



for a living planet

International Governance and Regulation of the Marine Arctic

Three reports prepared for the WWF
International Arctic Programme by

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I. OVERVIEW AND GAP ANALYSIS

II. OPTIONS FOR ADDRESSING IDENTIFIED GAPS

III. A PROPOSAL FOR A LEGALLY BINDING INSTRUMENT



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CORRECTION

Please note an error in the Foreword on page 5. Under ‘Options’, point 2 should read “Adjusting existing international frameworks and agreements, such as the Convention for the Protection of the Marine Environment of the North-East Atlantic”, so that the whole paragraph reads as follows:

Options

The various options for addressing these governance gaps include:

1. Sectoral-based improvements such as adjusting existing fisheries agreements
2. Adjusting existing international frameworks and agreements, such as the Convention for the Protection of the Marine Environment of the North-East Atlantic
3. Reforming the Arctic Council, a meeting place for the eight arctic states and Indigenous peoples of the Arctic

All these options either fall short of providing adequate protection for the arctic marine environment, or are difficult to achieve.

Oslo, 8 February 2010



Foreword

The problem

As the dangerous effects of climate change are increasingly being observed throughout the Arctic, it has become apparent that a new multilateral agreement for the protection of the arctic marine environment is urgently needed to respond to this crisis.

As climate change causes the ice to melt and new areas to open up, this unique environment is facing unprecedented changes and serious threats from increased activities such as shipping, oil and gas and fishing. In light of these rapid changes, the current regulatory and governance regime for protection of the arctic marine environment has become inadequate and new measures must be adopted if we are to protect and preserve the marine environment and sustainably use the Arctic's marine resources.

WWF commissioned these three reports to examine the current governance regime, identify governance and regulatory gaps and analyze options for improvements. The reports, which are authored by international legal experts Timo Koivurova and Erik J. Molenaar, conclude that one of the best options is to adopt a new multilateral agreement. A brief overview of the reports is provided below. WWF's goal is to work with arctic states and arctic Indigenous peoples to promote the closure of the 'governance gaps', protection and preservation of the Arctic Ocean and sustainable ecosystem-based management of its resources.

Governance gaps

The legal instruments relevant to protecting the Arctic's marine environment are numerous, yet incoherent and incomplete. There are serious gaps which are too large and complex to be filled by a simple adjustment of the existing legal and institutional framework. For example:

- The existing framework is too focused either on individual issues, or individual places, to adequately cover the entire Arctic. It does not take into account the reality of ecosystems that cross sectoral and geographical boundaries.
- The existing framework also fails to take into account the cumulative effects of different offshore activities such as fishing and oil and gas.
- Given the pace of change in the Arctic, it is difficult to see how the Arctic and its ocean could be sustainably and coherently managed without an institution with the legal and political mandate to carry out the necessary changes to ensure the arctic ecosystem is protected. Rules alone - especially non-legally binding ones - are hardly enough to govern the new sea emerging from the sea ice.

Options

The various options for addressing these governance gaps include:

1. Sectoral-based improvements such as adjusting existing fisheries agreements
2. Adjusting existing international frameworks and agreements, such as the
3. Reforming the Arctic Council, a meeting place for the eight arctic states and Indigenous peoples of the Arctic

All these options either fall short of providing adequate protection for the arctic marine environment, or are difficult to achieve.

Solutions

The report authors conclude that the best option from a legal and regulatory perspective is to develop a new international framework agreement covering the entire Arctic, across all sectors. Such a legally binding agreement for the marine Arctic would address the identified governance gaps. This option would allow for management on an ecosystem level, which is the best tool for ensuring sustainable management of marine resources in the Arctic. The new Arctic Sea emerging from the melting ice requires a regional regime tailor-made for arctic conditions developed under the overarching framework of the United Nations Convention on the Law of the Sea (UNCLOS). Such a regional regulatory and governance framework should ensure:

- Protection and preservation of the ecological processes in the arctic marine environment
- Long-term conservation and sustainable and equitable use of marine resources
- Socio-economic benefits for present and future generations, in particular for Indigenous peoples of the Arctic region
- Action to address the unprecedented natural changes the Arctic is facing

A new legally binding comprehensive agreement with a new institutional setup which will be able to ensure protection and preservation of the Arctic Ocean and sustainable ecosystem-based management of its resources would be an optimal solution in WWF's view. However, WWF would welcome any solution which allows reaching these goals in a comprehensive and binding manner.

Dr. Tatiana Saksina, LL.M.

I. OVERVIEW AND GAP ANALYSIS



Photo: WFF Cannon



Photo: Staffan Widstrand



Photo: Øyvind Hagen/StatoilHydro



Photo: Staffan Widstrand

Executive summary

Introduction

This report was commissioned by the WWF International Arctic Programme to examine the adequacy of the current international governance and regulatory regime of the marine Arctic in light of current and future impacts of climate change on the Arctic. The main elements of this report are an overview of the current international governance and regulatory regime of the marine Arctic and an analysis of the main governance and regulatory gaps in that regime.

The mandate was to examine the governance and regulation of human activities occurring within the marine Arctic, the current report devotes no attention to human activities taking place far beyond the Arctic but having an impact within it (e.g. long-range transboundary air pollution or global climate change). This therefore also determines the scope of the overview of the current international regime of the marine Arctic and the gap analysis.

For the purpose of this report, governance gaps and regulatory gaps are understood to mean the following:

'Governance gaps': gaps in the international institutional framework, including the absence of institutions or mechanisms at a global, regional or sub-regional level and inconsistent mandates of existing organizations and mechanisms.

'Regulatory gaps': substantive and/or geographical gaps in the international legal framework, i.e. issues which are currently unregulated or insufficiently regulated at a global, regional or subregional level.

The identified gaps are grouped below under the headings 'Arctic Council and its Constitutive Instrument', 'Current International Law of the Sea', 'Sectoral Governance and Regulation of the Marine Arctic' and 'Cross-Sectoral Issues'.

Arctic Council and its constitutive instrument

The following seem to be the main gaps:

1. **No legally binding obligations.** The Ottawa Declaration on the Establishment of the Arctic Council does not impose legally binding obligations on any of its participants and the Arctic Council is also not empowered to do so.
2. **Not an operational body.** The Arctic Council is project-driven and is not empowered to impose legally binding obligations on any of its participants. While a number of useful non-legally binding guidelines are produced within the framework of the Arctic Council, the impacts of these are difficult to determine given that the Council does not systematically evaluate whether these are being followed.
3. **Limited participation.** The Arctic Council is quite unique due to the role it gives to the region's Indigenous peoples, but non-arctic states can only obtain observer status. It could be argued that this is not a problem in view of the current role and powers of the Arctic Council, which do not directly affect the rights of non-arctic states in the Arctic. On the other hand, it can also be argued that by giving the Arctic Council such a limited role and powers, the arctic states have not discharged certain obligations under international law and thereby affect the rights and interests of other states and the international community.

4. **No permanent independent secretariat¹.**
5. **No structural funding.**

Current international law of the sea

The cornerstones of the current international law of the sea are the LOS Convention and its two implementation agreements, the Part XI Deep-Sea Mining Agreement and the Fish Stocks Agreement. The current international law of the sea applies to the marine environment of the entire globe; including therefore the entire marine environment of the Arctic, however defined.

By referring to the law of the sea as an “extensive international legal framework”, the Ilulissat Declaration by the five Arctic Ocean coastal states of 28 May 2008 implicitly acknowledges the need for implementation by international organizations. The LOS Convention and the Fish Stocks Agreement are in many ways framework conventions that rely on implementation by means of concrete regulation at the global and regional levels through ‘competent’ or ‘appropriate’ international organizations. A pragmatic reason for implementation at the regional level is that it allows for taking proper account of various regional characteristics, for instance distributional ranges of fish stocks, spatial dimensions of marine ecosystems, maritime boundaries and relationships between states.

But while the LOS Convention and the Fish Stocks Agreement acknowledge the need for regional approaches with respect to fisheries management, marine environmental protection and enclosed or semi-enclosed seas, the obligations on cooperation:

- are often subject to qualifiers (e.g. “shall endeavour” or “appropriate”)
- provide alternatives to regional cooperation (e.g. “global” or “directly”)
- do not provide guidance on the outcome of such regional cooperation (e.g. an international organization or a legally binding or non-legally binding instrument)

One of the few exceptions in this regard relates to the obligation to cooperate under the Fish Stocks Agreement. This obligation, however, applies only to straddling and highly migratory fish stocks and therefore not to shared fish stocks and anadromous fish stocks.

Notwithstanding the inadequacies of the obligations on cooperation in relation to marine environmental protection and enclosed and semi-enclosed seas, however, quite a few regional marine environmental protection regimes have been established so far. The main reasons for the establishment of the regional regimes other than the Antarctic Treaty system seem to be to:

- discharge applicable obligations to cooperate under the LOS Convention and customary international law and in so doing taking account of a range of regional characteristics
- address transboundary effects of various human activities
- ensure a minimum level of marine environmental protection for the entire region by means of regional minimum obligations and thereby a regional level playing field

It should be noted, however, that large parts of the world’s seas and oceans are not covered by regional environmental protection regimes or by regional fisheries management organizations (RFMOs) and Arrangements. The reasons for such gaps may be obvious and understandable in some regions, but less so in others. The fact nevertheless remains that the relevant states are not willing or able to discharge their obligations to cooperate under the LOS Convention, Fish Stocks Agreement or customary international law and thereby undermine relevant rights and interests of other states and the international community.

Another significant gap in the law of the sea as it applies to the Arctic marine area is the non-participation of the United States in the LOS Convention. This means, among other things, that the dispute settlement mechanism of Part XV of the LOS Convention does not apply between the United States and other parties to the LOS Convention, including the other Arctic Ocean coastal states.

1 The three Scandinavian states have agreed to establish a secretariat for their successive chair periods.

Finally, it is worth pointing out that the mere existence of the two implementation agreements to the LOS Convention reflects that the international community was prepared to address what it perceived to be as gaps at the time. Recent undertakings within the framework of the United Nations General Assembly (UNGA) and the Convention on Biological Diversity (CBD) address newly perceived gaps in relation to marine biodiversity in areas beyond national jurisdiction. Table 1 below summarizes the main regulatory and governance gaps identified by a group of independent researchers. Most of these gaps also apply to the Arctic marine area, both as regards areas within national jurisdiction, and beyond. An important exception is the Atlantic sector of the Arctic marine area, which is covered by the Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention) and the OSPAR Commission established by it. The ability of the OSPAR Commission to act as an authority by default in the absence of a competent international organization at the global level (e.g. for marine scientific research) and for new and emerging activities, is particularly noteworthy in this context.

Sectoral governance and regulation of the marine Arctic

The focus on sectoral governance and regulation of the marine Arctic has been on three sectors, namely fisheries management, shipping and offshore hydrocarbon activities. For each of these issues, the main gaps are summarized in Table 2 below.

Cross-sectoral issues

The three most important cross-sectoral issues seem to be (transboundary) environmental impact assessment (EIA) and strategic environmental assessment (SEA), representative networks of marine protected areas (MPAs) and integrated, cross-sectoral ecosystem-based ocean management. For each of these issues, the main gaps are summarized in Table 3 below.

Table 1: Main regulatory and governance gaps in the international legal regime for the conservation and management of marine biodiversity in areas beyond national jurisdiction

Regulatory gaps	Governance gaps
<ul style="list-style-type: none"> • no regulatory regime for <ul style="list-style-type: none"> • several existing maritime activities, namely marine scientific research (and archaeology), bioprospecting (qualitative and quantitative), laying of cables and pipelines, artificial islands and seabed constructions, and military activities • emerging and new maritime activities, such as deep-sea tourism, activities relating to CO₂ sequestration, and floating installations • no requirement of integrated, cross-sectoral ecosystem-based ocean management • absence of modern regulatory tools, such as the precautionary approach per se, and in particular operationalized, EIA and SEA, and integrated, cross-sectoral MPAs • no default regulatory mechanism for existing, emerging and new activities and in absence of regional regimes 	<ul style="list-style-type: none"> • no competent international organizations to regulate various maritime activities • no default authority • RFMOs & Arrangements with narrow mandates or substandard performance • sectoral governance, also reflected in the LOS Convention • an undesirable balance between user states and non-user states

* The authors take the view that the LOS Convention only provides a framework, but not an operational regulatory regime.

Table 2: Main gaps in sectoral governance and regulation of the marine Arctic

Fisheries management	Shipping	Offshore hydrocarbon activities
<p>1. Fisheries research and future scenarios development. There is a need for basic fisheries research as well as the development of future scenarios about areas, dates, species, and fishing techniques for which new fishing opportunities are likely to arise and potential impacts for non-target species. Such an assessment could be carried out in the framework of the Arctic Council, e.g. through its Conservation of Arctic Flora and Fauna working group (CAFF) or independently.</p> <p>2. Action by states individually. There is likely to be a lack of domestic regulation in relation to those parts of the Arctic marine area where ice-coverage used to be extensive for most of the year, but that now experience diminishing ice-coverage and thereby attract fishing vessels looking for possible new fishing opportunities.</p> <p>3. EIA and SEA. Apart from the non-legally binding obligations pursuant to paragraphs 83–87 of UNGA Resolution 61/105, there are no global EIA or SEA mechanisms or procedures that can be applied to new or expanding fisheries in the Arctic marine area.</p> <p>4. Bilateral and (sub)regional arrangements for shared fish stocks. While there are some bilateral arrangements between the relevant Arctic Ocean coastal states on the conservation and management of shared fish stocks, some are missing. This would seem to relate to Canada – United States (Beaufort Sea), Canada – Greenland and Russian Federation – United States (Chukchi Sea).</p> <p>5. RFMOs or Arrangements for species other than tuna and tuna-like species and anadromous species. A large part of the Arctic marine area is not covered by an RFMO or Arrangement with competence over target species other than tuna and tuna-like species and anadromous species. This conclusion assumes that the Bering Sea would come within the scope of the WCPFC, and that ICCAT and NASCO may in principle have competence within the entire FAO Statistical Area No. 18.</p>	<p>1. Participation in relevant international instruments. Not all arctic states are parties to relevant international instruments. For instance, the Russian Federation is not a party to the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) 90.</p> <p>2. Lack of special global rules. As regards substantive standards or requirements, the international legal framework contains:</p> <ul style="list-style-type: none"> • no special IMO discharge, emission or ballast water exchange standards for the Arctic marine area • no comprehensive mandatory or voluntary IMO ships' routeing system for the Arctic marine area in its entirety or a large part thereof • no legally binding special CDEM (including fuel content and ballast water treatment) standards for the Arctic marine area <p>The extent to which the absence of these standards or requirements pose a threat to the marine environment or biodiversity in the Arctic marine area cannot be assessed in this context.</p> <p>3. Contingency planning and preparedness. While the global OPRC 90 and its 2000 HNS Protocol are complemented by the regional 1993 Nordic Agreement and the 1983 bilateral agreement between Canada and Denmark, there are gaps in the coverage of the entire Arctic marine area by all arctic states. A related gap is the absence of a regional agreement on search and rescue.</p> <p>4. Compliance and enforcement. There is no regional approach by arctic states or an alternative group of states specifically aimed at ensuring compliance with applicable international rules and standards and national laws and regulations. It is moreover uncertain to what extent the IMO Arctic Shipping Guidelines and the IACS Unified Requirements concerning Polar Class are complied with by states, ship-owners and operators, crew and IACS members.</p>	<p>1. Lack of global and regional rules in general. The LOS Convention's linkage between the general coastal state obligations to global rules is seriously weakened due to the fact that there are no global rules, standards and recommended practice and procedures apart from those laid down in the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). The OSPAR Convention and the decisions, recommendations and other agreements adopted by the OSPAR Commission and its predecessors only apply to part of the Arctic marine area. Likewise, the competence of the ISA and its decisions only apply to parts of the Arctic marine area. The 'Arctic Offshore Oil and Gas Guidelines' and other output of the Arctic Council are non-legally binding. Even though the Guidelines are revised on regular basis, there is no evaluation as to whether they are being followed.</p> <p>2. No full coverage by global or regional bodies. While the ISA and the OSPAR Commission have competence over certain parts of the Arctic marine area, other parts are not covered by a global or regional body with competence for the comprehensive regulation of offshore hydrocarbon activities.</p> <p>3. Contingency planning and preparedness. While the global OPRC 90 and its 2000 HNS Protocol are complemented by the regional 1993 Nordic Agreement and the 1983 bilateral agreement between Canada and Denmark, there are gaps in the coverage of the entire Arctic marine area by all arctic states.</p>

Table 3: Main gaps in cross-sectoral issues

(Transboundary) EIA and SEA	Representative networks of MPAs	Integrated, cross-sectoral ecosystem-based ocean management
<p>1. Applicability of regional conventions. The applicability of the Espoo Convention and its SEA Protocol to the Arctic marine area is limited. Some arctic states are not parties to the Espoo Convention, the SEA Protocol has not yet entered into force, and some arctic states have not even signed the SEA Protocol.</p> <p>2. Lack of legally binding regional and bilateral rules. While there are various legally binding regional and bilateral rules, some gaps remain, for instance between the Russian Federation and its Nordic neighbours and between the Russian Federation and the United States. The Arctic Council's EIA Guidelines provide important but non-legally binding guidance as to how (transboundary) EIA should be conducted to give due consideration for the special conditions in the Arctic. On the other hand, recent research has shown that the guidelines have not been used in practice.</p> <p>3. Lack of global rules on EIA and SEA for activities in areas beyond national jurisdiction. While there are already EIA rules in place for mining in the Area, this is not of immediate importance to the Arctic marine area. The pockets of the Area are relatively small and mining will probably start even later than elsewhere due to the likely unfavourable conditions. There is a lack of specific rules on how to conduct an assessment procedure which can potentially also cover activities within areas beyond national jurisdiction, as generally required in Article 206 of the LOS Convention and encouraged in Article 14(1)(c) of the CBD.</p>	<p>1. No representative network of MPAs. There is currently no representative network of MPAs in most or all of the Arctic marine area.</p> <p>2. No specific legally binding obligation, procedure or body. Even though there are non-legally binding and legally binding international instruments containing obligations and commitments with regard to (representative networks of) MPAs, there is no specific legally binding obligation, procedure or body to enable the establishment of representative networks of MPAs for most or all of the Arctic marine area.</p>	<p>1. No specific legally binding obligation, procedure or body. The Atlantic sector of the Arctic marine area is covered by several regional bodies with complementary mandates – namely the International Council for the Exploration of the Sea (ICES), North Atlantic Marine Mammal Commission (NAMMCO), (NEAFC) and the OSPAR Commission – which are increasingly coordinating and cooperating towards integrated, cross-sectoral ecosystem-based ocean management. However, the remainder of the Arctic marine area is not covered by similar coordinating and cooperating bodies, or a single overarching body, to ensure integrated, cross-sectoral ecosystem-based ocean management.</p>

List of abbreviations

ACAP	Arctic Contaminants Action Program (Arctic Council working group)
ACIA	Arctic Climate Impact Assessment
AEPS	Arctic Environmental Protection Strategy
AMAP	Arctic Monitoring and Assessment Programme (Arctic Council working group)
AMSA	Arctic Marine Shipping Assessment
AMSP	Arctic Marine Strategic Plan
APMs	associated protective measures
BWM Convention	International Convention for the Control and Management of Ship's Ballast Water and Sediments
CAFF	Conservation of Arctic Flora and Fauna (Arctic Council working group)
CBD	Convention on Biological Diversity
CDEM	construction, design, equipment and manning (standards)
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLCS	Commission on the Limits of the Continental Shelf
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CoP	Conference of Parties
EAF	Ecosystem Approach to Fisheries
EC	European Community
EEA	European Economic Area
EEZ	exclusive economic zone
EIA	environmental impact assessment
EPPR	Emergency, Prevention, Preparedness and Response (Arctic Council working group)
EU	European Union
FAO	United Nations Food and Agriculture Organization
FMP	fishery management plan
GAIRAS	generally accepted international rules and standards
HNS Protocol	Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances
IACS	International Association of Classification Societies
ICC	Intergovernmental Consultative Committee
ICCAT	International Commission on the Conservation of Atlantic Tunas
ICES	International Council for the Exploration of the Sea
ICRW	International Convention for the Regulation of Whaling
IMO	International Maritime Organization
IPHC	International Pacific Halibut Commission
IPOA	International Plan of Action
ISA	International Sea-bed Authority
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated
LOS Convention	United Nations Convention on the Law of the Sea
MARPOL	International Convention for the Prevention of Pollution from Ships
MEPC	Marine Environment Protection Committee
MOU	Memorandum of Understanding
MPA	marine protected area
MSY	maximum sustainable yield
NAFO	Northwest Atlantic Fisheries Organization
NAMMCO	North Atlantic Marine Mammal Commission
NASCO	North Atlantic Salmon Conservation Organization
NEAFC	North-East Atlantic Fisheries Commission
NGOs	Non-Governmental Organizations
NPAFC	North Pacific Anadromous Fish Commission
NPFMC	North Pacific Fishery Management Council
OPRC	International Convention on Oil Pollution Preparedness, Response and Cooperation
PAME	Protection of the Arctic Marine Environment (Arctic Council working group)
PSSA	Particularly Sensitive Sea Area
PSC	Pacific Salmon Commission
RFMO	Regional Fisheries Management Organization
SAOs	Senior Arctic Officials (of the Arctic Council)
SDWG	Sustainable Development Working Group (Arctic Council working group)
SEA	strategic environmental assessment
UNGA	United Nations General Assembly
UNWG BBNJ	United Nations 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
WCPFC	Western and Central Pacific Ocean Fisheries Commission

A stylized map of the Arctic region in shades of blue and white, showing the continent and surrounding islands. The map is positioned in the upper left and right corners of the page, with a white rectangular box containing the title '1. Introduction' overlaid on the left side.

1. Introduction

This report was commissioned by the WWF International Arctic Programme to examine the adequacy of the current international governance and regulatory regime of the marine Arctic in light of current and future effects of climate change on the Arctic. The main elements of this report are an overview of the current international governance and regulatory regime of the marine Arctic (section 2) and an analysis of the main governance and regulatory gaps² in that regime (section 3).

² The terms 'governance gaps' and 'regulatory gaps' are defined in subsection 3.1.

2. Overview of the current international governance and regulatory regime of the marine Arctic

2.1. Introduction

The overview of the current international governance and regulatory regime of the marine Arctic contained in this section is very concise.³ This is not just a consequence of time constraints and a preference for brevity, but also of the fact that its central purpose is to facilitate the identification of the main regulatory and governance gaps in this regime in section 3.

The overview is moreover delimited in view of the fact that the envisaged enhanced arctic governance would relate exclusively to the regulation and governance of human activities occurring within the marine Arctic. No attention is therefore devoted to human activities taking place far beyond the Arctic but having an impact within it. This means that the overview does not also encompass the regime of long-range transboundary air pollution or global climate change.

The next subsection addresses the spatial scope of the marine Arctic, followed by subsection 2.3 on the Arctic Council and its constitutive instrument, subsection 2.4 on the current international law of the sea, subsection 2.5 on the OSPAR Convention, subsection 2.6 on sectoral governance and regulation of the marine Arctic, subsection 2.7 on cross-sectoral issues – including for instance transboundary environmental impact assessment (EIA) and strategic environmental assessment (SEA)⁴ – and, finally, subsection 2.8 on other relevant global, regional and bilateral agreements.

2.2. The spatial scope of the marine Arctic

There is currently no universally accepted definition for the spatial scope of the marine Arctic. Relevant instruments and processes use different definitions for the Arctic, for instance the area north of the northern treeline or the area north of the Arctic circle (66° 33' North). 'Arctic states' are the states that are members of the Arctic Council, namely Canada, Denmark (in relation to Greenland), Finland, Iceland, Norway, the Russian Federation, Sweden and the United States.⁵

Of particular importance is the 'AMAP area', as agreed by the Arctic Monitoring and Assessment Programme (AMAP) of the Arctic Council.

However, other relevant global international organizations have opted either explicitly or implicitly for different definitions of the Arctic or marine Arctic. For instance, the International Maritime Organization (IMO) by means of its Arctic Shipping Guidelines⁶ and the United Nations Food and Agriculture Organization (FAO) by means of its definition of FAO Statistical Area No. 18: Arctic Sea.

There is no universally accepted definition for the 'Arctic Ocean' either. However, it seems generally accepted that there are only five coastal states to the Arctic Ocean,

3 Several more extensive overviews are contained in reports produced within the project 'Arctic TRANSFORM: Transatlantic Policy Options for Supporting Adaptations in the Marine Arctic', funded by the European Commission, Directorate-General External Relations (info at <www.arctic-transform.eu>).

4 Strategic environmental assessment is the formalized, systematic and comprehensive process of identifying and evaluating the environmental consequences of proposed policies, plans or programmes to ensure that they are fully included and appropriately addressed at the earliest possible stage of decision-making on a par with economic and social considerations, while environmental impact assessment is a process of evaluating the likely environmental impacts of a proposed project or development (CBD COP decision VI/7).

5 Cf. Rule 1 of the Arctic Council Rules of Procedure, note 11 infra and accompanying text.

6 'Guidelines for Ships Operating in Arctic Ice-Covered Waters', IMO Doc. MSC/Circ.1056 – MEPC/Circ.399, of 23 December 2002.

namely Canada, Denmark (in relation to Greenland), Norway, the Russian Federation and the United States.⁷

2.3. The Arctic Council and its constitutive instrument

The Arctic Council was established as a high level forum in 1996 by means of the Ottawa Declaration.⁸ The Council's mandate broadened pre-existing cooperation under the 1991 Arctic Environmental Protection Strategy (AEPS)⁹ to "common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic" but excluding "matters related to military security".¹⁰ In Ottawa, the arctic states also committed to develop Rules of Procedure¹¹ and Terms of Reference for a Sustainable Development Program, which the council adopted by means of its 1998 Iqaluit Declaration. The Rules of Procedure apply to all bodies of the council and specify in considerable detail – especially in view of the fact that the Arctic Council is not an inter-governmental organisation in international law – how meetings are run and how decisions are taken.¹²

The Arctic Council is consensus-based and project-driven and not an operational body. It also has no general role in coordinating arctic policies, other than in spheres specifically agreed upon in advance. This is among other things implied in the Terms of Reference for a Sustainable Development Program, which are merely procedural and do not contain a list of agreed themes.¹³ As project proposals ultimately require consensus, this imposes a considerable restriction on the Council's mandate. Marine mammal issues¹⁴ and, more recently, arctic fisheries management¹⁵ have therefore not been substantively addressed; let alone culminated in projects.

The eight arctic states are Members of the Arctic Council. A unique aspect of the Arctic Council is the role it gives to the region's Indigenous peoples. They are normally accorded the status of non-governmental organizations (NGOs) in different inter-governmental organisations and forums, but the Arctic Council defines them as 'Permanent Participants', a distinct category of membership between Members proper and Observers, whom the Arctic Council Members must consult prior to any consensus decision-making. The group of observers is large, and consists of inter-governmental and non-governmental organisations as well as states that are active in the Arctic region.¹⁶

The four environmental protection working groups of the AEPS – namely Conservation of Arctic Flora and Fauna (CAFF), Protection of the Arctic Marine Environment (PAME), Emergency Prevention, Preparedness and Response (EPPR), and the Arctic Monitoring and Assessment Programme (AMAP) – were integrated into the structure of the Council. In addition, two new working groups were established, namely the Sustainable Development Working Group (SDWG) and the Arctic Contaminants Action Program (ACAP). In the absence of a permanent secretariat,¹⁷ the work of the Arctic Council is heavily influenced by the priorities that the chair-state lays out for its two-year chair period, and by the ministerial meetings which are held at the end of each chair's term. Senior Arctic Officials

7 This can for instance be deduced from the Ilulissat Declaration, note 220 infra.

8 Declaration on the Establishment of the Arctic Council, Ottawa, 19 September 1996; 35 *International Legal Materials* 1387 (1996), <arctic-council.org>.

9 Adopted in Rovaniemi, 14 June 1991; 30 *International Legal Materials* 1624 (1991), <arctic-council.org>.

10 Art. 1 of the Ottawa Declaration.

11 Annex 1 to the 1998 Senior Arctic Officials (SAOs) Report.

12 Cf. E.T. Bloom, 'Establishment of the Arctic Council', 93 *American Journal of International Law* 712-722 (1999), at p. 718

13 Cf. Bloom, note 12 supra, at p. 719.

14 Cf. Bloom, note 12 supra, at pp. 719-720.

15 Final Report of the November 2007 SAOs Meeting, at p. 12.

16 For an analysis, see T. Koivurova and D.L. VanderZwaag, 'The Arctic Council at 10 Years: Retrospects and Prospects' 40 *University of British Columbia Law Review* 121-194 (2007), at pp. 128-159. For the current list of Permanent Participants and Observers see <www.arctic-council.org>. Annex 2 to the Arctic Council Rules of Procedure, note 11 supra, contains in para. 1 a list of Accredited Observers. Other Observers are so-called Ad-Hoc Observers.

17 Note, however, that the three Scandinavian states established a semi-permanent secretariat in Tromsø, which will operate until 2012.

(SAOs), a group of high-level officials, guides the work of the Council between ministerial meetings.

The Arctic Council is an inter-governmental forum established by means of a non-legally binding declaration and does not have the competence to impose legally binding obligations of any kind whatsoever on its Members, Permanent Participants or Observers. The most it can do from the governance perspective is to issue policy recommendations, such as the one commissioning the Arctic Climate Impact Assessment (ACIA), and to adopt guidelines and recommendations on how the arctic states should conduct themselves in certain fields of activity. It should be noted, however, that the issue of the 'Effectiveness and Efficiency of the Arctic Council' is currently a standing item on the agenda of SAOs meetings and will also be addressed at the April 2009 Ministerial meeting.¹⁸ So far, the main focus has been to ensure that the existing forms of cooperation work as effectively as possible (e.g. the role of observers and tasking of various Working Groups).

The Arctic Council has done important assessment work (sometimes with policy recommendations) relating to the Arctic marine area and produced non-legally binding guidelines and manuals of good practice. These have often been influential in many international environmental protection processes. PAME's work agenda has become increasingly ambitious with the adoption of its 2004 Arctic Marine Strategic Plan (AMSP), which encourages actions on many fronts. PAME developed the AMSP through the various Arctic Council working groups and mechanisms, as well as via regional and global bodies. The AMSP identifies the largest drivers of change in the Arctic to be climate change and increasing economic activity and suggests actions in many areas, for instance: conducting a comprehensive assessment of arctic marine shipping, which led to the Arctic Marine Shipping Assessment (AMSA) to be finalized in 2009; developing guidelines and procedures for port reception facilities for ship-generated wastes and residues; examining the adequacy of the Arctic Council's Arctic Offshore Oil and Gas Guidelines with revision by 2009; identifying potential areas where new guidelines and codes of practice for the marine environment are needed; promoting application of the ecosystem approach; promoting the establishment of marine protected areas, including a representative network; calling for periodic reviews of both international and regional agreements and standards; and promoting implementation of contaminant-related conventions or programs and possible additional global and regional actions.

2.4. The current international law of the sea

The cornerstones of the current international law of the sea are the LOS Convention¹⁹ and its two implementation agreements, the Part XI Deep-Sea Mining Agreement²⁰ and the Fish Stocks Agreement²¹. The current international law of the sea applies to the marine environment of the entire globe; including therefore the entire marine environment of the Arctic, however defined.

The LOS Convention's overarching objective is to establish a universally accepted, just and equitable legal order – or 'Constitution' – for the oceans that lessens the risk of international conflict and enhances stability and peace in the international community.

18 Final Report of the November 2007 SAOs Meeting, at p. 14.

19 United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982. In force 16 November 1994, 1833 *United Nations Treaty Series* 396; <www.un.org/Depts/los>.

20 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, New York, 28 July 1994. In force 28 July 1996, 33 *International Legal Materials* 1309 (1994); <www.un.org/Depts/los>.

21 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, New York, 4 August 1995. In force 11 December 2001, 34 *International Legal Materials* 1542 (1995); <www.un.org/Depts/los>.

The LOS Convention currently has 157 parties, the Part XI Deep-Sea Mining Agreement 135 parties and the Fish Stocks Agreement 72 parties. All arctic states are parties to these three treaties, except for the United States, which is not a party to either the LOS Convention or the Part XI Deep-Sea Mining Agreement.²² The European Community (EC) is party to all three treaties. This is important in view of the fact that Denmark, Finland and Sweden are Member States of the European Union (EU)²³ and Iceland and Norway are parties to the EEA Agreement²⁴.

The LOS Convention recognizes the sovereignty, sovereign rights, freedoms, rights, jurisdiction and obligations of states within several maritime zones. The most important of these for the Arctic are internal waters, territorial sea, exclusive economic zone (EEZ), continental shelf, high seas and the 'Area'²⁵. Internal waters lie landward of the baselines. The maximum breadth of the territorial sea is 12 nautical miles (nm; 1 nm = 1852 meters) measured from the baselines, 24 nm the maximum breadth for the contiguous zone, and 200 nm for the EEZ. However, in many geographical settings these maximum breadths cannot be reached due to the proximity of the baselines of opposite states. In such circumstances maritime boundaries have to be agreed on by the opposite states. Several of such maritime boundaries have already been established in the Arctic marine area and negotiations on several others are still ongoing.

There are four high seas pockets (enclaves) in the AMAP area. These are the so-called 'Banana Hole' in the Norwegian Sea, the so-called 'Loop Hole' in the Barents Sea, the so-called 'Donut Hole' in the central Bering Sea and the central Arctic Ocean.

The LOS Convention recognizes the sovereignty of a coastal state over its internal waters, archipelagic waters and territorial sea, the airspace above and its bed and subsoil. Sovereignty entails exclusive access and control of living and non-living resources and all-encompassing jurisdiction over all human activities, unless states have in one way or another consented to restrictions thereon. The LOS Convention also recognizes specified economic and resource-related sovereign rights and jurisdiction of a coastal state with respect to its EEZ and (where relevant) outer continental shelf. Nevertheless, other states have navigational rights or freedoms within the maritime zones of coastal states and, with respect to their EEZ and (where relevant) outer continental shelf, also the freedoms of overflight, laying of submarine cables and pipelines and "other internationally lawful uses of the sea related to these freedoms".²⁶

Article 76 of the LOS Convention also recognizes that in certain circumstances the continental shelf extends beyond 200 nm from the baselines. This is the so-called 'outer continental shelf'. Coastal states that take the view that they have an outer continental shelf, must submit information on its outer limits on the basis of the criteria in Article 76 to the Commission on the Limits of the Continental Shelf (CLCS). The limits of the outer continental shelf established by the coastal state "on the basis of" the recommendations of the CLCS "shall be final and binding".²⁷ So far, only the Russian Federation and Norway have made submissions to the CLCS in relation to their outer continental shelves that lie within the Arctic marine area. The CLCS has up until now only made an interim recommendation in relation to the submission of the Russian Federation. The CLCS essentially recommended the Russian Federation to make a revised submission as

22 Information obtained from <www.un.org/Depts/los> on 16 December 2008.

23 Even though EU membership of Denmark does not encompass Greenland.

24 Agreement on the European Economic Area, Brussels, 17 March 1993. In force 1 January 1994; <www.efta.int>. Note that the EEA Agreement does not apply to Svalbard.

25 Art. 1(1)(1) of the LOS Convention defines 'Area' as "the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction".

26 Art. 58(1) of the LOS Convention.

27 Art. 76(8) of the LOS Convention.

regards the central Arctic Ocean basin. The Russian Federation is expected to do this in 2010. Canada, Denmark (in relation to Greenland) and the United States are all engaged in activities to enable them to make submissions to the CLCS, despite the fact that the United States is not yet party to the LOS Convention. Canada has to make its submission before November 2013 and Denmark before November 2014.²⁸ It should be noted that it is likely that there will be two pockets of the Area in the central Arctic Ocean.²⁹

In the high seas, all states have the freedoms already mentioned above as well as the freedom to construct artificial islands and other installations, the freedom of fishing and the freedom of scientific research. These freedoms are all subject to conditions and obligations.³⁰ The Area and its resources are the common heritage of mankind and the International Sea-bed Authority (ISA) is charged with organizing and controlling all activities of exploration for, and exploitation of, the resources of the Area.³¹

The Treaty of Spitsbergen³² grants sovereignty over Svalbard to Norway and there seems to be increasingly less opposition by other states to Norway's entitlement to establish an EEZ and outer continental shelf off Svalbard. Disagreement still exists, however, on the way in which these sovereign rights and jurisdiction granted to coastal states under the LOS Convention should be exercised in light of the equal rights accorded to parties to the Treaty of Spitsbergen.³³

2.5. OSPAR Convention³⁴

2.5.1. Introduction

The spatial scope of the regional OSPAR Convention³⁵ extends to the 'OSPAR Maritime Area', which includes areas within and beyond national jurisdiction.³⁶ The OSPAR Maritime Area roughly overlaps with the Atlantic sector of the Arctic marine area, but about half extends further south. The complete spatial overlap of the OSPAR Maritime Area with the NEAFC Convention³⁷ Area offers potential for integrated, cross-sectoral ecosystem-based ocean management.³⁸

The OSPAR Convention contains a set of basic rules and principles which are elaborated in its five annexes and three accompanying appendices. The four annexes that were adopted together with the convention deal with pollution from land-based sources (Annex I), pollution by dumping or incineration (Annex II), pollution from offshore sources (Annex III) and the assessment of the quality of the marine environment (Annex IV). Annex V on the Protection and Conservation of Ecosystems and Biological Diversity of the Maritime Area was adopted in 1998, together with Appendix 3 containing criteria for

28 Cf. Art. 4 of Annex II to the LOS Convention.

29 There may also be a pocket of the Area in the central Bering Sea.

30 Art. 87(1) of the LOS Convention.

31 Arts 1(1)(3), 136 and 157(1) of the LOS Convention.

32 Treaty on the Status of Spitsbergen, Paris, 9 February 1920. In force 14 August 1925; 2 *League of Nations Treaty Series* 8.

33 See in this regard the Notes Verbales by Spain and the Russian Federation in response to the Norwegian submission to the CLCS in 2006 (available at <www.un.org/Depts/los>).

34 The text of this section benefits from earlier research, the results of which are laid down in H. Dotinga and E.J. Molenaar, 'The Mid-Atlantic Ridge: A Case Study on the Conservation and Sustainable Use of Marine Biodiversity in Areas Beyond National Jurisdiction', IUCN Marine Law and Policy Paper No. 3 (2008), available at <cms.iucn.org>.

35 Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992. In force 25 March 1998, <www.ospar.org>. Annex V, Sintra, 23 September 1998. In force 30 August 2000; amended and updated text available at <www.ospar.org>.

