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Introduction to the background papers

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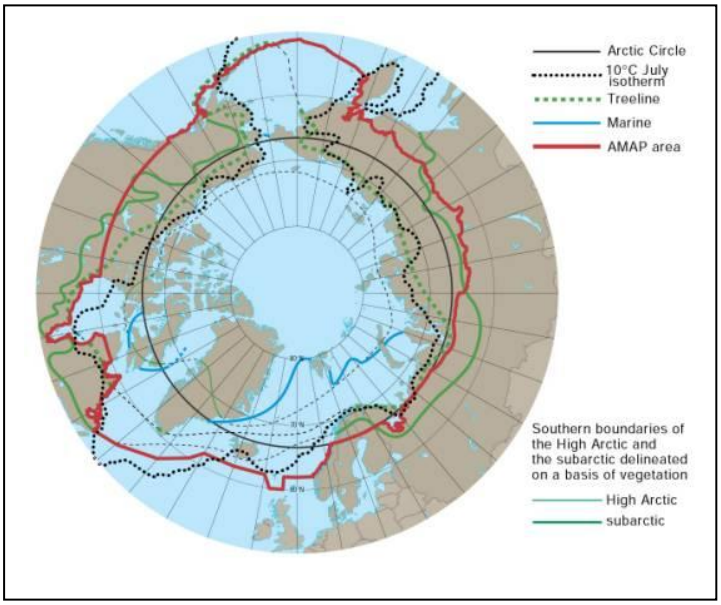
This Introduction to the background papers contains separate sections on the spatial scope of the background papers (section 1), the consequences of climate change for the marine environment and marine biodiversity in the Arctic marine area (section 2), the law of the sea in the Arctic marine area (section 3) and the Arctic Council (section 4).

1. SPATIAL SCOPE

As there is no generally accepted definition of the Arctic or the marine Arctic, the spatial scope of the background papers has been determined as the marine areas included within the 'AMAP area', as agreed by the Arctic Monitoring and Assessment Programme (AMAP) of the Arctic Council (see Figure 1). These are the marine areas north of the Arctic Circle (66°32'N), and north of 62°N in Asia and 60°N in North America, modified to include the marine areas north of the Aleutian chain, Hudson Bay, and parts of the North Atlantic Ocean including the Labrador Sea. For the purpose of this introduction and the background papers, these marine areas are referred to as the 'Arctic marine area'.

Figure 1: Arctic Monitoring and Assessment Programme (AMAP) boundary



Source: <www.amap.no>.

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, namely Canada, Denmark (in relation to Greenland), Norway, the Russian Federation and the United States.[1]

[1] This can for instance be deduced from the Ilulissat Declaration of 28 May 2008 (available at <arctic-council.org>).

2. CONSEQUENCES OF CLIMATE CHANGE FOR THE MARINE ENVIRONMENT AND MARINE BIODIVERSITY IN THE ARCTIC MARINE AREA

2.1. Arctic marine environment

The Arctic marine environment described in this section and the background paper on environmental governance is included within the AMAP boundary. However, it is important to note that the marine environment is not entirely distinct from the terrestrial environment as marine mammals, seabirds and humans are dependent on both for their survival.[2] Nearly half of the Arctic Ocean is currently covered by a permanent ice cap, which grows and shrinks seasonally with maximum cover in March and minimum cover in September. Summer sea ice extent has been declining over the past 50 years at an average of 8% per decade[3] and on 15 September 2007, the Arctic ice cap was 22% below the last record set in 2005.[4] This 2007 record exceeded the computer model predictions used to prepare the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4) in 2007.[5]

2.2. Arctic marine ecosystems

Arctic marine ecosystems support species well-adapted to extreme conditions, such as short growing seasons, low light availability and cold temperatures. Biodiversity is clustered in areas of higher productivity with warmer waters (especially the Barents and Chukchi Seas and the Bering Shelf, which host migratory seabirds, marine mammals and some of the most important fisheries in the world).[6] The Arctic marine food web has a relatively simple structure, based on primary production of algae that is consumed by zooplankton, which is first eaten by fish and then consumed by seabirds and mammals (including humans). Although the structure is relatively simple, it is highly dependent on timing of predator-prey relationships (e.g. algal blooms are sensitive to temperature and sea ice retreat, with implications for the entire food web).[7]

