



Faculty of Law



Interaction between Global and Regional Legal Frameworks in the Protection of the Marine Environment Against Pollution: The Case of the Arctic Ocean

Professor Yoshifumi Tanaka
Faculty of Law
University of Copenhagen

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Introduction

► The global nature of the LOSC

- Article 309 (prohibition of reservations)
- Article 311 (predominance of the LOSC over other treaties)

► Regional elements in the LOSC

- Section 2, Part XII of the LOSC (global and regional co-operation)

Examples: Article 197 (co-operation on the regional basis)

Article 237(1) (conclusion of special convention)

- Article 123 (regional cooperation in the case of enclosed and semi-enclosed seas), etc.



Four Models

Model I: The Regional Model

Model II: The Global—Single Regional Model

Model III: The Global—Multiple Regional Model

Model IV: The Global Model



Four Models

I. The Regional Model ($G < R$)

- Land-based marine pollution
- Pollution from seabed activities subject to national jurisdiction

II. The Global—Single Regional Model ($G—R^1$)

- Vessel-source marine pollution
- Dumping

III. The Global—Multiple Regional Model ($G—R^m$)

- Marine pollution from transboundary air pollution

IV. The Global Model ($G > R$)

- Adverse impact of climate change on the oceans (ocean acidification)
- Pollution from seabed activities beyond national jurisdiction (the Area)



Model I: The Regional Model

► Prevention of Land-based Marine Pollution

1. Relevant Provisions of the LOSC

- Legislative jurisdiction: Article 207
- Enforcement jurisdiction: Article 213

2. Regional Elements in the LOSC

- Article 207(3): Harmonization of policies at the regional level
- Article 207(4): Establishment of regional rules
→ Lack of specific guidance describing how the cooperation shall be performed



Model I: The Regional Model

► Prevention of Land-based Marine Pollution

3. Weakness of the global legal framework (the LOSC)

- Economic development,
- Non-homogeneous nature of the marine environment, and
- Complex nature of harmful substances



Model I: The Regional Model

- ▶ Prevention of Land-based Marine Pollution in the Marine Arctic
 - The 2009 Regional Programme of Action: Land-based sources of pollution located both within and outside the Arctic represent the major sources of pollutants to the Arctic marine environment.
 - Large circumpolar rivers may be an important source of mercury to the Arctic Ocean (J.A. Fisher *et al*, “Riverine Source of Arctic Ocean Mercury Inferred from Atmospheric Observations,” *Nature Geoscience* 5 (2012), 499-504).



Model I: The Regional Model

► Prevention of Land-based Marine Pollution in the Marine Arctic

1. The OSPAR Convention

- Article 3: Obligation to **take** all possible steps to prevent and eliminate pollution from land-based sources
- Appendix 2: A single list of priority pollutants

2. The Arctic Council

- The Regional Programme of Action (2009)



Model I: The Regional Model

► Prevention of Land-based Marine Pollution in the Marine Arctic

Evaluation

1. Weakness of the regional legal framework for preventing land-based marine pollution in the marine Arctic
2. Individual regulation through national law of Arctic States → Two Challenges
 - 1) Lack of harmonization of municipal laws, and
 - 2) Lack of machinery for securing effective implementation of relevant laws



Model II: The Global—Single Regional Model

► Prevention of Vessel-Source Marine Pollution

1. Global Legal Frameworks: MARPOL and the LOSC

2. Regional Elements in the Global Legal Frameworks

- Designated special areas in MARPOL Annexes
- Article 234 of the LOSC: protection of ice-covered areas
- Article 211(6): creation of ‘a particular, clearly defined area’ in the EEZ
- Port State control



Model II: The Global—Single Regional Model

► Prevention of Vessel-Source Marine Pollution in the Marine Arctic

1. IMO

- Guidelines for Ships Operating in Polar Waters (the Polar Guidelines, 2009)
- A new mandatory ship reporting system in the Barents Area (2012)
- International Code of Safety for Ships Operating in Polar Waters (Polar Code, 2014)



Model II: The Global—Single Regional Model

► Prevention of Vessel-Source Marine Pollution in the Marine Arctic: National Legislations (Examples)

2. Canada

- Arctic Waters Pollution Preventive Act (1985)
- Northern Canada Vessel Traffic Services Zone Regulations (2010)

3. The Russian Federation

- Governmental Regulation of Merchant Shipping in the Water Area of the Northern Sea Route (2012)
- Rules of Navigation in the Northern Sea Route Water Area (2013)



Model II: The Global—Single Regional Model

Evaluation

1. The importance of regional action to effectuate the global treaties, i.e. the LOSC and MARPOL
2. The importance of additional measures for safety of ships in the marine Arctic
3. The importance of the IMO to direct regional action