36 Art. 1(a) of the OSPAR Convention.

37 See note 85 *infra*.

38 Note, however, that the NEAFC Convention Area and the OSPAR Maritime Area do not appear to encompass the waters north of Greenland between 44° west longitude and 42° west longitude extending to the North Pole. While Art. 1(a)(1) of the NEAFC Convention and Art. 1(a)(i) of the OSPAR Convention use the phrase "Atlantic and Arctic Oceans", the term 'Arctic' does not appear in Art. 1(a)(2) of the NEAFC Convention or Art. 1(a)(2) of the OSPAR Convention. While it may sometimes be difficult to point out where the Arctic Ocean begins and the Atlantic Ocean ends, the waters north of Greenland would seem undoubtedly part of the Arctic Ocean. In the fall of 2008, the Secretary of NEAFC approached the Members of NEAFC to obtain their view on this issue.

identifying human activities for the purpose of Annex V, and entered into force in 2000. The main pillars to guide the implementation of the OSPAR Convention and its annexes are the six strategies that were reaffirmed and updated in 2003, including the Biological Diversity and Ecosystems Strategy (OSPAR Biodiversity Strategy).³⁹

There are currently 16 parties to the OSPAR Convention: all coastal states bordering the North-East Atlantic except the Russian Federation, two states (Luxemburg and Switzerland) that are located upstream on watercourses reaching the OSPAR Maritime Area and the EC. Of the arctic states, Canada and the United States (in addition to the Russian Federation) are also not parties. Nevertheless, the OSPAR Convention specifically provides for the participation of other states, such as coastal states outside the OSPAR Maritime Area or states whose vessels or nationals are engaged in activities in the OSPAR Maritime Area. These can be invited by the contracting parties by unanimous vote to accede to the convention and, if necessary, the spatial scope of the Maritime Area can even be redefined.⁴⁰ Other states can also obtain observer status.⁴¹ So far, this has not occurred.

The OSPAR Convention covers the regulation of all human activities which can have an adverse effect on the ecosystems and the biodiversity in the North East Atlantic, with the explicit exception of fisheries management and with certain limitations for the regulation of shipping.⁴² Nevertheless, while these limitations significantly restrain the competence of the OSPAR Commission to adopt effective programs or measures for these activities, both maritime activities are given due consideration in the context of the assessment of the quality status of the marine environment in the region conducted in accordance with article 6 and Annex IV to the OSPAR Convention. These assessments are holistic in scope and include data on all human activities, including the effects of fisheries and shipping. A new Quality Status Report for the entire North East Atlantic is under preparation to be completed by 2010.

The OSPAR Commission can adopt measures and programs in the form of legally binding decisions, non-legally binding recommendations⁴³ and other agreements⁴⁴ for all activities except fisheries and with some limitations for other activities (see below under 'regulation of maritime activities'). These measures and programs can apply to the entire Maritime Area or to a specific (sub)region.⁴⁵ It should be noted, however, that so far the OSPAR Commission has not imposed measures on non-parties.

The overall objective of the OSPAR Convention is "to prevent and eliminate marine pollution and to achieve sustainable management in the region, that is, the management of human activities in such a manner that the marine ecosystem will continue to sustain the legitimate uses of the sea and will continue to meet the needs of present and future generations".⁴⁶ In accordance with this general objective, the OSPAR Biodiversity Strategy provides that a specific objective of the OSPAR Commission is "to protect and conserve the ecosystems and the biological diversity of the maritime area which are, or could be, affected as a result of human activities, and to restore, where practicable, marine areas

39 Strategies of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic, Chapter I (OSPAR Agreement 2003-21; Summary Record OSPAR 2003, OSPAR 03/17/1-E, Annex 31).

40 Art. 27(2) of the OSPAR Convention.

41 Art. 11 of the OSPAR Convention.

42 Art. 4 of Annex V to the OSPAR Convention.

43 It should be noted that recommendations carry in practice almost the same weight as legally binding decisions and they are often endowed with similar features such as deadlines and reporting requirements.

44 Arts 10(3) and 13 of the OSPAR Convention.

45 Art. 24 of the OSPAR Convention.

46 Preamble to the OSPAR Convention.

which have been adversely affected, in accordance with the provisions of the Convention, including Annex V and Appendix 3.⁴⁷

The OSPAR Convention and Annex V in particular, provide a comprehensive legal framework for the implementation of Part XII of the LOS Convention and the CBD⁴⁸ and its work program on marine and coastal biodiversity at a regional level.⁴⁹ The OSPAR Convention mandates the application of the precautionary principle, which is also seen as a central part of the ecosystem approach.⁵⁰ In the context of pollution, the OSPAR Convention also requires the application of the polluter pays principle, the use of best available techniques and best environmental practice, including, where appropriate, clean technology.⁵¹

Even though the OSPAR Convention does not explicitly refer to the ecosystem approach, the OSPAR Commission has defined it and agreed to apply it and to further develop the measures necessary for its implementation.⁵² The OSPAR Commission has already developed a set of ecological quality objectives that (can) serve as a tool to implement the ecosystem approach (to date only applied to the North Sea, but their application to other parts of the North East Atlantic is being considered). Other tools such as marine spatial planning are under consideration, but not yet operational. While the application of an ecosystem approach is promoted by the OSPAR Commission for the entire North East Atlantic, the extent to which this will be successful depends on the extent to which all other competent international organizations (global and regional) and non-parties cooperate. The OSPAR Commission encourages other authorities whose actions affect the North East Atlantic to adopt management measures and strategies that are consistent with an ecosystem approach. This includes promoting cooperation in marine spatial planning between competent authorities.

The remainder of this chapter contains a more detailed look at the following topics (a) shipping, (b) dumping and pollution from offshore sources, (c) marine scientific research and bioprospecting, (d) other existing, new and emerging activities, (e) representative networks of marine protected areas (MPAs) and (f) assessments, including EIA and SEA.

2.5.2. Shipping

While competence for the regulation of shipping lies first of all with IMO, action under the OSPAR Convention is not entirely precluded. As with fisheries, the OSPAR Commission must first bring questions to the attention of the IMO, if it considers that action is desirable. Contracting Parties who are IMO members must endeavour to cooperate “in order to achieve an appropriate response, including in relevant cases that Organisation’s agreement to regional or local action ...”.⁵³ The OSPAR Commission has already taken some supplementary action. This includes for example the adoption of regional voluntary guidelines to reduce the risk of the introduction of non-indigenous species through ships’ ballast water,⁵⁴ as an interim measure pending the entry into force of the BWM

47 OSPAR Agreement 2003-21, Chapter I, para. 1.1.

48 Convention on Biological Diversity, Nairobi, 22 May 1992. In force 29 December 1993, 31 *International Legal Materials* 822 (1992); <www.biodiv.org>.

49 Art. 2 of Annex V to the OSPAR Convention.

50 Art. 2(2)(a) of the OSPAR Convention and Art. 3(1)(b)(ii) of Annex V.

51 OSPAR Convention, articles 2(2)(b) and 2(3).

52 The definition is contained in the Statement on the Ecosystem Approach to the Management of Human Activities (Joint Meeting of the Helsinki & OSPAR Commissions 2003, Record of the Meeting, Annex 5), para. 5.

53 Art. 4(2) of Annex V to the OSPAR Convention.

54 General Guidelines on the voluntary interim application of the D-1 Ballast Water Exchange Standard in the North-East Atlantic (Summary Record OSPAR 2007, OSPAR 07/24/1-E, Annex 9).

Convention⁵⁵. These guidelines recommend that all vessels within the scope of the BWM Convention entering the North East Atlantic have a Ballast Water Management Plan, record all ballast water operations and exchange ballast water at least 200 nm from the nearest land in water at least 200 metres deep. These voluntary guidelines are recommended for all vessels, including those of non-contracting parties to the OSPAR Convention.

2.5.3. Dumping and pollution from offshore sources

The regulation of pollution by dumping and pollution resulting from offshore sources is covered by Articles 4 and 5 of the OSPAR Convention, its Annexes II and III, the Offshore Oil and Gas Industry Strategy⁵⁶ and an extensive list of Decisions, Recommendations and other agreements adopted by the OSPAR Commission and its predecessor⁵⁷. Some of these Decisions and Recommendations complement global rules standards under MARPOL 73/78^{58, 59}.

Annex II provides that dumping (and incineration) of all wastes or other matter is prohibited in the OSPAR Maritime Area, except for the listed substances.⁶⁰ However, the Annex does not apply to any deliberate disposal of wastes or other matter from offshore installations.⁶¹ Annex III prohibits any dumping of wastes or other matter from offshore installations in the OSPAR Maritime Area and provides the legal basis for the measures that have been adopted for the prevention and elimination of pollution from offshore sources.⁶² It also prohibits the dumping of disused offshore installations and disused offshore pipelines without a permit obtained from the competent authorities and subjects the “use on, or the discharge or emission from, offshore sources of substances which may reach and affect the maritime area” to authorization and regulation.⁶³

Annexes II and III were amended in 2007 to allow the storage of carbon dioxide (CO₂) streams in geological formations under the seabed, combined with a decision to ensure environmentally safe storage and guidelines for risk assessment and management of this activity.⁶⁴ At the same time, the OSPAR Commission adopted a decision prohibiting the storage of CO₂ streams in the water column or on the seabed.⁶⁵ These measures are consistent with those adopted in relation to CO₂ storage within the framework of the London Convention⁶⁶ and its 1996 Protocol⁶⁷.

55 International Convention for the Control and Management of Ships' Ballast Water and Sediments, London, 13 February 2004. Not in force, IMO Doc. BWM/CONF/36, of 16 February 2004.

56 See note 39 supra.

57 These are available at <www.ospar.org>.

58 International Convention for the Prevention of Pollution from Ships, London, 2 November 1973, as modified by the 1978 Protocol (London, 1 June 1978) and the 1997 Protocol (London, 26 September 1997) and as regularly amended. Entry into force varies for each Annex. At the time of writing Annexes I-VI were all in force. At the 57th Session of MEPC in April 2008, extensive draft amendments to Annex VI were adopted. If adopted at the 58th Session in October 2008, these amendments would enter into force 16 months thereafter in accordance with the tacit amendment procedure. The amendments are contained in IMO Doc. MEPC 57/21/Add.1, of 2008, 'Report of the Marine Environment Protection Committee on its Fifty-Seventh Session', Annex 5.

59 E.g. PARCOM Recommendation 86/1 'of a 40mg/l emission standard for platforms'.

60 Art. 3(1) of Annex II to the OSPAR Convention.

61 Art. 1(a) of Annex II to the OSPAR Convention.

62 Art. 3(1) of Annex III to the OSPAR Convention.

63 Cf. Arts 4(1) and 5 of Annex III to the OSPAR Convention and, inter alia, OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations.

64 See, inter alia, OSPAR Decision 2007/2 and OSPAR Agreement 2007-12 'Guidelines for Risk Assessment and Management of Storage of CO₂ Streams in Geological Formations'.

65 OSPAR Decision 2007/1.

66 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, London, Mexico City, Moscow, Washington D.C., 29 December 1972. In force 30 August 1975, 11 *International Legal Materials* 1294 (1972); as amended, consolidated version available at <www.imo.org>.

67 London, 7 November 1996. In force 24 March 2006, *Law of the Sea Bulletin* No. 34 (1997), p. 71; as amended in 2006, consolidated version at <www.imo.org>.

2.5.4. Marine scientific research and bioprospecting

In 2008, the OSPAR Commission adopted the 'Code of Conduct for Responsible Marine Research in the Deep Seas and High Seas of the OSPAR Maritime Area'.⁶⁸ More technical documents focused on research into particular deep sea features are foreseen.⁶⁹

2.5.5. Other existing, new or emerging activities

Annex V allows the OSPAR Commission to adopt programs and measures to safeguard against harm to marine ecosystems and biodiversity resulting from all other existing or new activities. A variety of human activities has been identified by the OSPAR Commission on the basis of the criteria contained in Appendix 3 for assessment purposes. These include: the exploration for oil, gas and solid minerals; the placement of structures for the exploitation of oil and gas; the construction or placement of artificial islands, artificial reefs, installations and structures; the placement of cables and pipelines; the introduction of alien or genetically modified species, whether deliberately or unintentionally; and sea-based tourism.⁷⁰ These activities are currently the subject of assessments with attention also given to underwater noise and marine litter. The aim of these assessments is to identify the impact of these activities on the marine environment, what is already being done and to provide the basis for decisions on the development of programs and measures for specific human activities.

2.5.6. Representative networks of MPAs

Annex V requires the OSPAR Commission "to develop means, consistent with international law, for instituting protective, conservation, restorative or precautionary measures related to specific areas or sites or related to specific species or habitats".⁷¹ It thus provides a legal basis for the adoption of area-based measures in the entire North East Atlantic, including both for areas within and beyond national jurisdiction. This is affirmed by the OSPAR Biodiversity Strategy and more specifically by OSPAR Recommendation 2003/3 that requires the OSPAR Commission to develop and evaluate by 2010 an ecologically coherent network of well-managed protected areas in the maritime area (the 'OSPAR Network of MPAs').

The OSPAR Commission has developed a procedure for the identification, selection and management of OSPAR MPAs. While many OSPAR Members have nominated MPAs, the OSPAR Commission has so far not adopted measures to manage these MPAs. The principal gap appears to lie in the limitations on the regulatory competence of the OSPAR Commission with regard to certain activities and the absence of mechanisms to coordinate the regulation of all maritime activities by the relevant competent global and regional organizations. Mention can in this context be made of the test-case proposal for an OSPAR MPA situated beyond 200 nm from the coast.⁷² Success in achieving the integrated, cross-sectoral ecosystem-based ocean management objectives of this MPA is likely to require coordination and cooperation between the OSPAR Commission with, inter alia, NEAFC, IMO and ISA. Cooperation with NEAFC on this issue has already taken place.

68 Summary Record OSPAR 2008, OSPAR 08/24/1-E, at Annex 6.

69 See also D. Owen, 'The powers of the OSPAR Commission and coastal State parties to the OSPAR Convention to manage marine protected areas on the seabed beyond 200 nm from the baseline' (WWF Germany: 2006).

70 OSPAR Agreement 2003-21, Chapter I, para. 2.2

71 Art. 3(1)(b)(ii) of Annex V to the OSPAR Convention.

72 'Proposal for an OSPAR area of interest for establishing an MPA on the Mid Atlantic Ridge/Charlie Gibbs Fracture Zone. Presented by WWF, the Netherlands and Portugal' (Doc. OSPAR 08/7/9-E). See also Summary Record OSPAR 2008, OSPAR 08/24/1-E, at paras 7.16-7.24.

Another indication of the strengthening cooperation between the two organizations is the OSPAR/NEAFC Memorandum of Understanding (MOU) that entered into force in 2008.⁷³

2.5.7. Assessments, including EIA and SEA

Article 6 of the OSPAR Convention contains a general obligation to collaborate in regular joint monitoring and assessment of the quality of the marine environment in the North East Atlantic. Annex IV elaborates this by providing specific requirements on cooperation in monitoring programs, joint quality assurance arrangements, the development of scientific assessment tools, such as modelling, remote sensing and risk assessment strategies, and the preparation of assessments. These requirements are closely linked to the monitoring and assessment requirements for the maritime activities that are covered by each of the other annexes to the convention. The Strategy for the Joint Assessment and Monitoring Programme sets out the basis on which the OSPAR Contracting Parties will work together in fulfilling these obligations over the period until 2010.⁷⁴ The OSPAR Biodiversity Committee is currently conducting a review of existing arrangements to establish whether they adequately cover transboundary and cumulative impacts other than environmental impacts.

The OSPAR Convention does not establish a separate (transboundary) EIA or SEA procedure. However, several provisions in the Annexes to the OSPAR Convention de facto require EIAs for certain human activities such as dumping or offshore hydrocarbon activities. Moreover, the monitoring and assessment programs under the OSPAR Convention clearly contribute to assessing whether existing and new activities have significant adverse impacts on marine biodiversity in the North East Atlantic.

2.6. Sectoral governance and regulation of the marine Arctic

2.6.1. Introduction

This section focuses on sectoral governance and regulation of the marine Arctic. So far, only a concise overview of fisheries management, shipping and offshore hydrocarbon activities has been incorporated. Other sectors that could be covered are:

- Pollution by dumping
- Land-based pollution
- Conservation and management of marine mammals
- Marine scientific research

Note, however, that subsections 2.5.3 and 2.5.4 devote some attention to pollution by dumping and marine scientific research and that subsection 2.8 lists some relevant global, regional and bilateral agreements relating to the conservation and management of marine mammals.

2.6.2. Fisheries management

All the global legally binding and non-legally binding instruments related to fisheries conservation and management are also applicable to marine areas in the Arctic, however defined. The most important ones are the LOS Convention, the Fish Stocks Agreement, the FAO Compliance Agreement,⁷⁵ the FAO Code of Conduct for Responsible Fisheries,⁷⁶

⁷³ The Draft adopted by the OSPAR Commission is contained in Annex 13 to Summary Record OSPAR 2008, OSPAR 08/24/1-E, at Annex 13. See also para. 7.23(f). The MOU entered into force on 5 September 2008.

⁷⁴ OSPAR Agreement 2003-22.

⁷⁵ Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, Rome, 24 November 1993. In force 24 April 2003, 33 *International Legal Materials* 969 (1994); <www.fao.org/legal>.

⁷⁶ Code of Conduct for Responsible Fisheries. Adopted by the Twenty-eight Session of the FAO Conference, Rome, 31 October 1995, <www.fao.org/fi>.

and its Technical Guidelines, international plans of action (IPOAs) – for instance the IPOA-IUU⁷⁷ – and the Model Scheme on PSM⁷⁸ and Resolutions of the United Nations General Assembly (UNGA), among other things on driftnets and destructive fishing practices⁷⁹. Moreover, all marine areas of the Arctic also fall in principle within the competence of the bodies established by these instruments or that are responsible for adopting them.

At the regional level, there are a number of RFMOs and bilateral or regional organizations/arrangements whose spatial scope overlaps to some extent with the Arctic marine area. These are:

- the International Commission on the Conservation of Atlantic Tunas (ICCAT), established by the ICCAT Convention⁸⁰
- the bilateral (Canada and the United States) International Pacific Halibut Commission (IPHC), established by the IPHC Convention⁸¹
- the bilateral (Russian Federation and the United States) Intergovernmental Consultative Committee (ICC), established by the Agreement on Mutual Fisheries Relations⁸²
- the Northwest Atlantic Fisheries Organization (NAFO), established by the NAFO Convention.⁸³ Its main regulatory body is the NAFO Fisheries Commission
- the North Atlantic Salmon Conservation Organization (NASCO), established by the NASCO Convention⁸⁴
- the North-East Atlantic Fisheries Commission (NEAFC), established by the NEAFC Convention⁸⁵
- the North Pacific Anadromous Fish Commission (NPAFC), established by the NPAFC Convention⁸⁶

77 International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. Adopted by consensus by FAO's Committee on Fisheries on 2 March 2001 and endorsed by the FAO Council on 23 June 2001; <www.fao.org/fi/>.

78 Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing endorsed by the Committee on Fisheries (COFI) at its Twenty-Sixth Session in March 2005.

79 See inter alia UNGA Resolution No. 61/105, of 8 December 2006, 'Sustainable fisheries, including through the 1995 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, and related instruments', in particular paras 59 and 80-86.

80 International Convention for the Conservation of Atlantic Tunas, Rio de Janeiro, 14 May 1966. In force 21 March 1969, *United Nations Treaty Series* No. 9587 (1969); <www.iccat.int/>.

81 Convention for the Preservation of the Halibut Fishery of the North Pacific Ocean and the Bering Sea, Ottawa, 2 March 1953. In force 28 October 1953, 222 *United Nations Treaty Series* 78 (1955). Exchange of Notes Constituting an Agreement to Amend the [IPHC Convention], Washington, 29 March 1979. In force 29 March 1979, 1168 *United Nations Treaty Series* 380 (1980).

82 Agreement between the Government of the United States of America and the Government of the Union of Soviet Socialist Republics on Mutual Fisheries Relations, Moscow, 31 May 1988. In force 28 October 1988, *Treaties and other International Acts Series* 11,422. The agreement expires on 31 December 2008 but the United States will seek to extend it with another five years. The two states are currently engaged in negotiations to establish a comprehensive fisheries agreement for the Northern Bering Sea. At the 2007 ICC meeting, only three provisions of the draft agreement remained unresolved. The next ICC meeting is scheduled to take place in September 2008 (information obtained from <www.nmfs.noaa.gov/ia/bilateral/>, visited 26 August 2008).

83 Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries, Ottawa, 24 October 1978. In force 1 January 1979, 1135 *United Nations Treaty Series* 369; <www.nafo.int/>. 2007 Amendment, Lisbon, 28 September 2007. Not in force, NAFO/GC Doc. 07/4. The 2007 Amendment consists of eight articles which replace the title with 'Convention on Cooperation in the Northwest Atlantic Fisheries' and the existing preamble, annexes and almost all provisions by new ones.

84 Convention for the Conservation of Salmon in the North Atlantic Ocean, Reykjavik, 2 March 1982. In force 1 October 1983, 1338 *United Nations Treaty Series* 33; <www.nasco.int/>.

85 Convention on Future Multilateral Cooperation in the North-East Atlantic Fisheries, London, 18 November 1980. In force 17 March 1982, 1285 *United Nations Treaty Series* 129; <www.neafc.org/>. 2004 Amendments (Art. 18bis), London; 12 November 2004. Not in force, but provisionally applied by means of the 'London Declaration' of 18 November 2005; <www.neafc.org/>. 2006 Amendments, London (Preamble, Arts 1, 2 and 4), 11 August 2006. Not in force, but provisionally applied by means of the 'London Declaration' of 18 November 2005; <www.neafc.org/>.

86 Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean, Moscow, 11 February 1992. In force 16 February 1993, 22 *Law of the Sea Bulletin* 21 (1993); <www.npafc.org/>.

- the Norway-Russian Federation Fisheries Commission (governed and established by the 1975 Framework Agreement,⁸⁷ the 1976 Mutual Access Agreement⁸⁸ and the 1978 Grey Zone Agreement⁸⁹) and the trilateral Loophole Agreement and Protocols⁹⁰
- the Western and Central Pacific Ocean Fisheries Commission (WCPFC), established by the WCPFC Convention⁹¹
- the Yukon River Panel of the bilateral (Canada and the United States) Pacific Salmon Commission (PSC), established by the Pacific Salmon Treaty⁹²
- the annual Conference of Parties (CoP) to the CBS Convention⁹³

The Arctic Council has so far not focused on the conservation and management of target species and also lacks any express mandate for conserving or managing Arctic fisheries. The Arctic Council can at any rate not be equated with an RFMO or Arrangement. In view of the discussion at the meeting of SAOs in November 2007,⁹⁴ there is currently considerable opposition within the membership of the Arctic Council against it becoming actively involved in fisheries management and conservation.

In some parts of the Arctic marine area, for instance the North Atlantic, national regulation is expected to be extensive and relate to all or most of the relevant capacities in which states can exercise jurisdiction, namely as flag, coastal, port and market states and with regard to their natural and legal persons. In other parts of the marine Arctic, the presence of ice for most of the year has up until now rendered national fisheries regulation for those areas unnecessary. However, as diminishing ice-coverage will attract fishing vessels looking for possible new fishing opportunities, arctic states will have to develop national regulation for such areas in order to discharge their obligations under international law. The United States is currently engaged in this process with regard to fishing in the maritime zones off Alaska north of the Bering Strait.⁹⁵

2.6.3. Shipping

Introduction

International regulation of vessel-source pollution is primarily done by global bodies and in particular within the IMO. This is a direct consequence of the global nature of

87 Agreement between the Government of Norway and the Government of the Union of Soviet Socialist Republics on Co-operation in the Fishing Industry, Moscow, 11 April 1975. In force 11 April 1975; 983 *United Nations Treaty Series* 7 (1975). See also O.S. Stokke, 'The Loophole of the Barents Sea Fisheries Regime', in: *Governing High Seas Fisheries: The Interplay of Global and Regional Regimes*, O.S. Stokke (ed.) (Oxford University Press: 2001), pp. 273-301, at p. 274.

88 Agreement between the Government of the Union of Soviet Socialist Republics and the Government of the Kingdom of Norway Concerning Mutual Relations in the Field of Fisheries, Moscow, 15 October 1976. In force 21 April 1977; 1157 *United Nations Treaty Series* 146 (1980).

89 'Avtale mellom Norge og Sovjetunionen om en midlertidig praktisk ordning for fisket i et tilstøtende område i Barentshavet', Oslo, 11 January 1978. In force 11 January 1978; Overenskomst med fremmede stater (1978), 436 (Agreement between Norway and the Soviet Union on provisional practical arrangements on fishing in an adjacent area of the Barents Sea).

90 Agreement between the Government of Iceland, the Government of Norway and the Government of the Russian Federation Concerning Certain Aspects of Co-operation in the Area of Fisheries, St. Petersburg, 15 May 1999. In force 15 July 1999; 41 *Law of the Sea Bulletin* 53 (1999); Protocol between the Government of Iceland and the Government of the Russian Federation under the Agreement between the Government of Iceland, the Government of Norway and the Government of the Russian Federation concerning Certain Aspects of Co-operation in the Area of Fisheries St. Petersburg, 15 May 1999. In force 15 July 1999; 14 *International Journal of Marine and Coastal Law* 488-490 (1999); <faolex.fao.org>; and Protocol between the Government of Norway and the Government of Iceland under the Agreement between the Government of Iceland, the Government of Norway and the Government of the Russian Federation concerning Certain Aspects of Co-operation in the Area of Fisheries St. Petersburg, 15 May 1999. In force 15 July 1999; 41 *Law of the Sea Bulletin* 56 (1999) <faolex.fao.org>.

91 Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Honolulu, 5 September 2000. In force 19 June 2004, 40 *International Legal Materials* 277 (2001); <www.wcpfc.int>.

92 Treaty between the Government of Canada and the Government of the United States of America Concerning Pacific Salmon, Ottawa, 28 January 1985. In force 18 March 1985; <www.psc.org>. The Yukon River Panel was established by means of the Yukon River Salmon Agreement of December 2002, which amended the Pacific Salmon Treaty.

93 Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea, Washington, 16 June 1994. In force 8 December 1995, 34 *International Legal Materials* 67 (1995); <www.afsc.noaa.gov/refrm/cbs>.

94 Final Report of the November 2007 SAOs Meeting, at p. 12.

95 The North Pacific Fishery Management Council (NPFMC) is currently developing a comprehensive arctic fishery management plan (FMP) which may be adopted in December 2008 and may become effective in 2009 (see Council Motion, Arctic Fishery Management Plan, June 2008, available at <www.fakr.noaa.gov/npfmc>). See also note 231 *infra* and accompanying text.

international shipping and the interest of the international community in globally uniform international regulation. The LOS Convention safeguards the latter interest by only allowing unilateral coastal state prescription in a few situations. The regional bodies or groupings of states that nevertheless exercise prescriptive or enforcement jurisdiction over vessel-source pollution commonly do this in their capacities as flag states or port states. For instance, Annex IV, entitled 'Prevention of Marine Pollution' of the Environmental Protocol to the Antarctic Treaty⁹⁶ is largely a flag state approach⁹⁷ and regional agreements on port state control such as the Paris MOU⁹⁸ and the Tokyo MOU⁹⁹ are examples of a port state approach.

LOS Convention

Most of the LOS Convention's provisions on vessel-source pollution are laid down in Part XII, entitled 'Protection and Preservation of the Marine Environment'. Section 1 of Part XII, entitled 'General Provisions', applies to all sources of pollution. These sources are:

- Pollution from land-based sources
- Pollution from seabed activities subject to national jurisdiction
- Pollution from activities in the Area
- Pollution by dumping
- Pollution by vessels
- Pollution from or through the atmosphere

Section 1's first provision – Article 192 – lays down the general obligation for all states, in whatever capacity therefore, "to protect and preserve the marine environment". This is elaborated in Article 194 with regard to measures to prevent, reduce and control pollution of the marine environment; aimed specifically at vessel-source pollution in paragraph (3)(b). Other relevant general obligations relate to rare or fragile ecosystems and the habitat of endangered species (Article 194(5)), introduction of alien species (Article 196), co-operation on a global or regional basis (Article 197), contingency plans against pollution (Article 199), monitoring of the risks or effects of pollution (Article 204) and assessment of potential effects of activities (Article 206). Sections 5 and 6 contain separate provisions on prescription and enforcement for each of the sources of pollution.

The jurisdictional framework relating to vessel-source pollution laid down in the LOS Convention is predominantly aimed at flag and coastal states. Apart from one explicit provision (Article 218), port state jurisdiction is only dealt with implicitly. As a general rule, prescriptive jurisdiction by flag and coastal states is linked by means of rules of reference to the notion of 'generally accepted international rules and standards' (GAIRAS). These are the technical rules and standards laid down in instruments adopted by regulatory organizations, in particular IMO. It is likely that the rules and standards laid down in legally binding IMO instruments that have entered into force can at any rate be regarded as GAIRAS.¹⁰⁰ The LOS Convention stipulates that flag state prescriptive jurisdiction over vessel-source pollution is mandatory and must have at least the same level as GAIRAS.¹⁰¹ Coastal state prescriptive jurisdiction over vessel-source pollution is optional under the

96 Protocol on Environmental Protection to the Antarctic Treaty; Annexes I-IV, Madrid, 4 October 1991. In force 14 January 1998; Annex V (adopted as Recommendation XVI-10), Bonn, 17 October 1991. In force 24 May 2002; Annex VI (adopted as Measure 1(2005)), Stockholm, 14 June 2005. Not in force. All texts available at <www.ats.org.ar>.

97 Cf. Art. 2.

98 Memorandum of Understanding on Port State Control, Paris, 26 January 1982. In effect 1 July 1982, as regularly amended. Updated version at <www.parismou.org>.

99 Asia-Pacific Memorandum of Understanding on Port State Control in the Asia-Pacific Region, Tokyo, 1 December 1993. In effect 1 April 1994, as regularly amended. Most recent text at <www.tokyo-mou.org>.

100 For a discussion see E.J. Molenaar, *Coastal State Jurisdiction over Vessel-Source Pollution* (The Hague/Boston/London, Kluwer Law International: 1998), pp. 140-167.

101 Cf. Art. 211(2) of the LOS Convention.

LOS Convention but, if exercised, cannot be more stringent than the level of GAIRAS.¹⁰² This is the general rule even though it is subject to some exceptions. Canada and the Russian Federation rely on one of these – Article 234, entitled ‘Ice-covered areas’ – to prescribe standards that are more stringent than generally accepted international rules and standards (GAIRAS). It should be noted, however, that the LOS Convention gives no guidance as to whether the regime of transit passage – for straits used for international navigation – trumps the regime of Article 234 or vice versa.

IMO

IMO’s mandate relates to (i) vessel-source pollution, (ii) maritime safety and (iii) maritime security. In view of this report’s objective, the latter two spheres of competence are in principle not relevant. However, IMO rules and standards that are primarily aimed at ensuring maritime safety and security are still taken into account if they have a significant subsidiary purpose of pollution prevention. In view of the jurisdictional framework for vessel-source pollution laid down in the LOS Convention and the types of standards agreed to within IMO so far, the following categories of substantive standards or requirements can be distinguished:

- discharge and emission standards, including standards relating to ballast water exchange
- construction, design, equipment and manning (CDEM) standards, including fuel content specifications and ballast water treatment requirements
- navigation standards, in the form of ships’ routing measures, ship reporting systems (SRSs) and vessel traffic services (VTS)
- contingency planning and preparedness standards
- liability and insurance requirements

These types of standards are laid down in a large number of legally binding and non-legally binding instruments. The following are the most important:

Legally binding	Non-legally binding
<ul style="list-style-type: none"> • COLREG 72ⁱ • MARPOL 73/78ⁱⁱ • SOLAS 74ⁱⁱⁱ • STCW 78^{iv} • BWM Convention^v • OPRC 90^{vi} and its 2000 HNS Protocol^{vii} • 1969 Civil Liability Convention^{viii} • 1971 Fund Convention^{ix} 	<ul style="list-style-type: none"> • General Provisions on Ships’ Routing^x • PSSA Guidelines^{xi} • Arctic Shipping Guidelines^{xii}

Apart from the Arctic Shipping Guidelines, all these legally binding and non-legally binding instruments have a global scope of application and therefore apply in principle to the entire marine Arctic.¹⁰³ Nevertheless, in varying ways most of other these instruments also allow for the adoption of more stringent measures in specified geographical areas. As explained below, this is very explicit for MARPOL 73/78 which contains – in addition to CDEM standards – also discharge and emission standards. The BWM Convention is the only other IMO instrument that contains discharge standards. Below some attention

- i Convention on the International Regulations for Preventing Collisions at Sea, London, 20 October 1972. In force 15 July 1977, as regularly amended.
- ii See note 58 supra.
- iii International Convention for the Safety of Life at Sea, London, 1 November 1974. In force 25 May 1980, with protocols and regularly amended.
- iv International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, London, 1 December 1978. In force 28 April 1984, as amended and modified by the 1995 Protocol.
- v See note 55 supra.
- vi International Convention on Oil Pollution Preparedness, Response and Co-operation, London, 30 November 1990. In force 13 May 1995, 30 International Legal Materials 733 (1990).
- vii Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, London, 15 March 2000. In force 14 June 2007, IMO Doc. HNS-OPRC/CONF/11/Rev.1, of 15 March 2000.
- viii International Convention on Civil Liability for Oil Pollution Damage, Brussels, 29 November 1969. In force 19 June 1975, 9 International Legal Materials 45 (1970).
- ix International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Brussels, 18 December 1971. In force 16 October 1978, 11 International Legal Materials 284 (1972).
- x IMO Resolution A.572(14), ‘General Provisions on Ships’ Routing’. Adopted on 20 November 1985, amended among other things by Resolution MSC.71(69), Resolution MSC.165(78) and Resolutions adopted by MSC 70, MSC 73 and MSC 79 (see IMO Doc. SN/Circ.204, of 8 January 1999, IMO Doc. SN/Circ.215, of 19 January 2001 and IMO Doc. SN/Circ.241, of 14 December 2004). At its 54th Session in 2008, NAV adopted amendments to the General Provisions on Ships’ Routing. These still have to be adopted by the MSC and confirmed by the IMO Assembly (info obtained from <www.imo.org> at 25 August 2008).
- xi IMO Assembly Resolution A.982(24), of 1 December 2005, ‘Revised Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas’ (IMO doc. A.24/Res.982, of 6 February 2006).
- xii ‘Guidelines for Ships Operating in Arctic Ice-Covered Waters’, IMO Doc. MSC/Circ.1056 – MEPC/Circ.399, of 23 December 2002. See also note 121 infra and accompanying text.

102 Cf. Arts 21(2), 39(2) and 211(5) of the LOS Convention.

103 Even though not all arctic states may be parties to all these instruments. Note, for instance, that the Russian Federation is not a party to the OPRC 90.

is given to MARPOL 73/78, the BWM Convention, the Arctic Shipping Guidelines and the PSSA Guidelines.

MARPOL 73/78

The Annexes to MARPOL 73/78 contain discharge standards for oil (Annex I), noxious liquid substances (Annex II), sewage (Annex IV) and garbage (Annex V) and emission standards for ozone depleting substances, nitrogen oxides (NOx), sulphur oxides (SOx) and volatile organic compounds (VOCs) (Annex VI). Annexes I, II and V make use of so-called 'special areas' where more stringent discharge standards apply. Annex VI currently uses so-called 'SOx Emission Control Areas', but this will be broadened with 'particulate matter' and NOx.¹⁰⁴ Rather than emission standards, SOx Emission Control Areas have maximum limits of the sulphur content in fuel and requirements relating to exhaust gas cleaning systems, which should either be regarded as CDEM standards or must be treated as analogous with them. No part of the Arctic marine area currently falls within either a special area or a SOx Emission Control Area. By contrast, the Antarctic area has been designated as a special area under Annexes I, II and V and the special discharge standards therein are currently also in effect.¹⁰⁵ Specific criteria and procedures have been developed for the designation of special areas and SOx Emission Control Areas.¹⁰⁶

BWM Convention

The BWM Convention stipulates that vessels using the ballast water exchange method should not discharge ballast water within 200 nm from the nearest land or in waters less than 200 meters deep and must meet an efficiency of at least 95% volumetric exchange.¹⁰⁷ The BWM Convention allows states individually or in concert to regulate more stringently above the minimum ballast water exchange level laid down in the convention.¹⁰⁸

Arctic Shipping Guidelines

The only IMO instrument that is specifically tailored to the Arctic is the non-legally binding IMO Arctic Shipping Guidelines. These are currently under revision and may eventually become applicable to the Antarctic as well.¹⁰⁹ The current IMO Arctic Shipping Guidelines contain only CDEM standards and no discharge, emission, navigation or contingency¹¹⁰ standards, or liability or insurance requirements. However, several CDEM standards are explicitly aimed at preventing or controlling vessel-source pollution. It is also noteworthy that the Guidelines only apply to international voyages and follow the definition of 'ship' used in SOLAS 74, which excludes for instance fishing and cargo vessels below a certain size or length and all naval vessels. It should be noted that the Unified Requirements concerning Polar Class¹¹¹ developed by the International Association

104 See the draft amendments to Annex VI, note 58 supra.

105 Cf. Molenaar, note 100 supra, at p. 434. Ø. Jensen, 'The IMO Guidelines for Ships Operating in Arctic Ice-covered Waters. From Voluntary to Mandatory Tool for Navigation Safety and Environmental Protection?', FNI Report 2/2007 (available at <www.fni.no>) notes on p. 10 that an earlier draft of what was to become the IMO Arctic Shipping Guidelines envisaged the Antarctic to be designated as a special area under one or more Annexes of MARPOL 73/78.

106 As regards special areas see the 'Guidelines for the Designation of Special Areas under MARPOL 73/78', as set out in Annex 1 to IMO Assembly Resolution A.927(22), of 2001; as regards SOx Emission Control Areas see Appendix III to Annex VI to MARPOL 73/78.

107 Regulations B-4 and D-1.

108 Cf. Art. 2(3) and Section C of the Annex.

109 At the 51st Session of its Sub-Committee on Design and Equipment (DE) in February 2008, it was agreed that a complete revision was necessary and a correspondence group was established to prepare draft revised guidelines for submission to the next Session of the DE (sometime in 2009) (information obtained from <www.imo.org> on 15 April 2008).

110 Para. 13.3.1 requires operating manuals to conform to Assembly Resolution A.852(20), of 27 November 1997, 'Guidelines for the Structure of an Integrated System of Contingency Planning for Shipboard Emergencies'.

111 These are Unified Requirement (UR) I1 'Polar Class Descriptions and Application' (Corr.1, Oct. 2007), UR I2 'Structural Requirements for Polar Class Ships' (Corr.1, Oct. 2007) and UR I3 'Machinery Requirements for Polar Class Ships' (Corr.1, Oct. 2007). All texts are available at <www.iacs.org.uk>.

of Classification Societies (IACS) complement the Arctic Shipping Guidelines and other relevant IMO instruments. Several provisions of the Guidelines contain linkages with the IACS Unified Requirements concerning Polar Class.¹¹²

PSSA Guidelines

Designation of an area as a PSSA pursuant to the IMO's PSSA Guidelines does not bring about regulation of shipping within that area as such. This requires adoption of one or more associated protective measures (APMs). Attention can in this context be drawn to the possibility to have special discharge standards within PSSAs (other than by means of designation as special area under MARPOL 73/78) and "other measures aimed at protecting specific sea areas against environmental damage from ships, provided that they have an identified legal basis".¹¹³ Innovative standards are therefore not ruled out.