Sea ice is the dominant feature in the Arctic marine area. It determines physical properties, such as exchange of heat between the atmosphere and ocean, and light availability, and provides unique habitat for Arctic species.[8] Sympagic organisms live on or immediately below sea ice and are primary and secondary species dependent on sea ice, with thicker sea ice supporting more complex sympagic communities. They support pelagic ecosystems in the water column in the open ocean as well as benthic ecosystems on the ocean floor. Polar

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2 ACIA, 2005, p. 623.

3 Stroeve, J., M. Holland, W. Meier, T. Scambos and M. Serreze, 2007, p. 1.

4 National Snow and Ice Data Center: http://nsidc.org/news/press/2007_seaiceminimum/20071001_pressrelease.html (Viewed 27.03.2008).

5 National Center for Atmospheric Research. http://www.ucar.edu/news/releases/2007/seaice.shtml (Viewed 27.03.2008).

6 ACIA, 2005, p. 481.

7 ACIA, 2005, p. 495.

8 ACIA, 2005, p. 456.

cod, which provide a key link between zooplankton and marine mammals, live in both sea ice and pelagic environments. Nesting seabirds also feed on polar cod in addition to other small fish and zooplankton at the ice edge. Marine mammals, such as the polar bear, walrus, seals, and whales depend on the sea ice for food and survival.

2.3. Impacts of climate change

The direct effects of climate change, as well as secondary effects from the increased use of Arctic marine resources will significantly impact these marine systems. Arctic fish stocks are already threatened by over-fishing. Pollution from industrial activities both inside and outside the Arctic area also significantly threatens the marine ecosystem. The secondary effects of climate change will add stress on the Arctic marine area in this context. Their specific impact on marine ecosystems is summarised below.

Direct impacts of climate change

As stated in the IPCC AR4 (2007), the climate change impacts in the polar regions over the next 100 years "will exceed the impacts for many other regions and will produce feedbacks that will have globally significant consequences". However, the detailed nature and extent of these impacts are very difficult to predict.[9] All models predict general warming in the Arctic with temperature increases ranging from about 2°C to 9°C by 2100. However, the seasonality and spatial distribution of precipitation vary among models.[10] As sea ice melts, reduction in albedo will likely create a positive feedback effect leading to further global warming.[11]

Reduction in sea ice extent, especially during the summer, will rapidly alter the quality of the entire sea ice ecosystem and is expected to impact the entire Arctic marine food web.[12] As the sea ice moves further north, ice-dependent species are expected to follow the ice edge; however, their abundance is expected to decline due to rapid shifts in the marine conditions and ultimately, there is a limit to how far north these species can survive.[13] For example, in the southern Hudson Bay region, poor health and a decline in the number of cubs has already been observed in polar bear populations.[14] However, it is important to note that some species, especially commercial fish (e.g. cod and herring in the North Atlantic and walleye pollock in the Bering Sea), are expected to benefit from increases of open water leading to increased productivity.[15] Figure 2 below shows the ACIA's summary of the expected changes to distribution, production and composition for each trophic level.

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9 IPCC, 2007, p. 655.

10 IPCC, 2007, p. 662.

11 IPCC, 2007, p. 661.

12 ACIA, 2005, p. 480.

13 ACIA, 2005, p. 509.

14 IPCC, 2007, p. 669.

15 IPCC, 2007, p. 669.

Indirect impacts: offshore hydrocarbon exploitation

Threats from offshore hydrocarbon exploitation to the Arctic marine area are related primarily to potential oil spills. Offshore hydrocarbon activities are focused in the Barents and Beaufort Seas[16] and recently the United States has sold leases for the Chukchi Sea. Oil spills can occur during oil extraction, storage or transportation from sub-sea exploration or production and poorly maintained infrastructure in sub-sea pipelines. So far, there have been no major oil spills in the Arctic. However, should this happen - especially during winter months - it will be very difficult to clean up because although the ice contains the oil, there are no effective removal methods in remote icy conditions. Furthermore, natural recovery is slower due to shorter growing seasons and slower growth rates.[17]

