

# MARINE BIOTECHNOLOGY: DOES JURISDICTION MATTER?

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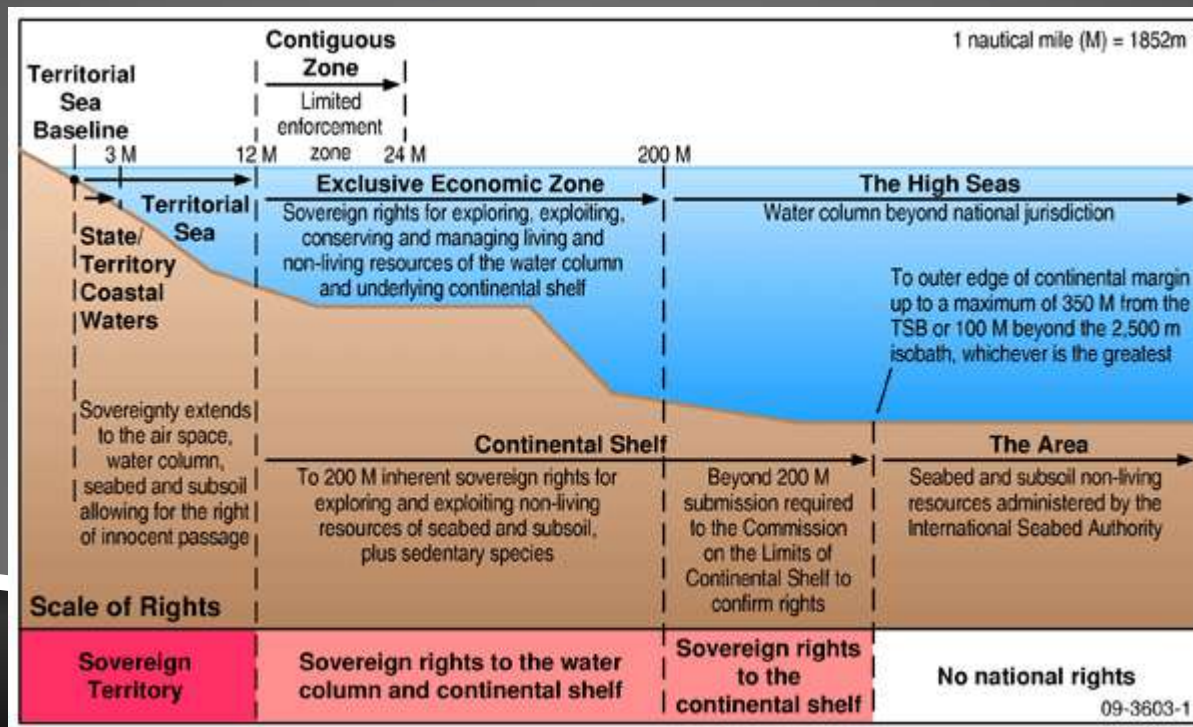
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# JURISDICTIONAL ZONES IN THE OCEANS

UNCLOS and CBD apply in areas of national jurisdiction

CBD no meaningful application in the High Seas and the Area

Coastal state control over marine genetic resources in areas within national jurisdiction



Freedom of the High Seas

Mandate of International Seabed Authority only extends to the Area and its minerals

# JURISDICTIONAL ZONES IN THE OCEANS

## Exclusive Economic Zone

Text and Graphics: Peter Steinhilber

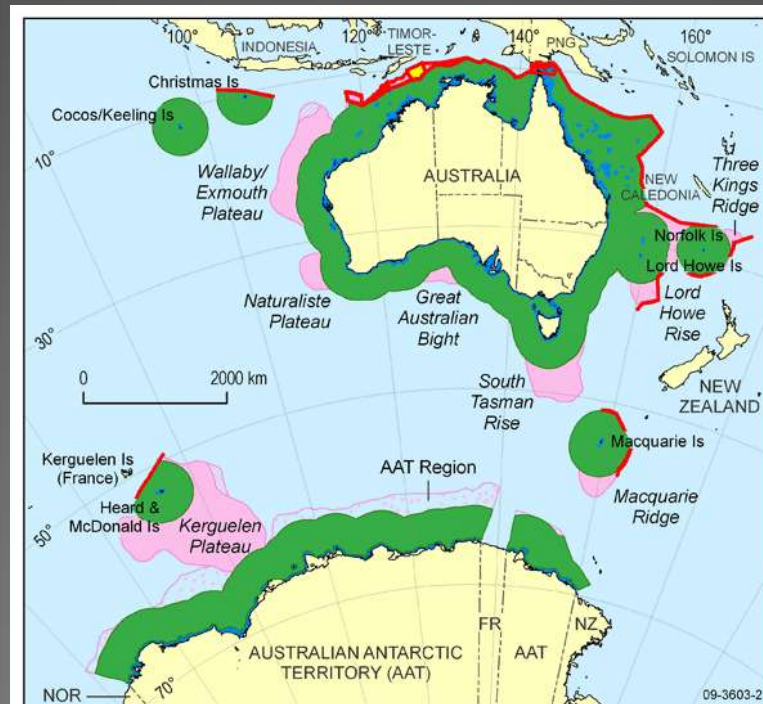
No matter the international situation, several functions are lost. Since many of the zone's resources are non-renewable, the zone's land area is often used for offshore exploration. Today a coastal marine economy, and it is defined by the Exclusive Economic Zone (EEZ), a 200 nautical mile (370 km) wide offset from the country's national coast line. This regulation, which was established by the 1982 Convention on the Law of the Sea in