Bilateral and regional agreements

Arctic states have also adopted several relevant bilateral and regional instruments on contingency planning and preparedness for spills of oil and other hazardous substances. These are:

- The 1983 bilateral agreement between Canada and Denmark,¹¹⁴ which relates to the prevention, reduction and control of pollution of the marine environment resulting from activities within the area covered by the agreement, including pollution incidents resulting from shipping¹¹⁵
- The 1988 bilateral agreement between Canada and the United States,¹¹⁶ by which, inter alia, the "Government of the United States pledges that all navigation by U.S. icebreakers within waters claimed by Canada to be internal will be undertaken with the consent of the Government of Canada"¹¹⁷
- The 1992 bilateral Agreement between Norway and the Russian Federation on Cooperation in Environmental Matters,¹¹⁸ pursuant to which the Joint Norwegian-Russian Commission on Environmental Protection operates. Its Working Group on Protection of the Marine Environment – established in 2005 – has to a certain degree dealt with issues related to transshipment of oil at sea, but not as one of its main themes.¹¹⁹ Its predecessor – the Working Group on Marine Protection – dealt among other things with the implementation of a 1994 bilateral Agreement^{120, 121}. The Russian Federation has recently proposed establishing a new working group on 'Ecological Safety regarding Marine Transportation of Oil along the coasts of Norway and Russia'. This proposal may be discussed at the Commission meeting in November/December of 2009¹²²

112 E.g. paras 1.1.4 and P-2.7.

113 Para. 6.1.3 of the PSSA Guidelines.

114 Agreement Between the Government of Canada and the Government of the Kingdom of Denmark for Cooperation relating to the Marine Environment, Copenhagen, 26 August 1983. In force 26 August 1983, 1348 *United Nations Treaty Series* 121 (1984)

115 See, inter alia, Art. VII entitled 'Vessel Traffic' and Annex B entitled 'Joint Contingency Plan concerning pollution incidents resulting from shipping activities'.

116 Agreement between the Government of Canada and the Government of the United States of America on Arctic Cooperation, 11 January 1988. In force 11 January 1988, *Canada Treaty Series* 1988, No. 29.

117 Clause 3.

118 Agreement Between the Governments of the Kingdom of Norway and the Russian Federation on Cooperation in Environmental Matters, Oslo, 3 September 1992. In force same day; *Overenskomst med fremmede makter* (Oslo, Norwegian Ministry of Foreign Affairs: 1992), pp. 1,532-1,535. This agreement replaces a narrower 1988 under the same name. See also O.S. Stokke, 'Sub-regional Cooperation and Protection of the Arctic Marine Environment: the Barents Sea' in: D. Vidas (ed.) *Protecting the Polar Marine Environment – Law and Policy for Pollution Prevention* (Cambridge, Cambridge University Press: 2000), pp. 124-148, at p. 125.

119 Information provided by M. Nyborg, Department for International Cooperation, Section for Polar Affairs and Cooperation with Russia, Norwegian Ministry of the Environment, September 2008.

120 See note 136 *infra* and accompanying text.

121 Information provided by M. Nyborg, note 131 *supra*. Cf. also Stokke, note 130 *supra*.

122 Information provided by M. Nyborg, note 131 *supra*.

- The 1993 Nordic Agreement.¹²³ The Nordic Agreement deals with a range of measures, including monitoring maritime zones and abatement in case of pollution incidents
- The 1994 bilateral Agreement between Norway and the Russian Federation Concerning Cooperation on the Combating of Oil Pollution in the Barents Sea,¹²⁴ containing requirements on notification and contingency planning
- The Joint Contingency Plan of the United States and the Russian Federation on Combating Pollution in the Bering and Chukchi Seas¹²⁵
- The Canada-United States Joint Marine Contingency Plan,¹²⁶ which provides for a coordinated system for planning, preparedness, and responding to harmful substance incidents in the contiguous waters of Canada and the United States. This plan is supported by five geographic annexes

Arctic Council

All relevant output of the Arctic Council is non-legally binding and predominantly originates from within the Protection of the Arctic Marine Environment (PAME) and Emergency, Prevention, Preparedness and Response working group (EPPR) working groups. Among the main output are:

- Guidelines for Transfer of Refined Oil and Oil Products in Arctic Waters (TROOPS)
- Arctic Guide for Emergency Prevention, Preparedness and Response
- Field Guide for Oil Spill Response in Arctic Waters

PAME is currently engaged in the Arctic Marine Shipping Assessment (AMSA), which is to be released at the Arctic Council Ministerial Meeting in April 2009 in Norway.

2.6.4. Offshore hydrocarbon activities

At the global level, there is currently no instrument for the comprehensive regulation of offshore hydrocarbon activities and also no global regulatory or governance body with such a mandate. Nevertheless, there are four sources for limited global and regional regulation.¹²⁷ First, as hydrocarbons are included within the broad definition of ‘resources’ in Article 133(a) of the LOS Convention,¹²⁸ offshore hydrocarbon activities in the Area have to be in accordance with the relevant provisions of the LOS Convention¹²⁹ and regulations adopted by the ISA. A second source for limited global regulation is contained in MARPOL 73/78, which includes ‘fixed or floating platforms’ in its definition of ‘ship’.¹³⁰ As a consequence, the discharge and emission standards are in principle applicable to offshore installations as well. Third, at the regional level, regulation is pursued by means of the OSPAR Convention and the OSPAR Commission established by it.¹³¹ Finally, reference should be made to the International Regulators’ Forum, whose efforts are aimed at health

123 Agreement Between Denmark, Finland, Iceland, Norway and Sweden Concerning Cooperation in Measures to Deal with Pollution of the Sea by Oil or Other Harmful Substances, Copenhagen, 29 March 1993. In force 16 January 1998, 2084 *United Nations Treaty Series* I-36173.

124 Moscow, 28 April 1994. In force 30 January 1996; Overenskomst med fremmede makter (Oslo, Norwegian Ministry of Foreign Affairs: 1996), pp. 94-98.

125 As noted on p. 88 of the United States National Response Plan, of August 2004 (available at <www.usda.gov/documents/NRPallpages.pdf>). It also observes that this plan was updated and signed in March 2001.

126 *Ibidem*.

127 While platforms are covered by the London Convention and its 1996 Protocol, notes 66 and 67 *supra*, the authors do not regard this as regulation of hydrocarbon activities as such.

128 Namely “all solid, liquid or gaseous mineral resources in situ in the Area at or beneath the seabed, including polymetallic nodules”.

129 Those contained in Part XI as well as in Part XII (e.g. Arts 209 and 215). See also Annex III to the LOS Convention, entitled ‘Basic Conditions of Prospecting, Exploration and Exploitation’.

130 Art. 2(4). See also the definition of ‘discharge’ in Art. 2(3)(a), and the specific exception in Art. 2(3)(b)(ii).

131 See subsection 2.5.3.

and safety standards in the offshore oil and gas industry. Its members are domestic regulatory authorities from nine different states.¹³²

LOS Convention

The limited global and regional regulation is complemented by the relevant provisions of the LOS Convention. These are the general provisions in Sections 1–4 of Part XII that apply to all sources of marine pollution (discussed in subsection 2.6.3) as well as the provisions on individual sources of pollution; in this case ‘Pollution from seabed activities subject to national jurisdiction’. These provisions thus apply exclusively to the continental shelves of coastal states. Section 5 (prescription) and Section 6 (enforcement) each contain one single provision on this source of pollution. Article 208, included in Section 5, stipulates:

1. Coastal States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities subject to their jurisdiction and from artificial islands, installations and structures under their jurisdiction, pursuant to articles 60 and 80.
2. States shall take other measures as may be necessary to prevent, reduce and control such pollution.
3. Such laws, regulations and measures shall be no less effective than international rules, standards and recommended practices and procedures.
4. States shall endeavour to harmonize their policies in this connection at the appropriate regional level.
5. States, acting especially through competent international organizations or diplomatic conference, shall establish global and regional rules, standards and recommended practices and procedures to prevent, reduce and control pollution of the marine environment referred to in paragraph 1. Such rules, standards and recommended practices and procedures shall be re-examined from time to time as necessary.

Much of the wording in this provision is similar to the corresponding provisions for other sources of pollution. The obligations in paragraphs (1) and (2) are very general even though not qualified. Moreover, the strong linkage to international rules in paragraph (3) by means of the phrase “shall be no less effective” is seriously weakened due to the fact that there are no global rules, standards and recommended practices and procedures apart from those laid down in MARPOL 73/78. This contrasts markedly with the abundance of rules and standards in the sphere of vessel-source pollution. The regional rules adopted by the OSPAR Commission are allowed pursuant to paragraph (5).

Article 214 on enforcement, included in Section 6, is a very straightforward provision obliging coastal states to exercise enforcement jurisdiction.

While these provisions above all approach the issue from the perspective of obligations, the LOS Convention explicitly confers on coastal states within their EEZs jurisdiction for “the protection and preservation of the marine environment”.¹³³ As regards the outer continental shelf, it is generally accepted that the sovereign rights of coastal states over their continental shelves also entitle it to associated jurisdiction. Even though Article 77 does not mention the coastal state’s jurisdiction for the purpose of conservation or the protection and preservation of the marine environment, such jurisdiction would be implied if it would be exercised in relation to offshore hydrocarbon activities.¹³⁴

¹³² Based on information obtained at <www.irfshoresafety.com>.

¹³³ Art. 56(1)(b)(iii) of the LOS Convention.

¹³⁴ See also Art. 80 which grants coastal states “the exclusive right to authorize and regulate drilling on the continental shelf for all purposes”.

Other bilateral, regional and global instruments

Even though they do not purport to directly regulate offshore hydrocarbon activities, the following bilateral, regional and global instruments are relevant as well:

- The 1983 bilateral agreement between Canada and Denmark,¹³⁵ which – in addition to contingency planning¹³⁶ – also contains a very broad but also very general provision on, inter alia, the construction and operation of installations in order to minimize marine pollution.¹³⁷ Unlike the OSPAR Convention, however, this bilateral agreement does not establish a body to implement this in more detail
- The 1993 Nordic Agreement¹³⁸
- The 1992 and 1994 bilateral agreements between Norway and the Russian Federation¹³⁹. Among the main activities of the Working Group on Protection of the Marine Environment are the environmental regulation of the hydrocarbon industry¹⁴⁰
- The Joint Contingency Plan of the United States and the Russian Federation on Combating Pollution in the Bering and Chukchi Seas¹⁴¹
- The Canada-United States Joint Marine Contingency Plan¹⁴²
- OPRC 90 and its 2000 HNS Protocol,¹⁴³ which apply both to vessels and offshore installations

Arctic Council

The key instrument relating to offshore hydrocarbon activities of the Arctic Council are the 'Arctic Offshore Oil and Gas Guidelines'. A first version of the guidelines was adopted in 1997, a second in 2002 and the PAME working group is currently undertaking its third revision, due to be completed in 2009. The guidelines contain recommended practices for the regulation of offshore hydrocarbon activities, including transportation and onshore activities that are an integrated part of the offshore activity in the Arctic.¹⁴⁴ In addition to specifying goals, the Guidelines also recommend offshore hydrocarbon activities to be based on the precautionary approach, the polluter-pays principle and the principle of sustainable development.¹⁴⁵ The guidelines document has separate chapters on EIAs, interests that are to be taken into account (e.g. Indigenous peoples, biodiversity), safety and environment management, monitoring, operating practices,¹⁴⁶ emergencies and decommissioning and site clearance.

Finally, in addition to the output of the Arctic Council listed in subsection 2.6.3, reference can be made to the EPPR's 'Environmental Risk Analysis of Arctic Activities'.

135 See note 126 supra and accompanying text.

136 See Annex A entitled 'Joint Contingency Plan concerning pollution incidents resulting from offshore hydrocarbon exploration or exploitation'.

137 Art. V provides: "The Parties shall take measures to ensure that installations engaged in exploration for or exploitation of the natural resources of the seabed and subsoil in their respective areas of responsibility are designed, constructed, placed, equipped, marked, operated and maintained in such a manner that the risk of pollution of the marine environment is minimized."

138 See note 135 supra and accompanying text.

139 See notes 130 and 136 supra.

140 Information provided by M. Nyborg, note 131 supra.

141 See note 137 supra.

142 Ibid.

143 See notes 108 and 109 supra.

144 2002 Arctic Offshore Oil and Gas Guidelines (available at <www.pame.is>), at p. 8.

145 Ibid, at p. 10.

146 Note also the zero-discharge policy that is recommended for the main waste streams (pp.31-32).

2.7. Cross-sectoral issues

2.7.1. Introduction

The ensuing discussion deals with transboundary EIA and SEA, EIA and SEA in areas beyond national jurisdiction, representative networks of MPAs and integrated, cross-sectoral ecosystem-based ocean management.

2.7.2. Transboundary EIA and SEA

Espoo Convention

The main international instrument on transboundary EIA is the Espoo Convention.¹⁴⁷ This convention was signed by the eight arctic states, but three of them are still to become parties to it (Iceland, the Russian Federation and the United States). The applicability of the Espoo Convention also extends to “large-diameter pipelines for the transport of oil, gas or chemicals”, “offshore hydrocarbon production” and “major storage facilities for petroleum, petrochemical and chemical products”.¹⁴⁸ However, it should be noted that the origin state for a planned activity is obliged to commence the transboundary EIA procedure (by notifying the potentially affected state on the basis of Article 3) only if such planned activity is likely to cause adverse transboundary impacts to the environment under the jurisdiction of another contracting state. In other words, the origin state is not obliged to notify the potentially affected state if the planned activity (e.g. offshore hydrocarbon activities) is not likely to cause significant adverse transboundary environmental impact. If the concerned states disagree on the likelihood of such impact, Article 3(7) and Appendix IV of the convention provide for an inquiry commission procedure. It is important to note that the Espoo Convention does not apply to cases of potential harm to global commons (such as high seas), but only when the proposed activity is likely to cause pollution to the environment located in another state’s maritime zones.

SEA Protocol

SEA was still in development when the Espoo Convention was drafted. By means of Article 2(7) the delegations at the negotiations only indicated their willingness to endeavour to apply the principles of the convention to strategic level decisions. Subsequently, the parties to the convention decided to develop a special SEA Protocol, which has not yet entered into force.¹⁴⁹ Of the arctic states, Finland, Norway and Sweden have consented to be legally bound by the protocol and Denmark has signed it. The protocol focuses on creating national SEA procedures but also stipulates rules by which transboundary SEA is to be organized in certain cases of transboundary environmental effects.¹⁵⁰ The protocol was largely inspired by the SEA Directive of the EC,¹⁵¹ which also contains a provision on transboundary consultations.¹⁵² Both the SEA Directive and the SEA Protocol explicitly apply to offshore hydrocarbon exploitation.¹⁵³ At the moment, the transboundary SEA procedure has little potential in the Arctic since four arctic states have not even signed

147 Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 25 February 1991. In force 10 September 1997; 1989 *United Nations Treaty Series* 310 (1997). As amended; consolidated version at <www.unece.org>.

148 Appendix I to the Espoo Convention, at 8, 15 and 16.

149 Protocol on Strategic Environmental Assessment, Kiev, 21 May 2003. Not in force; <www.unece.org>.

150 Art. 10 of the SEA Protocol.

151 Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 ‘on the assessment of the effects of certain plans and programmes on the environment’, OJ 2001, L 197/30.

152 See Art. 7.

153 The SEA Protocol requires SEAs to be carried out for programmes that set the framework for future development consent, as enshrined in Art. 4(2) and Annex I (listing the same projects as in Appendix I of the Espoo Convention). The SEA Directive requires in its Art. 3(2) “Subject to paragraph 3, an environmental assessment shall be carried out for all plans and programmes, (a) which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC [...]”.

the protocol and the protocol has not yet entered into force. However, by means of the European Economic Area (EEA) Agreement, the SEA Directive currently applies, in addition to the EU members Finland, Sweden and Denmark, also to Iceland and Norway.¹⁵⁴

Other instruments

The Espoo Convention establishes a legal basis for transboundary EIA between those five arctic states that are party to it. There are also other treaties that provide for transboundary EIA procedures between arctic states. There are also quite a few other applicable conventions and other instruments between the eight arctic states that provide for a transboundary EIA type of procedure,¹⁵⁵ for instance between Nordic states,¹⁵⁶ between Canada and the United States (thus also covering the Alaska-Yukon border)¹⁵⁷ and between Canada and Denmark¹⁵⁸.

There are also global treaties that apply throughout most of the Arctic (except for the United States) and contain a transboundary EIA, which covers also the potential damage to global commons but is worded in such a way that may even question their legal status. A good example is the CBD, which imposes a highly qualified obligation on contracting states “as far as possible and as appropriate” to promote and encourage conclusion of multilateral and bilateral arrangements on transboundary EIA. It is nevertheless important that the CBD encourages states to extend such transboundary EIAs to planned activities which are likely to significantly affect the biological diversity in areas beyond national jurisdiction.¹⁵⁹ A stronger obligation is contained in Article 206 of the LOS Convention (see below).

There are also (maritime) borders that are not covered by any type of transboundary EIA, such as those between the Russian Federation and the United States and the Russian Federation and its Nordic neighbours. However, the 1992 Convention on the Transboundary Effects of Industrial Accidents¹⁶⁰ provides for a transboundary EIA procedure between the Russian Federation and its Nordic neighbours in situations where it applies.¹⁶¹ Unfortunately, it does not provide transboundary EIA for offshore hydrocarbon activities since the convention does not explicitly apply to “(f) accidents caused by activities in the marine environment, including seabed exploration or exploitation; (g) spills of oil or other harmful substances at sea”.¹⁶²

LOS Convention

An interesting transboundary EIA procedure that applies to the Arctic marine area is contained in Article 206 of the LOS Convention. When there are reasonable grounds for believing that planned activities within the jurisdiction or control of a state may cause

154 See note 24 *supra* and accompanying text.

155 For a detailed assessment, see T. Koivurova, *Environmental Impact Assessment in the Arctic: A Study of International Legal Norms* (Ashgate: 2002), pp. 181-286.

156 E.g. the 1974 Nordic Environment Protection Convention (3 *International Legal Materials* 591 (1974)); the 1976 Guidelines for Communication Between Finland, Norway, Sweden and Denmark on Security Issues Related To the Nuclear Installations Constructed Near the Border (*Finnish Treaty Series* 19/1977) and the OSPAR Convention.

157 E.g. the 1975 Agreement Between the United States of America and Canada Relating to the Exchange of Information on Weather Modification Activities (14 *International Legal Materials* 589 (1975)); the 1987 Agreement Between the Government of Canada and the Government of the United States of America on the Conservation of the Porcupine Caribou Herd (17 July 1987; text available at <arcticcircle.uconn.edu/ANWR/anwrit-agreement.html>) and the 1991 Agreement Between the Government of the United States of America and the Government of Canada on Air Quality (30 *International Legal Materials* 676 (1991)).

158 See note 126 *supra*.

159 Art. 14(1)(c) of the CBD.

160 Helsinki, 17 March 1992. In force 19 April 2000, 31 *International Legal Materials* 1330 (1992). As amended; consolidated text at <www.unece.org>.

161 The applicability of the Convention derives from its definition of 'hazardous activity' as "any activity in which one or more hazardous substances are present or may be present in quantities at or in excess of the threshold quantities listed in Annex I to the Convention and which is capable of causing transboundary effects", which encompasses most large-scale industrial activities. However, there is a large list of exclusions from the scope of the Convention.

162 Art. 2.

substantial pollution of or significant harmful changes to the marine environment, the convention requires that states must assess the potential effects of such activities, including offshore hydrocarbon activities, on the marine environment. Since the provision speaks of the effects on the marine environment in general, it means that states are required to conduct an assessment of the effects of activities taking place in their maritime jurisdiction on the marine environment located in other states' jurisdiction as well as on areas beyond national jurisdiction. The assessment of transboundary impacts on the marine environment located in another state's jurisdiction cannot be very systematic. There are no provisions on how potentially affected states can contribute to an assessment. More importantly, the duty of assessment is qualified by the phrase "as far as practicable", giving the origin state a fair amount of discretion. The results of assessments must be communicated to the competent international organizations "which should make them available to all states".¹⁶³ A potentially affected state can thus obtain information through this channel.

Arctic Council

There is also work within the arctic cooperation to produce guidance on how to conduct EIAs and transboundary EIAs in arctic conditions, resulting in the 'Guidelines for Environmental Impact Assessment in the Arctic' (EIA Guidelines), which were agreed to be applied by the arctic states in the Alta ministerial in 1997. These apply to offshore hydrocarbon activities as well, although the more relevant instrument here is the Arctic Offshore Oil and Gas Guidelines. The EIA Guidelines provide important guidance as to how EIA should be conducted to give due consideration to the special conditions in the Arctic.¹⁶⁴ Yet, according to a recent assessment, the EIA Guidelines have not influenced how EIAs are conducted in the Arctic.¹⁶⁵

2.7.3. EIA and SEA in areas beyond national jurisdiction

Article 209 of the LOS Convention governs pollution from activities in the Area, and also lays out obligations to establish EIA and SEA procedures. Its first paragraph reads:

International rules, regulations and procedures shall be established in accordance with Part XI to prevent, reduce and control pollution of the marine environment from activities in the Area. Such rules, regulations and procedures shall be re-examined from time to time as necessary.

163 Art. 205 of the LOS Convention

164 The drafting of the instrument was prompted by the realization that the arctic states share many challenges in applying EIA in their arctic areas. For example, the participation of the public in EIA is constrained by the region's small population, which includes many Indigenous peoples. The long distances and the limited number of cities and towns also affect how public participation is organized. Moreover, although environmental conditions vary in different parts of the Arctic, EIA must address the similarities in the region's ecosystems and the challenge of integrating Indigenous peoples and their traditional knowledge into the decision-making processes. Chapter 11 of the guidelines provides useful recommendations for the arctic states on how to organize their transboundary EIA procedures. As all the arctic states are signatories to the Espoo Convention, the guidelines are meant to adjust the requirements of the convention to the Arctic. Above all, the guidelines urge that all activities assessed according to the national EIA legislation should be screened also from the viewpoint of whether transboundary impacts are likely (para. 8 of chapter 11 of the EIA Guidelines). Thus, all activities to which a national EIA procedure is applied should be screened in view of likely transboundary impacts in the arctic context. In addition, lower thresholds may be needed for those activities listed in the Espoo Convention if proposed to operate in arctic conditions. According to the guidelines, the origin state should initiate the transboundary EIA procedure in a very early phase of its national EIA procedure. The guidelines recommend that in the scoping phase of the national EIA procedure, potential transboundary impacts should be identified and methods to be used for assessing them should be agreed upon between the concerned states; joint steering groups are recommended to perform these tasks (para. 4). The guidelines also urge cooperation in the implementation of the transboundary EIA procedures taking place in the Arctic (paras. 7 and 8). The Espoo Convention provides for a basic right for all those private legal subjects of the affected state located in the area likely to be affected to participate in the transboundary EIA procedure, just as the private legal subjects of the origin state may also participate. The guidelines go further and urge the arctic states to be as inclusive as possible when organising a transboundary EIA procedure: "Communities in the area of anticipated impacts should be given an opportunity to participate, irrespective of their location relative to the border" (para. 10). In the arctic context, these communities normally are Indigenous peoples, as referred to in chapter 11. The guidelines also emphasize that even though activities may be far away from the border, transboundary impacts may occur anyway, especially with respect to large-scale activities such as oil and gas activities (para. 9).

165 See T. Koivurova, 'Implementing Guidelines for Environmental Impact Assessment in the Arctic' in K. Bastmeijer and T. Koivurova (eds) *Theory and Practise of Transboundary Environmental Impact Assessment* (Martinus Nijhoff Publishers: 2008), pp. 151-174.

Part XI provides rules for adopting norms in the case of pollution from activities in the Area. Article 145 of the LOS Convention requires measures to be taken in order to ensure effective environmental protection from activities taking place in the Area. The ISA is required to adopt rules and procedures for the prevention of pollution to the marine environment and for conserving the natural resources of the Area.¹⁶⁶

The Part XI Deep-Sea Mining Agreement is of importance here, especially paragraph 7 of Section 1 of its annex. The plans of work submitted by the qualified applicants must specify two sites of equal estimated commercial value, one of which must be reserved for the exploitation by the Enterprise of the Authority for a certain period of time. In all cases, the Legal and Technical Commission of the ISA is the first body to examine the proposed plan. If the commission recommends approval to the council, which decides these issues, the plan is, as a rule, approved unless specific grounds are adduced for rejecting it.¹⁶⁷ Moreover, paragraph 7 of Section 1 stipulates:

An application for approval of a plan of work shall be accompanied by an assessment of the potential environmental impacts of the proposed activities and by a description of a programme for oceanographic and baseline environmental studies in accordance with the rules, regulations and procedures adopted by the Authority.

Clearly, these assessments must be of a wide scope since Article 145 requires preventive measures with regard to all areas of the marine environment, both within and beyond national jurisdiction. Since the envisaged exploitation of the deep sea-bed has thus far been mainly confined to polymetallic nodules¹⁶⁸, the assembly of the ISA has approved the 'Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area',¹⁶⁹ which contain rules on EIA as well as on environmental protection.¹⁷⁰ The authority is currently working on additional regulations on prospecting and exploration for cobalt-rich crusts and polymetallic sulphides.

Second, the deep-sea bed regime of the LOS Convention – as modified by the Part XI Deep-Sea Mining Agreement – ensures that not only the ISA but also states parties are obligated to protect the environment from activities taking place in the Area. According to Article 209(2), states parties are required to adopt regulations to prevent pollution of the marine environment from activities in the Area undertaken by a state. These regulations must be as strict as the ones adopted by the ISA.¹⁷¹

Even when technology develops to make commercial use of these minerals in the Area, these provisions have only marginal relevance in the Arctic. As was argued above, there will not likely be much Area left after the Arctic Ocean coastal states have enacted the

166 Art. 145 reads: '(a) the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities; (b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment'.

167 The beginning of para. 6(a) of Section 1 of the Annex to the Part XI Deep-Sea Mining Agreement reads: "An application for approval of a plan of work for exploration shall be considered by the Council following the receipt of a recommendation on the application from the Legal and Technical Commission".

168 These have been defined in Art. 3(d) of the Polymetallic Nodules Regulations, see note 181 *infra*, as "any deposit or accretion of nodules, on or just below the surface of the deep seabed, which contain manganese, nickel, cobalt and copper".

169 Decision of the Assembly relating to the regulations on prospecting and exploration for polymetallic nodules in the Area (ISBA/6/A/18)

170 Regulation 18 and Part V of the regulations. See also the Report of the Deep-Seabed Polymetallic Nodule Exploration (20 November 2000). Development of Environmental Guidelines (ISA 99/02). Part 3 contains draft guidelines for the EIA procedure: 'Chapter 9, Guidelines for the Assessment of the Environmental Impacts from the Exploration for Polymetallic Nodules in the Area'. For a thorough overview, see G. Le Gurun, 'EIA and the International Sea Bed Authority' in Bastmeijer and Koivurova 2008, note 177 *supra*, at pp. 221-263.

171 Art. 209(2) reads: "Subject to the relevant provisions of this section, States shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from activities in the Area undertaken by vessels, installations, structures and other devices flying their flag or of their registry or operating under their authority, as the case may be. The requirements of such laws and regulations shall be no less effective than the international rules, regulations and procedures referred to in paragraph 1."

outer limits of their continental shelves on the basis of the recommendations provided by the CLCS.

More pertinent normative development from the arctic perspective relates to the process within the CBD to develop scientific guidance for EIAs and SEAs in case of activities which may have a significant adverse impact on marine biodiversity beyond national jurisdiction – a task for which a working group was created at the 9th Conference of the Parties (CoP). The most recent CoP decided, in line with Article 14(1)(c) of the CBD, to:

8. [Invite] Parties, other Governments and relevant organizations, including in the context of the United Nations 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, to cooperate in further developing scientific and technical guidance for the implementation of environmental impact assessments and strategic environmental assessments for activities and processes under their jurisdiction and control which may have significant adverse impacts on marine biodiversity beyond national jurisdiction, taking into consideration the work of Food and Agriculture Organization of the United Nations, the International Maritime Organization, and other relevant organizations, with a view to ensuring such activities are regulated in such a way that they do not compromise ecosystem integrity, and to report to the Conference of the Parties at its tenth meeting on progress made in that regard; [...]

10. For the purpose of paragraphs 8 and 9 of the present decision, taking into account the relevant provisions of the United Nations Convention on the Law of the Sea and the Convention on Biological Diversity, decides to convene an expert workshop, including experts from different relevant organizations, with balanced regional and sectoral representation, to discuss scientific and technical aspects relevant to environmental impact assessment in areas beyond national jurisdiction with a view to contributing to the development of such scientific and technical guidance, building on ongoing relevant sectoral, regional and national environmental impact assessment efforts;¹⁷²

Finally, reference can also be made to the initiatives under the purview of the UNGA, as described in subsection 3.3.5.

2.7.4. Representative networks of MPAs

There is currently no universally accepted definition for the term ‘marine protected area’ (MPA). However, the definition of an MPA adopted by the International Union for Conservation of Nature (IUCN) is the most widely used. This reads:

Any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment.¹⁷³

The essence of this broad definition is that MPAs have a special status in comparison with the surrounding area due to their more stringent regulation of one of more human activities (e.g. shipping or fishing) by one or more measures (e.g. prohibition of anchoring or bottom trawling) for one or more purposes (e.g. preservation of habitats, conservation of target species or marine scientific research). It is important to note that the identification of an area as an MPA does not necessarily mean that all human activities are prohibited whatsoever. This can, inter alia, be deduced from the different IUCN categories of

172 Decision IX/20 (2008), ‘Marine and coastal biodiversity’.

173 Resolution 17.38 (1988) by the General Assembly of the IUCN, reconfirmed in Resolution 19.46 (1994).

protected areas.¹⁷⁴ For these reasons, some instruments and fora prefer terms such as ‘area-based management tools’¹⁷⁵ or ‘spatial measures’. The remaining discussion uses these terms interchangeably.

Under the current international law of the sea, coastal states have various options for establishing spatial measures for various purposes that do not require the support of, or approval by, other states. Fishing or whaling within its maritime zones or shipping within ice-covered areas are examples.¹⁷⁶ In other scenarios, however, coastal states must seek approval from the competent international organization, for instance IMO in relation to special areas under MARPOL 73/78. With regard to areas beyond national jurisdiction, a wide range of global, regional and bilateral instruments already provide for the designation of spatial measures with more stringent regulation therein, albeit only sectorally. A good example are the spatial measures (e.g. closed areas) adopted by RFMOs.

Besides a coastal state capacity, states can also rely on other capacities for establishing spatial measures and regulating human activities therein. These are its capacity as a flag state or with regard to its natural or legal persons. Nothing under general international law prevents in principle states from restricting the activities of its vessels or natural and legal persons in certain areas beyond national jurisdiction or the maritime zones of other states.¹⁷⁷ This becomes different when such states – acting individually or collectively – exert pressure on vessels or natural or legal persons of other states to comply with such restrictions. It should in this context be noted that the mandates and legitimacy of the IMO and RFMOs are in principle beyond doubt and their spatial measures are therefore capable – at least potentially – of affecting the rights and freedoms of third states, even if not through non-flag enforcement on the high seas. By contrast, the current international legal framework relating to areas beyond national jurisdiction lacks both a mandate and a process for the designation of integrated MPAs as well as for the regulation of all human activities therein, for the purpose of the conservation and sustainable use of marine biodiversity.¹⁷⁸ In the absence of these, designation of MPAs in areas beyond national jurisdiction and regulation of activities therein lack legitimacy and make interference with the freedoms of the high seas by third states unjustifiable, except if interference is based on rights under customary international law.

Support for the need for integrated MPAs in areas beyond national jurisdiction is growing. The 9th CoP to the CBD in May 2008 adopted scientific criteria for identifying areas in need of protection in open-ocean waters and deep-sea habitats as well as scientific guidance for designing representative networks of MPAs and agreed to convene an expert workshop that will provide guidance to Parties and the United Nations on identifying important areas that need protection in areas beyond national jurisdiction as well as on the use and further development of biogeographic classification systems.¹⁷⁹ Despite these positive developments, however, there is no consensus in the international community yet on the process of designation of such MPAs and the regulation of human activities therein. States that support the EU proposal for an Implementation Agreement to the LOS Convention¹⁸⁰ probably see integrated MPAs in areas beyond national jurisdiction

174 These can be found at <www.unep-wcmc.org>.

175 See note 245 infra and accompanying text.

176 See, e.g. Arts 62(4)(c), 65, 77 and 234.

177 See in this regard Council Regulation (EC) No 734/2008, of 15 July 2008, ‘on the protection of vulnerable marine ecosystems in the high seas from the adverse impacts of bottom fishing gears’ OJ 2008, L 201/8, in particular Art. 8 entitled ‘Area closures’. This Council Regulation implements paras 80-86 of UNGA Resolution No. 61/105, note 79 supra.

178 See also T. Scovazzi, ‘Marine Protected Areas on the High Seas: Some Legal and Policy Considerations’, 19 *International Journal of Marine and Coastal Law* 1-19 (2004).

179 Decision IX/20, note 184 supra, at paras 14 and 19.

180 Cf. the Annex to the Statement by Austria, on behalf of the EU, at the 7th Meeting of the ICP (2006) and COM(2007) 575 final, of 10 October 2007, ‘An Integrated Maritime Policy for the European Union’, at p. 14, where it is noted that the “Commission will propose an Implementing Agreement of UNCLOS on marine biodiversity in areas beyond national jurisdiction and work towards successful conclusion of international negotiations on Marine Protected Areas on the high seas”.

as one of its main elements. Reference can also be made here to the test-case proposal for an OSPAR MPA discussed in subsection 2.5.6.

So far, the discussion has been focused on the right of states to designate MPAs and regulate human activities therein. It is submitted, however, that various non-legally binding and legally binding international instruments contain obligations and commitments with regard to MPAs. One of the targets of the JPOI¹⁸¹ is, for instance

the establishment of marine protected areas consistent with international law and based on scientific information, including representative networks by 2012 and time/area closures for the protection of nursery grounds and periods¹⁸²

In addition, Article 8(a) of the CBD requires contracting parties to establish a system of MPAs for the purpose of the conservation of biodiversity within areas under national jurisdiction, even though this obligation is qualified by the phrase “as far as possible and as appropriate”. Moreover, the obligations under the LOS Convention and the Fish Stocks Agreement in relation to over-exploitation, associated and dependent species, rare and fragile ecosystems and the preservation of marine biodiversity will in various scenarios require a state to designate MPAs and regulate human activities therein.

As regards the Arctic Council, mention can be made of the Circumpolar Protected Areas Network (CPAN) developed by CAFF. While this initiative seems to have contributed to the establishment of protected areas in the Arctic, most of these are terrestrial. Moreover, PAME’s AMSP explicitly promotes the establishment of MPAs, including representative networks,¹⁸³ but this does not seem to have had a follow-up.

2.7.5. Integrated, cross-sectoral ecosystem-based ocean management

There is currently no universally accepted definition for the term ‘integrated, cross-sectoral ecosystem-based ocean management’.¹⁸⁴ Nevertheless, the different words included in the term indicate a holistic approach which takes due account of spatial dimensions, processes and relationships within ecosystems.¹⁸⁵ It is also submitted that integrated, cross-sectoral ecosystem-based ocean management operates at a higher hierarchical level than sectoral ecosystem-based management, for instance ecosystem-based fisheries management or an ecosystem approach to fisheries (EAF).¹⁸⁶ Moreover, sectoral ecosystem-based management can also be pursued in the absence of an overarching integrated approach. Neither the LOS Convention nor any other global instrument contains a legally binding obligation to pursue it. However, various non-legally binding commitments to pursue ecosystem-based ocean management exist at the global level.¹⁸⁷ Reference can also be made to the discussion in subsection 3.3.5.

As regards the Arctic Council, it is also noteworthy that integrated management of resources and ecosystem-based management feature prominently in the program of the

181 Plan of Implementation of the World Summit on Sustainable Development, Johannesburg, 4 September 2002; <www.unep.org>.

182 Para. 32(c).

183 At p. 11, under 7.3.2.

184 Cf. the ‘Report on the work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its seventh meeting’ (UN doc. A/61/156, of 17 July 2006), which notes this at para. 6 and subsequently lists various elements relating to ecosystem approaches and oceans.

185 See the elements referred to in note 196 supra.

186 The FAO Technical Guidelines on ‘The ecosystem approach to fisheries’ (FAO Technical Guidelines for Responsible Fisheries No. 4, Suppl. 2 (FAO, Rome: 2003)) defines EAF as follows: “An ecosystem approach to fisheries strives to balance various societal objectives by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries” (at p. 6). See also E.J. Molenaar, ‘Ecosystem-Based Fisheries Management, Commercial Fisheries, Marine Mammals and the 2001 Reykjavik Declaration in the Context of International Law’, 17 *International Journal of Marine and Coastal Law* 561-595 (2002).

187 E.g. paras 30(d) and 32(c) of the JPOI, note 193 supra, and UNGA Resolution No. 61/222, ‘Oceans and the law of the sea’, of 20 December 2006, at para. 119.

Norwegian chairmanship of the Arctic Council (2006–2008) and in the Norwegian, Danish and Swedish common objectives for their Arctic Council chairmanships 2006–2012.¹⁸⁸

Other relevant activities within the framework of the Arctic Council are:

- ‘Best Practices in Ecosystems Based Oceans Management’ (BePoMAR), a joint project by PAME and SDWG that will report on countries’ approaches to ecosystem-based oceans management and look at progress towards the World Summit on Sustainable Development goals to implement sustainable integrated ecosystem management. The outcome in the form of a report is expected by October 2008;
- The ‘Circumpolar Map of Resources at Risk from Oil Spills in the Arctic’ developed by EPPR; and
- The large marine ecosystems (LMEs) of the Arctic marine area developed by PAME.

As regards the Arctic marine area more in general, reference can be made to the following:

- ‘The pursuance of the ecosystem approach by the OSPAR Commission’;¹⁸⁹
- ‘The large overlap between the spatial competence of the OSPAR Commission, NEAFC and ICES and the test-case proposal for an OSPAR MPA discussed in subsection 2.5.6;
- ‘The efforts on integrated management of the marine environment by the Working Group on Protection of the Marine Environment under the Joint Norwegian-Russian Commission on Environmental Protection’;¹⁹⁰ and
- ‘The ‘Integrated Management of the Marine Environment of the Barents Sea and the Sea Areas off the Lofoten Islands (Management Plan)’’,¹⁹¹ adopted by the Norwegian Parliament in 2006. It does not extend beyond the maritime zones of Norway.

2.8. Other relevant global, regional and bilateral agreements

While the preceding sections have covered most of the global, regional and bilateral agreements that are relevant to the Arctic marine area, they are by no means complete. Reference can here be made to a broad overview study by Nowlan.¹⁹² It is submitted, however, that most of the framework and regulatory instruments relating to the Arctic marine area and relevant in view of the focus of this report,¹⁹³ have been covered so far. Conversely, no discussion has yet taken place on the following conventions:

- the Ramsar Convention¹⁹⁴
- the World Heritage Convention¹⁹⁵
- the CITES¹⁹⁶
- the CMS¹⁹⁷

188 These are available at <arctic-council.org>.

189 See note 52 supra.

190 Information provided by M. Nyborg, note 131 supra. See also note 130 supra and accompanying text.

191 Helhetlig forvaltning av det marine miljø i Barentshavet og havområdene utenfor Lofoten (forvaltningsplan) (St. Meld. Nr. 8 (2005-2006); English version at <www.regjeringen.no/en/dep/md/Selected-topics/Svalbard_og_polaromradene.html?id=1324>. The plan was approved by the Norwegian Parliament in June 2006.

192 L. Nowlan, ‘Arctic Legal Regime for Environmental Protection’ (*ICN Environmental Policy and Law Paper* No. 44: 2001). Nowlan uses the following groups of instruments relevant to the Arctic: marine; atmosphere, biodiversity - protection of species and ecosystems -; resource extraction and waste disposal; environmental impact assessment (EIA); indigenous people and indigenous rights and trade agreements.

193 See subsection 2.1.

194 Convention on Wetlands of International Importance especially as Waterfowl Habitat, Ramsar, 2 February 1971. In force 21 December 1975, as amended. Consolidated text available at <www.ramsar.org>.

