



# Governance of the Arctic marine environment

*Current state of play and future challenges*

Stefan Kirchner



LAPIN YLIOPISTO  
UNIVERSITY OF LAPLAND  
For the North – For the World



ARCTIC CENTRE  
University of Lapland

# 1. Zonal approach in int'l law

- The UN **Law of the Sea Convention** (LOSC) follows a sectoral or zonal approach:
  - marine areas under national jurisdiction
    - internal waters
    - territorial sea
  - sovereign rights of coastal states in marine areas
    - exclusive economic zones
    - continental shelf
  - marine areas beyond national jurisdiction
    - high seas
    - deep sea bed

## 2. Legal competences of coastal states

- Different competences for environmental protection
  - coastal states
    - internal waters: full sovereignty, domestic environmental law applies, states decide in how far they apply domestic law to foreign ships in their ports
    - territorial sea (TS, max 12 nm from coast/baseline)
      - sovereignty, prescriptive jurisdiction but in practice limited enforcement of domestic rules e.g. regarding ships which just pass through
        - Right of foreign ships to innocent passage (Art. 17 LOSC)
        - Intentional pollution makes passage no longer 'innocent' (Art. 19 (2) (h) LOSC)
    - important for near-coastal shipping routes: **traffic separation schemes** etc.

## 2. Legal competences of coastal states (cont'd)

- exclusive economic zones (EEZ, beyond TS, up to max 200 nm from coast)
  - No sovereignty but exclusive (sovereign) rights of coastal states to use natural resources (fishing, oil, gas etc.)
  - **sovereign right to protect the natural environment** as far as the coastal state right is concerned (e.g. protection of fish in the EEZ)
    - Usually specific rules for EEZs or explicit extension of other norms to the EEZ
    - Right to designate marine protected areas in EEZs
    - Significant chance for coastal states to contribute to protecting marine biodiversity

## 2. Legal competences of coastal states (cont'd)

- continental shelf (CS)
  - CS can go beyond the outer limits of the EEZ, waters above the continental shelf are high seas (=freedom for all states to engage in fishing, navigation etc.)
  - oil and gas deposits, risk of pollution
  - Law of the Sea Convention (1982) remains vague on the issue of environmental protection of the CS beyond 200 nm
  - investigation of CS claims in the Arctic by the Commission on the Limits of the Continental Shelf (CLCS) is not yet finished
  - A future issue in the Arctic
    - many unanswered questions
    - some research already happening (e.g. J. Mossop, The Continental Shelf Beyond 200 Nautical Miles, OUP, 2016)

### 3. Legal competences beyond national jurisdictions

- international community
  - high seas (states and international organizations)
    - Art. 117 LOSC: duty of States to adopt with respect to their nationals measures for the conservation of the living resources of the high seas
    - Art. 118 LOSC: Cooperation of States in the conservation and management of living resources
    - Art. 119 LOSC: Conservation of the living resources of the high seas
    - Art. 120 LOSC: right of states to regulate protection of marine mammals against own nationals / ships
    - International treaties, e.g. International Convention for the Prevention of Pollution from Ships (MARPOL)
    - other rules, e.g. Polar Code contains rules concerning pollution by ships
  - deep sea bed (International Sea Bed Authority)
    - Art. 145 LOSC: duty to prevent harm to the environment
    - too early too tell when this will become relevant for the Arctic

## 4. Shortcomings of the zonal approach

- Zonal approach in the Law of the Sea Convention does not reflect the reality at sea, which requires an ecosystem-based approach.
- The need for an ecosystem-based approach to marine environmental protection was recognized e.g.
  - in the 1995 UN Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (Fish Stocks Agreement) and ...

# 5. Towards regionalization

- ... in regional seas agreements (RSAs)
  - e.g. the Convention on the Protection of the Marine Environment of the Baltic Sea Area = Helsinki Convention, administered by Baltic Marine Environment Protection Commission - Helsinki Commission = HELCOM
    - specific norms for the protection of regional seas, taking into account specific needs
      - e.g. eutrophication in the Baltic Sea
  - as of today, there is **not yet a regional seas agreement for the Arctic Ocean**



## 5. Towards regionalization (cont'd)

- The work of the Arctic Council contains the **seeds of a future normative order** which one day might functionally resemble an Arctic RSA.
- LOSC is based on the old zonal approach
  - Makes sense from the perspective of coastal state sovereignty
  - Does not reflect the biodiversity at sea
- Move towards an ecosystem-based approach to protecting the marine environment required.