Figure 2: Predicted changes to the Arctic food web as a result of climate change[18]

	Phytoplankton	Zooplankton	Benthos	Fish	Marine mammals and seabirds
Distribution	Increased spatial extent of areas of high primary production in the central Arctic Ocean.	Southern limit of distribution for colder water species to move northward. Distribution of more southerly species to move northward.	Southern limit of distribution for colder water species to move northward. Distribution of more southerly species to move northward.	Southern limit of distribution for colder water species to move northward. Distribution of more southerly species to move northward. Timing and location of spawning and feeding migrations to alter.	Poleward shift in species distributions.
Production	Increased production in central Arctic Ocean, and Barents and Bering Sea shelves.	Difficult to predict, will depend on the timing of phytoplankton production and seawater temperatures.	Difficult to predict, will partly depend on the degree of match/mismatch between phytoplankton/zooplankton production and on water temperature. Production by shrimp and crab species may decline.	Wind-driven advection patterns of larvae may be critical as well as a match/mismatch in the timing of zooplankton production and fish larval production.	Dramatic declines in production by ice-associated marine mammals and increases by more temperate species. Seabird production likely to be mediated through forage availability, which is unpredictable.
Species composition/ diversity	Dependent on mixing depth: shallow mixing favors diatoms, intermediate depth mixing favors *Phaeocystis*, deep mixing may favor nanoflagellates.	Adaptable arctic copepods, such as *Calanus glacialis*, may be favored.	Cold-water species may decline in abundance along with some clams and crustaceans, while warm water polychaetes, blue mussel (*Mytilus edulis*), and other types of benthos may increase.	Cod, herring, walleye pollock, and some flatfish are likely to move northward and become more abundant, while capelin, polar cod, and Greenland halibut will have a restricted range and decline in abundance.	Declines in polar bear, and in ringed, harp, hooded, spotted, ribbon, and possibly bearded seals. Increased distribution of harbour seals and grey seals. Possible declines in bowhead, narwhal, grey, and beluga whales. Ivory gulls and several small auk species are likely to decline while other changes in bird populations are unpredictable.

Source: Reproduced from ACIA, 2005, p. 504.

Indirect impacts: shipping

Reduction in sea ice will allow increased shipping within the Arctic marine area, both across the historically inaccessible Northwest Passage - which was for the first time in history

16 Millennium Ecosystem Assessment, 2005, p. 729.

17 AMAP, 1998, p. 661.

18 Timeline is unpredictable.

navigable in 2007[19] - and the seasonally accessible Northern Sea Route, as well as in the regional waters surrounding Arctic countries. Shipping is expected to negatively impact migratory marine mammals that also use these routes, as well as increase the risk of oil spills.[20] The Arctic Marine Shipping Assessment (AMSA) will provide baseline data for current levels of marine use as well as future scenarios for 2020 and 2050 as well as environmental, social and economic impacts for current and future scenarios.[21]

Indirect impacts: commercial fisheries

Arctic fisheries are threatened by overfishing. Approximately 40% of the United States' commercial fisheries by weight is from the Bering Sea and approximately 50% of the fish consumed in the European Union is from the European Arctic.[22] Over half of the Northeast Atlantic regional stocks of cod, haddock, whiting and saithe are threatened with collapse.[23] However, moderate temperature increases are likely to benefit some commercial fish stocks that are currently threatened as well as increase habitat for some species (e.g. cod and herring).[24] The net effect on fish stocks and commercial fisheries is uncertain, since the management of fisheries and the adaptation of management structures will play a significant role as the effects of climate change continue to emerge.[25]

Indirect impacts: contaminants

Contaminants arrive in the Arctic area from around the globe primarily through air pollution. Persistent organic pollutants (POPs) are produced and volatilise in warmer climates and spread to the Arctic area through wind, water and migratory species to polar regions. POPs bio-accumulate in the Arctic marine food web, including humans, and further melting could release the POPs now locked in sea ice directly into the food chain.[26] Radioactive particles from nuclear explosions have decreased since the end of atmospheric testing in 1963, however, there is concern that without a nuclear-weapon-free zone agreement the Arctic could be threatened by nuclear dumping and the expansion of nuclear activities in the Barents Sea region.[27]

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19 European Space Agency: http://www.esa.int/esaCP/SEMYTC13J6F_index_0.html (Viewed 28.03.2008).