195 Convention concerning the Protection of the World Cultural and Natural Heritage, Paris, 16 November 1972. In force 17 December 1975; 11 *International Legal Materials* 1972; <www.unesco.org>.

196 Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, D.C., 3 March 1973. In force 1 July 1975, 993 *United Nations Treaty Series* 243; <www.cites.org>.

197 Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 23 June 1979. In force 1 November 1983, 1651 *United Nations Treaty Series* 355; <www.cms.int>.

- the Basel Convention¹⁹⁸

As regards **marine mammals**, the following are relevant international instruments:

- the ICRW¹⁹⁹
- the regional NAMMCO Agreement,²⁰⁰ which established the North Atlantic Marine Mammal Commission (NAMMCO) and provides a framework for cooperation among its four parties for the conservation, rational management and study of marine mammals in the North Atlantic
- the regional Polar Bear Agreement²⁰¹
- the 2000 bilateral agreement on polar bears between the Russian Federation and the United States²⁰²
- the bilateral Norway-Russian Federation Fisheries Commission,²⁰³ which also manages seals
- the Joint Commission on the Conservation and Management of Narwhal and Beluga established by Canada and Greenland by means of an Memorandum of Understanding²⁰⁴

As regards **birds**, reference can be made to a recent study.²⁰⁵

As regards **marine scientific research**, reference should be made to the International Council for the Exploration of the Sea (ICES), which coordinates and promotes marine scientific research and provides scientific advice with respect to the North Atlantic.²⁰⁶

198 Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 22 March 1989. In force 5 May 1992, 28 *International Legal Materials* 657 (1989); <www.basel.int>.

199 International Convention for the Regulation of Whaling, Washington D.C., 2 December 1946. In force 10 November 1948, 161 *United Nations Treaty Series* 72; <www.iwcoffice.org>.

200 Agreement on Cooperation in Research, Conservation and Management of Marine Mammals in the North Atlantic, Nuuk, 9 April 1992. In force 8 July 1992, *Law of the Sea Bulletin* No. 26, 66-68 (1994); <www.nammco.no>.

201 Agreement on the Conservation of Polar Bears and Their Habitat, Oslo, 15 November 1973. In force 26 May 1976; <pbsg.npolar.no>.

202 Agreement between the Government of the United States of America and the Government of the Russian Federation on the Conservation and Management of the Alaska-Chukotka Polar Bear Population, Washington, D.C., 16 October 2000. In force January 2007.

203 See notes 87 - 89 supra.

204 Memorandum of Understanding between the Department of Fisheries and Oceans of the Government of Canada and the Ministry of Fisheries and Industry of the Greenland Home Rule Government on the Conservation and Management of Narwhal and Beluga, December 1989.

205 A. Trouwborst, 'A Bird's-Eye View of Polar Governance: Reflecting on the Role of International Law in 'Arctic Cooperation from a Bird Conservation Perspective'', 1 *Yearbook of Polar Law* (forthcoming).

206 Established by the ICES Convention (Convention for the International Council for the Exploration of the Sea, Copenhagen, 12 September 1964. In force 22 July 1968, 7 *International Legal Materials* 302 (1968); <www.ices.dk>). Of particular relevant is the Arctic Fisheries Working Group.

3. Gap analysis

3.1. Introduction

The purpose of this section is to identify the main governance and regulatory gaps in the current international regime of the marine Arctic as described in section 2 in view of the current and future impacts of global climate change on the Arctic. For the purpose of this report, regulatory gaps and governance gaps are understood to mean the following:

‘Governance gaps’: gaps in the international institutional framework, including the absence of institutions or mechanisms at a global, regional or sub-regional level and inconsistent mandates of existing organizations and mechanisms.

‘Regulatory gaps’: substantive and/or geographical gaps in the international legal framework, i.e. issues which are currently unregulated or insufficiently regulated at a global, regional or subregional level.²⁰⁷

Not included in gaps defined as such are:

- the fundamental characteristics and limitations of international law such as its consensual nature and the pacta tertiis principle, meaning that no state can be bound against its will
- the shortcomings associated with the primacy of flag state jurisdiction over its vessels on the high seas
- relatively minor shortcomings that undermine the effectiveness of existing rules, for instance insufficiently stringent standards, limited enforcement powers and inadequate implementation

The structure of this section largely mirrors that of section 2. As a consequence, subsection 3.2 will focus on the Arctic Council and its constitutive instrument, followed by subsection 3.3 on the current international law of the sea, subsection 3.4 on sectoral governance and regulation of the marine Arctic and, finally, subsection 3.5 on cross-sectoral issues.

3.2. Arctic Council and its constitutive instrument

The following seem to be the main gaps:

1. **No legally binding obligations.** The Ottawa Declaration on the Establishment of the Arctic Council does not impose legally binding obligations on any of its participants and the Arctic Council is also not empowered to do so.
2. **Not an operational body.** The Arctic Council is project-driven and is not empowered to impose legally binding obligations on any of its participants. While a number of useful non-legally binding guidelines are produced within the framework of the Arctic Council, the impacts of these are difficult to determine given that the Council does not systematically evaluate whether these are being followed.
3. **Limited participation.** The Arctic Council is quite unique due to the role it gives to the region’s Indigenous peoples, but non-arctic states can only obtain a status as observer. It could be argued that this is not a problem in view of the current role and

207 These definitions are derived from K.M. Gjerde, ‘Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction’ (IUCN Marine Law and Policy Paper No. 1: 2008; available at <cms.iucn.org>), at p. 1.

powers of the Arctic Council, which do not directly affect the rights of non-arctic states in the Arctic. On the other hand, it can also be argued that by giving the Arctic Council such a limited role and powers, the arctic states have not discharged certain obligations under international law and thereby affect the rights and interests of other states and the international community.

4. **No permanent independent secretariat.**
5. **No structural funding.**

3.3. The current international law of the sea

3.3.1. Introduction

Subsection 2.4 concludes that the current international law of the sea applies to the entire marine Arctic, however defined. This is also emphasized by the five Arctic Ocean coastal states in the 2008 Ilulissat Declaration.²⁰⁸ Accordingly, as the “law of the sea” is an “extensive international legal framework”, they “therefore see no need to develop a new comprehensive international legal regime to govern the Arctic Ocean”.²⁰⁹ Conversely, they recognize the need for “appropriate measures” as a consequence of “developments in the Arctic Ocean”.²¹⁰ In the less than a single page text that follows, reference is among other things made to the safety of navigation, vessel-source pollution and contingency planning and emergency response to incidents with shipping and offshore exploitation. Notably, no mention is made of international fisheries instruments, fisheries management in general or the need for integrated, cross-sectoral ecosystem-based management.

The ensuing discussion will focus on the need for regional implementation in subsection 3.3.2, non-participation by the United States in the LOS Convention in subsection 3.3.3, gaps in the Fish Stocks Agreement in subsection 3.3.4 and other gaps in subsection 3.3.5.

3.3.2. The need for regional implementation

By referring to the law of the sea as an “extensive international legal framework”, the Ilulissat Declaration implicitly acknowledges the need for implementation by international organizations. The LOS Convention and the Fish Stocks Agreement are in many ways framework conventions that rely on implementation by means of concrete regulation at the global and regional levels through ‘competent’ or ‘appropriate’ international organizations. A pragmatic reason for implementation at the regional level is that it allows for taking proper account of various regional characteristics, for instance distributional ranges of fish stocks, spatial dimensions of marine ecosystems, maritime boundaries and relationships between states.

Shipping

In the sphere of maritime safety, maritime security and vessel-source pollution, the abovementioned implementation mandate is mainly given to the IMO. As a consequence of the global nature of international shipping and the interest of the international community in globally uniform international regulation, the LOS Convention does not require or promote regional approaches to regulation. At the same time, however, Article 211(3) of the LOS Convention explicitly acknowledges the right of port states to prescribe – unilaterally or in concert – more stringent standards than GAIRES. This provision takes

208 Ilulissat, 28 May 2008 (available at <arctic-council.org>).

209 Ibid.

210 Ibid.

account of regional arrangements on port state control, the first of which – the Paris MOU²¹¹ – had been established just before the adoption of the LOS Convention.

It seems that Arctic Ocean coastal states and other arctic states do not have special problems with the role and mandate of IMO.²¹² But at the same time they are not likely to preclude unilateral or collective action outside IMO but in accordance with international law, for instance based on Article 234 of the LOS Convention or on a port state's residual jurisdiction under customary international law, as *inter alia* acknowledged by Article 211(3) of the LOS Convention.

Fisheries management

As regards fisheries management, the LOS Convention obliges the relevant states to cooperate with respect to transboundary fish stocks and discrete high seas fish stocks but does not prescribe the form of cooperation.²¹³ The Fish Stocks Agreement, however, stipulates that fisheries for straddling and highly migratory fish stocks are to be managed at the regional level through RFMOs or Arrangements. The duty to cooperate in relation to such transboundary fish stocks means in fact a duty to cooperate with the relevant RFMO or Arrangement.²¹⁴ Arguably, this duty to cooperate with the relevant RFMO or Arrangement is already part of customary international law and thereby entitles the relevant members or participants to take measures against (non-cooperating) non-members and non-participants that would otherwise be in violation of international law, for instance trade-related measures.²¹⁵ The practice of RFMOs on trade-related measures has at any rate not been challenged by means of the establishment of a dispute settlement procedure under the World Trade Organization.

RFMOs and Arrangements are to be established where these do not exist.²¹⁶ Moreover, as a consequence of in particular bottom fisheries targeting deep-sea fish species – which are often discrete high seas fish stocks – there is broad support in the international community to ensure that all areas beyond national jurisdiction are covered by RFMOs or Arrangements. Such coverage would ensure that all target fisheries fall within the mandate of an RFMO or Arrangement. Moreover, these RFMOs or Arrangements need to have modern ecosystem-based fisheries management mandates that also allow them to address fisheries impacts on non-target species (including on benthic habitats).²¹⁷

These developments have among other things led to the 'filling' of gaps in such coverage in the Southern Indian Ocean and the establishment of negotiation processes to fill gaps in the Southern Pacific and the Northern or Northwest Pacific.²¹⁸ Within the United States, these developments have led to the adoption of Senate joint resolution (SJ Res.) No. 17 of 2007, "directing the United States to initiate international discussions and take necessary steps with other Nations to negotiate an agreement for managing migratory and transboundary fish stocks in the Arctic Ocean".²¹⁹

211 See note 98 *supra*.

212 See the words "including through the International Maritime Organization" on p. 2 of the Ilulissat Declaration.

213 See e.g. Art. 63(1).

214 Cf. Art. 8(3) of the Fish Stocks Agreement.

215 Cf. See UNGA Resolution No. 61/105, note 79 *supra*, at para. 46.

216 Cf. Art. 8(5) of the Fish Stocks Agreement.

217 See UNGA Resolution No. 61/105, note 79 *supra*, at para. 82.

218 For an overview see E.J. Molenaar, 'Current Legal and Institutional Issues Relating to the Conservation and Management of High Seas Deep Sea Fisheries', in 'Report and documentation of the Expert Consultation on Deep-Sea Fisheries in the High Seas, Bangkok, Thailand, 21-23 November 2006' (FAO Fisheries Report No. 838; 2007), pp. 113-139, *inter alia*, at p. 124. See also the overview of gaps in Gjerde, note 219 above, at pp. 5-6.

219 Passed by the Senate on 4 October 2007. The House of Representatives voted in favour of SJ Res. No. 17 in May 2008 and the President signed it on 4 June 2008.

Marine environmental protection

As regards marine environmental protection, Part XII of the LOS Convention, entitled 'Protection and Preservation of the Marine Environment' contains frequent references to the need for regional cooperation. Such references are explicitly or implicitly included in

- Article 194(1) by which states "shall endeavour to harmonize their policies" related to the taking of measures "necessary to prevent, reduce and control pollution of the marine environment from any source"
- Articles 197–201 contained in Section 2, entitled "Global and Regional Cooperation", which inter alia relate to notification, contingency plans and scientific research
- Article 204(1) on monitoring the risks or effects of pollution
- Article 207(3) and(4) on pollution from land-based sources
- Article 208(4) and (5) on pollution from seabed activities subject to national jurisdiction
- Article 210(4) on pollution by dumping
- Article 212(3) on pollution from or through the atmosphere

Enclosed or semi-enclosed seas

The LOS Convention also contains a separate Part IX, titled 'Enclosed or Semi-Enclosed Seas'. It consists of Article 122, containing a definition of the term "enclosed or semi-enclosed sea", and Article 123, entitled 'Cooperating of States bordering enclosed or semi-enclosed seas'. Article 123 reads:

States bordering an enclosed or semi-enclosed sea should cooperate with each other in the exercise of their rights and in the performance of their duties under this Convention. To this end they shall endeavour, directly or through an appropriate regional organization:

- (a) to coordinate the management, conservation, exploration and exploitation of the living resources of the sea;
- (b) to coordinate the implementation of their rights and duties with respect to the protection and preservation of the marine environment;
- (c) to coordinate their scientific research policies and undertake where appropriate joint programmes of scientific research in the area;
- (d) to invite, as appropriate, other interested States or international organizations to cooperate with them in furtherance of the provisions of this article.

Two comments are offered here. First, it is not evident that the Arctic Ocean would fall within the definition of an 'enclosed or semi-enclosed sea' laid down in Article 122. Second, even if the Arctic Ocean would fall within this definition, it would not give cooperating coastal states – whether as a collective or by means of an established regional organization – additional rights justifying additional restrictions on the rights and freedoms of third (flag) states to what they would be allowed to do unilaterally. This is an important distinction with RFMOs and Arrangements as discussed above. Such additional rights would only become available by means of a global mandate, for instance in the form of an implementation agreement to the LOS Convention.

Conclusions

In view of these observations, it is clear that the LOS Convention and the Fish Stocks Agreement acknowledge the need for regional approaches with respect to fisheries management, marine environmental protection and enclosed or semi-enclosed seas. At the same time, however, the obligations on cooperation:

- are often subject to qualifiers (e.g. "shall endeavour" or "appropriate")
- provide alternatives to regional cooperation (e.g. "global" or "directly")

- do not provide guidance on the outcome of such regional cooperation (e.g. an international organization or a legally binding or non-legally binding instrument)

One of the few exceptions in this regard relates to the obligation to cooperate under the Fish Stocks Agreement. This obligation, however, applies only to straddling and highly migratory fish stocks and therefore not to shared fish stocks and anadromous fish stocks (see subsection 3.3.4).²²⁰

Notwithstanding the inadequacies of the obligations on cooperation in relation to marine environmental protection and enclosed and semi-enclosed seas, however, quite a few regional marine environmental protection regimes have been established so far. These are:

- the OSPAR Commission established under the OSPAR Convention²²¹ in relation to the North East Atlantic, including the North-East Atlantic sector of the Arctic Ocean
- the Helsinki Commission established under the Helsinki Convention²²² in relation to the Baltic Sea
- the various regimes set up under the Regional Seas Programme of the United Nations Environment Programme²²³
- the Antarctic Treaty Consultative Meetings operating under the Antarctic Treaty²²⁴ in conjunction with the Committee on Environmental Protection established under the Environmental Protocol to the Antarctic Treaty²²⁵ in relation to the marine areas south of 60° South

The rationale for establishing these regional regimes varies. The main rationale for the establishment of the Antarctic Treaty and its associated instruments was to resolve the sovereignty issue and the associated risks for conflict. The main reasons for the establishment of the other regional regimes seem to be to:

- discharge applicable obligations to cooperate under the LOS Convention and customary international law and in so doing taking account of a range of regional characteristics
- address transboundary effects of various human activities
- ensure a minimum level of marine environmental protection for the entire region by means of regional minimum obligations and thereby a regional level playing field

It should be noted, however, that large parts of the world's seas and oceans are not covered by regional environmental protection regimes or by RFMOs and Arrangements.²²⁶ The reasons for such gaps may be obvious and understandable in some regions, but less so in others. The fact nevertheless remains that the relevant states are not willing or able to discharge their obligations to cooperate under the LOS Convention, Fish Stocks Agreement or customary international law and thereby undermine relevant rights and interests of other states and the international community.

220 While straddling and highly migratory fish stocks occur both in the high seas and in the coastal state's maritime zones, shared stocks occur in the maritime zones of two or more coastal states but not on the high seas.

221 Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992. In force 25 March 1998, <www.ospar.org>. Annex V, Sintra, 23 September 1998. In force 30 August 2000; <www.ospar.org>.

222 Convention on the Protection of the Marine Environment of the Baltic Sea Area, Helsinki, 9 April 1992. In force 17 January 2000; <www.helcom.fi>.

223 For information see <www.unep.org/regionalseas>.

224 Antarctic Treaty, Washington D.C., 1 December 1959. In force 23 June 1961, 402 *United Nations Treaty Series* 71; <www.ats.aq>.

225 Protocol on Environmental Protection to the Antarctic Treaty; Annexes I-IV, Madrid, 4 October 1991. In force 14 January 1998; Annex V (adopted as Recommendation XVI-10), Bonn, 17 October 1991. In force 24 May 2002; Annex VI (adopted as Measure 1(2005)), Stockholm, 14 June 2005. Not in force. All texts available at <www.ats.aq>.

226 See the overview of gaps in Gjerde, note 219 above, at pp. 5-6 which, it should be emphasized, all relate to areas beyond national jurisdiction.

3.3.3. Non-participation by the United States in the LOS Convention

It is worth noting that the Ilulissat Declaration refers to the “law of the sea” but not explicitly to the LOS Convention. This is hardly surprising as the United States is not a party to the LOS Convention. It is well-known that the United States takes the view that, except for its Part XI, the LOS Convention is already part of customary international law and in that way creates rights and obligations for the United States. However, while the United States does not also explicitly exclude the dispute settlement mechanism in Part XV of the LOS Convention, this mechanism is not able to become part of customary international law as a consequence of its procedural nature.²²⁷ The dispute settlement mechanism in Part XV is widely regarded as a critical component of the package-deal that paved the way for the adoption of the LOS Convention. The fact that it provides for compulsory third party dispute settlement entailing binding decisions in many scenarios, was a novelty in international law at the time. It thereby helps to safeguard the preservation of the package-deal of the LOS Convention by undesirable applications and interpretations of its provisions. The non-applicability of the dispute settlement mechanism of Part XV of the LOS Convention between the United States and other parties to the LOS Convention, including the other Arctic Ocean coastal states, is therefore a significant gap in the “extensive international legal framework” referred to in the Ilulissat Declaration.²²⁸

3.3.4. Gaps in the Fish Stocks Agreement

The limited scope of the Fish Stocks Agreement came to the fore particularly as a consequence of the already mentioned bottom fisheries targeting deep-sea fish species. At some stage, it was proposed that a legally binding instrument should address the non-applicability of the Fish Stocks Agreement to discrete high seas fish stocks.²²⁹ So far, however, there is not much more than operative paragraphs in various UNGA Resolutions, the most recent of which reads:

Calls upon all States, directly or through regional fisheries management organizations and arrangements, to apply widely, in accordance with international law and the Code, [footnote omitted] the precautionary approach and an ecosystem approach to the conservation, management and exploitation of fish stocks, including straddling fish stocks, highly migratory fish stocks and discrete high seas fish stocks, and also calls upon States parties to the Agreement to implement fully the provisions of article 6 of the Agreement as a matter of priority;²³⁰

While this paragraph applies in principle to all fish stocks, its purpose seems mainly aimed at singling out discrete high seas fish stocks. In the arctic context, however, new fishing opportunities are also likely to relate to shared and anadromous fish stocks. The non-applicability of the Fish Stocks Agreement to these fish stocks would mean that only the relatively general obligations contained in the LOS Convention apply.

3.3.5. Gaps in the current international law of the sea

The LOS Convention was adopted more than 25 years ago and many of the provisions that are relevant to this report already received very broad support several years prior thereto. The mere existence of its two implementation agreements reflects that the

227 Cf. T.L. McDorman, 'Global Ocean Governance and International Adjudicative Dispute Resolution', 43 *Ocean and Coastal Management* 255-275 (2000), at p. 259.

228 Note the attention on dispute settlement devoted by J.B. Bellinger, III, Legal Advisor of the United States Department of State in his address 'The United States and the Law of the Sea Convention' of 3 November 2008 (available at <www.state.gov/s/l/rls/111587.htm>).

229 See, inter alia, Molenaar, note 230 supra, at pp. 129-133.

230 UNGA Resolution No. 61/105, note 79 supra, at para. 5.

international community was prepared to address what it perceived to be as gaps at the time. Recent undertakings within the framework of the UNGA and the CBD²³¹ address newly perceived gaps in relation to marine biodiversity in areas beyond national jurisdiction.

As regards the UNGA, it established the United Nations 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 (UNWG BBNJ) in 2004. So far, the UNWG BBNJ convened twice: in 2006 and in 2008. A group of independent researchers prepared several documents²³² in support of the second meeting and conclude that the following seem to be the main regulatory and governance gaps:

* The authors take the view that the LOS Convention only provides a framework, but not an operational regulatory regime.

Regulatory gaps	Governance gaps
<ul style="list-style-type: none"> • no regulatory regime for: <ul style="list-style-type: none"> • several existing maritime activities, namely marine scientific research (and archeology), bioprospecting (qualitative and quantitative), laying of cables and pipelines, artificial islands and seabed constructions, and military activities • emerging and new maritime activities, such as deep-sea tourism, activities relating to CO₂ sequestration, and floating installations • no requirement of integrated, cross-sectoral ecosystem-based ocean management • absence of modern regulatory tools, such as the precautionary approach per se, and in particular operationalized, EIA and SEA, and integrated, cross-sectoral MPAs • no default regulatory mechanism for existing, emerging and new activities and in absence of regional regimes 	<ul style="list-style-type: none"> • no competent international organizations to regulate various maritime activities • no default authority • RFMOs & Arrangements with narrow mandates or substandard performance • sectoral governance, also reflected in LOS Convention • an undesirable balance between user states and non-user states

Most of these gaps also apply to the Arctic marine area, both as regards areas within national jurisdiction, and beyond. An important exception is the Atlantic sector of the Arctic marine area, which is covered by the OSPAR Convention and the OSPAR Commission established by it. The ability of the OSPAR Commission to act as an authority by default in the absence of a competent international organization at the global level (e.g. for marine scientific research) and for new and emerging activities, is particular noteworthy in this context (see, inter alia, subsection 2.5.5).

While there was no negotiated outcome of the 2nd Meeting of the UNWG BBNJ, attention should be drawn to some of the issues selected by the Co-chairpersons as issues which the UNGA may decide as suitable for consideration by a next meeting of the UNWG BBNJ, namely:

- (b) The strengthening of cooperation and coordination at all levels and across all sectors, including enhanced cooperation in capacity-building for developing countries;
- (c) The development and implementation of effective [environmental impact assessment (EIA)] as a tool for improving ocean management;

231 Convention on Biological Diversity, Nairobi, 22 May 1992. In force 29 December 1993, 31 *International Legal Materials* 822 (1992); <www.biodiv.org>.

232 See Gjerde, note 219 supra, and K.M. Gjerde, 'Options for Addressing Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction' (IUCN Marine Law and Policy Paper No. 2: 2008; available at <cms.iucn.org>).

- (d) Development and use of [area-based management tools (ABMTs)], including designation, management, monitoring and enforcement, consistent with [the LOS Convention];²³³

Arguably, the reason why the Co-Chairpersons selected these issues is their perception that many states regard them as gaps in the current international law of the sea, despite disagreement on the solutions to address these gaps. Issues (b) and (d), read in conjunction, could be interpreted as support for integrated, cross-sectoral ecosystem-based ocean management, operationalized by among other things spatial measures or tools (e.g. MPAs). Such support has also been expressed by the UNGA in its 2006 and 2007 Resolutions on Oceans and the law of the sea.²³⁴

As regards the CBD, mention can be made of efforts in relation to MPAs in areas beyond national jurisdiction and, more recently, on EIAs and SEAs in relation to unregulated activities in areas beyond national jurisdiction (see subsections 2.7.3 and 2.7.4).

Finally, as briefly noted in one of the bullets above, it is submitted that a fundamental regulatory and governance gap in the current international law of the sea relates to mechanisms that safeguard the interests of non-user states or the international community as a whole in the protection and preservation of the marine environment and marine biodiversity.²³⁵ As noted at the end of subsection 3.3.2, spatial gaps in the coverage of the world's seas and oceans by regional environmental protection regimes and RFMOs and Arrangements undermine these interests. While there are a few relevant international instruments that allow for the participation of non-user states,²³⁶ these do not seem to have led to a satisfactory balance between socio-economic interests and the abovementioned interests for present and future generations.

Particular account should in this context be taken of the innovative approach by the UNGA in relation to the impact of bottom fisheries on vulnerable marine ecosystems.²³⁷ The main elements of this approach are:

- conducting prior EIAs
- identifying the location of vulnerable marine ecosystems
- freezing the footprint of bottom fishing in areas where vulnerable marine ecosystems are known to occur or likely to occur, until adequate conservation and management measures are in place
- making actions taken pursuant to these elements publicly available

These elements essentially operationalize the precautionary approach; the need for science-based fisheries management and accountability. Subsequently, they are made applicable to three different scenarios, namely (1) areas covered by existing RFMOs or Arrangements, (2) areas covered by negotiation processes to establish RFMOs or Arrangements and (3) areas beyond national jurisdiction not covered by existing RFMOs or Arrangement or negotiation processes to establish them. Unfortunately, however, only the first two scenarios are subject to deadlines. But the mere possibility that the UNGA

233 The 'Joint statement of the Co-Chairpersons of the 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' (Advance and unedited text), at para. 54, p. 12.

234 UNGA Resolution No. 61/222, note 199 supra, at para. 119 and UNGA Resolution No. 62/215 'Oceans and the law of the sea', of 22 December 2007, para. 99.

235 For a discussion see E.J. Molenaar, 'Managing Biodiversity in Areas Beyond National Jurisdiction', 21 *International Journal of Marine and Coastal Law* 89-124 (2007), at pp. 108-110.

236 Notably the ICRW (International Convention for the Regulation of Whaling, Washington D.C., 2 December 1946. In force 10 November 1948, 161 *United Nations Treaty Series* 72; <www.iwcoffice.org>), the 1958 Fisheries Convention (Convention on Fishing and Conservation of the Living Resources of the High Seas, Geneva, 29 April 1958. In force 20 March 1966, 559 *United Nations Treaty Series* 285; <www.un.org/law/ilc>) and the CCAMLR Convention (Convention on the Conservation of Antarctic Marine Living Resources, Canberra, 20 May 1980. In force 7 April 1982, 19 *International Legal Materials* 837 (1980); <www.ccamlr.org>).

237 See UNGA Resolution No. 61/105, note 79 supra, at paras 83-87.

would adopt non-legally binding restrictions on bottom fisheries in areas beyond national jurisdiction is likely to have been the main driver for the establishment of the negotiation process in the Northwest Pacific.²³⁸ Or, in other words, regional action to pre-empt global action. These actions by the UNGA are clearly aimed at safeguarding the interests of the international community in light of the inability or unwillingness of states to discharge their obligations to cooperate at the regional level.

3.4. Sectoral governance and regulation of the marine Arctic

3.4.1. Fisheries management

The following seem to be the main gaps:

1. **Fisheries research and future scenarios development.** There is a need for basic fisheries research as well as the development of future scenarios about areas, dates, species, fishing techniques for which new fishing opportunities are likely to arise and potential impacts for non-target species. It may for instance be revealed that new fishing opportunities in the Pacific side of the Arctic Ocean will be mainly located in the maritime zones of coastal states for a considerable time, whereas fishing opportunities in the Atlantic side may much sooner also encompass high seas areas that were not fished before. Such an assessment could be carried out in the framework of the Arctic Council (e.g. through its Conservation of Arctic Flora and Fauna working group (CAFF)) or independently.
2. **Action by states individually.** There is likely to be a lack of domestic regulation in relation to those parts of the Arctic marine area where ice-coverage used to be extensive for most of the year, but that now experience diminishing ice-coverage and thereby attract fishing vessels looking for possible new fishing opportunities.
3. **EIA and SEA.** Apart from the non-legally binding obligations pursuant to paragraphs 83–87 of UNGA Resolution 61/105, there are no global EIA or SEA mechanisms or procedures that can be applied to new or expanding fisheries in the Arctic marine area.
4. **Bilateral and (sub)regional arrangements for shared fish stocks.** While there are some bilateral arrangements between the relevant Arctic Ocean coastal states on the conservation and management of shared fish stocks, some are missing. This would seem to relate to Canada – United States (Beaufort Sea), Canada – Greenland and Russian Federation – United States (Chukchi Sea).
5. **RFMOs or Arrangements for species other than tuna and tuna-like species and anadromous species.** A large part of the Arctic marine area is not covered by an RFMO or Arrangement with competence over target species other than tuna and tuna-like species and anadromous species. This conclusion assumes that the Bering Sea would come within the scope of the WCPFC, and that ICCAT and NASCO may in principle have competence within the entire FAO Statistical Area No. 18.
6. **Shortcomings in global fisheries instruments.** The applicability of global fisheries instruments to the Arctic marine area also means that their shortcomings apply as well, for instance the non-applicability of the Fish Stocks Agreement to fish stocks other than straddling and highly migratory fish stocks. This is relevant for the arctic context as new fishing opportunities are also likely to relate to shared and anadromous fish stocks.

.....
238 See note 230 supra and accompanying text.

3.4.2. Shipping

The following seem to be the main gaps:

1. **Participation in relevant international instruments.** Not all arctic states are parties to relevant international instruments. For instance, the Russian Federation is not a party to OPRC 90.
2. **Lack of special global rules.** As regards substantive standards or requirements, the international legal framework contains:
 - no special IMO discharge, emission or ballast water exchange standards for the Arctic marine area
 - no comprehensive mandatory or voluntary IMO ships' routing system for the Arctic marine area in its entirety or a large part thereof
 - no legally binding special CDEM (including fuel content and ballast water treatment) standards for the Arctic marine area

The extent to which the absence of these standards or requirements poses a threat to the marine environment or biodiversity in the Arctic marine area cannot be assessed in this context.

3. **Contingency planning and preparedness.** While the global OPRC 90 and its 2000 HNS Protocol are complemented by the regional 1993 Nordic Agreement and the 1983 bilateral agreement between Canada and Denmark, there are gaps in the coverage of the entire Arctic marine area by all arctic states. A related gap is the absence of a regional agreement on search and rescue.
4. **Compliance and enforcement.** There is no regional approach by arctic states or an alternative group of states specifically aimed at ensuring compliance with applicable international rules and standards and national laws and regulations. It is moreover uncertain to what extent the IMO Arctic Shipping Guidelines and the IACS Unified Requirements concerning Polar Class are complied with by states, ship-owners and operators, crew and IACS members.

3.4.3. Offshore hydrocarbon activities

The following seem to be the main gaps:

1. **Lack of global and regional rules in general.** The LOS Convention's linkage between the general coastal state obligations to global rules is seriously weakened due to the fact that there are no global rules, standards and recommended practice and procedures apart from those laid down in MARPOL 73/78. The OSPAR Convention and the decisions, recommendations and other agreements adopted by the OSPAR Commission and its predecessors only apply to part of the Arctic marine area. Likewise, the competence of the ISA and its decisions only apply to parts of the Arctic marine area as well. The 'Arctic Offshore Oil and Gas Guidelines' and other output of the Arctic Council are non-legally binding. Even though the guidelines are revised on a regular basis, there is no systematic evaluation as to whether they are being followed.
2. **No full coverage by global or regional bodies.** While the ISA and the OSPAR Commission have competence over certain parts of the Arctic marine area, other parts are not covered by a global or regional body with competence for the comprehensive regulation of offshore hydrocarbon activities.
3. **Contingency planning and preparedness.** While the global OPRC 90 and its 2000 HNS Protocol are complemented by the regional 1993 Nordic Agreement and the 1983 bilateral agreement between Canada and Denmark, there are gaps in the coverage of the entire Arctic marine area by all arctic states.

3.5. Cross-sectoral issues

3.5.1. (Transboundary) EIA and SEA

The following seem to be the main gaps:

1. **Applicability of regional conventions.** The applicability of the Espoo Convention and its SEA Protocol to the Arctic marine area is limited: some arctic states are not parties to the Espoo Convention; the SEA Protocol has not yet entered into force; and some arctic states have not even signed the SEA Protocol.
2. **Lack of legally binding regional and bilateral rules.** While there are various legally binding regional and bilateral rules, some gaps remain, for instance between the Russian Federation and its Nordic neighbours and between the Russian Federation and the United States. The Arctic Council's EIA Guidelines provide important but non-legally binding guidance as to how (transboundary) EIA should be conducted to give due consideration for the special conditions in the Arctic. On the other hand, recent research has shown that the guidelines have not been used in practice.
3. **Lack of global rules on EIA and SEA for activities in areas beyond national jurisdiction.** While there are already EIA rules in place for mining in the Area, this is not of immediate importance to the Arctic marine area. The pockets of the Area are relatively small and mining would probably start later than elsewhere due to the likely unfavourable conditions. There is a lack of specific rules on how to conduct an assessment procedure which can also potentially cover activities within areas beyond national jurisdiction, as generally required in Article 206 of the LOS Convention and encouraged in Article 14(1)(c) of the CBD.

3.5.2. Representative networks of MPAs

The following seem to be the main gaps:

1. **No representative network of MPAs.** There is currently no representative network of MPAs in most or all of the Arctic marine area.
2. **No specific legally binding obligation, procedure or body.** Even though there are non-legally binding and legally binding international instruments containing obligations and commitments with regard to (representative networks of) MPAs, there is no specific legally binding obligation, procedure or body to enable the establishment of representative networks of MPAs for most or all of the Arctic marine area.

3.5.3. Integrated, cross-sectoral ecosystem-based ocean management

The following seem to be the main gaps:

No specific legally binding obligation, procedure or body. The Atlantic sector of the Arctic marine area is covered by several regional bodies with complementary mandates – namely ICES, NAMMCO, NEAFC and the OSPAR Commission – which are increasingly coordinating and cooperating towards integrated, cross-sectoral ecosystem-based ocean management. However, the remainder of the Arctic marine area is not covered by similar coordinating and cooperating bodies, or a single overarching body, to ensure integrated, cross-sectoral ecosystem-based ocean management.

II. OPTIONS FOR ADDRESSING IDENTIFIED GAPS



Photo: Staffan Widstrand



Photo: Trym Ivar Bergsmo/Statoil-Hydro



Photo: Staffan Widstrand



Photo: U.S. Geological Survey



Executive summary

Introduction

This report was commissioned by the WWF International Arctic Programme as a consequence of the perceived inadequacies of the current international governance and regulatory regime of the marine Arctic in light of current and future effects of climate change on the Arctic. This report complements two other reports with the same main title but with different subtitles, namely *Overview and Gap Analysis*¹ and *A Proposal for a Legally Binding Instrument*². The purpose of this report is to identify options for addressing certain of the gaps identified in the *Overview and Gap Analysis* report. The present report therefore largely mirrors this latter report.

The present report consists of four main sections, namely (a) general principles and considerations for addressing identified gaps; (b) options for addressing identified gaps in the Arctic Council and its constitutive instrument; (c) options for addressing identified gaps in sectoral governance and regulation; and (d) options for pursuing integrated, cross-sectoral ecosystem-based oceans management. The main arguments and conclusions of these sections are summarized below.

General principles and considerations

In developing options for addressing identified gaps, account should be taken of various general principles and considerations, including (a) necessity; (b) timing and comprehensiveness of reform; (c) type, level and proposals for reform; and (d) balancing rights, interests and obligations. The analysis of these general principles and considerations has led to a number of conclusions, for instance that the need for reform of the international governance and regulatory regime of the marine Arctic is not disputed as such. Even the Ilulissat Declaration of 28 May 2008 indicates that the five Arctic Ocean coastal states do not question the need for reform as such, but only the need for certain types of reform at certain levels.

In considering the timing and comprehensiveness of reform, the point of departure should be that at least a minimum level of governance and regulation is in place before human activities commence or expand. While proactive/precautionary approaches such as those pursued within the Antarctic Treaty system (ATS) appear commendable, they should not be pursued without taking proper account of cost-effectiveness, fairness and equity.

A prerequisite for successful reform of the international regime for the governance and regulation of the marine Arctic is that it acceptably balances the rights, interests and obligations of relevant states, the international community and Indigenous peoples. Which states are relevant depends first of all on the spatial scope of the instrument and/or the spatial mandate of the institution by means of which reform is to be brought about. This is due to the fact that different states have different rights, interests and obligations depending on the different maritime zones. There seem to be three basic options for the spatial scope of reform. These are: (a) only areas within national jurisdiction; (b) only areas beyond national jurisdiction (high seas and the 'Area'); and (c) both areas within and beyond national jurisdiction.

We believe that reform under option (c) is best. Pursuing this option would place neither coastal states nor other states in a more advantageous position due to lower costs/higher

1 Final version of January 2009, available at <www.panda.org/arctic>.

2 Forthcoming in 2009.

profits, would better facilitate addressing transboundary issues and effects, would enhance uniformity and would be conducive to successful integrated, cross-sectoral ecosystem-based ocean management. The challenge of pursuing this option is to balance the rights, interests and obligations of coastal states on the one hand with those of other states and the international community on the other hand. The point of departure for addressing this challenge is that the envisaged governance and regulatory regime does not have to be uniform – both substantively and spatially – for all sectors. This would be entirely unrealistic in view of the sovereignty, sovereign rights and jurisdiction of Arctic Ocean coastal states.

Arctic Council and its constitutive instrument

The Arctic Council has a role in marine governance and regulation in the Arctic, but it is a limited one, even though gradually expanding. It is difficult to argue that the Arctic Council alone, as it presently stands, could do much to counter the vast challenges facing the Arctic marine area. There are proposals as to how to revise the Arctic Council to enhance its role in promoting sustainable development in the region. The strong side of these proposals is that they could be implemented fairly rapidly since they do not call for major reforms of the Arctic Council or the present governance system in the Arctic. The proposals, however, suffer from their political realism. Given the pace of change in the Arctic, such minor changes to the present governance regime are unlikely to enable the system to counter the vast challenges ahead.

Sectoral governance and regulation

The report has developed options for three sectors, namely (a) fisheries management; (b) shipping; and (c) offshore hydrocarbon activities. The main options are summarized in Table 1 below. Two of the options under fisheries management are discussed in more detail in this report, namely a declaration on new and existing fisheries in the Arctic marine area and adjusting the spatial scope of the NEAFC Convention and the North-East Atlantic Fisheries Commission (NEAFC) established by it. As regards the declaration, some steps have already been taken for initiating a process towards its adoption.

The discussion on spatial adjustments of the NEAFC Convention takes place in the context of the option of establishing one or more state-of-the-art regional fisheries management organizations (RFMOs) or Arrangements for species other than tuna and tuna-like species and anadromous species. NEAFC (& the NEAFC Convention) is an obvious candidate for a spatial adjustment. While spatial adjustments are in principle possible, large expansions by which the NEAFC Convention Area would comprise the entire Arctic Ocean – as suggested in the European Commission’s Arctic Communication – appear much more problematic than relatively small geographical adjustments (expansions as well as shrinkages). Arguably, this is mainly due to NEAFC’s practices on the establishment and allocation of the total allowable catch (TAC) for straddling fish stocks, for the reason that these clearly give preferential treatment to coastal states.