## 6. Arctic Council and Ecosystem Approach

- Ecosystem approach was adopted by the Arctic Council in 2004
  - Arctic Marine Strategic Plan (AMSP)
- Arctic Council Working Group on the Protection of the Arctic Marine Environment (PAME) ([www.pame.is](http://www.pame.is))
  - Methods
    - Identification of ecosystems
    - Description of ecosystems
    - Setting objectives for ecosystems
    - Assessments of ecosystems
    - Social, economic and cultural valuation of ecosystems
    - Manage human activities
  - Now in the implementation phase, regular reports (<https://pame.is/index.php/projects/ecosystem-approach/ea-documents-and-workshop-reports>)

# 7. Beyond the Arctic Council: The Arctic Ocean High Seas Fisheries Ban

- 15 year ban on fishing in the high seas part of the Arctic Ocean
- only scientific research
- application of the **precautionary principle**
  - unusual (but welcome) approach
  - usually international law is reactive
- agreed in 2017, signed 4 October 2018
  - Arctic 5 (U.S., Canada, Russia, Norway, Denmark (for Greenland))
  - big fishing nations (Japan, China, South Korea)
  - European Union
- not yet in force
- applies to ships flying the flag of the states involved
  - does not prevent ships flying the flag of non-party states from fishing in the high seas of the Arctic Ocean
  - but strong indicator that a parallel norm of customary law might develop which would also prevent other states from fishing there

# 8. Future Challenges

- Increased **shipping** activities in the Arctic Ocean
  - gas and oil transport
    - already today: natural gas transport from Sabetta (Siberia) to China
  - Arctic cruise **tourism** boom
    - reliance on low grade hydrocarbons as ship fuels
      - risk of oil spills
        - not only a problem with tankers like the *Exxon Valdez*
          - cf. sinking of the cruise ship *MS Explorer* off Antarctica in 2007 and the resulting oil spill
    - development of green alternatives is slow
    - lack of dockside electricity supplies in Arctic ports means that cruise vessels have to let their engines run in port (near coastal communities) to provide electricity on board
      - **air pollution**, e.g. SO<sub>x</sub>
        - 2020: global limits on sulphur emissions but slow implementation
  - insufficient capacity of many coastal communities to handle visitors' waste

## 8. Future Challenges (cont'd)

- In the long run, **Illegal, Unreported and Unregulated (IUU) Fishing** might become a problem.
  - But too early to tell. More research on the actual composition of the biosphere of the CAO is needed.
- Is the Arctic Ocean become an ocean like all others?
  - The RSA approach allows regional aspects to be taken into account and can also work for a future ice-free Arctic Ocean.
  - **From a legal perspective, existing frameworks and mechanisms can be used to protect the Arctic marine environment.**
    - e.g. designation of the Arctic Ocean as a particularly sensitive sea area (PSSA) by the IMO
      - consequence: stricter emission standards for ships

## 8. Future Challenges (cont'd)

- The usual problem...
  - International law is usually reacting to new factual developments (notable exception: deep sea bed regime in LOSC).
- ...becomes a big problem:
  - Can international law be fast and effective enough to protect the existing marine environment of the Arctic Ocean?



@ulapland  
@ArcticCentre  
@ArcticLawyer

#ArcticLaw  
#Biodiversity  
#ABACongress



LAPIN YLIOPISTO  
UNIVERSITY OF LAPLAND  
For the North – For the World



ARCTIC CENTRE  
University of Lapland

Dos. Dr. Stefan Kirchner, MJI, Assessor jur.

Associate Professor of Arctic Law  
Arctic Centre, University of Lapland  
P.O. Box 122, 96101 Rovaniemi, Finland

Email: [stefan.kirchner@ulapland.fi](mailto:stefan.kirchner@ulapland.fi)  
Phone: +358 40 48 44 001