20 ACIA, 2005, pp. 84-85

21 Arctic Marine Shipping Assessment Progress Report 2006. PAME. p. 11.

22 European Environment Agency, 2003, p. 20.

23 Millennium Ecosystem Assessment, 2005, 730.

24 IPCC, 2007, p. 669.

25 ACIA, 2005, pp. 692 and 770.

26 ACIA, 2005, p. 947.

27 ADHR, 2004, p. 219.

3. LAW OF THE SEA IN THE ARCTIC MARINE AREA

The Arctic marine area to which this introduction and the background papers apply is geographically covered in its entirety by the current international law of the sea. The cornerstones of the current international law of the sea are the LOS Convention[28] and its two implementation agreements, the Part XI Deep-Sea Mining Agreement[29] and the Fish Stocks Agreement[30]. 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. The LOS Convention currently has 156 parties, the Part XI Deep-Sea Mining Agreement 133 parties and the Fish Stocks Agreement 71 parties. All eight Arctic States (Canada, Denmark (in relation to Greenland and the Faeroe Islands), Finland, Iceland, Norway, the Russian Federation, Sweden and the United 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.[31] 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) and Iceland and Norway are parties to the EEA Agreement[32].

The most basic distinction between marine areas made by the LOS Convention is between the maritime zones of coastal States - also referred to as "areas within national jurisdiction" - and the commons seaward thereof - also referred to as "areas beyond national jurisdiction". The maritime zones of coastal States can consist of: internal waters, archipelagic waters, territorial sea, contiguous zone, exclusive economic zone (EEZ) and continental shelf. As will become clearer below, the EEZ includes the continental shelf but in some cases there is also an 'outer' continental shelf that extends seaward of the EEZ. The two marine commons are the high seas - usually seaward of the EEZ (where established) - and the so-called 'Area' - seaward of the EEZ or outer continental shelf. The Area is defined as "the sea-bed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction".[33]

The outer limits of the maritime zones of coastal States are measured from baselines drawn in accordance with several provisions of the LOS Convention. The normal baseline is the low-water line along the coast.[34] It should be noted here that sea-level rise will in many situations mean that new baselines will have to be drawn landward of the older ones and, as

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28 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>).

29 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>.

30 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>.

31 Information obtained from <www.un.org/Depts/los> on 27 August 2008.

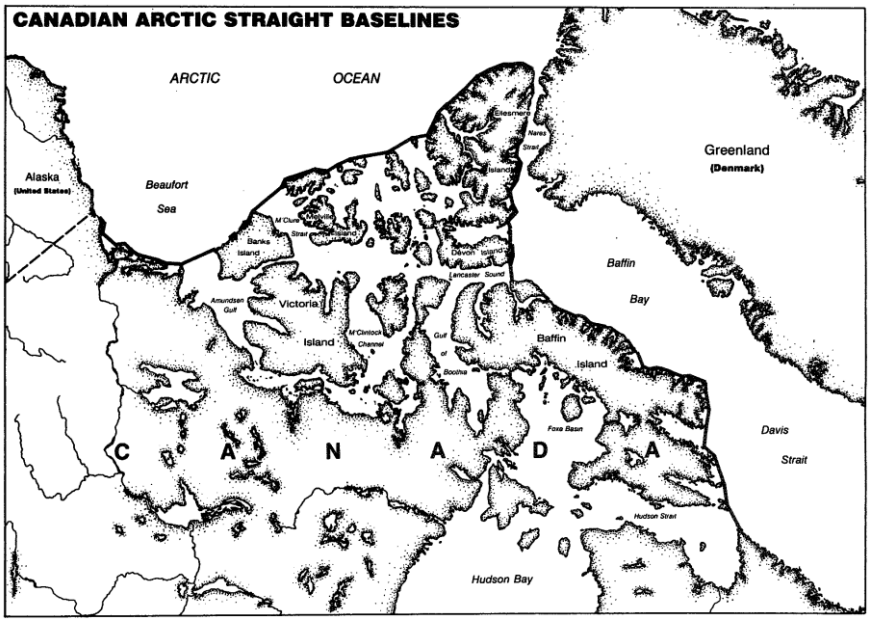
32 Agreement on the European Economic Area, Brussels, 17 March 1993. In force 1 January 1994; <www.efta.int>.