Table 1: Options for addressing gaps in sectoral governance and regulation

Fisheries management	Shipping	Offshore hydrocarbon activities
<p>1. Conducting basic fisheries research as well as developing future scenarios about areas, dates, species, fishing techniques</p> <p>2. Individual regulation by states – both Arctic Ocean coastal states and other states – in their capacities as flag, coastal, port and market states and with regard to their natural and legal persons. Such regulation should, among other things, be aimed at combating illegal, unreported and unregulated (IUU) fishing</p> <p>3. Bilateral or subregional arrangements between relevant Arctic Ocean coastal states on the conservation and management of shared and anadromous fish stocks</p> <p>4. A declaration on new and existing fisheries in the Arctic Ocean by which the main relevant general principles of the Fish Stocks Agreement, the recent United Nations General Assembly (UNGA) Resolutions in relation to vulnerable marine ecosystems and destructive fishing practices and relevant conservation and management measures drawn from regional fisheries management organizations (RFMOs) are made applicable to new and existing fisheries in the Arctic marine area. In particular, this declaration could stipulate that there shall be no new or expanded fisheries until adequate assessments of their potential impacts on target and non-target species, the broader marine environment and the livelihoods of Indigenous peoples are carried out</p> <p>5. Individual or collective initiatives towards developing mechanisms or procedures similar to an environmental impact assessment (EIA) and/or a strategic impact assessment (SEA) for new fisheries in the Arctic marine area</p>	<p>1. Options for action within the International Maritime Organization (IMO):</p> <ul style="list-style-type: none"> • Make the IMO Polar Shipping Guidelines mandatory • Pursue the adoption of special standards, for instance: <ul style="list-style-type: none"> • Special discharge or emission standards for all or part of the Arctic marine area under MARPOL 73/78 • Special fuel content or ballast water treatment standards; • One or more mandatory ships' routing systems, whether or not in the form of an comprehensive 'Arctic Sea Lanes' proposal • Ship reporting systems • Compulsory pilotage and ice-breaker or tug assistance • Special anti-fouling standards • Designate part of the Arctic Ocean as a particularly sensitive sea area (PSSA), with a comprehensive package of associated protective measures (APMs) consisting of one or more of the special standards just mentioned above <p>2. Options for arctic states at the regional level, in their capacities as coastal states:</p> <ul style="list-style-type: none"> • Agree on legally binding agreements on monitoring, contingency planning and preparedness for pollution incidents, as well as on search and rescue, including by designating places of refuge • Agree on a harmonized approach on enforcement and ensuring compliance, inter alia by means of shared platforms • Implement the BWM Convention individually or in concert • Take other action under Article 234 of the LOS Convention <p>3. Options for arctic states and other states at the regional level, in their capacities as port states:</p> <ul style="list-style-type: none"> • Develop a strategy for port state control in the Arctic, for instance by establishing an Arctic Memorandum of Understanding (MOU) on port state control or by adjusting Paris MOU and the Tokyo MOU on port state control to ensure that proper account is taken of intra-arctic and trans-arctic marine shipping • Implement Article 218 of the LOS Convention in concert • Exercise port state residual jurisdiction in concert – relying in part on Article 234 of the LOS Convention – in case the IMO Polar Shipping Guidelines are not made mandatory <p>4. Other options for arctic states in particular, individually or collectively:</p> <ul style="list-style-type: none"> • Address the need for hydrographic surveying and charting • Consider the need to develop a regional liability regime • Encourage self-regulation by the shipping industry • Urge the International Association of Classification Societies (IACS) to restrict the margin of discretion that individual members have in relation to the IACS Unified Requirements concerning Polar Class 	<p>1. Develop legally-binding regulations for offshore hydrocarbon activities in the Arctic marine area, drawing in particular on the Arctic Council's Arctic Offshore Oil and Gas Guidelines, the OSPAR Convention and the relevant acts of the OSPAR Commission</p> <p>2. Ensure that the aforementioned regulations also have an institutional component to ensure that a body is mandated to implement and update the substantive standards when necessary. The spatial competence of this body should as a minimum complement that of the OSPAR Commission and the International Seabed Authority (ISA), thus achieving full coverage of the Arctic marine area</p> <p>3. Develop a regional agreement on contingency planning and preparedness for incidents involving offshore hydrocarbon activities which, among other things, establishes a body mandated to implement and update the substantive standards when necessary. The spatial scope of such an agreement and the spatial mandate of the body established by it should as a minimum complement that of existing bilateral and multilateral agreements; thus achieving full coverage of the Arctic marine area</p>

Integrated, cross-sectoral ecosystem-based oceans management

While most, if not all, states would acknowledge the merits of integrated, cross-sectoral ecosystem-based management of the Arctic marine area, they are likely to have very divergent views on how it should be pursued. For instance, whether it should be pursued by means of legally binding or non-legally binding instruments or whether it should be pursued at the global or at the regional level.

‘Soft-law’ and ‘hard-law’ approaches both have their advantages and disadvantages and these should be carefully considered. It seems that support for soft-law approaches is occasionally at least partially based on misunderstandings of the disadvantages of hard-law approaches, for example that the latter always require lengthy negotiation-processes and a long time to enter into force. For many reasons, however, the LOS Convention cannot be used as a representative example in this context. Moreover, nothing in the law of treaties prevents states per se from granting Indigenous peoples’ organizations a participatory status in a treaty that equals, or goes beyond, the status that permanent participants now enjoy within the Arctic Council.

Support for initiatives at the global level seems in this context minimal, if only because success in integrated, cross-sectoral ecosystem-based oceans management depends to a significant extent on its spatial delimitation (scale). A global scale would not provide much operational impact. Also, linking a legally binding instrument for the marine Arctic to the LOS Convention – even if its spatial scope would be limited to areas beyond national jurisdiction – would not be acceptable to Arctic Ocean coastal states because its negotiation would fall under the United Nations General Assembly (UNGA); a forum where the five Arctic Ocean coastal states could potentially be confronted by 180-odd states with opposing views and interests.

Regional approaches are for the same reasons likely to attract more support.³ However, the Arctic Ocean coastal states are in view of their Ilulissat Declaration not in favor of a legally binding instrument in case that would amount to “a new comprehensive international legal regime to govern the Arctic Ocean”. Proposals such as those by the European Parliament in its Resolution of 9 October 2008 on arctic governance for a treaty inspired by the Antarctic Treaty have the additional hurdle of being too closely associated with the agreement to disagree on the status of sovereignty in Antarctica.

Some elements of the ATS – such as the agreement to disagree on the question of sovereignty, elements directly related thereto and an indefinite ban on mineral resource activities modeled on Articles 7 and 25(2) of the Madrid Protocol to the Antarctic Treaty – are clearly not suitable as a model for reform of the arctic regime. While some elements – such as use for peaceful purposes only, modeled on Article I(1) of the Antarctic Treaty – are unlikely to be suitable, yet other elements appear in principle suitable, for instance the linkages between the instruments of the ATS and the bodies established by them for the reason that these are conducive to integrated, cross-sectoral ecosystem-based ocean management.

Expanding the spatial scope of the OSPAR Convention to include the entire Arctic Ocean would not strictly speaking be a ‘new regime’, but it is questionable if Canada, the Russian Federation and the United States would be prepared to accept this entire ‘acquis’; namely the OSPAR Convention as well as all the legally binding decisions, non-legally binding recommendations and other agreements adopted by the OSPAR Commission – without significant amendments.

A pertinent question is nevertheless how the Ilulissat Declaration should be interpreted in this regard: does it draw a line in the sand or is it an opening bid in the initial stages of the

³ See also the main reasons for regional regimes listed in the *Overview and Gap Analysis* report, at p. 6.

ongoing debate on reform? The latter could certainly turn out to be the better interpretation, in particular if the primary purpose of the phrase “a new comprehensive international legal regime to govern the Arctic Ocean” is to reject reform along the lines of the Antarctic Treaty and if existing and newly established sectoral arrangements do not succeed in adequate coordination and coordination. The pace of change in the Arctic is likely to be a crucial factor in that regard.

In the view of the authors of this report, a regional legally binding instrument dedicated to the marine Arctic is the most convincing option for reforming the current regime of the Arctic and should be seriously considered. In designing the basic features and elements of such an instrument, account should be taken of the general principles and considerations and other arguments discussed in this report. While expanding the spatial scope of the existing OSPAR Convention might at first sight seem an attractive option, an instrument that is tailor-made for the Arctic would seem to be able to garner more support. Moreover, the instrument should be self-standing, should build on the achievements of the Arctic Council so far and retain its viable parts and bodies, and should not be formally linked to for instance the LOS Convention. Finally, the instrument should have an overarching character which is at a minimum conducive to integrated, cross-sectoral ecosystem-based oceans management and whose primary body could also be mandated to pursue that objective. These and other basic features and elements are elaborated in the report *A Proposal for a Legally Binding Instrument*.

List of abbreviations

AECO	Association of Arctic Expedition Cruise Operators
AEPS	Arctic Environmental Protection Strategy
AMSA	Arctic Marine Shipping Assessment
AMSP	Arctic Marine Strategic Plan
APMs	associated protective measures
ATCM	Antarctic Treaty Consultative Meeting
ATS	Antarctic Treaty system
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CDEM	construction, design, equipment and manning (standards)
COFI	FAO Committee on Fisheries
DE	Sub-Committee on Ship Design and Equipment, of the IMO
EC	European Community
EEZ	exclusive economic zone
EIA	environmental impact assessment
EP	European Parliament
EPPR	Emergency, Prevention, Preparedness and Response (working group)
EU	European Union
FAO	United Nations Food and Agriculture Organization
FMP	fishery management plan
GAIRAS	generally accepted international rules and standards
IACS	International Association of Classification Societies
ICES	International Council for the Exploration of the Sea
IMO	International Maritime Organization
ISA	International Sea-bed Authority
IUCN	International Union for Conservation of Nature
IUU	illegal, unreported and unregulated
IWC	International Whaling Commission
LME	large marine ecosystem
MOU	Memorandum of Understanding
NAMMCO	North Atlantic Marine Mammal Commission
NEAFC	North-East Atlantic Fisheries Commission
NGO	non-governmental organization
NPFMC	North Pacific Fishery Management Council
PAME	Protection of the Arctic Marine Environment (working group)
PSSA	particularly sensitive sea area
RFMO	regional fisheries management organization
SAO	Senior Arctic Official
SDWG	Sustainable Development (working group)
SEA	strategic impact assessment
TAC	total allowable catch
UNGA	United Nations General Assembly



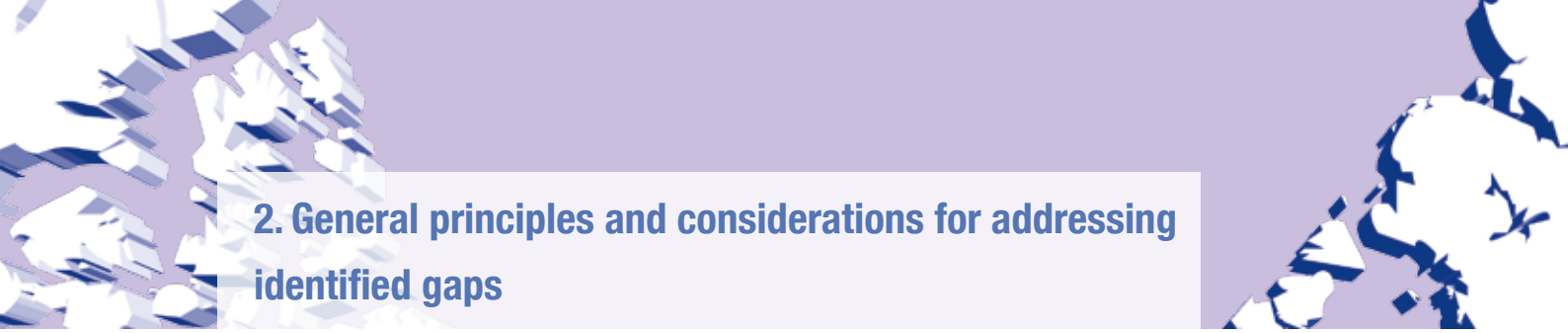
1. Introduction

This report was commissioned by the WWF International Arctic Programme as a consequence of the perceived inadequacies of the current international governance and regulatory regime of the marine Arctic in light of current and future effects of climate change on the Arctic. This report complements two other reports with the same main title but with different subtitles, namely *Overview and Gap Analysis*⁴ and *A Proposal for a Legally Binding Instrument*⁵.

The purpose of this report is to identify options for addressing certain of the gaps identified in the *Overview and Gap Analysis* report. The present report therefore largely mirrors this latter report. The next section discusses general principles and considerations for addressing identified gaps. Subsequently, section 3 examines options for addressing identified gaps in the Arctic Council and its constitutive instrument, section 4 discusses options for addressing identified gaps in sectoral governance and regulation and section 5 analyzes options for pursuing integrated, cross-sectoral ecosystem-based oceans management.

4 Final version of January 2009, available at <www.panda.org/arctic>.

5 Forthcoming in 2009.



2. General principles and considerations for addressing identified gaps

2.1. Introduction

The aim of this section is to identify general principles and considerations that have a bearing on the choice for particular options to address identified gaps. The following subsections discuss necessity (subsection 2.2), timing and comprehensiveness of reform (subsection 2.3), type, level and proposals for reform (subsection 2.4) and balancing rights, interests and obligations (subsection 2.5). As will become apparent, it is not always easy to find suitable headings for all relevant issues. It is therefore noted that the spatial scope of reform is integrated in subsection 2.5. Finally, subsection 2.6 will discuss the relevance of Articles 122–123 of the LOS Convention⁶.

2.2. Necessity

Reform of the international regime for the governance and regulation of the marine Arctic should only be undertaken after it has been ascertained that it is necessary. Necessity can for instance be determined in the light of the impacts of climate change, and the ensuing increase of human activities on the marine environment and marine biodiversity in the Arctic.

It is submitted that the need for reform as such is not disputed. There is no scientific disagreement that the Arctic is rapidly changing. Rather, the debate focuses on the pace of change and future projections. The governance and regulatory regime that currently exists in the Arctic may have been adequate for an environment that largely restricted human activity for most of the year. But when the Arctic Ocean becomes increasingly similar to regional seas in other parts of the world for ever longer parts of the year, adequacy can no longer be assumed. In fact, the Ilulissat Declaration of 28 May 2008⁷ indicates that the five Arctic Ocean coastal states also do not question the need for reform as such, but only the need for certain types of reform at certain levels.

Notwithstanding the above, the need to address identified governance and regulatory gaps has to be carefully ascertained for each individual gap. For instance, even though there are currently no special legally binding construction, design, equipment and manning (CDEM) standards for the Arctic marine area, this does not automatically mean that the International Maritime Organization (IMO) Polar Shipping Guidelines,⁸ once adopted, should be made mandatory.

2.3. Timing and comprehensiveness of reform: pro-active/precautionary, fair and equitable and cost-effective

In considering the timing and comprehensiveness of reform, the point of departure should be that at least a minimum level of governance and regulation is in place before

6 United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982. In force 16 November 1994, 1833 United Nations Treaty Series 396; <www.un.org/Depts/los>.

7 Ilulissat, 28 May 2008 (available at <arctic-council.org>).

8 In March 2009, the Sub-Committee on Ship Design and Equipment (DE) concluded its revision of the IMO Arctic Shipping Guidelines. The extension of their spatial scope to include 'Antarctic waters' - namely waters south of 60° South - is reflected in the new title 'Guidelines for Ships Operating in Polar Waters'. The draft Guidelines are incorporated in Annex I to IMO doc. DE 52/WP.2, of 19 March 2009, 'Guidelines for Ships Operating in Arctic Ice-Covered Waters. Report of the working group'. The Guidelines are intended to be adopted by the IMO Assembly in November 2009 by means of a resolution.

human activities commence or expand. In this context, mention can be made of the pro-active approach pursued by the Contracting Parties to the Antarctic Treaty⁹ by commencing the negotiation processes for the CCAS Convention,¹⁰ the CCAMLR Convention¹¹ and the CRAMRA¹² before the relevant human activities had begun (or would be resumed). This pro-active approach is widely regarded as a significant achievement of the Antarctic Treaty system (ATS)¹³.

Pursuing a pro-active approach is not fundamentally different from pursuing a precautionary approach, which requires certain measures to be taken depending on the extent of scientific uncertainty, risk of certain consequences and the seriousness and irreversibility of such consequences. This is the essence of the view expressed at the outset of this subsection, namely that the point of departure should be that at least a minimum level of governance and regulation is in place before human activities commence or expand. Having nothing in place in case risks are underestimated in terms of timing, seriousness or irreversibility – as often happens – is both undesirable and inappropriate. The response time between a decision that governance and regulation is required and the moment when such governance and regulation is actually operational is often considerable. A telling example relates to the fishery for orange roughy (*Hoplostethus atlanticus*) in the Southwestern Indian Ocean, which had completed a ‘boom-and-bust’ cycle around 2001 before serious negotiations to establish a regional fisheries management mechanism were under way.¹⁴ The SIOF Agreement¹⁵ that was eventually adopted in 2006 has yet to enter into force. It is in that context particularly welcome that the Legal Advisor of the United States Department of State recently observed:

Finally, I view it as a very positive development that, both domestically and internationally, experts are considering the legal issues associated with the warming of the Arctic. To the extent enhancements are needed in one or more areas regarding the safety, security, or environmental protection of the Arctic Ocean, these can be agreed upon and put in place *before they become necessary*.¹⁶ [emphasis added]

While the example of the orange roughy fishery focuses in particular on the implications that responding too late may have for the long-term sustainable management of living resources or even for marine biodiversity, there may also be implications for fair and equitable – both inter-generational and intra-generational – access to, allocation of, or sharing benefits arising out of the utilization of, resources.¹⁷ Open access regimes in areas beyond national jurisdiction¹⁸ are commonly advantageous to developed states that have the technology, expertise and other resources required for pioneering. This was the main reason for developing states to push for Part XI of the LOS Convention and also seems to be the main motivation for their view that bio-prospecting for genetic resources of the Area

9 Antarctic Treaty, Washington D.C., 1 December 1959. In force 23 June 1961, 402 *United Nations Treaty Series* 71; <www.ats.aq>.

10 Convention for the Conservation of Antarctic Seals, London, 1 June 1972. In force 11 March 1978, 1080 *United Nations Treaty Series* 176; <www.ats.aq>.

11 Convention on the Conservation of Antarctic Marine Living Resources, Canberra, 20 May 1980. In force 7 April 1982, 19 *International Legal Materials* 837 (1980); <www.ccamlr.org>.

12 Convention on the Regulation of Antarctic Mineral Resource Activities, Wellington, 2 June 1988. Not in force, 27 *International Legal Materials* 868 (1988).

13 For a definition of this acronym see subsection 5.4.

14 For a discussion of the initial stages of the negotiations see E.J. Molenaar, ‘The South Tasman Rise Arrangement of 2000 and other Initiatives on Management and Conservation of Orange Roughy’, 16 *International Journal of Marine and Coastal Law* 77-118 (2001), at pp. 109-115.

15 Southern Indian Ocean Fisheries Agreement, Rome, 7 July 2006. Not in force, <www.fao.org/legal>.

16 J.B. Bellinger, III, ‘The United States and the Law of the Sea Convention’, address of 3 November 2008 (available at <www.state.gov/s/rls/111587.htm>).

17 See, inter alia, Art. 1 of the CBD (Convention on Biological Diversity, Nairobi, 22 May 1992. In force 29 December 1993, 31 *International Legal Materials* 822 (1992); <www.biodiv.org>).

18 The phrase ‘areas beyond national jurisdiction’ refers to the high seas and the ‘Area’.

is, or should be, governed by the principle of the common heritage of mankind and not by the regime of the high seas.¹⁹ In the context of marine capture fisheries, reference should also be made to the wide-spread practice of using historic fishing rights as the main or predominant criterion for the allocation of fishing opportunities.

However, while pro-active/precautionary approaches appear *prima facie* commendable, they should not be pursued without taking proper account of cost-effectiveness. The regime for deep sea-bed mining in Part XI of the LOS Convention could be regarded as an example of a pro-active approach. The negotiations on this regime were particularly complex and contentious and were most likely responsible for extending the overall negotiation process by several years.²⁰ Twelve years after the adoption of the LOS Convention, the regime in Part XI was significantly modified by the Part XI Deep-Sea Mining Agreement.²¹ And at the time of writing – more than 35 years after the start of the negotiation process of the LOS Convention – commercial exploitation of mineral resources of the Area has yet to begin.

These examples should be kept in mind when considering the comprehensiveness of reform of the governance and regulatory regime for the Arctic marine area. In view of the difficulty of making accurate predictions of the impacts of climate change – and the ensuing increase of human activities – on the marine environment and marine biodiversity in the Arctic, devoting extensive resources on a multilateral negotiation-process for a full-fledged, comprehensive and detailed governance and regulatory regime for all possible human activities in the marine Arctic would hardly be seen as cost-effective. This is especially true if most of these activities are not expected to reach a significant level and intensity within a decade, and other regional or global issues are on face-value more pressing.

2.4. Type, level and proposals for reform

As noted above, this subsection is devoted to a discussion on the type, level and proposals for reform whereas the next subsection discusses other aspects of reform, such as its spatial scope.

Several different types of reform are possible. Reform can for instance have a narrow, issue-specific focus, a sectoral focus (e.g. shipping or fishing) or a more integrated, cross-sectoral focus. The type of reform can also vary in terms of outcome, namely legally binding or non-legally binding and whether or not new institutions are established.

Of paramount importance to choices between different types and levels of reform is the decentralized nature of international law and the absence of hierarchy among its forms/manifestations as well as its law-making processes. Consequently, particular care should be taken to ensure that proposed reform minimizes competition or overlap with existing instruments and institutions. Moreover, in view of the constantly increasing number of international instruments and institutions, it should be seriously considered if the problem may also be solved by enhancing implementation of existing instruments and improved coordination and cooperation between existing institutions.

As the Arctic Council is currently the main intergovernmental forum for the Arctic, proposals to reform the governance and regulatory regime for the Arctic need to address their relationship to the Arctic Council. Reform should therefore build on the achievements of the Arctic Council so far and retain its viable parts and bodies as much as possible.

19 This issue was debated at length during the Eight Meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (ICP) (2007) (see UN doc. A/62/169, of 30 July 2007, 'Report on the work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its eighth meeting', at pp. 15-16).

20 The negotiations on the LOS Convention lasted from 1973 to 1982.

21 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, New York, 28 July 1994. In force 28 July 1996, 33 *International Legal Materials* 1309 (1994); <www.un.org/Depts/los>.

Radically throwing out everything that has been gradually and painstakingly created and maintained during a period of almost 20 years would make no sense.²²

Proposals for reform may not generate sufficient support if they are, or appear to be, 'locked in' to a particular type and level of, or pathway to, reform instead of being more neutral, flexible and open-minded, provided certain problems (gaps) are adequately addressed. For instance, proposals to reform the current governance and regulatory regime of the Arctic marine area by means of an 'international legally binding instrument' may trigger less knee-jerk opposition than proposals that call for an 'Arctic Treaty'. While the former proposal is quite neutral – even though ruling out a non-legally binding instrument – the latter proposal is immediately associated with the Antarctic Treaty.²³ It is clear that many elements of the Antarctic Treaty cannot be transposed to the Arctic and would at any rate be entirely unacceptable to arctic states (for a more extensive discussion see subsection 5.4). A proposal for an Implementing Agreement under the LOS Convention (see subsection 5.5) is also worth mentioning in this context. Such a proposal implies the negotiation of a global instrument and thereby rules out a regional instrument and also implies a potentially problematic linkage to another instrument as well as an open-ended negotiation process under the United Nations General Assembly (UNGA).

2.5. Balancing the rights, interests and obligations of states, the international community and Indigenous peoples

A prerequisite for successful reform of the international regime for the governance and regulation of the marine Arctic is that it acceptably balances the rights, interests and obligations of relevant states, the international community and Indigenous peoples. Which states are relevant and thereby also which rights, interests and obligations, depends first of all on the spatial scope of the instrument and/or the spatial mandate of the institution by means of which reform is to be brought about. This is due to the fact that different states have different rights, interests and obligations depending on the different maritime zones.

There seem to be three basic options for the spatial scope of reform. These are:

- (a) Only areas within national jurisdiction;
- (b) Only areas beyond national jurisdiction; and
- (c) Both areas within and beyond national jurisdiction.

As regards option (a), coastal states are the obvious participants in the reform process. Some coastal states may argue that they are the only relevant states. This, however, depends on the substantive scope of reform. If governance and regulation also relate to rights and interests that other states and the international community have – for instance navigation – it may be necessary to also allow such other states to participate in reform processes. The extent of coastal state powers under current international law will be determinative in that respect. In addition to user rights and interests such as navigation, other states could also invoke non-user interests as a basis for their entitlement to participate in the reform process. These non-user interests include the protection and preservation of the marine environment and safeguarding marine biodiversity. Such other states may indicate that they intend to participate in their own right, on behalf of the international community or both. Their participation may for instance be aimed at monitoring and ensuring that coastal states discharge relevant obligations with respect to the Arctic marine area.

.....
²² The Arctic Council is a continuation of the Arctic Environmental Protection Strategy (AEPS), whose negotiation commenced in 1989.

²³ See, for instance, the United States Arctic Region Policy (National Security Presidential Directive/NSPD-66 & Homeland Security Presidential Directive/HSPD-25, of 9 January 2009. In effect same day; text at <www.whitehouse.gov> (press release of 12 January 2009)), which notes that the "geopolitical circumstances of the Arctic region differ sufficiently from those of the Antarctic region such that an "Arctic Treaty" of broad scope -- along the lines of the Antarctic Treaty -- is not appropriate or necessary" (section III(C)(3)).

It is submitted that reform under option (a) has the highest priority because the impacts of climate change and the ensuing human activities will occur first in areas under national jurisdiction. However, areas beyond national jurisdiction may follow not long thereafter. Also, limiting reform to these areas would in effect place coastal states in a disadvantageous position vis-à-vis other states whose nationals engage in activities in the adjacent areas²⁴. In the absence of governance and regulation, the latter can operate with lower costs and higher profits and thus undermine the level-playing field that is of such crucial importance to successful international governance and regulation. Moreover, there may also be transboundary effects of activities in adjacent areas, for instance pollution or fishing activities targeting or impacting species that also occur in the coastal states' maritime zones. Limiting reform to areas under national jurisdiction would also not be in line with the preference for uniformity in governance and regulation by operators that work throughout the Arctic marine area. Finally, such a limited spatial scope of reform would obviously not be conducive to the success of integrated, cross-sectoral ecosystem-based ocean management, if such an approach is intended to be pursued.

As regards option (b), both (adjacent)²⁵ coastal states and other states are entitled to be participants in the reform process. Whether or not states are entitled to participate in their capacity as (adjacent) coastal states depends once again on the substantive scope of reform. Similar to option (a), states could invoke non-user interests as a basis for their entitlement in reform processes. As argued above, priority in reform lies with areas within national jurisdiction. Limiting reform to areas beyond national jurisdiction would place coastal states in a more advantageous position vis-à-vis other states due to lower costs/higher profits or transboundary effects, does not strive to enhance uniformity and is not conducive to successful integrated, cross-sectoral ecosystem-based ocean management.²⁶

As regards option (c), both (adjacent) coastal states and other states are entitled to be participants in the reform process.²⁷ The comments on non-user interests made above are applicable here as well. In view of the comments made under options (a) and (b) on the need for a level-playing field, to take account of transboundary effects, uniformity and conduciveness to integrated, cross-sectoral ecosystem-based ocean management, it is submitted that reform under option (c) is the preferred course. Much more so than in case of reform under option (b), however, the challenge is to balance the rights, interests and obligations of coastal states on the one hand with those of other states and the international community on the other hand. The point of departure for addressing this challenge is that the envisaged governance and regulatory regime does not have to be uniform – both substantively and spatially – for all sectors. This would be entirely unrealistic in view of the sovereignty, sovereign rights and jurisdiction of coastal states.

During the reform process, alliances are likely to be created between stakeholders with similar rights, interests and obligations. The eight arctic states and the five Arctic Ocean coastal states seem likely alliances on some issues within certain spatial areas. In case the

.....
24 In essence the high seas.

25 In some scenarios (e.g. fisheries management) certain states may also qualify as coastal states even though their maritime zones are not immediately adjacent to the envisaged areas beyond national jurisdiction.

26 See nevertheless European Parliament's Resolution of 9 October 2008 on Arctic governance, discussed in subsection 5.4.1 infra; R.G. Rayfuse, 'Protecting Marine Biodiversity in Polar Areas Beyond National Jurisdiction', 17 *Review of European Community and International Environmental Law* 3-13 (2008), at p. 11; S. Borgerson and C. Antrim, 'An Arctic Circle of Friends', *New York Times* 28 March 2009, who advocate a 'zone of peace' north of 88° North; and P.A. Berkman and O.R. Young, 'Governance and Environmental Change in the Arctic Ocean', 324 *Science* 339-340 (2009).

27 Note in this respect the views of D. McRae, 'Rethinking the Arctic: A New Agenda for Canada and the United States', within the Canada-US Project, *Blueprint for Canada-US Engagement under a New Administration*, Centre for Trade Policy and Law, Carleton University, 2008 (text at <www.carleton.ca/ctpl/conferences>), at p. 8, who advocates a regime for the arctic basin with "the objective of providing overall environmental management of Arctic areas beyond national jurisdiction and coordination of management and objectives in respect of those areas within national jurisdiction". It seems that this regime should be developed by arctic basin states as a pre-emptive strategy to avoid regimes based on universal participation.

five Arctic Ocean coastal states group together, the three other arctic states might join the group of other states that have user or non-user interests in the Arctic.

So far, very little attention has been devoted to Indigenous peoples. While they do not have rights and obligations under the international law of the sea in their own right, they enjoy a status within the Arctic Council that effectively recognizes their interests in the Arctic. Proposals for reform that diminish that status may lead to pressure by Indigenous peoples on arctic states.

By way of conclusion, it should be noted that the balancing act discussed in this subsection is not just something that must be achieved in the final outcome of the reform. In particular the issue of participation needs to be carefully considered at the very beginning of the reform process.

2.6. The relevance of Articles 122–123 of the LOS Convention

It has sometimes been suggested that Articles 122 and 123 of the LOS Convention would provide a legal obligation for Arctic Ocean coastal states to negotiate an international treaty over the Arctic Ocean. According to Article 122:

For the purposes of this Convention, “enclosed or semi-enclosed sea” means a gulf, basin or sea surrounded by two or more States and connected to another sea or the ocean by a narrow outlet or consisting entirely or primarily of the territorial seas and exclusive economic zones of two or more coastal States.

As is readily clear, this provision contemplates two types of sea-areas to be within its scope: either those which are covered primarily by territorial seas and EEZs of coastal states or those which are connected to other sea areas only by a narrow strait. Since the terms used in Article 122 are fairly vague, it is difficult to provide a clear-cut answer as to whether the Arctic Ocean is an enclosed or semi-enclosed sea in the meaning of Article 122. As regards the first type of sea-area, it must be pointed out that a large part of the Arctic Ocean consists of high seas and thereby would not convincingly satisfy the requirement of “primarily”. As regards the second type of sea-area, it should be noted that in comparison to the seas which clearly are enclosed or semi-enclosed – such as the Baltic or Mediterranean Seas – the Arctic Ocean opens relatively broadly to the North-East Atlantic.

But even if the argument could be made that the Arctic Ocean is an enclosed or semi-enclosed sea in the meaning of Article 122, Article 123 does not provide a clear-cut legal obligation for regional co-operation. It reads:

States bordering an enclosed or semi-enclosed sea should cooperate with each other in the exercise of their rights and in the performance of their duties under this Convention. To this end they shall endeavour, directly or through an appropriate regional organization:

- (a) to coordinate the management, conservation, exploration and exploitation of the living resources of the sea;
- (b) to coordinate the implementation of their rights and duties with respect to the protection and preservation of the marine environment;
- (c) to coordinate their scientific research policies and undertake where appropriate joint programmes of scientific research in the area;
- (d) to invite, as appropriate, other interested States or international organizations to cooperate with them in furtherance of the provisions of this article.

According to the phrasing of this provision, it seems better to interpret Article 123 as encouraging regional sea cooperation over marine environmental protection, management of living resources and marine scientific research rather than imposing on coastal states a legally binding obligation to do so. In international treaty practice, “should” is normally used to denote non-legally binding encouragement rather than a legal obligation (for which “shall” or “must” are used). Moreover, the use of “shall” in the second sentence of the chapeau is significantly qualified by the term “endeavour”. It can thus be argued that Article 123 merely contains a weak obligation to cooperate, but it does urge the coastal states – perhaps together with other states and international organizations – to engage in regional co-operation over the policy areas enumerated in the provision.

If the coastal states were to regard the Arctic Ocean as an enclosed or semi-enclosed sea in the meaning of Article 122 (which they did not in the May 2008 Greenland meeting, where they issued the Ilulissat Declaration), and if they were to be prepared to commence negotiations over how to implement cooperation in the fields mentioned in Article 123, they would also need to figure out the relationship between this initiative and the Arctic Council, given that the Council’s work so far also extends to marine environmental protection and scientific research in the Arctic Ocean. It can be presumed that this relationship would not be easy to manage for the reason that the Council has as its members three states with no Arctic Ocean coastline, and these states might be excluded from the initial negotiations over the Arctic Ocean regional co-operation (even though they might later be invited to join in some status). This is likely to create friction between the Arctic Council and the new initiative (and friction between this initiative and the region’s Indigenous peoples who enjoy a particularly strong status in the Arctic Council).

Another difficulty of relying on Articles 122 and 123 is that it encourages the coastal states to cooperate over a limited number of issues only, not mentioning for instance navigation and offshore mining in its list of fields of cooperation; it is also not clear whether such regional cooperation would need to be enshrined in a treaty as this is not specifically mentioned in the Article (although this can be argued to be implied by Article 123 encouraging states to conclude such form of cooperation, with the intention to execute the littoral state rights and duties under the LOS Convention).

Even though from the strict legal point of view Articles 122 and 123 do not seem to be applicable to the Arctic Ocean, these provisions are flexible enough for the coastal states to make use of them if the political will for that exists. As argued by Hans Corell, the former Under-Secretary General for Legal Affairs of the UN:

Instead, it is possible to create a specific environmental regime for the Arctic, perhaps on the basis of UNCLOS Articles 122 and 123 (on cooperation of States bordering enclosed or semi-enclosed seas and Article 234 on ice-covered areas).²⁸

Yet, even if the coastal states would commence negotiations on the basis of these provisions, this initiative would not resolve the problem of how to regulate the vast area of high seas in the Arctic Ocean, given that the coastal states are not accorded any additional powers on the basis of Articles 122 and 123.

28 H. Corell, ‘Reflections on the Possibilities and Limitations of a Binding Legal Regime’, 37 *Environmental Policy and Law* 321-324 (2007), at p. 322.

3. Options for addressing identified gaps in the Arctic Council and its constitutive instrument

There are many who believe that the identified gaps in the international governance and regulatory regime for the Arctic marine area can be addressed by strengthening the Arctic Council. For instance, the recent policy statements by the United States and the European Commission identify the Arctic Council as a relevant forum for tackling the forthcoming challenges. In a similar vein, during a recent bilateral meeting between the Russian and the Danish Ministers of Foreign Affairs, both agreed that the Arctic Council has a key role to play in the future.²⁹ The Russian Federation's Minister of Foreign Affairs Sergei Lavrov even stated that:

All problems in the Arctic, including climate change and reducing ice cover, can successfully be considered and resolved within specially created international organisations such as the Arctic Council.³⁰

Yet, this is more easily stated than put into practice. As argued in the *Overview and Gap Analysis* report,³¹ the Arctic Council has a very limited mandate (environmental protection and sustainable development) and can only adopt consensus-based, non-legally binding decisions. The *Overview and Gap Analysis* also point to the general shortcomings of the Council, including the lack of an independent secretariat, a stable funding mechanism and its limited membership. Even though its maritime work has become more ambitious, especially with the Arctic Marine Strategic Plan (AMSP),³² this has not changed the way the Council functions in the marine field: promoting influential scientific assessments and sometimes adopting recommendations that may or may not have an impact on practice. It is submitted that the more recent developments suggest three possible roles for the Council to tackle the vast challenges ahead.

First, with the policy recommendations flowing out of the scientific assessments, the Council could strengthen the implementation of existing treaties applicable in the Arctic and address the identified governance and regulatory gaps by issuing recommendations to various forums where regulatory action could be taken. For instance the Arctic Marine Shipping Assessment (AMSA) has made recommendations for regulatory action to be taken at various levels. In this way, the Council could catalyze normative developments, which would further strengthen and complete the existing international governance and regulatory regime in the Arctic marine area. It should be noted, however, that apart from the general challenge of trying to persuade these other fora to take action as proposed by the Arctic Council, the member states of the Council have also become more cautious in how these assessment-related policy recommendations can be adopted. In its recent Arctic Region Policy, the United States emphasizes that “policy recommendations developed within the ambit of the Council's scientific reviews [...] are subject to review by Arctic governments”,³³ thereby encouraging a development whereby the policy recommendations are subject to tighter scrutiny by the member states.

29 'Arctic News' item of 2 March 2009, available at <arctic-council.org>.

30 Ibid.

31 At subsection 2.3.

32 See at <arcticportal.org/pame/amsp>.

33 At Section III(C)(5)(c), see note 23 supra.

Another possible role the Council could assume would be to coordinate the implementation and application of various treaties applicable to the marine Arctic. This was, in effect, the starting-point of the precursor of the Arctic Council, the 1991 Arctic Environmental Protection Strategy (AEPS). With the AEPS, the arctic countries aimed at protecting the arctic environment by implementing and adjusting the existing treaties for the arctic conditions and by urging each other to become parties to treaties with relevance to the Arctic. Yet, even though some studies have been undertaken within the Council's working groups to examine what the relevant treaties in their field of operation are, this is all what has been done to date.

A third possible role for the Council was taken up by the Senior Arctic Official (SAO) of the United States Julie Gourley in a recent Arctic TRANSFORM conference in Brussels on 5 March 2009.³⁴ She announced that the Council will be increasingly used as a negotiating platform for even legally binding agreements.³⁵ According to Gourley, an intergovernmental task-force will soon be established to examine the possibility for a legally binding or non-legally binding instrument on search and rescue in the Arctic Ocean. This is indeed a new role for the Council since the preparatory work for this possible intergovernmental agreement is not done by an existing working-group (such as the Emergency, Prevention, Preparedness and Response (EPPR) working group), which has experience in this policy area of the Council but an ad hoc working group established solely for the purpose of studying the possibility for an arctic instrument on search and rescue. This new role, if it takes off, does contribute to the Arctic Council assuming operational action elements in its work-program.

Even though there are some new normative developments in the Council, it is very difficult to see what the Arctic Council could do to address the gaps identified in the *Overview and Gap Analysis* report. There is currently no consensus among member states for the Council to become involved in the governance and regulation of fisheries or marine mammals activities, even if all would agree that the Council has a mandate to do so under the Ottawa Declaration³⁶. While it has adopted various relevant guidelines, for instance the Arctic Offshore Oil and Gas Guidelines, it is difficult to say whether these have made any difference since there is no evaluation mechanism in the Council to study the effectiveness of its guidelines. The AMSA has issued recommendations, but given the stronger policy of the United States to scrutinize carefully what can be issued as policy recommendations, it may be that these will remain at a fairly general and un-ambitious level. The large marine ecosystems (LMEs) of the Arctic marine area have been defined by the Protection of the Arctic Marine Environment (PAME) working group.³⁷ The ministerial declaration of the Arctic Council in April 2009 has endorsed the summary of best practices in ecosystem-based management on the basis of joint SDWG (Sustainable Development working group) PAME project entitled 'Best Practices in Ecosystems-Based Oceans Management' (BePOMAr).³⁸

Yet, these interesting projects rely on member states voluntarily using them and it is difficult to see how LMEs could be managed without any legally binding obligations to that effect. The Council does not have any working group which would coordinate the application of treaties related to the Arctic marine area and overall cannot adopt any legally binding guidance. With the use of the Council as a negotiating platform, it is possible

34 For information see <www.arctic-transform.eu>. This took place in the panel discussion on 'Next steps - near-term strategies for pursuing our common interests in the Arctic'.

