea Areas (PSSAs)



- Adopted by MEPC – IMO has 173 member States
- 15 PSSAs; 7 in Indo-Pacific
- Areas to be avoided, no-anchoring, reporting, etc.



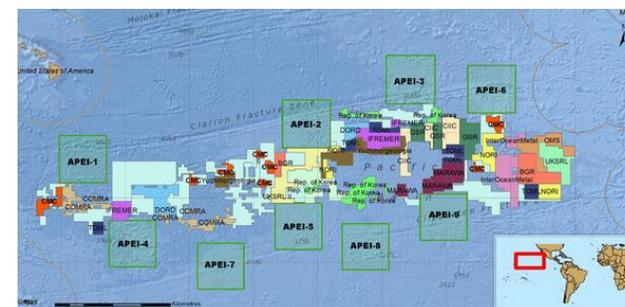
Vulnerable Marine Ecosystems



- UNGA resolution
- FAO has 194 Member States
- COFI (Committee on Fisheries)
- Coordination w RFMO/As



Areas of Particular Environmental Interest



- Limited to the Clarion-Clipperton Zone
- 157 Members States to UNCLOS Part XI IA
- On-going study of possible APEIs in Mid-Atlantic

Criteria generally shared across legally developed sets of criteria

Identify:

1. Areas that are unique or rare or have ecologically distinctive characteristics
2. Areas that are required for a population to survive and thrive/support critical life-history stages of individual species (eg breeding/nesting sites)
3. Areas containing habitat important for the survival and recovery of threatened/endangered/declining species and/or habitats and/or communities
4. Areas containing sensitive habitats or species that are functionally fragile or with slow recovery
5. Area containing high diversity of ecosystems/habitats/communities/species or high genetic diversity
6. Area with high degree of naturalness or ecological integrity
7. Biological productivity of an area / ability to support large aggregations

- **Are criteria missing to designate other areas that need identification and measures being taken to limit impacts from climate change and build resilience?**
- **Under which instrument?**

Criteria less commonly shared across sets of criteria

1. **Representativity** of habitat/type/ecological process/biological community
2. **Connectivity** : existence of ecological, functional or genetic links
3. **Refugio** or site resistant and/or resilient to environmental stress
4. **Geomorphological importance**
5. **Structural complexity**

Other criteria set/focus/framing proposed by others

- IUCN (reports by GESAMP and IPCC reports would have comparable authority)
- Global NGOs such as Bird Life, WWF, Greenpeace, TNC, etc
- Peer-reviewed literature
- Grey literature and other reports

How to increase the legal status of other criteria?

- Explore whether new situations/criteria could fit within existing criteria, not just from a scientific perspective but also from a legal perspective looking at the purpose of the 'legally adopted' criteria
- If not, explore whether new criterion/a could be added to existing sets of criteria and leverage criteria review processes such as the on-going review process of EBSAs under the CBD
- Few publications are discussing these legally defined scientific criteria vs abundant scientific literature on desirable ecological criteria
- Whilst research on gaps is critical, scientific proposals for competing sets of criteria which ignore the existing political and legal consensus are unlikely to succeed
- Much of the discussions on criteria is occurring in project reports (eg ATLAS project for the North Atlantic) or reports written for government meetings

States obligations under each instrument

- Identification of sensitive areas is an explicit obligation under some instruments (CBD, CMS) but not all
- Most conservation-driven instruments include also an obligation to monitor impact from activities occurring in these areas and changes in their characteristics
- Conservation-driven instruments also include an obligation to report
- Should activities interfere with the characteristics on the basis of which the status was granted, this status may be lost

Furthermore,

- Instruments that regulate sea uses provide explicit restrictions to activities (within their scope) [provided that these activities are impacting or are likely to impact these areas]

States obligations under UNCLOS

- UNCLOS applies to all components of the marine environment
- Obligation to protect and conserve the marine environment to be interpreted according to international law
- Other instruments can inform:
 - content of obligation to protect rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life
 - content (and standard) of obligation to act with due diligence to protect and preserve the marine environment, including the application of the precautionary approach
 - content (and standard) of obligation to monitor the risks or effects of pollution and to assess potential effects from activities
 - obligation to rely on best scientific evidence to maintain/restore populations of harvestable species

Observations

- Existing scientific criteria are comprehensive
- Extensive marine areas have been identified as being ‘sensitive’
- Sensitive area mechanisms in other instruments may in many situations be subsumed under UNCLOS’ obligation to protect and preserve the marine environment
- They also show consistent and mutual supportive mechanism: minimum standards under Part XII?

Recommendations

- Work with the existing legal framework (in addition to the development of an ILBI for ABNJ)
- Identify missing criteria or changes needed in criteria definition to better account for climate change and build resilience
- Identify more areas that meet the criteria in Southeast-Asia



Thank you!
Younalyons@nus.edu.sg