33 Art. 1(1)(1) of the LOS Convention.

34 *Inter alia* Arts 5-7 and 9-14 of the LOS Convention.

a consequence, the high seas and the Area will increase in size. In certain situations, the LOS Convention also allows coastal States to draw straight baselines. However, the straight baselines drawn by Canada around its Arctic islands (see Figure 2) are regarded by the United States and EU Member States as inconsistent with international law.[35]

Figure 2: Canadian Arctic Straight Baselines

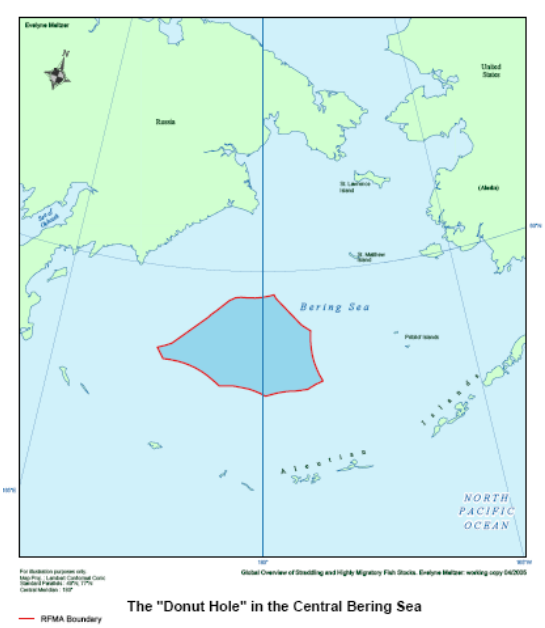


Source: Roach and Smith, note 35 supra, at p. 119.

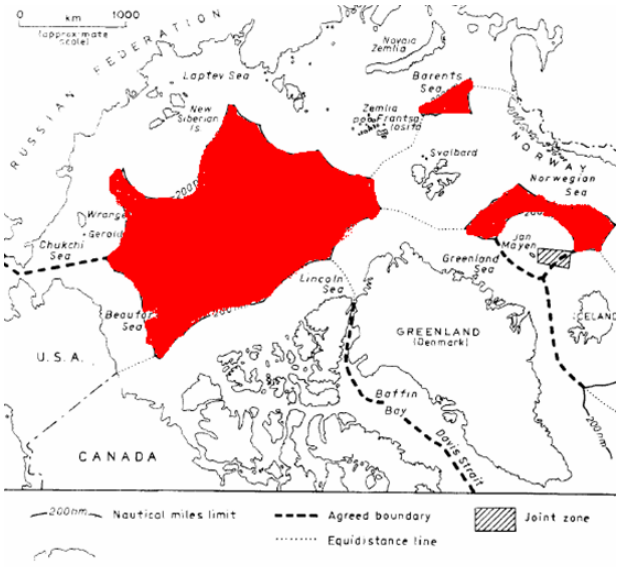
Internal waters lie landward of the baselines. The maximum breadth of the territorial sea is 12 nautical miles (nm; 1 nm = 1,852 meters) measured from the baselines, 24 nm the maximum breadth for the contiguous zone and 200 nm for the EEZ. However, in many geographical settings these maximum breadths 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. In addition, Figure 3 shows the existence of four high seas pockets (enclaves) in the Arctic marine 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. Finally, the only dispute on title to territory (sovereignty) that exists in the Arctic marine area is that between Canada and Denmark relating to Hans Island, situated in the Kennedy Channel between Greenland and Ellesmere Island.

[35] See J.A. Roach and R.W. Smith, *United States Responses to Excessive Maritime Claims* (The Hague/Boston/London, Martinus Nijhoff Publishers: 1996 (2nd ed.)), at pp. 117-121.