35 At the November 2008 SAOs Meeting this was discussed as the United States proposal for a MoU on search and rescue in the Arctic Ocean (see the Final Report of the November 2008 SAOs Meeting, at section 3.4).

36 Declaration on the Establishment of the Arctic Council, Ottawa, 19 September 1996; 35 *International Legal Materials* 1387 (1996), <arctic-council.org>.

37 These can be found on <arcticportal.org/en/pame>.

38 For the most recent status see the Final Report of the November 2008 SAOs Meeting, at section 5.3.

to negotiate legally binding treaties, but only on an ad hoc basis and presumably only issue-specific or sector-specific instruments. The Arctic Council thus has a role in marine governance and regulation in the Arctic, but it is a limited one. It is difficult to argue that the Arctic Council alone, as it presently stands, could do much to counter the vast challenges facing the Arctic marine area.

There are also interesting scholarly suggestions to revise the role of co-operation in general in the Arctic and the role of the Arctic Council in particular. At a recent Arctic Frontiers Conference, Oran Young suggested that the Arctic Council could be developed to focus its efforts further on what it has done best, namely, to prepare scientific assessments of the Arctic.³⁹ His vision was that the Arctic Council could provide continuous scientific data and assessments to various (sectoral) institutions with a governance or regulatory mandate relevant to the Arctic. His idea was to build on the relevance of the scientific data and assessments produced under the auspices of the Arctic Council, which could then form usable knowledge to all kinds of governance and regulatory regimes relevant to the Arctic.

Olav Schram Stokke – another international relations scholar – has argued that the existing institutions are enough (or at least they are what is currently politically achievable), and what we need most is for these existing institutions to engage in productive interplay.⁴⁰ This presumably means creating linkages between the existing institutions, thereby engaging these institutions to find synergies and possibly prompting them to search for more holistic ways of management when the governance regimes realize the limitations of sectoral approaches to management.

Both of these proposals build on what is already in existence in terms of governance and regulation in the Arctic, and try to have that fragmented system function in a more effective way to counter the vast challenges ahead. The strong side of both proposals is that they could be implemented fairly rapidly since they do not call for major reforms. Young's proposal does pose a challenge to the Arctic Council, given that the Council is performing also other roles than promoting scientific assessments (providing non-legally binding policy guidance and high-level policy recommendations, acting as a platform for co-operation, etc.), and thus his proposal might require more time to implement than Stokke's proposal. Increasing productive interplay between the existing institutions seems a worthy goal, given that there is very little interplay between the existing institutions relevant to the Arctic.⁴¹

Both proposals, however, also suffer from a focus on what they deem politically achievable. Given the pace of change in the Arctic, it has to be asked whether such minor changes to the present governance regime functioning in the Arctic are enough. Young does not envisage anything more than re-focusing the work of the Arctic Council. He does not perceive any need for contemplating its legal status, funding system or institutional set-up, issues which many see as the Council's major problems. Stokke sees no political support for new institutions and thus suggests productive interplay between those institutions that are in existence.

39 O. Young, 'Arctic ocean governance: status and prospects', presentation at the Arctic Frontiers conference, Tromsø, 21 January 2009. Presentation can be viewed via webcam, at <http://leo.infotek.no/uit4/Viewer/Viewers/Viewer320BR.aspx?mode=Default&peid=01f5346e-8e05-45d1-9fd4-41dctf621e6&pid=cb0c95aa-c9c6-48b9-8e96-2b577bb01150&playerType=WM7>.

40 O.S. Stokke, 'The Law of the Sea Convention and the Idea of a Binding Regime for the Arctic Marine Environment', paper prepared for the 7th Conference of Parliamentarians of the Arctic region, Kiruna, Sweden, 2-4 August 2006; available at <www.arcticparl.org>.

41 See C. Keskitalo, T. Koivurova and N. Bankes, 'Conclusions on Climate Governance in the Arctic' in T. Koivurova, C. Keskitalo and N. Bankes (eds) *Climate Governance in the Arctic* (Springer: 2009), at pp. 429-443.

4. Options for addressing identified gaps in sectoral governance and regulation

4.1. Introduction

The ensuing subsections complement the sectoral sections in the *Overview and Gap Analysis* report and are for that reason limited to fisheries management, shipping and offshore hydrocarbon activities.

4.2. Fisheries management

4.2.1. Introduction

The following options can be identified:

- conducting basic fisheries research as well as developing future scenarios about areas, dates, species, fishing techniques for which new fishing opportunities are likely to arise and potential impacts for non-target species and the broader marine environment
- individual regulation by states – both Arctic Ocean coastal states and other states – in their capacities as flag, coastal, port and market states and with regard to their natural and legal persons. Such regulation should, among other things, be aimed at combating illegal, unreported and unregulated (IUU) fishing
- bilateral or subregional arrangements between relevant Arctic Ocean coastal states on the conservation and management of shared and anadromous fish stocks
- a declaration or statement by which the main relevant general principles of the Fish Stocks Agreement,⁴² the recent UNGA Resolutions in relation to vulnerable marine ecosystems and destructive fishing practices and relevant conservation and management measures drawn from regional fisheries management organizations (RFMOs)⁴³ are made applicable to new and existing fisheries in the Arctic marine area. In particular, this declaration could stipulate that there shall be no new or expanded fisheries until adequate assessments of their potential impacts on target and non-target species, the broader marine environment and the livelihoods of Indigenous peoples are carried out
- individual or collective initiatives towards developing mechanisms or procedures similar to an environmental impact assessment (EIA) and/or a strategic impact assessment (SEA) for new fisheries in the Arctic marine area
- one or more state-of-the-art RFMOs or Arrangements⁴⁴ for species other than tuna and tuna-like species and anadromous species, whether self-standing or as part of a legally binding framework instrument for the Arctic and possibly in conjunction with adjustments in the competence of existing RFMOs or Arrangements, in particular in geographical terms

42 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, New York, 4 August 1995. In force 11 December 2001, 34 *International Legal Materials* 1542 (1995); <www.un.org/Depts/los>.

43 E.g. CCAMLR Conservation Measures 21-01 (2008) 'Notification that Members are considering initiating a new fishery' and 21-02 (2008) 'Exploratory fisheries'.

44 These are the alternatives to RFMOs that do not establish international organizations (for a definition see Art. 1(1)(d) of the Fish Stocks Agreement).

The ensuing subsections discuss some of these options, namely a declaration on new and existing fisheries in the Arctic Ocean and adjusting the spatial scope of the NEAFC Convention⁴⁵.

4.2.2. Declaration on new and existing fisheries in the Arctic Ocean

As one of the options referred to in the previous subsection is a declaration or statement, reference should be made to initiatives undertaken by the United States pursuant to United States Senate joint resolution (SJ Res.) No. 17 of 2007.⁴⁶ These include informal bilateral consultations with a number of relevant players, including the other Arctic Ocean coastal states, on their willingness to support a process which would culminate in a general statement or declaration on present and future arctic fisheries. During the recent Session of the Committee on Fisheries (COFI) of the United Nations Food and Agriculture Organization (FAO) in March 2009, the United States convened a side-event to discuss this process. At this side-event, the United States suggested that an intergovernmental meeting could be convened – possibly in 2010, possibly in the United States – during which such a general statement or declaration could be adopted.⁴⁷ The European Commission’s Arctic Communication⁴⁸ would seem to be supportive of such an initiative.⁴⁹

4.2.3. Adjusting the spatial scope of the NEAFC Convention

One of the options listed in the previous subsection is the development of one or more state-of-the-art RFMOs or Arrangements for species other than tuna and tuna-like species and anadromous species. That bullet also mentions that this may require “adjustments in the competence of existing RFMOs or Arrangements, in particular in geographical terms”.

An obvious candidate for a spatial adjustment is the North-East Atlantic Fisheries Commission (NEAFC) established by the NEAFC Convention. The five existing members of NEAFC are the European Community (EC), Denmark on behalf of the Faroe Islands and Greenland, Iceland, Norway and the Russian Federation. Unlike the OSPAR Convention,⁵⁰ the NEAFC Convention does not explicitly mention the option of amending its spatial scope. On the other hand, there is also nothing in Article 19 or elsewhere in the NEAFC Convention that would preclude spatial adjustments as such.

It should be noted that the NEAFC Convention’s eastern boundary and the western boundary north of Greenland⁵¹ do not coincide with the two relevant boundaries of FAO Statistical Area No. 18, entitled ‘Arctic Sea’. While the spatial scope of the NEAFC

45 Convention on Future Multilateral Cooperation in the North-East Atlantic Fisheries, London, 18 November 1980. In force 17 March 1982, 1285 *United Nations Treaty Series* 129; <www.neafc.org>. 2004 Amendments (Art. 18bis), London; 12 November 2004. Not in force, but provisionally applied by means of the ‘London Declaration’ of 18 November 2005; <www.neafc.org>. 2006 Amendments, London (Preamble, Arts 1, 2 and 4), 11 August 2006. Not in force, but provisionally applied by means of the ‘London Declaration’ of 18 November 2005; <www.neafc.org>.

46 Passed by the Senate on 4 October 2007. The House of Representatives voted in favor of SJ Res. No. 17 in May 2008 and President Bush signed it on 4 June 2008. Reference should in this context also be made to efforts of the North Pacific Fishery Management Council (NPFMC) with respect to arctic fishery management. This eventually culminated in the adoption of the arctic fishery management plan (FMP) on 5 February 2009 (Council Motion of 5 February 2009 ‘Arctic Fishery Management Plan’. The United States Secretary of Commerce still has to act on this motion). The Arctic FMP entails, inter alia, to “close the Arctic to commercial fishing so that unregulated fishing does not occur and until information improves so that fishing can be conducted sustainably and with due concern to other ecosystem components” (Public Review Draft Environmental Assessment / Regulatory Impact Review / Initial Regulatory Flexibility Analysis for the Arctic Fishery Management Plan (version of January 2009), at p. iii. By means of its Motion of 5 February 2009, this note, the Council opted for Alternative 2, Option 3) (all texts available at <www.fakr.noaa.gov/npfmc>).

47 Information based on communications between E.J. Molenaar and a governmental official of the United States in December 2008 and January and March 2009. The United States Arctic Region Policy, note 23 supra, does not refer to the possibility of such a process in the relevant implementation section (section III(H)(6)).

48 COM (2008) 763, of 20 November 2008, ‘Communication from the Commission to the European Parliament and the Council on The European Union and the Arctic Region’.

49 On p. 8 it is observed “Until a conservation and management regime is in place for the areas not yet covered by such a regime, no new fisheries should commence”.

50 Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992. In force 25 March 1998, <www.ospar.org>. Annex V, Sintra, 23 September 1998. In force 30 August 2000; amended and updated text available at <www.ospar.org>. See Art. 27(2).

51 Note the lack of clarity on the exact location of this boundary, as described in the *Overview and Gap Analysis* report, in subsection 2.5.1.

Convention is identical to the spatial scope of its 1959 predecessor,⁵² the two relevant boundaries of FAO Statistical Area No. 18 already existed in 1970 and have not changed since then.⁵³ The spatial scope of the OSPAR Convention and its two predecessors – the Oslo Convention⁵⁴ and the Paris Convention⁵⁵ – is also identical to that of the NEAFC Convention (and its 1959 predecessor). Interestingly, the ICES Convention⁵⁶ stipulates that the spatial mandate of the International Council for the Exploration of the Sea (ICES) is “the Atlantic Ocean and its adjacent seas”, but the northern boundaries of the ‘ICES Areas’ are identical to those of FAO Statistical Area No. 18.

The rationale for the northern boundaries of the predecessor to the NEAFC Convention is not evident. Perhaps they simply demarcated the most northerly range of distribution that commercially significant fish stocks could possibly have in the most optimistic scenario and then just a bit further north to be on the safe side. It should also be noted that until recently the exact location of the northern boundaries did not have practical relevance for NEAFC.⁵⁷

While spatial adjustments are thus possible, it is submitted that only relatively small geographical adjustments – expansions as well as shrinkages – do not seem problematic.⁵⁸ Such adjustments could for instance follow maritime boundaries or ecosystem boundaries between different hydrographic regimes, submarine topography and distributional ranges of certain target species or other species.⁵⁹ A well-known example of an international regulatory regime whose spatial scope was mainly determined by ecosystem boundaries is the CCAMLR Convention by which the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) was established.⁶⁰ Even in that case, however, the approximation of the Antarctic Convergence agreed to during the negotiation of the CCAMLR Convention, took account of political considerations, thereby causing a small diversion from pre-existing FAO Statistical Areas.⁶¹

For the purpose of adjusting the spatial scope of the NEAFC Convention, account could perhaps be taken of the LMEs of the Arctic marine area developed by the PAME working group of the Arctic Council.⁶² A quick comparison of these LMEs with the current spatial scope of the NEAFC Convention might suggest that, for instance, the latter’s spatial scope could be expanded by including all of LME No. 20, entitled ‘Barents Sea’ and perhaps even LME No. 58, entitled ‘Kara Sea’ as well. Another option would be to restrict the spatial scope of the NEAFC Convention by excluding the spatial scope of LME No. 64, entitled ‘Arctic Ocean’. The spatial scope of FAO Statistical Area No. 18, could then be adjusted accordingly.⁶³

52 The North-East Atlantic Fisheries Convention (London, 24 January 1959. In force 27 June 1963; 486 *United Nations Treaty Series* 157; <www.neafc.org>).

53 See the historical FAO statistical charts at <ftp.fao.org/fi/maps/Default.htm>.

54 Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Oslo, 15 February 1972. In force 7 April 1974, 932 *United Nations Treaty Series* 4, as amended. See Art. 2.

55 Convention for the Prevention of Marine Pollution from Land-Based Sources, Paris, 4 June 1974. In force 6 May 1978, 1546 *United Nations Treaty Series* 119, as amended. See Art. 2.

56 Convention for the International Council for the Exploration of the Sea, Copenhagen, 12 September 1964. In force 22 July 1968, 652 *United Nations Treaty Series* 237; <www.ices.dk>.

57 See also note 51 above.

58 Conversely, Rayfuse, note 26 supra, at p. 11 takes the view that “it is unlikely that OSPAR and NEAFC would be prepared to reduce their geographical scope”.

59 See L.M. Alexander, ‘Large Marine Ecosystems as Global Management Units’, in: *Biomass Yields and Geography of Large Marine Ecosystems*, K. Sherman and L.M. Alexander (eds.), Boulder, Westfield Press, 1989, pp. 339-344, at p. 339.

60 It is of course acknowledged that regimes for enclosed or semi-enclosed seas are also mainly or exclusively determined by ecosystem boundaries.

61 J.N. Barnes, ‘The Emerging Convention on the Conservation of Antarctic Marine Living Resources: An Attempt to Meet the New Realities of Resource Exploitation in the Southern Ocean’, in J.I. Charney (ed.) *The New Nationalism and the Use of Common Spaces* (Allanheld, Osmun Publishers: 1982), pp. 239-286, at p. 262 observes that at the insistence of Argentina, the boundary was drawn further away from Argentine territory in order to exclude the Drake Passage (FAO statistical charts were later modified accordingly (see the historical FAO statistical charts at <ftp.fao.org/fi/maps/Default.htm>). Cf. also F.M. Auburn, *Antarctic Law and Politics* (Indiana University Press: 1982), at pp. 218 and 292.

62 These can be found on <arcticportal.org/en/pame>.

63 The historical FAO statistical charts referred to in note 61 above indicate that this is a common practice.

A word of caution is warranted here, however. While the Arctic LMEs defined by PAME have taken account of 'trophic relationships',⁶⁴ this is quite different from a criterion such as 'usefulness for conservation and management of target species'. And even if the latter criterion were in fact used, the negotiations on the CCAMLR Convention illustrate that political considerations can override science-based criteria. Another political consideration would nevertheless attribute great weight to the LMEs defined by PAME. This would be the wish to pursue integrated, cross-sectoral ecosystem based ocean governance. This is examined in more detail in section 5.

By contrast, large expansions by which the NEAFC Convention Area would comprise the entire Arctic Ocean – as suggested in the European Commission's Arctic Communication⁶⁵ – appear much more problematic. This is not so much caused by the interests of what would be the 'new' coastal state members of NEAFC, namely Canada and the United States. In fact, Canada is currently not really a 'new' coastal state as it already has the status of Cooperating Non-Contracting Party (NCP) with NEAFC. In light of this status, Canada may even apply for full membership in the future. NEAFC's existing spatial competence in the Atlantic sector of the Arctic as well as potential adjustments of this spatial competence do not appear to have played a role in Canada's decision to apply for NCP status.⁶⁶ This does not exclude, however, that such considerations could not play a role in the future.⁶⁷ In case Canada would indeed apply for full membership, this would at any rate indicate its willingness to accept the substance of the NEAFC Convention as modified by the 2004 and 2006 amendments.⁶⁸ It is less clear if the United States would have significant problems with the substance of the amended NEAFC Convention.

Perhaps more important, however, is whether or not Canada and the United States have fundamental objections to NEAFC's practices on the establishment and allocation of the total allowable catch (TAC) for straddling fish stocks, for the reason that these clearly give preferential treatment to coastal states. The initiative lies here with the coastal states, who first agree on a coastal state TAC while taking account of the scientific advice provided by ICES.⁶⁹ However, as the ICES advice relates to the entire stock, the coastal states effectively determine the high seas TAC as well. The coastal states also allocate the coastal state TAC between them without specifying which part of each coastal state's allocation should be caught within or beyond areas under national jurisdiction.⁷⁰ NEAFC is then charged with determining and allocating the high seas TAC.⁷¹ Even though room for maneuvering seems limited, it should not be forgotten that there are only five Members of NEAFC and three of these are regarded as coastal states with respect to all three main straddling fish stocks regulated by NEAFC.⁷²

64 PAME Working Group Meeting Report No. I-2006, at p. 11.

65 See note 48 supra. On p. 8 it is observed that "In principle, extending the mandate of existing management organisations such as NEAFC is preferable to creating new ones."

66 Email correspondence between E.J. Molenaar and L. Ridgeway, Director General, International Policy and Integration, Fisheries and Oceans Canada, November 2008.

67 Of course, once Canada is a member of NEAFC it can participate in decision making on proposals to adjust the spatial scope of the NEAFC Convention. Such decisions require a three-fourths majority (cf. Art. 19).

68 See note 45 above. It seems that if Canada would insist on acceding to the 'old' version of the NEAFC Convention, this would not attract the necessary majority pursuant to Art. 20(4) of the NEAFC Convention.

69 E.g. the 2007 trilateral coastal state arrangement on Northeast Atlantic mackerel (Agreed record of conclusions of fisheries consultations between Norway, the European Community and the Faroe Islands on the management of mackerel in the North-East Atlantic for 2008, Oslo, 30 October 2007, available at <www.neafc.org>). See also the 'Performance Review Panel Report of the North East Atlantic Fisheries Commission, NEAFC' (November 2006), at pp. 14 and 17.

70 Cf. the 2007 trilateral coastal state arrangement on Northeast Atlantic mackerel, Annex I, at para. 1.

71 With respect to Mackerel, see e.g. the 2008 NEAFC Recommendation on mackerel (Recommendation I: 2008 'Recommendation by the North East Atlantic Fisheries Commission in accordance with Article 5 of the Convention on Future Multilateral Cooperation in North-East Atlantic Fisheries at its Annual Meeting in November 2007 to adopt convention and management measures for mackerel in the NEAFC Convention Area in 2008').

72 These are blue whiting, herring and mackerel. The Russian Federation is not regarded as a coastal state for blue whiting and mackerel and Iceland is not regarded as a coastal state for mackerel.

While Canada and the United States would, as coastal states, of course benefit from such preferential treatment as well, it is not excluded that they would object to such practices in order to be consistent with their user or non-user interests in other RFMOs and Arrangements. Much more problematic, however, are the user interests of states that are not coastal states with respect to the North-East Atlantic Ocean or the Arctic Ocean, e.g. the other states that currently have the status of NCP with NEAFC (Belize, Cook Islands, Japan and New Zealand) and other states with large distant water fishing fleets, such as China and South Korea. Even though fishing opportunities in the high seas pocket of the central Arctic Ocean are likely to be very minimal in the near future, climate change may alter the Arctic marine area both rapidly and fundamentally in the medium term. Consequently, it cannot be ruled out that fishing opportunities in the high seas of the Arctic Ocean will be substantial in the medium and long term. Not only is the size of the high seas pocket enormous but the fisheries on the nose and tail of the Grand Banks in the Northwest Atlantic also aptly illustrate that just a small area of the high seas may be sufficient.

4.3. Shipping

The suggested options below are grouped together as: options for action within IMO; options for arctic states at the regional level, in their capacities as coastal states; options for arctic states and other states at the regional level, in their capacities as port states, other options for arctic states, individually or collectively and, finally, other options for all states, individually or collectively, in their capacities as flag states. While the Arctic Council is not listed as a separate category, some of these options could be pursued there as well, with the important qualification that the output cannot be legally binding.

Options for action within IMO⁷³:

- Make the IMO Polar Shipping Guidelines⁷⁴ mandatory, for instance by incorporating them into SOLAS 74⁷⁵ and complement them with new elements such as training for ice navigators, which could be incorporated in STCW 78^{76,77}
- Pursue the adoption of special standards, for instance:
 - Special discharge or emission standards for all or part of the Arctic marine area under MARPOL 73/78⁷⁸
 - Special fuel content⁷⁹ or ballast water treatment standards⁸⁰
 - One or more mandatory ships' routing systems, whether or not in the form of an comprehensive 'Arctic Sea Lanes' proposal

73 As recommended by the AMSP of the Arctic Council, at p. 10. Note also the commitment by the five Arctic Ocean coastal states to work within IMO as expressed in the Ilulissat Declaration, note 7 supra.

74 See note 8 supra.

75 International Convention for the Safety of Life at Sea, London, 1 November 1974. In force 25 May 1980, with protocols and regularly amended.

76 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, London, 1 December 1978. In force 28 April 1984, as amended and modified by the 1995 Protocol. Cf. D. VanderZwaag and others, *Governance of Arctic Marine Shipping*, (August 2008) <arcticportal.org/en/pame>, at p. 68.

77 Both these suggestions are advocated by Denmark, Norway and the United States by means of IMO doc. MSC 86/23/9, of 24 February 2009, 'Work Programme. Mandatory application of the polar guidelines'. See also the proposal for inclusion of a new item on 'Development of a Code for ships operating in Polar waters' in the work programme of DE in Annex 2 to IMO doc. DE 52/WP.2, note 8 supra.

78 International Convention for the Prevention of Pollution from Ships, London, 2 November 1973, as modified by the 1978 Protocol (London, 1 June 1978) and the 1997 Protocol (London, 26 September 1997) and as regularly amended. Entry into force varies for each Annex. At the time of writing Annexes I-VI were all in force.

79 See IMO doc. MSC 86/23/9, note 77 supra, at paras 4 and 19. See also the decisions made at recent Antarctic Treaty Consultative Meetings (ATCMs), for instance Decision 8 (2005) 'Use of Heavy Fuel Oil', Decision 2 (2006) 'Ballast Water Exchange: Referral to IMO' and Resolution 3 (2006) 'Ballast Water Exchange' with the Practical Guidelines for Ballast Water Exchange in the Antarctic Treaty area annexed thereto (all available at <www.ats.aq>; see also note 80 infra on the subsequent action by IMO). See also the discussion on 'Antarctic area vessel issues' in IMO Doc. MEPC (Marine Environment Protection Committee) 57/21, of 7 April 2008, paras 20.16-20.19, which inter alia notes that the issue of "use and carriage of heavy grade oil (HGO) on ships in the Antarctic area" will be dealt with by the Sub-Committee on Bulk Liquids and Gases (BLG) during its 13th Session in March 2009.

80 See Resolution MEPC.163(56), of 13 July 2007, 'Guidelines for ballast water exchange in the Antarctic Treaty Area'.

- Ship reporting systems
- Compulsory pilotage and ice-breaker or tug assistance
- Special anti-fouling standards
- Designate part of the Arctic Ocean as a particularly sensitive sea area (PSSA), with a comprehensive package of associated protective measures (APMs) consisting of one or more of the special standards just mentioned above

Options for arctic states at the regional level, in their capacities as coastal states:

- Agree on legally binding agreements on monitoring, contingency planning and preparedness for pollution incidents, as well as on search and rescue,⁸¹ including by designating places of refuge
- Agree on a harmonized approach on enforcement and ensuring compliance, inter alia by means of shared platforms (e.g. 'shiprider agreements'⁸²)
- Implement the BWM Convention⁸³ individually or in concert
- Take other action under Article 234 of the LOS Convention, in particular if the IMO Polar Shipping Guidelines are not made mandatory

Options for arctic states and other states at the regional level, in their capacities as port states:

- Develop a strategy for port state control in the Arctic, for instance by establishing an Arctic Memorandum of Understanding (MOU) on port state control or by adjusting Paris MOU⁸⁴ and the Tokyo MOU⁸⁵ on port state control to ensure that proper account is taken of intra-Arctic and trans-Arctic marine shipping
- Implement Article 218 of the LOS Convention in concert
- Exercise port state residual jurisdiction in concert – relying in part on Article 234 of the LOS Convention – in case the IMO Polar Shipping Guidelines are not made mandatory

Other options for arctic states in particular, individually or collectively:

- Address the need for hydrographic surveying and charting⁸⁶
- Consider the need to develop a regional liability regime⁸⁷
- Encourage self-regulation by the shipping industry – for instance the cruise industry⁸⁸ – by means of positive and negative incentives (e.g. positive discrimination and limiting landings and access to ports to cooperating players⁸⁹)
- Urge the International Association of Classification Societies (IACS) to restrict the margin of discretion that individual members have in relation to the IACS Unified Requirements concerning Polar Class⁹⁰

81 See also ATCM Resolution 4 (2007), 'Ship-based tourism' and ATCM Resolution 6 (2008), 'Maritime Rescue Coordination Centres and Search and Rescue in the Antarctic Treaty Area'.

82 For a discussion see E.J. Molenaar, 'Multilateral Hot Pursuit and Illegal Fishing in the Southern Ocean. The Pursuits of the *Viasa 1* and the *South Tomi*', 19 *International Journal of Marine and Coastal Law* 19-42 (2004), at pp. 34-35.

83 International Convention for the Control and Management of Ships' Ballast Water and Sediments, London, 13 February 2004. Not in force, IMO Doc. BWM/CONF/36, of 16 February 2004.

84 Memorandum of Understanding on Port State Control, Paris, 26 January 1982. In effect 1 July 1982, as regularly amended. Updated version at <www.parismou.org>.

85 Asia-Pacific Memorandum of Understanding on Port State Control in the Asia-Pacific Region, Tokyo, 1 December 1993. In effect 1 April 1994, as regularly amended. Most recent text at <www.tokyo-mou.org>.

86 See also ATCM Resolution 5(2008), 'Hydrographic surveying and charting'.

87 Note in this regard Annex VI to the Madrid Protocol, note 99 infra.

88 See in this regard the Association of Arctic Expedition Cruise Operators (AECO; <www.aeco.no>).

89 For some suggestions in relation to antarctic sea-borne tourism, see E.J. Molenaar, 'Sea-Borne Tourism in Antarctica: Avenues for Further Intergovernmental Regulation', 20 *International Journal of Marine and Coastal Law* 1-49 (2005), at p. 47.

90 These are Unified Requirement (UR) I1 'Polar Class Descriptions and Application' (Corr.1, Oct. 2007), UR I2 'Structural Requirements for Polar Class Ships' (Corr.1, Oct. 2007) and UR I3 'Machinery Requirements for Polar Class Ships' (Corr.1, Oct. 2007). All texts are available at

- Require the marine insurance industry to promote compliance with IACS Unified Requirements concerning Polar Class, for instance by linking the level of compliance to the height of premiums

Other options for all states, individually or collectively, in their capacities as flag states:

- Impose standards on their vessels that are more stringent than generally accepted international rules and standards (GAIRAS), for instance special discharge, emission and ballast water exchange standards or by implementing the IMO Polar Shipping Guidelines into their legislation

4.4. Offshore hydrocarbon activities

The following options can be identified:

- Develop legally-binding regulations for offshore hydrocarbon activities in the Arctic marine area, drawing in particular on the Arctic Council's Arctic Offshore Oil and Gas Guidelines, the OSPAR Convention and the relevant acts of the OSPAR Commission
- Ensure that the aforementioned regulations also have an institutional component to ensure that a body is mandated to implement and update the substantive standards when necessary. The spatial competence of this body should as a minimum complement that of the OSPAR Commission and the ISA, thus achieving full coverage of the Arctic marine area
- Develop a regional agreement on contingency planning and preparedness for incidents involving offshore hydrocarbon activities which, among other things, establishes a body mandated to implement and update the substantive standards when necessary. The spatial scope of such an agreement and the spatial mandate of the body established by it should at a minimum complement that of existing bilateral and multilateral agreements; thus achieving full coverage of the Arctic marine area

5. Options for pursuing integrated, cross-sectoral ecosystem-based oceans management

5.1. Introduction

While most, if not all, states would acknowledge the merits of integrated, cross-sectoral ecosystem-based management of the Arctic marine area, they are likely to have very divergent views on how it should be pursued. For instance, whether it should be pursued by means of legally binding or non-legally binding instruments or whether it should be pursued at the global or at the regional level.

The debate on the advantages and disadvantages of soft-law and hard-law is taken up in section 5.2. The option of adjusting the spatial scope of the OSPAR Convention is then discussed in subsection 5.3 and the suitability of the Antarctic Treaty system as a model for reform in subsection 5.4. Subsection 5.5 then examines the idea of using an Implementing Agreement under the LOS Convention in this context. Finally, subsection 5.6 contains some conclusions.

5.2. Soft-law vs hard-law

It is sometimes argued that negotiating a treaty to govern the Arctic is not a good way to move ahead because it is a time-consuming effort. For instance, the negotiation process for the LOS Convention lasted almost a decade and it took from 1982 to 1994 for the Convention to enter into force. This would suggest that soft-law should be the preferred approach to governance in the Arctic, since it offers the possibility to regulate quickly and flexibly, and avoids raising contentious legal issues. This is an argument that needs to be studied in the context of any proposal for regulatory reform in the Arctic for the reason that the Arctic Council is a type of soft-law regime and some proposals for reform in the Arctic rely on soft-law as the most appropriate way to proceed.

It is submitted that soft-law may have some advantages in very limited areas of regulation, but overall there are severe deficiencies with using this approach. The term soft-law is nowadays used to refer to various kinds of normative instruments that have been adopted by states and intergovernmental organizations (and even by the private sector). It is thus easier to say what soft-law is not than what it is. A soft-law instrument – for instance a declaration or an action program signed by states – is not legally binding on states that have adopted it and neither can a soft-law organization adopt legally binding regulation.

In the intergovernmental context, soft-law instruments are mostly used at a stage when states are not yet ready to commit themselves to legally binding obligations, but want to indicate progress in resolving problems. It is only when states are ready to commit to a legally binding instrument – that frequently needs to be incorporated as part of their national legislation – that a treaty is negotiated. Only when a treaty is negotiated, states can feel secure enough to make the necessary financial and human resource investments to regulate effectively. Soft-law can be used in areas of policy where no substantial investments need to be made; in general, it is not used in areas which require effective governance, given that it does not provide reciprocal guarantees of performance, with the possibility for reacting to breaches or non-compliance. Moreover, states cannot adopt legally binding rules via soft-law instruments, with the result that these types of rules do not need to be incorporated into national law. The evolution of arctic intergovernmental co-

operation now functioning under the Arctic Council is a good example of this. As a soft-law creation, the Council cannot adopt legally binding rules.

It is also a misunderstanding that negotiating treaties always takes a long time. The negotiation process that culminated in the LOS Convention is not a representative example since it has probably been the most difficult process ever tackled by the international community (hence many refer to the LOS Convention as ‘the Constitution of the Oceans’). Treaties can, in fact, be negotiated quickly and they can be flexible as to revising and changing their content. Much depends on how sensitive issues are regulated, and whether the goal is to negotiate detailed substantive rules or adopt a framework treaty to facilitate such more specific regulation. Even global treaties can be negotiated quickly, enter into force soon after their adoption and can provide flexible regulation. Good examples are the UNFCCC⁹¹ and the CBD⁹². Both have near-universal participation, had short negotiation processes, came into force rapidly and provide for flexible regulation. It is true that negotiation of treaties typically takes longer than negotiating soft-law instruments for the simple reason that the level of regulatory ambition is higher, and because there are domestic procedures for consenting to a treaty. Yet, this is the price that must be paid for having ambitious regulation in place.

From the perspective of arctic Indigenous peoples, who enjoy a unique status in the Arctic Council as permanent participants, the treaty option can be problematic. Organizations of Indigenous peoples are normally given the status of NGOs in treaty negotiations or in the rules of procedures of intergovernmental organizations, with corresponding limited possibility to influence these processes. Yet, it is important to note that the customary law of treaties – largely codified in the Vienna Convention on the Law of Treaties⁹³ – does not pose any obstacles to according Indigenous peoples organizations a status similar to that they now have in the Arctic Council. It will be recalled that in the Arctic Council it is the member states that adopt decisions by consensus after having consulted the permanent participants. There is nothing in the law of treaties that prevents states from according Indigenous peoples organizations this kind of status in an international treaty.

5.3. Adjusting the spatial scope of the OSPAR Convention

As the Atlantic sector of the Arctic Ocean is already covered by the OSPAR Convention, it is logical to examine the opportunities and limitations of adjusting the spatial scope of the OSPAR Convention. It is interesting to note that whereas the European Commission’s Arctic Communication refers explicitly to the option of adjusting the spatial scope of the NEAFC Convention,⁹⁴ this option is not raised with regard to the OSPAR Convention. Quite surprisingly, the European Commission’s Arctic Communication in fact does not explicitly refer to the OSPAR Convention or the OSPAR Commission at all.

There are currently 16 parties to the OSPAR Convention: three states that are located upstream on watercourses reaching the OSPAR Maritime Area (Finland, Luxembourg and Switzerland), the EC and all coastal states bordering the North-East Atlantic, except the Russian Federation. The spatial adjustment of the OSPAR Convention is specifically mentioned in Article 27(2), which stipulates:

91 United Nations Framework Convention on Climate Change, New York, 9 May 1992. In force 21 March 1994, 1771 *United Nations Treaty Series* 107; <unfccc.int>.

92 See note 17 supra.

93 Vienna Convention on the Law of Treaties, Vienna, 23 May 1969. In force 27 January 1980, 1155 *United Nations Treaty Series* 331; <www.un.org/law/ilc>.

94 See note 65 supra and accompanying text.

The Contracting Parties may unanimously invite States or regional economic integration organisations not referred to in Article 25 to accede to the Convention. In the case of such an accession, the definition of the maritime area shall, if necessary, be amended by a decision of the Commission adopted by unanimous vote of the Contracting Parties. Any such amendment shall enter into force after unanimous approval of all the Contracting Parties on the thirtieth day after the receipt of the last notification by the Depositary Government.

The states envisaged by this provision can, in view of the list in Article 25, be either coastal states whose maritime zones are adjacent or near to the OSPAR Maritime Area or states that have no such maritime zones (e.g. states whose vessels or nationals are engaged in activities in the OSPAR Maritime Area). While it is not clear which states of the former category the negotiators had in mind when negotiating this provision, Canada and the United States would seem to be among them. The Russian Federation does not need an invitation to accede as Article 27(1) gives it – as a coastal state to the OSPAR Maritime Area – a right to do so. If desired, an extension of the OSPAR Maritime Area would in such a case probably have to follow the amendment procedure laid down in Article 15.

As pointed out in subsection 4.2.3, the northern boundaries of the OSPAR Convention are identical to those of its predecessors – the Oslo Convention and the Paris Convention – which were in their turn modeled exactly on those of the 1959 predecessor to the NEAFC Convention. It was also noted that the rationale for these northern boundaries is not evident.

Similar to the discussion in subsection 4.2.3, a distinction can be made between relatively small adjustments and a large adjustment by which the entire Arctic Ocean would be comprised within the OSPAR Maritime Area. Small adjustments – expansions as well as contractions – may for instance be warranted due to changes in the spatial scope of the NEAFC Convention or the creation of an arctic marine environmental protection regime immediately adjacent to the OSPAR Maritime Area.⁹⁵ In view of the discussion above, it is clear that nothing in the OSPAR Convention would preclude such spatial adjustments as such.

Similarly, nothing in the OSPAR Convention would preclude a large adjustment by which the entire Arctic Ocean would be comprised within the OSPAR Maritime Area as such. This may for instance be warranted if a similar adjustment is made in the spatial scope of the NEAFC Convention and a 100 percent overlap is desirable. This option would have the considerable advantage of subjecting the entire Arctic Ocean to OSPAR Commission's competence on cross-sectoral issues and sectoral activities that are not yet subject to the competence of other regional and global bodies. It should also be remembered, however, that the shortcomings of the OSPAR Convention and the OSPAR Commission would be transposed to the Arctic Ocean as well.

More important seem to be the preparedness of Canada, the Russian Federation and the United States to become bound to the OSPAR Convention and the many legally binding decisions, non-legally binding recommendations and other agreements adopted by the OSPAR Commission. Would they be prepared to accept this 'acquis' without significant amendments? Perhaps this is one of the main reasons why the Russian Federation is currently not a party to the OSPAR Convention, even though it is a coastal state to the OSPAR Maritime Area.⁹⁶ It is also noteworthy that neither the Russian Federation nor the Soviet Union were ever party to the Oslo and Paris Conventions.

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⁹⁵ See also note 58 supra.

⁹⁶ O.S. Stokke, 'A Legal Regime for the Arctic? Interplay with the Law of the Sea Convention', 31 *Marine Policy* 402-408 (2007), notes at p. 406 that despite continuous encouragement the Russian Federation has not acceded to the OSPAR Convention.

5.4. The suitability of the Antarctic Treaty system as a model

5.4.1. Introduction

The issue of the suitability of the Antarctic Treaty system (ATS) as a model for reform of the Arctic regime automatically surfaces due to the fact that both the Arctic and the Antarctic are polar regions. The question is, however, if the characteristics that they have in common warrants convergence between their regimes. In its Resolution of 9 October 2008 on Arctic governance,⁹⁷ the European Parliament (EP)

Suggests that the Commission should be prepared to pursue the opening of international negotiations designed to lead to the adoption of an international treaty for the protection of the Arctic, having as its inspiration the Antarctic Treaty, as supplemented by the Madrid Protocol signed in 1991, but respecting the fundamental difference represented by the populated nature of the Arctic and the consequent rights and needs of the peoples and nations of the Arctic region; believes, however, that as a minimum starting-point such a treaty could at least cover the unpopulated and unclaimed area at the centre of the Arctic Ocean;

A few observations can be offered here. First, the EP does not suggest that the envisaged treaty should draw inspiration from the ATS as a whole but only from certain elements, namely the Antarctic Treaty⁹⁸ and its Madrid Protocol⁹⁹ (for a definition of the acronym ATS, see below). Second, the EP only explicitly refers to one of the fundamental differences between the Arctic and Antarctic and their regimes, namely the lack of a 'normal'¹⁰⁰ human population in the Antarctic. The fundamental difference on the issue of sovereignty is not more than alluded to by means of the words "the consequent rights and needs of the peoples and nations of the Arctic region". Third, the last sentence relates to the minimum spatial scope of the envisaged treaty. While the choice of wording obviously lacks accuracy,¹⁰¹ the intention seems to be that areas beyond national jurisdiction are to be the minimum spatial scope.