Model III: The Global—Multiple Regional Model

- ▶ Prevention of marine pollution from long-range transboundary air pollution: Nature of the Problem
 - The Tromsø Declaration (2009): '[T]ransboundary pollutants, including air pollutant emissions, heavy metals and persistent organic pollutants continue to be a major concern'.
 - The three main source regions: Europe, North America, and Asia



Model III: The Global—Multiple Regional Model

- ▶ Prevention of marine pollution from long-range transboundary air pollution:

1. Global Treaties

1) The LOSC: Articles 212 and 222,

2) The Stockholm Convention on Persistent Organic Pollutants, and

3) The 2013 Minamata Convention on Mercury (Article 8)



Model III: The Global—Multiple Regional Model

- Prevention of marine pollution from long-range transboundary air pollution in the Arctic:

2. Regional Treaties

1) 1979 Convention on Long-Range Transboundary Air Pollution (the 1979 ECE Convention)

- The 1994 Oslo Protocol on Sulphur
- The 1998 Aarhus Protocol on Heavy Metals, amended in 2012
- The 1998 Aarhus Protocol on Persistent Organic Pollutants

2) The OSPAR Convention



Model III: The Global—Multiple Regional Model

- ▶ Prevention of marine pollution from long-range transboundary air pollution in the Arctic:

2. Regional Treaties (continues)

3) The Agreement between the United States of America and Canada on Air Quality (1991, amended in 2000)

4) The Agreement on Transboundary Haze Pollution (2002)



Model II: The Global—Multiple Regional Model

Evaluation

1. There is no global treaty which regulates long-range transboundary air pollution in comprehensive manner.
2. Hazardous substances found in the Arctic are transported over long distance from sources outside the region.
→ Regional action in the Arctic alone is inadequate to prevent adverse impacts of long-range transboundary air pollution on the marine Arctic.
3. Global and regional treaties on this subject exist only in piecemeal fashion.



Model IV: The Global Model

►Prevention of ocean acidification

UN General Assembly Resolution 68/70 of 2013 reiterated its deep concern ‘at the vulnerability of the environment and the fragile ecosystems of the polar regions, **including the Arctic Ocean and the Arctic ice cap**, particularly affected by the projected adverse effects of climate change and **ocean acidification**’.



Model IV: The Global Model

►Prevention of ocean acidification

Three global Legal Frameworks

1. Treaties combating climate change: the United Nations Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol
2. Treaties governing marine environmental protection: the LOSC, the 1972 London Convention and its 1992 Protocol, and MARPOL, and
3. Treaties concerning conservation of biological diversity: The 1992 Convention on Biological Diversity



Model IV: The Global Model

►Prevention of ocean acidification

1. The UNFCCC and Kyoto Protocol

1) The definition of 'climate change' under Article 1(2) of the UNFCCC does not embrace chemical changes of the oceans

→ Principles set out in Article 3 of the UNFCCC to address climate change and its adverse effects do not apply to ocean acidification.

2) No specific requirement to reduce carbon dioxide emissions



Model IV: The Global Model

►Prevention of ocean acidification

2. The LOSC and MARPOL

1) Articles 212, 222, 194(5), 207 and 213 of the LOSC:
No specific obligations to control the introduction of anthropogenic carbon dioxide into the oceans

2) Amendments to Annex VI of MARPOL:
Comparatively small amount of carbon dioxide emissions from shipping



Model IV: The Global Model

►Prevention of ocean acidification

3. The 1992 Convention on Biological Diversity (the Rio Convention)

- Strategic Plan for Biodiversity 2011-2020, including Aichi Biodiversity Targets
- Target 10: ‘By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning’.
 - The meaning of the term ‘minimize’ remains less clear.



Model IV: The Global Model

►Prevention of ocean acidification: Regional actions

4. Arctic Monitoring and Assessment Programme (AMAP):

Arctic Ocean Acidification 2013: An Overview

- 1) Urge its Member States, Observer countries, and the global society to reduce the emission of carbon dioxide as a matter of urgency,
- 2) Call for enhanced research and monitoring efforts that expand understanding of acidification process,
- 3) Urge its Member States to implement adaption strategies that address all aspects of Arctic change including ocean acidification



Model IV: The Global Model

►Prevention of ocean acidification

Evaluation

- 1.The primary role of the global legal framework
2. Focus of the three global legal frameworks relating to ocean acidification differs considerably.



Conclusions

1. The interaction between global and regional legal frameworks is at the heart of international law of marine environmental protection.
2. The interaction varies according to the sources and nature of marine pollution. → Four models
3. There is a need to develop appropriate legal frameworks for protecting the marine Arctic by combining these four models.





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