1982 grants a state special rights to explore and exploit (e.g. oil and natural gas, fish) resources, including scientific research and energy production (e.g. wind power). Practically this means that if a country owns a renewable work resource in the ocean, the state's exploitable resource increases from about 100,000 km<sup>2</sup> to 430,000 km<sup>2</sup> of ocean. In the case of EEZ's overlap it is up to the involved states to determine the actual boundary, a rule which led to certain case in

discovery of oil deposits. Yet there is more: underwater landfills (land and more) capabilities ahead since the 200 nautical miles distance is not supplemented by a claim which allows to explore till the continental shelf. The first guidelines for these so-called continental shelf extensions, passed five years after the EEZ's introduction, will start soon. If underwater landgrabbing goes on like this, the "Powers of the Sea" might soon start in the "Powers of the People".



# JURISDICTIONAL ZONES IN THE OCEANS



M = nautical mile

- Territorial sea and internal waters
- Australia's exclusive economic zone as defined by UNCLOS and certain treaties (not all in force).
- Australia's extended continental shelf (ECS) beyond 200M as confirmed by the Commission on the Limits of the Continental Shelf and as defined by certain treaties (not all in force).
- Australia's ECS considered by the Commission and yet to be resolved.
- Australia's ECS off Antarctica as submitted on 15 Nov 2004 to the Commission that Australia requested not be considered for the time being.
- Joint Petroleum Development Area as defined in the Timor Sea Treaty between Australia and Timor-Leste.
- Treaty boundary with opposite or adjacent State.

# CURRENT INTERNATIONAL DEBATES ON MARINE BIOTECHNOLOGY

- ▶ A future international legal regime for areas beyond national jurisdiction?
  - ▶ UNICPLOS
  - ▶ Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction
  - ▶ UNGA
  - ▶ ISA
  - ▶ CBD
  - ▶ OECD
  - ▶ Academic and government sponsored workshops
  - ▶ Numerous policy reports, academic books, books chapters, journal articles, blogs etc.
- ▶ Is marine biotechnology/commercial utilisation of genetic resources from marine areas beyond national jurisdiction just an 'urban myth'?
- ▶ Is there really a need to create a new regulatory regime?

# CURRENT INTERNATIONAL DEBATES ON MARINE BIOTECHNOLOGY

- ▶ Where is the evidence for the 'mythical boom' in marine biotechnology in areas beyond national jurisdiction?
  - ▶ Little hard data on biotechnology developed from biota sourced from areas beyond national jurisdiction
  - ▶ Statements of possibility and theoretical potential of areas beyond national jurisdiction (high seas/Area) being **conflated** with proof/hard data of actual activity in areas within national jurisdiction (territorial sea/EEZ)
  - ▶ Wide definition of marine biotechnology
  - ▶ Complicated by confusion on scope of future regime-high seas or Area or both?
    - ▶ Antarctica and the Southern Ocean
  - ▶ Marine genetic resources a trade off in negotiations on other proposed measures for marine environmental protection?

# CURRENT INTERNATIONAL DEBATES ON MARINE BIOTECHNOLOGY

- ▶ Do policy makers/diplomats have an out-dated understanding of the product development and commercialisation process?
  - ▶ Marine biotechnology in the era of 'collective intelligence'
  - ▶ Synthetic biology
  - ▶ Nanotechnology
- ▶ Do jurisdictional zones in oceans matter when dealing with patents?
  - ▶ Biota may be sourced from areas beyond national jurisdiction but patents are granted as a sovereign act under national jurisdiction
- ▶ How is marine scientific research carried out and how would it be impacted by a regulatory regime?

# FURTHER WORK THAT NEEDS TO BE DONE

- ▶ The current international debates on marine biotechnology would be better informed if the following studies were to be undertaken:
  - ▶ How many 'products' developed from marine biotechnology are currently on the market?
  - ▶ Of known products how many were developed:
    - ▶ From actual biota sourced from within areas of national jurisdiction
    - ▶ From actual biota sourced from areas beyond national jurisdiction
    - ▶ Using tools of collective intelligence
      - ▶ Molecular biology databases
      - ▶ Synthetic biology
  - ▶ What potential products are currently in research and development stage?
  - ▶ How is marine biotechnology research, development and commercialisation actually conducted today?
  - ▶ What are the potential ranges of cost and profits (loss/risk)?



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