While it is not surprising that the United States Arctic Region Policy dismisses an 'Arctic Treaty' along the lines of the Antarctic Treaty,¹⁰² the European Commission's Arctic Communication has not enthusiastically embraced the suggestion by the EP either. One of the policy objectives in the section on 'Contributing to enhanced Arctic multilateral governance' contains the following policy objectives:

The full implementation of already existing obligations, rather than proposing new legal instruments should be advocated. This however should not preclude work on further developing some of the frameworks, adapting them to new conditions or Arctic specificities.¹⁰³

But one of the proposals for action that is listed thereafter nevertheless suggests that this policy objective should not be interpreted too strictly. This proposal for action is to

97 EP doc. P6_TA-PROV(2008)0474.

98 See note 9 supra.

99 Protocol on Environmental Protection to the Antarctic Treaty and Annexes I-IV, Madrid, 4 October 1991. In force 14 January 1998; Annex V (adopted as Recommendation XVI-10), Bonn, 17 October 1991. In force 24 May 2002; Annex VI (adopted as Measure 1(2005)), Stockholm, 14 June 2005. Not in force. All texts available at <www.ats.aq>

100 Apart from scientific, military and other governmental personnel.

101 The term "unpopulated" is particularly puzzling in the context of the high seas and the Area.

102 See note 23 supra.

103 At p. 10.

Explore the possibility of establishing new, multi-sector frameworks for integrated ecosystem management. This could include the establishment of a network of marine protected areas, navigational measures and rules for ensuring the sustainable exploitation of minerals.¹⁰⁴

Subsequently, on 2 April 2009 the EP dealt with a Joint Motion ‘on the international treaty for the protection of the Arctic’.¹⁰⁵ The Joint Motion has 9 operative paragraphs, the first and third of which read:

1. Calls on the Council and Commission to initiate international negotiations for the adoption of an international treaty for the protection of the Arctic, along the lines of the existing Antarctic Treaty, in order to make the Arctic a zone of peace and cooperation reserved solely for peaceful activities and free of disputes over sovereignty;
3. Calls on the Commission and Council to work towards establishing a moratorium on the exploitation of geological resources in the Arctic for a period of 50 years pending fresh scientific studies.

Following a request, however, the EP decided to adjourn a vote on the Motion.¹⁰⁶

A possible origin of the abovementioned suggestion by the EP is a project by the International Union for the Conservation of Nature (IUCN), in which a study by Nowlan¹⁰⁷ played a key role. One possibility outlined by Nowlan is to formalize arctic cooperation through an international treaty which would contain well-established principles of international environmental law (e.g. the precautionary principle), substantive obligations and some innovative features. While the Annexes to the Madrid Protocol would be prominent sources for the substantive obligations, the proposed innovative features all relate to the participation of Indigenous peoples, for instance by means of co-management, according a role to Traditional Ecological Knowledge (TEK) and developing Impact and Benefit Agreements (IBAs).¹⁰⁸

On the basis of Nowlan’s study, the IUCN convened an expert meeting in Ottawa on 24–25 March 2004¹⁰⁹ to discuss whether the ATS could provide the needed input for the development of a regime for environmental protection in the Arctic. The expert meeting was divided on the question of how environmental protection should and could be developed. The main approach to arctic governance identified at the meeting was not to borrow from the Antarctic experience but to examine which environmental protection issues should be addressed at which level, namely global, regional (the Arctic Council), bilateral, national, and sub-national.

For the purpose of the present report, however, it is useful to identify elements of the ATS that are (a) unsuitable; (b) unlikely to be suitable; or (c) suitable for a future arctic regime. This is undertaken in the subsections further below. Before doing so, however, it should be clear what is meant by the acronym ‘ATS’.¹¹⁰ Article 1(e) of the Madrid Protocol defines it as

104 At p. 11.

105 Joint Motion of 30 March 2009, doc. RC-B6-0163/2009, replacing six other motions on the same topic.

106 Minutes of 2 April 2009, at 9.23.

107 L. Nowlan, ‘Arctic Legal Regime for Environmental Protection’ (IUCN Environmental Policy and Law Paper No. 44: 2001), at Part IV. P. Sands, *Principles of International Environmental Law* (Cambridge, Cambridge University Press, 2nd edition, 2003), at p. 731 has similar ideas.

108 See sections 3.3 and 4 of Part VI.

109 The expert meeting was attended by scholars (including T. Koivurova), representatives of arctic Indigenous peoples and government officials. The IUCN recently decided to establish a permanent Arctic Specialist Group.

110 On the acronym see also D. Vidas, ‘The Antarctic Treaty System in the International Community: An Overview’, in O.S. Stokke and D. Vidas (eds.) *Governing the Antarctic. The Effectiveness and Legitimacy of the Antarctic Treaty System* (Cambridge, University Press: 1996), pp. 35–60, at pp. 37–39.

the Antarctic Treaty, the measures in effect under that Treaty, its associated separate international instruments in force and the measures in effect under those instruments.

Adherence to this definition of ATS would include the Antarctic Treaty, the Recommendations, Measures, Decisions and Resolutions made by Antarctic Treaty Consultative Meetings (ATCMs), the Madrid Protocol, the CCAS Convention,¹¹¹ the CCAMLR Convention,¹¹² the Conservation Measures and Resolutions adopted by CCAMLR and arguably also the CRAMRA,¹¹³ even though it is not expected to ever enter into force. Such a broad definition would make the analysis envisaged for the purpose of the present report too lengthy and time-consuming, however. The scope of following analysis is therefore limited to the Antarctic Treaty, its Madrid Protocol, the CCAS Convention, the CCAMLR Convention and the CRAMRA.

5.4.2. Unsuitable elements

The following elements of the ATS are unsuitable for a future arctic regime:

- An agreement to disagree on the question of sovereignty over territory as laid down, *inter alia*, in Article IV of the Antarctic Treaty and Article IV of the CCAMLR Convention. The disagreement on the question of sovereignty over territory south of 60° South was of course the main reason for the negotiation of the Antarctic Treaty. Apart from the dispute between Canada and Denmark over the tiny Hans Island – situated in the Nares Strait that separates Canada and Greenland – there are no disputes over title to territory in the Arctic marine area¹¹⁴
- Elements directly related to the agreement to disagree on the question of sovereignty, such as the alternative bases of jurisdiction reflected in Article VII(5) of the Antarctic Treaty and Article 8(2) of the Madrid Protocol as well as Annex VI on Liability to the Madrid Protocol
- An indefinite ban on mineral resource activities modeled on Articles 7 and 25(2) of the Madrid Protocol.¹¹⁵ Only regulation of such activities and a temporary freeze of expansion in clearly defined new areas would seem achievable
- A prohibition on nuclear explosions modeled on Article V(1) of the Antarctic Treaty, which would be unnecessary in view of globally applicable commitments and obligations on underground and atmospheric nuclear explosions¹¹⁶
- Freedom of scientific information and mandatory exchange of scientific observations and results modeled on Articles II and III of the Antarctic Treaty. As regards the terrestrial dimension this would be unacceptable for Arctic states and as regards the marine dimension this is unnecessary as the LOS Convention's regime for marine scientific research would already be applicable
- An acknowledgment of the primacy of the International Whaling Commission (IWC), as, *inter alia*, laid down in Article VI of the CCAMLR Convention. Such an acknowledgement is not likely to be supported by Canada (a non-Member of the IWC), the members of the North Atlantic Marine Mammals Commission (NAMMCO),¹¹⁷ and many, if not most, of the current permanent participants of the Arctic Council

111 Note 10 *supra*.

112 Note 11 *supra*.

113 Note 12 *supra*.

114 There are of course many maritime delimitation disputes between states and states also have different views on various aspects relating to the outer limits of continental shelves.

115 See, however, para. 3 of the Joint Motion of 30 March 2009 before the EP, note 105 *supra* and accompanying text.

116 See also Art. V(2) of the Antarctic Treaty.

117 Faroe Islands, Greenland, Iceland and Norway.

- Designating the Arctic as “a natural reserve, devoted to peace and science” modeled on Article 2 of the Madrid Protocol. It is not necessary to explain that this is entirely unrealistic

5.4.3. Elements unlikely to be suitable

The following elements of the ATS are unlikely to be suitable for a future arctic regime:

- Use for peaceful purposes only, modeled on Article I(1) of the Antarctic Treaty,¹¹⁸ and a prohibition on the disposal of nuclear waste modeled on Article V(1) of the Antarctic Treaty. Their suitability would above all depend on their spatial delimitation
- Broad participation linked with consensus decision-making on in principle all issues – including direct regulation of human activities – similar to, inter alia, Article IX(4) of the Antarctic Treaty and Article XII(1) of the CCAMLR Convention. Suitability would primarily depend on the body’s spatial and substantive mandate
- Open and equal access to resources similar to the ‘Olympic fishery’¹¹⁹ in the waters of the CCAMLR Convention Area beyond the EEZs of the Sub-Antarctic Islands. This is likely to be unacceptable for the maritime zones of the Arctic Ocean coastal states and also unsuitable for areas beyond national jurisdiction

5.4.4. Suitable elements

The following elements of the ATS are in principle suitable for a future arctic regime:

- Linkages between the instruments of the ATS and the bodies established by them, for instance Article 5 of the Madrid Protocol and Articles III and V of the CCAMLR Convention. It is submitted that these linkages are conducive to integrated, cross-sectoral ecosystem-based ocean management
- The notion that activities must be planned and undertaken on the basis of adequate information and prior assessments – including in certain situations environmental impact assessments (EIAs) – as laid down in Articles 3 and 8 of, and Annex I to, the Madrid Protocol
- The notion that certain areas need special protection for various purposes, as laid down in Annex V to the Madrid Protocol
- The precautionary and ecosystem approaches to fisheries management developed by CCAMLR pursuant to Article II(3) of the CCAMLR Convention, including the CCAMLR Ecosystem Monitoring Program

5.5. Implementing Agreement under the LOS Convention

It has been suggested that in case a legally binding instrument for the marine Arctic is pursued, one option would be to link it directly to the LOS Convention by means of an Implementing Agreement under the LOS Convention.¹²⁰ It must be acknowledged that no rule of international law, including the LOS Convention, would preclude this per se. Even though the LOS Convention contains various amendment procedures,¹²¹ at two earlier instances the UNGA expressed the international community’s preference for an Implementing Agreement instead. These are the Part XI Deep-Sea Mining Agreement

118 See paras 1 and 2 of the Joint Motion of 30 March 2009 before the EP, note 105 supra and accompanying text.

119 This refers to a situation where a ‘race for the fish’ ends with the closure of the fishing season once the TAC has been reached.

120 This has for instance been suggested by the Executive Director of the European Environment Agency (EEA) J. McGlade, The Arctic Environment - Why Europe should care, speech delivered at the Arctic Frontiers Conference, Tromsø, 23 January 2007, <www.eea.europa.eu/pressroom/speeches/23-01-2007>. The actual wording used in this speech is “Polar Ocean protocol”. This wording is confusing because it can be interpreted as applying to both the Arctic Ocean and the Southern Ocean. Note that the words “based on UNCLOS” in p. 10 of the European Commission’s Arctic Communication (note 48 supra; text reproduced in subsection 5.4 supra) would seem to indicate that the option of an Implementing Agreement under the LOS Convention is not considered; at least not as regards the Arctic (see in this regard also note 124 infra and accompanying text on the other proposal for an Implementing Agreement).

121 See Arts 312-314 of the LOS Convention.

and the Fish Stocks Agreement. Pragmatic and strategic considerations may therefore be of overriding importance. This is in particular evident in the case of the Part XI Deep-Sea Mining Agreement, which clearly modifies Part XI of the LOS Convention. Thus, while there is no precedent for an Implementing Agreement with a regional scope,¹²² no rule of international law – including the LOS Convention – would in principle prevent the international community from pursuing such an option if the required majority so desires.

This notwithstanding, there are various reasons why an Implementing Agreement under the LOS Convention is not a realistic option. Most importantly, the direct linkage with the LOS Convention would imply that its negotiation process would fall under the UNGA. Not only would the UNGA decide on the main objective(s), scope and elements of an Implementing Agreement but also determine – implicitly or explicitly – the rules of procedure for its negotiation, in particular on participation and adoption of the future instrument. As the LOS Convention is a global instrument and the UNGA a global body, it would be difficult to conceive a negotiation process open to a select group of states instead of all members of the United Nations (UN). However, it is almost unthinkable that the five Arctic Ocean coastal states would support and participate in a negotiation process where they could potentially be confronted by 180-odd states with opposing views and interests.

Such lack of support by the Arctic Ocean coastal states would be obvious if the envisaged Implementing Agreement would apply to the entire Arctic Ocean, including areas under their national jurisdiction. However, even if the instrument would exclusively apply to areas beyond national jurisdiction (high seas and the Area), it is easy to understand that the Arctic Ocean coastal states would fear that the UNGA would not take adequate account of their sovereignty, sovereign rights and jurisdiction as coastal states when determining substantive and procedural aspects of the negotiation process. States with a claim or a basis of a claim to the Antarctic continent had to some extent similar concerns when they were confronted by the Malaysian-led initiative to bring the governance of Antarctica under the scope of the UN.¹²³ In light of these considerations it is not surprising that there is no precedent for an Implementing Agreement to the LOS Convention with a regional scope.

Reference should finally also be made to an already existing European Union (EU) proposal for an Implementing Agreement to the LOS Convention.¹²⁴ Such an instrument might also serve a purpose that is essentially similar to the guidance provided by the Fish Stocks Agreement on the functions and operation of RFMOs and Arrangements and the substance of their constituent instruments. This global Implementing Agreement could then provide guidance on the substance of the regional arctic instrument and the functions and operation of the bodies established by it. It should be mentioned, however, that the EU proposal for such an Implementing Agreement has received very little support from non-EU member states.

122 None of the existing regional marine environmental protection regimes are formally linked to the LOS Convention. While the LOS Convention contains qualified obligations on regional cooperation, it does not provide guidance on the outcome of such cooperation. Likewise, the constituent instruments of RFMOs and Arrangements are formally linked to the LOS Convention or the Fish Stocks Agreement, even though the Fish Stocks Agreement provides considerable guidance as regards the functions and operation of RFMOs and Arrangements and the substance of their constituent instruments.

123 See UN doc. A/RES/38/77, of 15 December 1983 and C.C. Joyner, 'Antarctica and the Indian Ocean States: The Interplay of Law, Interests, and Geopolitics', 21 *Ocean Development & International Law* 41-70 (1990), at pp. 48-49.

124 Cf. the Annex to the Statement by Austria, on behalf of the EU, at the 7th Meeting of the ICP (2006) and COM(2007) 575 final, of 10 October 2007, 'An Integrated Maritime Policy for the European Union', at p. 14, where it is noted that the "Commission will propose an Implementing Agreement of UNCLOS on marine biodiversity in areas beyond national jurisdiction and work towards successful conclusion of international negotiations on Marine Protected Areas on the high seas". It should also be noted, however, that the Arctic Communication refers on p. 11 to the following policy action: "Explore all possibilities at international level to promote measures for protecting marine biodiversity in areas beyond national jurisdiction, including through the pursuit of an UNCLOS Implementing Agreement". It is not altogether clear why these items with a global scope should be listed in the Arctic Communication. The precise meaning and intention of these items are not clear, but they seem at any rate related to a process at the global level that is intended to have output that applies throughout the globe and not just the Arctic. Or does it imply that the high seas in the Arctic Ocean should be designated as a marine protected area?

5.6. Conclusions

In the view of the authors of this report, a regional legally binding instrument dedicated to the marine Arctic is the most convincing option for reforming the current regime of the Arctic and should be seriously considered. In designing the basic features and elements of such an instrument, account should be taken of the general principles and considerations and other arguments discussed in this report. While expanding the spatial scope of the existing OSPAR Convention might at first sight seem an attractive option, an instrument that is tailor-made for the Arctic would seem to be able to garner more support. Moreover, the instrument should be self-standing, should build on the achievements of the Arctic Council so far and retain its viable parts and bodies, and should not be formally linked to for instance the LOS Convention. Finally, the instrument should have an overarching character which is at a minimum conducive to integrated, cross-sectoral ecosystem-based oceans management and whose primary body could also be mandated to pursue that objective. These and other basic features and elements are elaborated in the report *A Proposal for a Legally Binding Instrument*.¹²⁵

125 See note 5 supra.

III. A PROPOSAL FOR A LEGALLY BINDING INSTRUMENT



Photo: WWF-Sweden/WWF-Canon



Photo: Marco Tedesco



Photo: WWF-Norway/Frode Johansen/
WWF-Canon



Photo: www.JSGrove.com/WWF



Executive summary

Introduction

This report was commissioned by the WWF International Arctic Programme in response to the inadequacies of the current international governance and regulatory regime of the marine Arctic in light of current and future effects of climate change. This report complements two other reports with the same main title but with different subtitles, namely *Overview and Gap Analysis* and *Options for Addressing Identified Gaps*. The present report contains a proposal for a legally binding instrument as one of the most convincing options to address the gaps identified in the latter report.

Rationale

The basic rationale for the envisaged proposal is, first, that few – if any – seriously question any longer that the Arctic Ocean meltdown has by now become largely irreversible. The governance and regulatory regime that currently exists in the Arctic may have been adequate for a hostile environment that allows very little human activity for most of the year. But when the Arctic Ocean becomes increasingly similar to regional seas in other parts of the world for longer and longer parts of the year, adequacy cannot be assumed and reform of the regime is indispensable.

Given the pace of change in the Arctic, it is especially difficult to see how the Arctic and its ocean could be sustainably and coherently managed without dedicated institutions. This means that the gaps in the Arctic Council and its constitutive instrument that were identified in the *Overview and Gap Analysis* report have to be addressed. As pointed out in that report as well, relying solely on the LOS Convention¹ is also inadequate. The LOS Convention is primarily a framework convention and does not provide all the necessary institutions and substantive standards. The *Options for Addressing Identified Gaps* report explains that the envisaged instrument is likely to attract more support if it is regional in scope and complementary to and compatible with the LOS Convention.

The envisaged instrument would fulfill relevant obligations to cooperate under international law for Arctic Ocean coastal states and others in addition to addressing transboundary issues and effects, enabling a regional level playing-field with regional uniformity and being conducive to, or pursuing, integrated, cross-sectoral ecosystem-based ocean management.

In addition, the proposal responds to two main challenges with which the Arctic Council has recently been confronted, namely the cooperation between the five Arctic Ocean coastal states as reflected in the Ilulissat Declaration of 28 May 2008 and various initiatives of non-arctic states and the European Community (EC) with respect to the Arctic. It is submitted that these challenges contribute to a political environment conducive to change.

Basic features

The basic features of the envisaged instrument proceed from a strong preference to build on the achievements of the Arctic Council so far and to retain its viable parts and

¹ United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982. In force 16 November 1994, 1833 United Nations Treaty Series 396; <www.un.org/Depts/los>.

bodies. There are a variety of vested interests – especially by arctic Indigenous peoples’ organizations – to maintain the institutional functioning of the Council as it presently stands. Proposals that ignore such interests would face fierce opposition.

One of the overarching objectives of the new Arctic Council would be to pursue integrated, cross-sectoral ecosystem-based ocean management. The spatial mandate of the Arctic Council would be limited to the marine environment of the Arctic. Retaining a terrestrial component for a body or bodies operating under an instrument as ambitious and open as the envisaged one would be unlikely to secure the required backing among arctic states. Moreover, a large majority of existing members of the Arctic Council are parties to one or more regional marine environmental protection regimes and are therefore at least familiar with such cooperation. Limiting the spatial scope to the marine environment would not exclude the future body or bodies operating under the envisaged instrument from considering external impacts, for instance land-based or atmospheric pollution.

While limited to the marine environment of the Arctic, the spatial scope would – in line with the arguments set out in subsection 2.5 of the *Options for Addressing Identified Gaps* report – consist of areas within as well as areas beyond national jurisdiction (including therefore the high seas and the “Area” – the deep sea-bed). As pointed out there also, the challenge is to balance the rights, interests and obligations of coastal states on the one hand with those of other states and the international community on the other hand. The envisaged governance and regulatory regime should therefore not be uniform – both substantively and spatially – for all sectors. The use of Annexes or Protocols to a framework instrument would therefore be an appropriate solution for sectoral governance and regulation. This should be combined with including in the framework instrument a provision that requires the negotiation of Protocols in relation to the three main human activities that are likely to be more intensively used in the marine Arctic in the near future, namely offshore hydrocarbon activities, fishing and shipping.

The preceding features should be complemented by a safety net that would apply until the Protocols on sectoral governance and regulation have been negotiated and adopted and have duly entered into force. This safety net would lay down a minimum level of protection in case negotiations take longer than expected and human activities commence earlier or expand at a faster pace than foreseen, in the absence of the necessary scientific information or with potentially higher risks to the protection and preservation of the marine environment, marine biodiversity and the rights and interests of arctic Indigenous peoples.

In view of the above, the suggested approach would therefore consist of:

1. An adequate governance arrangement established by means of a regional framework instrument, complemented by Annexes relating to specific issues, such as monitoring and assessment;
2. Protocols to that regional framework instrument relating to sectoral governance and regulation; and
3. One or more safety nets that would apply until the Protocols on sectoral governance and regulation have been negotiated and adopted and have duly entered into force.

The following would be the basic features of the framework instrument:

- It would be a regional, legally binding framework instrument that complements and is compatible with the LOS Convention²;
- The Arctic Council would become the primary body or forum of this instrument, with a mandate focused on providing strategic guidance rather than on regulation;

² Even though not formally linked to it, for instance by means of a Protocol or an Implementation Agreement.

- The spatial mandate of the Arctic Council would be limited to the marine environment of the Arctic within (a) the area north of 60° North, (b) left undefined, or (c) the Arctic Ocean, as defined;³
- The Arctic Council would be empowered to adopt non-legally binding decisions (recommendations) and – if desirable – legally binding decisions (resolutions) for several strictly defined purposes. Decision-making would be based on consensus or give a preferential role to arctic states or Arctic Ocean coastal states. Permanent participants would have to be consulted;
- Membership of the Arctic Council would be open to (a) arctic states, (b) any state or regional economic integration organization (REIO) provided the existing members agree by consensus that a certain qualifying criterion is met, or (c) any state or REIO;
- The regional legally binding framework instrument would be complemented by several Annexes and – at a later stage – by various Protocols. As already mentioned, the spatial scope of the Annexes and the Protocols would not have to be identical to that of the framework instrument;
- The Annexes would relate to specific issues, for instance (a) monitoring and assessment, (b) environmental impact assessments (EIAs) and strategic environmental assessments (SEAs), (c) marine protected areas (MPAs) and (d) integrated, cross-sectoral ecosystem-based ocean management. The Annexes would also establish bodies (committees) with an advisory function to the Arctic Council and the bodies (commissions) established by the Protocols; and
- The Protocols would relate to sectoral governance and regulation of the marine Arctic and would establish regulatory bodies (commissions) with the power to impose legally binding obligations on their members. While the competence of the bodies will have to be clearly delimited vis-à-vis the competence of the Arctic Council and other competent international organizations, the bodies would not be strictly subordinate to the Arctic Council.

The Annex to this Executive Summary contains a ‘Possible title, structure and main elements of the envisaged instrument’.

.....
 3 Definitions for a spatial scope would nevertheless be needed for the Annexes and/or Protocols.

Annex: Possible title, structure and main elements of the envisaged instrument

Title: Arctic Ocean Framework Convention

Preamble

Could concisely describe the following aspects:

- The impact of global climate change on the Arctic;
- The need to adapt the current governance and regulatory regime in the Arctic as a consequence of this change, while taking account of the unprecedented pace of change and the uncertainty of its consequences;
- The impact of arctic climate change on the rest of the world;
- The expansion of human activities in the Arctic region and their actual or potential impact on the environment and biodiversity in the Arctic;
- The important role of the original occupants of the region – the arctic Indigenous peoples – in promoting sustainable development in the region;
- The need for regional cooperation in order to fulfill obligations under international law, including those relating to the protection and preservation of the marine environment and the conservation and sustainable use of marine living resources in the Arctic;
- The need for peace, order and stability in the Arctic;
- The desire to protect and preserve the marine environment and to conserve and sustainably use marine biodiversity in the Arctic;
- The desire to pursue integrated, cross-sectoral ecosystem-based ocean management;
- The rationale of a safety net, namely the desire to have a minimum level of governance and regulation in place before a significant expansion of human activities occurs in the Arctic; and
- An acknowledgment of the consistency of the envisaged instrument with selected international instruments, in particular the LOS Convention.

Objective

The following elements would seem to be suitable:

- The protection and preservation of the arctic marine environment;
- The long-term conservation and sustainable and equitable use of arctic marine resources and marine ecosystems and their functions;
- Maintaining peace, order and stability in the Arctic; and
- Ensuring socio-economic benefits for present and future generations, with special reference to Indigenous arctic peoples.

General principles

The following would seem to be suitable:

- A precautionary approach or principle;
- An adaptive management that acknowledges that change in the Arctic is rapid and that trends and directions are unclear;
- An ecosystem approach (integrated, cross-sectoral ecosystem-based ocean management);
- Various applications of the principle of good governance, including transparency, accountability and broad participation (including Indigenous peoples and non-governmental organisations);
- A polluter pays principle;
- The use of best available techniques and best environmental practice including, where appropriate, clean technology; and
- The use of traditional knowledge of arctic Indigenous peoples and other local communities embodying traditional lifestyles.

Spatial scope

The marine environment of the Arctic according to the following three options:

- a) north of 60° North;
- b) no definition; and
- c) the Arctic Ocean defined, for instance, as the marine areas north of the Bering Strait and north of the most northern land territory.

Main obligations

The following could be the main obligations:

- To pursue the objective(s) of the instrument; to apply its general principles and to cooperate with other contracting parties to these ends;
- To actively participate in the Arctic Monitoring and Assessment Committee (AMAC) and fulfill the obligations laid down in Annex I 'Monitoring and Assessment';
- To conduct EIAs and SEAs in accordance with Annex II 'Environmental Impact Assessments and Strategic Impact Assessments';
- To establish an arctic network of marine protected areas in conformity with Annex III 'Marine Protected Areas';
- To advance integrated, cross-sectoral ecosystem-based ocean management on the basis of Annex IV 'Integrated, cross-sectoral ecosystem-based ocean management';
- To commence negotiation processes for Protocols on the governance and regulation of fisheries, shipping and offshore hydrocarbon activities;

- To continuously examine the adequacy of the institutional structure of the framework instrument and its Annexes and Protocols; and
- Some or all of the basic elements of the safety net(s), or their rationales, may also be incorporated.

Institutional structure

- The name 'Arctic Council' would be retained for the primary body or forum;
- The Arctic Council's ministerial meeting would be convened every year. Senior Arctic Officials (SAOs) will continue their current work;
- The Arctic Council would be empowered to establish new bodies;
- Membership of the Arctic Council would be open to (a) arctic states, (b) any state or REIO provided the existing members agree by consensus that a certain qualifying criterion is met, or (c) any state or REIO;
- The rules on permanent participants would be more relaxed and the status of observer would be available for non-governmental and inter-governmental organizations;
- Annex committees would take over the most valuable functions of the six existing working groups of the Arctic Council;
- Protocols would have their own regulatory bodies; and
- A dedicated secretariat would be established.

Mandate and decision-making

- The Arctic Council's mandate would be focused on providing strategic guidance rather than on regulation, and could be defined as "any common issue facing the marine Arctic";
- The Protocol commissions are not strictly subordinate to the Arctic Council;
- The Arctic Council would be empowered to adopt non-legally binding decisions (recommendations) and – if desirable – legally binding decisions (resolutions) for several strictly defined purposes. Decision-making would be based on consensus or give a preferential role to arctic states or Arctic Ocean coastal states. Permanent participants will have to be consulted; and
- Observers are entitled to speak in the ministerial meeting, and receive non-confidential material.

Final and other provisions

The framework instrument could contain the following other and final provisions:

- Annexes, which shall form an integral part of the framework instrument;
- Protocols;
- Peaceful settlement of disputes;

- Review conference;
- Signature;
- Ratification, acceptance or approval (for the signatories);
- Accession (for other than signatories);
- REIOs;
- Entry into force;
- Reservations, which would not be allowed;
- Declarations and statements, which would be allowed;
- Provisional application, which would be allowed;
- Amendments;
- Withdrawal, which would be allowed;
- Depositary (United Nations); and
- Authentic texts (e.g. English and Russian).

Annexes

The following are suggestions:

- Annex I 'Monitoring and Assessment', which establishes the Arctic Monitoring and Assessment Committee (AMAC). AMAC will be the new home of the AMAP Working Group;
- Annex II 'Environmental Impact Assessments and Strategic Impact Assessments';
- Annex III 'Marine Protected Areas'; and
- Annex IV 'Integrated, cross-sectoral ecosystem-based ocean management'.

Protocols

The instrument would contain an obligation to commence negotiation processes for Protocols on the governance and regulation of

- fisheries;
 - shipping; and
 - offshore hydrocarbon activities
- and, possibly, other human activities.

This would be complemented by prescriptions on the issues of participation and the safety net(s).

In light of the primacy of the International Maritime Organization (IMO), the Protocol on shipping could focus on the following issues:

- monitoring, contingency planning and preparedness for pollution incidents, as well as on search and rescue, including designating places of refuge;
- enforcement and compliance; and
- more stringent standards for vessels flying the flag of contracting parties to the Protocol.

List of abbreviations

ACIA	Arctic Climate Impact Assessment
AMAC	Arctic Monitoring and Assessment Committee (proposal)
AMAP	Arctic Monitoring and Assessment Programme (working group)
EC	European Community
EIA	environmental impact assessment
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
IWC	International Whaling Commission
LME	large marine ecosystem
MPA	marine protected area
NEAFC	North-East Atlantic Fisheries Commission
NPFMC	North Pacific Fishery Management Council
PAME	Protection of the Arctic Marine Environment (working group)
REIO	regional economic integration organization
SAOs	Senior Arctic Officials
SEA	strategic impact assessment
UNGA	United Nations General Assembly

1. Introduction

This report was commissioned by the WWF International Arctic Programme in response to the inadequacies of the current international governance and regulatory regime of the marine Arctic in light of current and future effects of climate change. This report complements two other reports with the same main title but with different subtitles, namely *Overview and Gap Analysis*⁴ and *Options for Addressing Identified Gaps*⁵. The present report contains a proposal for a legally binding instrument as one of the most convincing options to address the gaps identified in the latter report.

In drafting this report, inspiration has been sought from several international instruments – including those listed in Appendix I and the Draft PSM Agreement⁶ – and various publications,⁷ including the 1991 Draft Arctic Treaty drawn up by Pharand⁸.

The structure of the report is as follows. The rationale for the legally binding instrument is explained in section 2, followed by an explanation of its basic features in section 3. Section 4 then focuses on the pivotal issue of participation in the framework instrument and its Annexes and Protocols. Subsequently, section 5 devotes attention to the negotiation process for the legally binding instrument and the safety net that is intended to complement it. A discussion on the basic elements of the envisaged instrument is incorporated in section 6, with subsections focusing on the title, preamble, objective and general principles, spatial scope, main obligations, institutional structure, mandate and decision-making, other and final provisions and Annexes and Protocols. Appendix I to the report contains a table displaying objectives and principles of selected international instruments.

4 Final version of January 2009, available at <www.panda.org/arctic>.

5 To be published in conjunction with the current report (see <www.panda.org/arctic>).

6 Draft Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, as contained in FAO doc. TC PSM/2008/2, of April 2008.

7 For instance K.M. Gjerde et al., "Options for Addressing Regulatory and Governance Gaps in the International Regime for the Conservation and Sustainable Use of Marine Biodiversity in Areas beyond National Jurisdiction (*ICN Marine Law and Policy Paper No. 2: 2008*; available at <cms.iucn.org>) and the "Suggested Draft High Seas Implementing Agreement for the Conservation and Management of the Marine Environment in Areas Beyond National Jurisdiction" of March 2008 drawn up by Greenpeace (available at <www.greenpeace.org/international>).

8 D. Pharand, "Draft Arctic Treaty: An Arctic Region Council", in *The Arctic Environment and Canada's International Relations* (Canadian Institute of International Affairs, National Capital Branch, (Ottawa: Canadian Arctic Resources Committee, 1991)), pp. A1–A10.

2. Rationale

The proposal for a legally binding instrument for the governance and regulation of the marine Arctic presented in this report responds to the vast challenges that are taking place in the Arctic, especially in its marine areas. In drafting the proposal, account has among other things been taken of the views of the Arctic Ocean coastal states as expressed in the Ilulissat Declaration of 28 May 2008⁹ as well as of the general principles and considerations set out in section 2 of the *Options for Addressing Identified Gaps* report. The latter are: necessity, timing and comprehensiveness of reform (pro-active/precautionary, fair and equitable and cost-effective), type, level and proposals for reform and balancing rights, interests and obligations.

The basic rationale for the envisaged proposal consists of the following elements: First, it is submitted that few, if any, seriously question any longer that the Arctic Ocean meltdown has by now become largely irreversible. In addition, the more recent empirical research tends to show that the Arctic Ocean will not be seasonally ice-free by the end of this century, as projected by the 2004 Arctic Climate Impact Assessment (ACIA), but much earlier. The governance and regulatory regime that currently exists in the Arctic may have been adequate for a hostile environment that allows very little human activity for most of the year. But when the Arctic Ocean becomes increasingly similar to regional seas in other parts of the world for longer and longer parts of the year, adequacy cannot be assumed and reform of the regime is indispensable. In fact, the analysis in the *Overview and Gap Analysis* report has revealed various governance and regulatory gaps that have to be addressed in one way or another.

Even if there would be sufficient substantive rules applicable to the marine Arctic, it is clear that rules alone – and in particular non-legally binding rules – cannot manage the sea that will soon emerge from underneath the arctic sea ice. Hence, a new governance arrangement with a new institutional set-up is needed, which will be able to counter the vast challenges now facing the marine Arctic.

It is submitted that the envisaged proposal is better suited to respond to the vast challenges ahead than the approach that currently prevails among the Arctic Council members and the Commission of the European Community (EC), namely that comprehensive reform is unnecessary because the existing legal and political framework (especially the LOS Convention¹⁰ and the Arctic Council) is in principle adequate. However, the level of support for maintaining the status quo is likely to be directly related to the extent in which the ACIA and the Intergovernmental Panel on Climate Change (IPCC)'s Fourth Assessment Report in 2007 will be regarded as 'old science'. The status quo is also under pressure due to the cooperation between the five Arctic Ocean coastal states as reflected in the Ilulissat Declaration and various initiatives of non-arctic states and the EC with respect to the Arctic.¹¹ The proposal envisaged in this report offers a credible alternative for the status quo.

Second, the envisaged instrument would fulfill relevant obligations to cooperate under international law for Arctic Ocean coastal states and others in addition to addressing transboundary issues and effects, enabling a regional level playing-field with regional uniformity and being conducive to, or pursuing, integrated, cross-sectoral ecosystem-based ocean management.

9 Ilulissat, 28 May 2008 (available at <arctic-council.org>).

10 United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982. In force 16 November 1994, 1833 *United Nations Treaty Series* 396; <www.un.org/Depts/los>.

11 COM (2008) 763, of 20 November 2008, 'Communication from the Commission to the European Parliament and the Council on The European Union and the Arctic Region'.

3. Basic features

3.1. General

As the Arctic Council is currently the main inter-governmental forum for the entire Arctic, any new governance and regulatory arrangement for the region needs to address its relationship with the Arctic Council. The envisaged instrument's structure and elements laid down in the ensuing subsections reflect a strong preference to build on the achievements of the Arctic Council so far and to retain its viable parts and bodies. Radically throwing out everything that has been gradually and painstakingly created and maintained during a period of almost 20 years would make no sense. The Arctic Council has become increasingly ambitious in its work agenda – especially in recent years – so it would be very bold to propose its replacement by a completely new governance and regulatory arrangement. Moreover, there are a variety of vested interests, especially from the part of arctic Indigenous peoples' organisations, to maintain the institutional functioning of the Council as it presently stands. Proposals that ignore such interests would face fierce opposition. Yet, certain elements of the Arctic Council need to be revised in order to enable it to respond adequately to the vast challenges faced by the Arctic region.

The spatial mandate of the Arctic Council under the envisaged instrument would be limited to the marine environment of the Arctic. Retaining a terrestrial component for a body or bodies operating under an instrument as ambitious and open as the envisaged one would be unlikely to secure the required backing among arctic states. Moreover, a large majority of existing members of the Arctic Council are party to one or more regional marine environmental protection regimes and therefore at least familiar with such cooperation.¹² Limiting the spatial scope to the marine environment would not exclude the future body or bodies operating under the envisaged instrument from considering external impacts, for instance land-based or atmospheric pollution.¹³ One of the overarching objectives of the new Arctic Council would be to pursue integrated, cross-sectoral ecosystem-based ocean management.

While limited to the marine environment of the Arctic, the spatial scope would – in line with the arguments set out in subsection 2.5 of the *Options for Addressing Identified Gaps* report – consist of areas within as well as areas beyond national jurisdiction (including therefore the high seas and the “Area” – the deep sea-bed). As pointed out there also, the challenge is to balance the rights, interests and obligations of coastal states on the one hand with those of other states and the international community on the other hand. The envisaged governance and regulatory regime should therefore not be uniform – both substantively and spatially – for all sectors. The use of Annexes or Protocols to a

12 Canada is a party to the Antarctic Treaty (Antarctic Treaty, Washington D.C., 1 December 1959. In force 23 June 1961, 402 *United Nations Treaty Series* 71; <www.ats.aq>) and its Environmental Protocol (Protocol on Environmental Protection to the Antarctic Treaty; Annexes I-IV, Madrid, 4 October 1991. In force 14 January 1998; Annex V (adopted as Recommendation XVI10), Bonn, 17 October 1991. In force 24 May 2002; Annex VI (adopted as Measure 1(2005)), Stockholm, 14 June 2005. Not in force. All texts available at <www.ats.org.ar>), even though Canada does not have the status of 'Antarctic Treaty Consultative Party'. Denmark, Finland and Sweden are parties to the OSPAR Convention (Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992. In force 25 March 1998, <www.ospar.org>. Annex V, Sintra, 23 September 1998. In force 30 August 2000; amended and updated text available at <www.ospar.org>) and the 1992 Helsinki Convention (Convention on the Protection of the Marine Environment of the Baltic Sea Area, Helsinki, 9 April 1992. In force 17 January 2000; <www.helcom.fi>); Iceland and Norway are parties to the OSPAR Convention; the Russian Federation is party to the 1992 Helsinki Convention; and the United States is party to the Cartagena Convention (Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Cartagena de Indias, 24 March 1983. In force 11 October 1986, 22 *International Legal Materials* 221 (1983); <www.unep.org/regionalseas>).

13 Note in this regard that several regional marine environmental protection regimes have Annexes or Protocols on, for instance, land-based pollution (e.g. Annex II 'On the Prevention and Elimination of Pollution from Land-Based Sources' to the OSPAR Convention).

framework instrument would therefore be an appropriate solution for sectoral governance and regulation.

The choice between Annexes and Protocols depends on various considerations. Annexes are commonly an integral part of the main instrument, negotiated in parallel with the main instrument and commonly also enter into force at the same time. Conversely, Protocols are commonly negotiated after the entry into force of the main instrument and complement or implement the substance of the main instrument. The predominant reason for choosing Protocols in relation to sectoral governance and regulation is that negotiating these in parallel with the framework instrument would probably prolong the negotiations too much and lead to undesirable effects caused by unregulated human activities. This approach should nevertheless be combined with including in the framework instrument a provision that requires the negotiation of Protocols in relation to the three main human activities that are likely to be more intensively used in the marine Arctic in the near future, namely offshore hydrocarbon activities, fishing and shipping.¹⁴ This provision should moreover explicitly refer to the possibility of negotiating other Protocols.

The preceding features should be complemented by a safety net that would apply until the Protocols on sectoral governance and regulation have been negotiated and adopted and have duly entered into force. This safety net would lay down a minimum level of protection in case negotiations take longer than expected, human activities commence earlier or expand at a faster pace than foreseen, in the absence of the necessary scientific information or with potentially higher risks to the protection and preservation of the marine environment, marine biodiversity and the rights and interests of arctic Indigenous peoples. It is submitted, however, that the use of the term 'moratorium' in connection with this safety net would trigger more opposition than support and should therefore be avoided. The term 'moratorium' has for several arctic states and for many of its Indigenous peoples negative connotations with the 1982 decision by the International Whaling Commission (IWC) to adopt a temporary ban on commercial whaling that is still in force today even though some commercial whaling for some stocks of some whale species would – arguably – not be unsustainable.

In view of the above, the suggested approach would therefore consist of a regional framework instrument – plus Annexes and/or Protocols – and a safety net. The safety net is therefore not – at least not initially – intended to be an integral part of the framework instrument or even its negotiation process.¹⁵ The basic features of the framework instrument and the safety net are explained in the subsections below.

3.2. Framework instrument

The basic features of the framework instrument would be:

- It would be a regional, legally binding framework instrument that complements and is compatible with the LOS Convention¹⁶;
- The Arctic Council would become the primary body or forum¹⁷ of this instrument, with a mandate focused on providing strategic guidance rather than on regulation;

14 See also Art. 16 of the Environmental Protocol to the Antarctic Treaty, note 11 supra.

15 In case the option of the negotiation process would be pursued, this would envisage the safety net to be adopted as an interim measure with non-legally binding status (e.g. the interim measures adopted in May 2007 in the context of the negotiations to establish the South Pacific Regional Fisheries Management Organization; for info see <www.southpacificrfmo.org>).

16 Even though not formally linked to it, for instance by means of a Protocol or an Implementation Agreement.

17 Note that the United States Arctic Region Policy (National Security Presidential Directive/NSPD-66 & Homeland Security Presidential Directive/HSPD-25, of 9 January 2009. In effect same day; text at <www.whitehouse.gov> (press release of 12 January 2009)), observes that the "Arctic Council should remain a high-level forum devoted to issues within its current mandate and not be transformed into a formal international organization, particularly one with assessed contributions" (section III(C)(2)).

- The spatial mandate of the Arctic Council would be limited to the marine environment of the Arctic within (a) the area north of 60° North, (b) left undefined, or (c) the Arctic Ocean, as defined;¹⁸
- The Arctic Council would be empowered to adopt non-legally binding decisions (recommendations) and – if desirable – legally binding decisions (resolutions) for several strictly defined purposes. Decision-making would be based on consensus or give a preferential role to arctic states or Arctic Ocean coastal states. Permanent participants will have to be consulted;
- Membership of the Arctic Council would be open to (a) arctic states, (b) any state or regional economic integration organization (REIO) provided the existing members agree by consensus that a certain qualifying criterion is met, or (c) any state or REIO (see section 4);
- The regional legally binding framework instrument would be complemented by several Annexes and – at a later stage – by various Protocols. As already mentioned, the spatial scope of the Annexes and the Protocols would not have to be identical to that of the framework instrument;
- The Annexes would relate to specific issues, for instance (a) monitoring and assessment, (b) environmental impact assessments (EIAs) and strategic environmental assessments (SEAs), (c) marine protected areas (MPAs) and (d) integrated, cross-sectoral ecosystem-based ocean management. The Annexes would also establish bodies (committees) with an advisory function to the Arctic Council and the bodies (commissions) established by the Protocols; and
- The Protocols would relate to sectoral governance and regulation of the marine Arctic and would establish regulatory bodies (commissions) with the power to impose legally binding obligations on their members. While the competence of the bodies will have to be clearly delimited vis-à-vis the competence of the Arctic Council and other competent international organizations, the bodies would not be strictly subordinate to the Arctic Council.

3.3. Safety net

The basic features of the safety net could be similar to the basic features of the paragraphs of United Nations General Assembly (UNGA) Resolution No. 61/105¹⁹ that deal with the impact of bottom fisheries on vulnerable marine ecosystems.²⁰ As pointed out in subsection 3.3.5 of the *Overview and Gap Analysis* report, the main elements of this approach are

- Conducting prior EIAs;
- Identifying the location of vulnerable marine ecosystems;
- Freezing the footprint of bottom fishing in areas where vulnerable marine ecosystems are known to occur or likely to occur, until adequate conservation and management measures are in place; and
- Publication of information on action taken pursuant to these elements.

These elements essentially operationalize the precautionary approach, the need for science-based fisheries management and accountability. For parts of the Arctic marine area, these paragraphs of UNGA Resolution No. 61/105 have already been implemented

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¹⁸ Definitions for a spatial scope would nevertheless be needed for the Annexes and/or Protocols.

¹⁹ UNGA Resolution No. 61/105, of 8 December 2006, 'Sustainable fisheries, including through the 1995 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, and related instruments'.

²⁰ Paras 83–87.

by the North-East Atlantic Fisheries Commission (NEAFC)²¹ and the North Pacific Fishery Management Council (NPFMC)²² as well as by flag states pursuant to these decisions or at their own instigation.

As already pointed out above, the safety net is not – at least not initially – intended to be an integral part of the framework instrument or even its negotiation process (but see below). If it were, a considerable number of years could pass before it would become operational and that is precisely what it seeks to avoid. In view of the need for speedy action, it may be opportune to aim for a safety net that is not legally binding. An important choice that would have to be made is that between a single safety net for all sectors or several safety nets; for instance for each sector. It is in this context important to mention recent efforts by the United States aimed at commencing a process to culminate in a general statement or declaration on present and future arctic fisheries.²³ If such a process would be pursued, this would seem to rule out the likelihood of a single safety net.

As mentioned above, initially the safety net(s) is/are not intended to be part of the framework instrument or its negotiations process. However, it seems inevitable that some or all of the basic elements of the safety net(s), or their rationales, are eventually also incorporated in interim measures adopted by the negotiation process²⁴ of the framework instrument and eventually also into the framework instrument, Annexes or even Protocols.

21 Established by Convention on Future Multilateral Cooperation in the North-East Atlantic Fisheries, London, 18 November 1980. In force 17 March 1982, 1285 *United Nations Treaty Series* 129; <www.neafc.org>. 2004 Amendments (Art. 18bis), London; 12 November 2004. Not in force, but provisionally applied by means of the 'London Declaration' of 18 November 2005; <www.neafc.org>. 2006 Amendments, London (Preamble, Arts 1, 2 and 4), 11 August 2006. Not in force, but provisionally applied by means of the 'London Declaration' of 18 November 2005; <www.neafc.org>. See, inter alia, NEAFC Recommendations VII: 2008 and XVI: 2008.

22 Motion of 10 June 2007 on Bering Sea Habitat Conservation (available at <www.fakr.noaa.gov/npfmc>). It should be noted that, in contrast with NEAFC, the NPFMC is not a multilateral body.

23 See subsection 4.2.2 of the *Options for Addressing Identified Gaps* report.

24 See note 14 supra.

4. Participation in the framework instrument and its Protocols

If the spatial scope of the envisaged instrument – while limited to the marine environment – is to encompass not only areas within but also areas beyond national jurisdiction, there seem to be four basic options for membership in the future Arctic Council, namely:

- a) Arctic Ocean coastal states;
- b) arctic states;
- c) any state or REIO provided the existing members agree by consensus that a certain qualifying criterion is met, or
- d) any state or REIO;

It is submitted that option (a) – limiting membership to Arctic Ocean coastal states – is not compatible with the wish for the envisaged framework instrument to become the ‘home’ of a new, transformed Arctic Council as this would mean excluding the three other current members of the Arctic Council. This option is therefore not discussed any further.

Pursuing option (b) would exclude all other states and REIOs. This may have the advantage of higher performance in case the views and interests of the eight states are more similar or compatible than in a scenario where other players would be brought in. The main disadvantage of option (b) is that it does not provide a role to other states and REIOs even though they have rights, obligations and interests in the spatial area over which the future Arctic Council would have a mandate. Such rights, obligations and interests do not just exist in areas beyond national jurisdiction (e.g. freedom of fishing in the high seas) but also within national jurisdiction (e.g. navigational rights and freedoms). Excluding other states and REIOs would preclude them from making positive contributions to the work of the future Arctic Council, for instance in terms of expertise, research, data sharing and funding (including through membership fees). Not including them would also limit the effectiveness of the future Arctic Council if its efforts in governance and regulation would depend in part on compliance by vessels and natural and legal persons of such other states. The principle of *pacta tertiis*²⁵ would seriously curtail the eight states’ ability to impose obligations on other states and REIOs as well as on their nationals. Attempts by the arctic states to affect the rights and interests of other states and REIOs would also lack legitimacy and credibility if the latter would not be given a participatory role. It goes without saying that such a participatory role does not necessarily have to be on the same footing as the arctic eight or the arctic five, for instance in decision-making.

It is submitted that broader participation in the Protocols does not always resolve the *pacta tertiis*, legitimacy and credibility issues that arise from narrow participation in the framework instrument. Assume, for instance, that the arctic states designate an area of the high seas as an MPA pursuant to criteria agreed by themselves and a procedure open only to themselves. It is clear that an international fisheries management authority with spatial competence over the area would as a minimum be expected to consider the regulation of fishing there; even if the arctic states would not dictate this. However, it is evident that other states and REIOs could object that they were not involved in the process that adopted the criteria or in the procedure that designated the area. These arguments could for instance be raised by a state that is a member of NEAFC but a non-member

²⁵ This fundamental principle of international law provides that states cannot be bound by rules of international law unless they have in one way or another consented to them.

of the OSPAR Commission in response to proposals for MPAs in areas beyond national jurisdiction originating from the OSPAR Commission.²⁶ In the context of the Arctic, why would China, the EC, Japan and South Korea – as members of the envisaged commission of the Fisheries Protocol to the framework instrument – be prepared to accept decisions by a body in which they are not allowed to participate?

The OSPAR Commission is useful to illustrate other points as well. Its membership consists exclusively of coastal states, states located upstream on watercourses reaching the OSPAR Maritime Area (Finland, Luxembourg and Switzerland) and the EC. Due to its efforts in recent years to pursue the ecosystem approach and to act as a regulatory body by default,²⁷ however, the OSPAR Commission has been repeatedly confronted within its limited competence vis-à-vis other intergovernmental organizations and non-members; for instance in its efforts on MPAs in areas beyond national jurisdiction and on marine scientific research. Why repeat such fundamental shortcomings in the Arctic if there is an opportunity to start from scratch and get it right?

The disadvantages of option (b) would be avoided under options (c) and (d). The qualifying criterion could be related to scientific research – like in the Antarctic Treaty²⁸ – or could have a more general focus, for instance a ‘real interest in’ or ‘genuine commitment to’ the Arctic, its environment, biodiversity and/or Indigenous peoples. It would then be up to the existing members to determine by consensus or otherwise if a state or REIO seeking membership qualifies or not. Potential challenges on legitimacy and credibility should ensure that existing members take this task seriously.

Option (d) would not give existing members any control on participation. However, there is no reason to assume that a very large number of states would avail themselves of the opportunity to participate. Participation in the future Arctic Council would after all only provide a role in providing strategic guidance. Also, it would not give access to resources but would still bring costs related to membership (e.g. fees, human resources and travel). Moreover, it was noted above that the arctic eight or arctic five could be given a preferential role in decision-making and, anyway, the Arctic Council does not necessarily have to be empowered to adopt legally binding decisions.

Finally, it is possible that the Arctic Ocean coastal states or the arctic states propose yet another option, namely to limit participation initially to themselves and to allow broader participation at a later stage. While it is not excluded that this would work, there is of course a possibility that – for whatever reason – they eventually cannot agree on broader participation amongst themselves.²⁹

Permanent participants would still be those that represent one Indigenous people in many arctic states or an organization that represents many Indigenous groups in a single arctic state. The change would be that there should be no limit to the number of permanent participants, given that the Arctic Council’s membership would considerably broaden (now their number cannot exceed the number of members). The observer category would consist of those non-governmental and inter-governmental organizations that want to participate in the meetings of the Council, manifesting a relaxed attitude to entry and promoting wider participation for all stakeholders. Finally, it would seem to be too ambitious to create a separate participatory status for sub-units of (federal) states, as envisaged in Pharand’s proposal.³⁰

26 See the discussion in Report of the June 2008 Meeting of the Permanent Committee on Management and Science (PECMAS) of NEAFC, at pp. 5 and 9.

27 See the Overview and Gap Analysis report, at p. 6.

28 See Art. IX(2).

29 Note, for instance, the debate on broader participation in the United Nations Security Council.

30 See Art. 3. Pharand thereby tried to make the Arctic Council as much as possible an ‘open’ political forum, and hence all kinds of administrative units could participate as observers to the ministerial meetings. This would also bring in the regional voices to the debates

5. Negotiation process

It is submitted that a negotiation process for a regional legally binding instrument cannot commence without:

- a) Basic agreement on the envisaged instrument's main objective(s), spatial scope, elements and relationship vis-à-vis other instruments and institutions; and
- b) Rules of procedure for the negotiation process, in particular on participation in the process and adoption of the envisaged instrument.

Which players are entitled to decide these issues and in which manner, is directly connected with the issue of participation in the framework instrument and its Protocols, which is discussed in the previous section. This issue depends in turn partly on the spatial scope of the envisaged instrument and whether or not it would become the new 'home' of the Arctic Council.

In the case that sufficient support exists for the preferred spatial scope (namely areas within and beyond national jurisdiction), making the envisaged instrument the new home of the Arctic Council, and allowing participation by non-arctic states and REIOs, it would arguably be appropriate to allow the current members of the Arctic Council – in consultation with the permanent participants – to develop the above mentioned elements further before consulting non-arctic states, REIOs and representatives of Indigenous peoples.

As regards the adoption of the envisaged instrument, it seems that this should be done by consensus while specifying that in case consensus cannot be reached, the instrument shall be adopted by a qualified majority, provided it includes all existing Arctic Council members.

The negotiation process(es) for the safety net(s) does/do not have to be identical to that of the framework instrument. In fact, when the delegation of the United States initiated a discussion on United States Senate joint resolution (SJ Res.) No. 17 of 2007³¹ on Arctic fisheries at the Senior Arctic Officials (SAOs) meeting in November 2007, it was met with very little enthusiasm.³² The initiative therefore remained with the United States, which is likely to further develop the issues mentioned above in consultation with other Arctic Ocean coastal states and key players beyond that group.

over the future of the larger region. It would still seem justified to uphold the position of international organizations of arctic Indigenous peoples as permanent participants, given their important role in the Arctic Council, and their symbolic importance as representatives of the original occupants in the region with some influence in decision-making. These organizations are also well versed in influencing international policies, so this would further justify their position in this international governance arrangement. It can be presumed that given the international nature of the focus, regional units and local Indigenous organizations of the region would not contribute to the work of the Council as much as current permanent participants.

31 Passed by the Senate on 4 October 2007. The House of Representatives voted in favor of SJ Res. No. 17 in May 2008 and the President signed it on 4 June 2008.

32 Final Report of the Meeting of Senior Arctic Officials, 28–29 November 2007, Narvik, Norway (available at <www.arctic-council.org>), at p. 12.

6. Elements

6.1. Introduction

As explained in section 1, the ensuing discussion focuses on the envisaged instrument's title, preamble, objective and general principles, spatial scope, main obligations, institutional structure, mandate and decision-making, other and final provisions, Annexes and Protocols.

6.2. Title

The title of an international instrument should ideally give a concise but accurate impression of its main objective(s) and scope. However, in case the main objective(s) and scope are complex and cannot be concisely captured, a shorter title may be preferable. The *Options for Addressing Identified Gaps* report notes that a proposal for an 'Arctic Treaty' may trigger considerable knee-jerk opposition³³ in view of associations with the Antarctic Treaty³⁴; or, rather, some of its special features (e.g. the agreement to disagree on the question of sovereignty). Even if none of these special features are incorporated in the envisaged arctic instrument, the title 'Arctic Treaty' will for many trigger an assumption of similarity with the Antarctic Treaty and should for that reason be avoided.

The table below provides some examples of titles of relevant instruments. It is noteworthy that the 1995 revision of the 1976 Barcelona Convention also led to a new title due to its broader focus.

Instrument	Full title
Antarctic Treaty	Antarctic Treaty
Environmental Protocol to the Antarctic Treaty	Protocol on Environmental Protection to the Antarctic Treaty
1976 Barcelona Convention	Convention for the Protection of the Mediterranean Sea against Pollution
1995 Barcelona Convention	Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean
1992 Helsinki Convention	Convention on the Protection of the Marine Environment of the Baltic Sea Area
OSPAR Convention	Convention for the Protection of the Marine Environment of the North-East Atlantic

The title of the envisaged instrument should as a minimum contain a reference to its legal status. This could be complemented by a reference to its spatial scope and a concise description of its objective(s). An alternative to the latter two elements would be to emphasize the incorporation of the Arctic Council. The box below lists possible wording for such elements.

³³ T. Koivurova and E.J. Molenaar, *Options for Addressing Identified Gaps*, WWF, 2009, at pp. 14 and 31–34, <www.panda.org/arctic>.

³⁴ See note 11 supra.

Legal status	Objective(s) or other	Spatial scope
<ul style="list-style-type: none"> - Agreement - Convention - Treaty 	<ul style="list-style-type: none"> - Arctic Council - Framework - for the Governance and Regulation - for the Protection of the Marine Environment and Marine Biodiversity 	<ul style="list-style-type: none"> - None - Arctic - Arctic Ocean - Arctic Ocean Area - Arctic Maritime Area

As a consequence, quite a few combinations of the suggestions for each of the three elements can be made, for instance ‘Arctic Council Agreement’, ‘Arctic Ocean Framework Convention’ or ‘Convention for the Protection of the Marine Environment and Marine Biodiversity of the Arctic Maritime Area’.

6.3. Preamble

As the Preamble does not contain rights, obligations or institutional/procedural issues, its purpose is commonly to explain the context and basic rationale(s) or objective(s) of the instrument. The Preamble to the envisaged instrument could concisely describe the following aspects:

- The impact of global climate change on the Arctic;
- The need to adapt the current governance and regulatory regime in the Arctic as a consequence of this change, while taking account of the unprecedented pace of change and the uncertainty of its consequences;
- The impact of arctic climate change on the rest of the world;
- The expansion of human activities in the Arctic region and their actual or potential impact on the environment and biodiversity in the Arctic;
- The important role of the original occupants of the region – the arctic Indigenous peoples – in promoting sustainable development in the region;
- The need for regional cooperation in order to fulfill obligations under international law, including those relating to the protection and preservation of the marine environment and the conservation and sustainable use of marine living resources in the Arctic;
- The need for peace, order and stability in the Arctic;
- The desire to protect and preserve the marine environment and to conserve and sustainably use marine biodiversity in the Arctic;
- The desire to pursue integrated, cross-sectoral ecosystem-based ocean management;
- The rationale of a safety net, namely the desire to have a minimum level of governance and regulation in place before a significant expansion of human activities occurs in the Arctic; and
- An acknowledgment of the consistency of the envisaged instrument with selected international instruments, in particular the LOS Convention.

6.4. Objective and general principles

For the purpose of this section, a short survey has been carried out of selected international instruments. The Table in Appendix I – which contains the objectives and principles of these instruments – illustrates that there is a considerable lack of uniformity in the way in which the selected international instruments express their objectives. Some, like the Antarctic Treaty, the 1995 Barcelona Convention and the OSPAR Convention, do not have a provision entitled ‘Objective’. Rather, their objectives have to be inferred from certain provisions or from the Preamble. The more recent of the selected instruments all contain a specific provision entitled ‘Objective’. Most of the selected instruments also

contain principles that the contracting parties have to apply individually or collectively in the context of the bodies established by the instruments.

In light of this short survey, it would be consistent with current practice in treaty drafting to include a provision entitled 'Objective' as well as a provision entitled 'Principles'. The following elements would seem to be suitable for the objective(s) of the envisaged instrument:

- The protection and preservation of the arctic marine environment;
- The long-term conservation and sustainable and equitable use of arctic marine resources and marine ecosystems and their functions;
- Maintaining peace, order and stability in the Arctic; and
- Ensuring socio-economic benefits for present and future generations, with special reference to Indigenous arctic peoples.

The following general principles would seem to be suitable for the envisaged instrument:

- A precautionary approach or principle;
- An adaptive management that acknowledges that change in the Arctic is rapid and that trends and directions are unclear;
- An ecosystem approach (integrated, cross-sectoral ecosystem-based ocean management);
- Various applications of the principle of good governance, including transparency, accountability and broad participation (including Indigenous peoples and non-governmental organisations);
- A polluter pays principle;
- The use of best available techniques and best environmental practice including, where appropriate, clean technology; and
- The use of traditional knowledge of arctic Indigenous peoples and other local communities embodying traditional lifestyles.

6.5. Spatial scope

As a preliminary matter, it should be recalled that according to subsection 3.1 above the spatial scope would be limited to the marine environment of the Arctic, but would consist of areas within as well as areas beyond national jurisdiction. Moreover, the presumption is that the spatial scope of the framework instrument is not identical to the spatial scopes of the Annexes or Protocols (see subsections 6.10 and 6.11).

It is submitted that the issue of the spatial scope of the framework instrument is closely connected with the issue of participation, the main obligations and the regulatory powers conferred on its body or bodies, if any. Reference can here be made to Pharand's Draft Arctic Treaty, whose area of application is north of 60° North.³⁵ This would not only include territory of the current eight Members of the Arctic Council but also of the United Kingdom (namely the Shetland Islands).

The eight members of the Arctic Council would not likely support such a spatial scope if states with territory or maritime zones included in the spatial scope of the envisaged instrument would have a preferential participatory status. Conversely, such a broad spatial scope would not be problematic in the absence of such a preferential participatory status.

The main obligations and regulatory powers – if any – conferred on the body or bodies established by the framework instrument are of crucial importance as well. A broad spatial scope would be more acceptable in combination with less onerous obligations and few or

³⁵ See Art. 1 (note 7 above).

no regulatory powers. As mentioned above, sectoral regulation would not be pursued by the framework instrument but by its Protocols.

An alternative to north of 60° North is not to define the spatial scope of the framework instrument at all. After all, the Arctic Council has so far managed without a definition. On the other hand, this may be more difficult in the context of a legally binding instrument. All the Protocols and perhaps some of the Annexes would at any rate need a defined spatial scope, however.

A final option would be available in case the instrument focuses mainly on the Arctic Ocean. The spatial scope could then basically comprise the marine areas north of the Bering Strait and north of the most northern land territory. The main challenge of a suitable definition for the spatial scope would then be the delimitation between the North-East Atlantic Ocean and the Arctic Ocean. This latter delimitation could take account of the large marine ecosystems (LMEs) of the Arctic marine area developed by the Arctic Council's Protection of the Arctic Marine Environment (PAME) working group and may necessitate adjustments in the spatial scopes of the OSPAR Convention and the NEAFC Convention.³⁶

Based on the above, there seem to be three options:

- a) north of 60° North;
- b) no definition; and
- c) a definition of the Arctic Ocean: the marine areas north of the Bering Strait and north of the most northern land territory.

6.6. Main obligations

The following could be the main obligations laid down in the framework instrument:

- To pursue the objective(s) of the instrument; to apply its general principles and to cooperate with other contracting parties to these ends;
- To actively participate in the Arctic Monitoring and Assessment Committee (AMAC) and to fulfill the obligations laid down in Annex I 'Monitoring and Assessment';
- To conduct EIAs and SEAs in accordance with Annex II 'Environmental Impact Assessments and Strategic Impact Assessments';
- To establish an arctic network of MPAs in conformity with Annex III 'Marine Protected Areas';
- To advance integrated, cross-sectoral ecosystem-based ocean management on the basis of Annex IV 'Integrated, cross-sectoral ecosystem-based ocean management';
- To commence negotiation processes for Protocols on the governance and regulation of fisheries, shipping and offshore hydrocarbon activities and, when the Parties so decide – inter alia, based on available scientific information and the precautionary approach –, on other human activities. This should be followed by an assurance that all relevant states and REIOs are invited to participate as full members in the negotiation processes and that other stakeholders will be entitled to participate as observers. Moreover, it should specify that Parties continue to be committed to the safety net(s) until the Protocols have entered into force;
- To continuously examine the adequacy of the institutional structure of the framework instrument and its Annexes and Protocols; and
- Some or all of the basic elements of the safety net(s), or their rationales, may also be incorporated;

³⁶ See subsections 4.2.3 and 5.3 of the *Options for Addressing Identified Gaps* report.

6.7. Institutional structure

The institutional structure of the envisaged instrument would consist of the following main elements:

- The name ‘Arctic Council’ would be retained for the primary body or forum of this instrument, with a mandate focused on governance rather than on regulation;
- The Arctic Council’s ministerial meeting would be convened every year. SAOs will continue to act as focal points for co-ordinated action in-between the meetings of the Council and would prepare the ministerial meetings together with chairs of the Annex committees;
- The Arctic Council would be empowered to establish new bodies;
- Membership in the Arctic Council would follow the selected option on participation as discussed in section 4;
- During the transition period from the currently functioning Arctic Council to its becoming operational under the envisaged framework instrument, the most valuable functions of the six existing working groups will become part of the activities of the four Annex committees. The body established under Annex I is intended to be the new home of the Arctic Monitoring and Assessment Programme (AMAP) working group and could be named ‘Arctic Monitoring and Assessment Committee’ (AMAC). The Annex bodies would regularly convene joint sessions between their chairs in view of the cross-sectoral implications of their work;
- The Protocols would have their own regulatory bodies (see subsection 6.11), the composition of which would reflect the different participation in each Protocol;
- Since there would be already be a fairly heavy institutional machinery in the framework instrument, it would be imperative to have a dedicated secretariat to service the members and the numerous bodies operating under the framework instrument and its Annexes and Protocols; and
- As noted above, there would also be an obligation for the Arctic Council and its sub-bodies to revise the institutional structure on regular basis, which would further enhance its adaptability to changing circumstances. A major revision³⁷ of the institutional structure should be carried out when the Protocol commissions commence their functioning (which can take quite some time), given that further co-ordination between all the bodies established by the framework instrument, Annexes and Protocols will then be needed.

6.8. Mandate and decision-making

The Arctic Council’s mandate would also change from what it is now, for the reason that it would become a more operational body aimed at responding to the challenges confronting the region in change. Therefore, its mandate – which would be focused on providing strategic guidance rather than on regulation – could be defined as “any common issue facing the marine Arctic”.

The Arctic Council would be empowered to adopt non-legally binding decisions (recommendations) and – if desirable – legally binding decisions (resolutions)³⁸ for several strictly defined purposes. Decision-making would be based on consensus or give a preferential role to arctic states or Arctic Ocean coastal states. As are the rules now in the Arctic Council, permanent participants would need to be consulted before any decision-making by the members. This is not a right of veto but only a check that members take the

37 For instance by means of a review conference, see subsection 6.9.

38 This would require provisions stipulating how these legally binding decisions enter into force, whether there is a need for ratification, etc. Voting rules would need to be created also in cases when REIOs act or their members.

concerns of permanent participants seriously. Observers would be entitled to speak in the ministerial meeting, and receive non-confidential material.

Whereas the Annex committees would have an advisory function to the Arctic Council, the Protocol commissions would not be strictly subordinate to the Arctic Council. Annex committees as well as – later – Protocol commissions would all report annually to the ministerial.

6.9. Other and final provisions

The Draft PSM Agreement³⁹ has been used as the primary source of inspiration for this subsection. Accordingly, the framework instrument could contain the following other and final provisions:

- Annexes, which shall form an integral part of the framework instrument;
- Protocols;
- A mechanism for the peaceful settlement of disputes. In view of the broad scope of the framework instrument it seems opportune to aim for a provision that merely emphasizes the need for peaceful means of dispute settlement with a first step of consultations and subsequently consensual submission to a court or tribunal charged to provide for legally binding rulings. Compulsory dispute settlement – whereby a party to the dispute can institute proceedings without the consent of the other party or parties – is not likely to achieve the necessary support;
- A review conference, which would look at the performance of the instrument and the institutional set-up, perhaps soon after the commissions established by the three envisaged Protocols have become operational;
- Signature, which shall be possible for any state or REIO that participated in the negotiation process;
- Ratification, acceptance or approval (for the signatories);
- Accession (for other than signatories);
- REIOs, specifying particular issues on REIOs and their members;
- Entry into force, which should require as a minimum all current Arctic Council members. The instrument of ratification, acceptance, approval or accession of the EC shall not be counted as additional to those of its Member States;
- Reservations, which would not be allowed;
- Declarations and statements, which would be allowed;
- Provisional application, which would be allowed;
- Amendments;
- Withdrawal, which would be allowed;
- Depositary (United Nations); and
- Authentic texts (e.g. English and Russian).

6.10. Annexes

The following are suggestions for Annexes to the framework instrument:

- Annex I ‘Monitoring and Assessment’;
- Annex II ‘Environmental Impact Assessments and Strategic Impact Assessments’;
- Annex III ‘Marine Protected Areas’; and
- Annex IV ‘Integrated, cross-sectoral ecosystem-based ocean management’.

As already noted above, each Annex would establish its own body (committee). The body established under Annex I is intended to be the new home of the AMAP working group and could be named ‘Arctic Monitoring and Assessment Committee’ (AMAC). In view of the tasks with which these committees are charged, it seems inevitable for them

³⁹ See note 5 supra.

to determine the spatial scope of their mandate in general or for specific tasks or projects. For example, the committee established pursuant to Annex III may at some stage have to define the southernmost boundary of the Arctic network of MPAs.

It may also be desirable to reflect the different rights, interests and obligations of states in the structure, participation or decision-making of the Annex committees. For some committees – for instance the committee dealing with EIAs and SEAs – this could be done by establishing two branches or working groups; one with a mandate over areas within national jurisdiction and the other over areas beyond national jurisdiction. Participation in the first branch could then be limited to Arctic Ocean coastal states or allow some participation by other states or REIOs as well, for instance on a rotating basis. Provision for broader participation could be accompanied by tailor-made rules on decision-making.

6.11. Protocols

As explained in subsection 6.6, the framework instrument would contain an obligation to commence negotiation processes for Protocols on the governance and regulation of fisheries, shipping and offshore hydrocarbon activities and, possibly, other human activities. This would be complemented by prescriptions on the issues of participation and the safety net(s).

The Protocols should contain (an) objective(s) and general principles which are likely to be more specific – due to the focus on regulation – but still have to be consistent with those of the framework instrument. As already argued above, the spatial scope of each Protocol has to be clearly defined but does not have to be identical to that of other Protocols or of the framework instrument.⁴⁰

In order to effectively pursue their regulatory objectives, the Protocols will establish regulatory bodies (commissions) with the power to impose legally binding obligations on their members. While the competence of the bodies will have to be clearly delimited vis-à-vis the competence of the Arctic Council and other competent international organizations (see further below), the bodies will not be strictly subordinate to the Arctic Council.

Many of the final provisions of the Protocols would be more or less identical to those of the framework instrument (see subsection 6.9), but some not. For instance, the right to participate in the negotiation process of a Protocol or to become a contracting party thereto is not necessarily granted to any state or REIO for each Protocol. This is particularly obvious for the Protocol on offshore hydrocarbon activities. The spatial scopes and core elements of the Protocols on fisheries and shipping would largely determine the scope of participation. Furthermore, the provisions on entry into force and amendments should be tailored to the issue of participation.

As regards the Protocol on shipping, a few observations are warranted in light of the existence of competent international organizations, most importantly the International Maritime Organization (IMO). The substance of the Protocol on shipping should take account of IMO's primacy in the regulation of shipping for purposes that are within its mandate, as well as of the extent to which this mandate has been utilized so far. The extensive list of options in subsection 4.3 of the *Options for Addressing Identified Gaps* report acknowledges this and distinguishes in part between various capacities in which a state can act, e.g. as a coastal, port or flag state. Accordingly, the Protocol on shipping could focus on the following issues:

- monitoring, contingency planning and preparedness for pollution incidents, as well as on search and rescue, including by designating places of refuge;
- enforcement and compliance; and
- more stringent standards for vessels flying the flag of contracting parties to the Protocol.

⁴⁰ In case the framework instrument contains a definition of the spatial scope (see subsection 6.5). If it does, the spatial scope of a Protocol should logically not extend beyond the spatial scope of the framework instrument.

Appendix I: Objectives and principles of selected international instruments

Instrument	Objective(s)	Principles
Antarctic Treaty	<p>No provision that bears that title, but:</p> <ul style="list-style-type: none"> • “Antarctica shall be used for peaceful purposes only” (Art. I(1)) • “Freedom of scientific investigation in Antarctica and cooperation toward that end” (Art. II(1)) 	None
Environmental Protocol to the Antarctic Treaty	<p>“the comprehensive protection of the Antarctic environment and dependent and associated ecosystems” (Art. 2)</p>	<p>“The protection of the Antarctic environment and dependent and associated ecosystems and the intrinsic value of Antarctica, including its wilderness and aesthetic values and its value as an area for the conduct of scientific research, in particular research essential to understanding the global environment, shall be fundamental considerations in the planning and conduct of all activities in the Antarctic Treaty area” (Art. 3(1)). This is operationalized in paragraphs (2), (3) and (4).</p>
1995 Barcelona Convention	<p>No provision that bears that title, but:</p> <p>“to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment in that Area so as to contribute towards its sustainable development” (Art.4(1))</p>	<p>“In order to protect the environment and contribute to the sustainable development of the Mediterranean Sea Area, the Contracting Parties shall:</p> <p>(a) apply, in accordance with their capabilities, the precautionary principle, by virtue of which where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation;</p> <p>(b) apply the polluter pays principle, by virtue of which the costs of pollution prevention, control and reduction measures are to be borne by the polluter, with due regard to the public interest;</p> <p>(c) undertake environmental impact assessment for proposed activities that are likely to cause a significant adverse impact on the marine environment and are subject to an authorization by competent national authorities;</p> <p>(d) promote cooperation between and among States in environmental impact assessment procedures related to activities under their jurisdiction or control which are likely to have a significant adverse effect on the marine environment of other States or areas beyond the limits of national jurisdiction, on the basis of notification, exchange of information and consultation;</p> <p>(e) commit themselves to promote the integrated management of the coastal zones, taking into account the protection of areas of ecological and landscape interest and the rational use of natural resources” (Art. 4(3)).</p>

Instrument	Objective(s)	Principles
OSPAR Convention	<p>No provision that bears that title, but:</p> <ul style="list-style-type: none"> • “to protect the maritime area against the adverse effects of human activities so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected”(Art.2(1)(a)) • “to protect and conserve the ecosystems and the biological diversity of the maritime area which are, or could be, affected as a result of human activities, and to restore, where practicable, marine areas which have been adversely affected, in accordance with the provisions of the Convention, including Annex V and Appendix 3” (OSPAR Agreement 2003–21, Chapter I, para. 1.1). 	<ul style="list-style-type: none"> • “The Contracting Parties shall apply: • (a) the precautionary principle, by virtue of which preventive measures are to be taken when there are reasonable grounds for concern that substances or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a causal relationship between the inputs and the effects; • (b) the polluter pays principle, by virtue of which the costs of pollution prevention, control and reduction measures are to be borne by the polluter” (Art. 2(2)). • “best available techniques”, “best environmental practice” “including, where appropriate, clean technology” (Art. 2(3)(b)) • the ‘ecosystem approach’, defined as “The comprehensive integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity” (Statement on the Ecosystem Approach to the Management of Human Activities (Joint Meeting of the Helsinki & OSPAR Commissions 2003, Record of the Meeting, Annex 5), para. 5).
CCAMLR Convention	<p>“The objective of this Convention is the conservation of Antarctic marine living resources” (Art. II(1)) and “For the purposes of this Convention, the term ‘conservation’ includes rational use” (Art. II(2)).</p>	<p>“Any harvesting and associated activities in the area to which this Convention applies shall be conducted in accordance with the provisions of this Convention and with the following principles of conservation:</p> <ul style="list-style-type: none"> (a) prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment; (b) maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in sub-paragraph (a) above; and (c) prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources” (Art. II(3))

Instrument	Objective(s)	Principles
Fish Stocks Agreement	<p>“The objective of this Agreement is to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention” (Art. 2).</p>	<p>“In order to conserve and manage straddling fish stocks and highly migratory fish stocks, coastal States and States fishing on the high seas shall, in giving effect to their duty to cooperate in accordance with the Convention:</p> <ul style="list-style-type: none"> (a) adopt measures to ensure long-term sustainability of straddling fish stocks and highly migratory fish stocks and promote the objective of their optimum utilization; (b) ensure that such measures are based on the best scientific evidence available and are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States, and taking into account fishing patterns, the interdependence of stocks and any generally recommended international minimum standards, whether subregional, regional or global; (c) apply the precautionary approach in accordance with article 6; (d) assess the impacts of fishing, other human activities and environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks; (e) adopt, where necessary, conservation and management measures for species belonging to the same ecosystem or associated with or dependent upon the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened; (f) minimize pollution, waste, discards, catch by lost or abandoned gear, catch of non-target species, both fish and non-fish species, (hereinafter referred to as non-target species) and impacts on associated or dependent species, in particular endangered species, through measures including, to the extent practicable, the development and use of selective, environmentally safe and cost-effective fishing gear and techniques; (g) protect biodiversity in the marine environment; (h) take measures to prevent or eliminate overfishing and excess fishing capacity and to ensure that levels of fishing effort do not exceed those commensurate with the sustainable use of fishery resources; (i) take into account the interests of artisanal and subsistence fishers; (j) collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort, as set out in Annex I, as well as information from national and international research programmes; (k) promote and conduct scientific research and develop appropriate technologies in support of fishery conservation and management; and (l) implement and enforce conservation and management measures through effective monitoring, control and surveillance” (Art. 5).

Instrument	Objective(s)	Principles
2007 NAFO Convention	“The objective of this Convention is to ensure the long term conservation and sustainable use of the fishery resources in the Convention Area and, in so doing, to safeguard the marine ecosystems in which these resources are found” (Art. II).	Art. III contains various principles that shall be applied in giving effect to the objectives of the Convention. These are clearly inspired by Article 5 of the Fish Stocks Agreement and include the obligation to apply the precautionary approach, the need to preserve marine biological diversity and to take account of a broad range of ecosystem considerations.
NEAFC Convention	“The objective of this Convention is to ensure the long-term conservation and optimum utilisation of the fishery resources in the Convention Area, providing sustainable economic, environmental and social benefits” (Art. 2)	“When making recommendations in accordance with Article 5 or 6 of this Convention the Commission shall in particular: a) ensure that such recommendations are based on the best scientific evidence available; b) apply the precautionary approach; c) take due account of the impact of fisheries on other species and marine ecosystems, and in doing so adopt, where necessary, conservation and management measures that address the need to minimise harmful impacts on living marine resources and marine ecosystems; and d) take due account of the need to conserve marine biological diversity” (Art. 4(2))

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