Figure 3: High seas pockets in the Arctic marine area



The "Donut Hole" in the Central Bering Sea



Source: Adapted from *The Law of the Sea and Polar Maritime Delimitation and Jurisdiction* A.G. Oude Elferink and D.R. Rothwell (eds), at p. 180

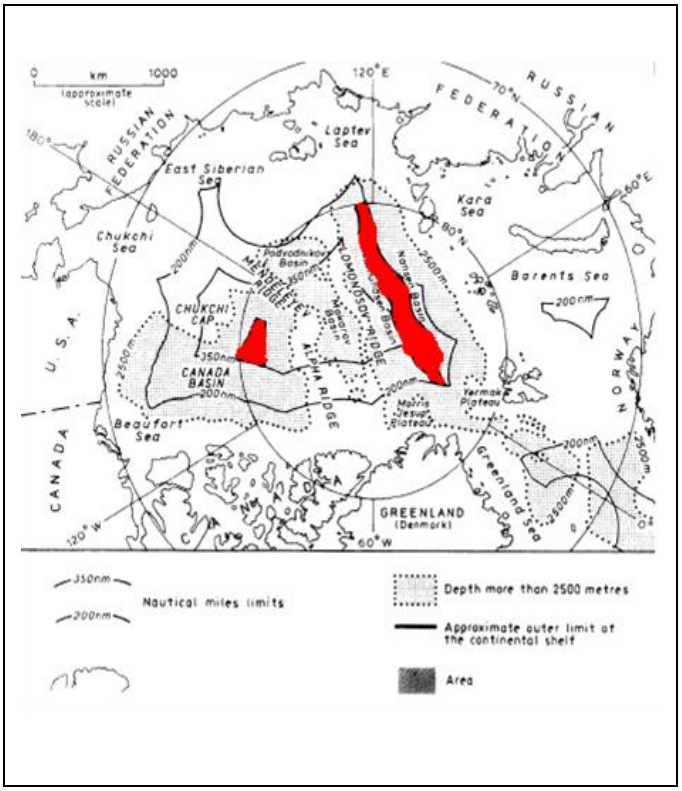
Article 76 of the LOS Convention also recognizes that in certain circumstances the continental shelf extends beyond 200 nm from the baselines. This is the so-called 'outer continental shelf'. Coastal States that take the view that they have an outer continental shelf, must submit information on its outer 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".[36] 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 a recommendation in relation to the submission of the Russian Federation. The CLCS essentially recommended the Russian Federation to make a revised submission. 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.[37] It should be noted that it is likely

[36] Art. 76(8) of the LOS Convention.

[37] Cf. Art. 4 of Annex II to the LOS Convention.

that there will be two pockets of the Area in the sea-bed of the Arctic marine area.[38] These are shown in Figure 4.

Figure 4: Pockets of the Area in the Arctic marine area



Source: Adapted from *The Law of the Sea and Polar Maritime Delimitation and Jurisdiction*, A.G. Oude Elferink and D.R. Rothwell (eds), at p. 150.

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".[39]

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[38] There may also be a pocket of the Area in the central Bering Sea.

[39] Art. 58(1) of the LOS Convention.

The Treaty of Spitsbergen[40] 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.[41]

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.[42] 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.[43] There is currently a heated debate between States as to whether bioprospecting for marine genetic resources in the Area is governed by the regime of the high seas or by the regime of the common heritage of mankind.[44]

Finally, it should be recalled that at the outset of this section it was stated that the entire Arctic marine area is covered by the LOS Convention and its two implementation agreements. This is also emphasized by the five Arctic Ocean coastal states in the 2008 Ilulissat Declaration.[45] 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".[46] Conversely, they recognize the need for "appropriate measures" as a consequence of "developments in the Arctic Ocean".[47] 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 holistic, integrated or cross-sectoral governance or management.

It is submitted that 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

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

41 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>).

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

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

44 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.

45 See note 1 supra.

46 Ibid.

47 Ibid.

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.

It should be noted, however, that large parts of 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 remains, however, 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 interests of the international community.

4. ARCTIC COUNCIL

The first stage of Arctic-wide co-operation started with the 1991 Arctic Environmental Protection Strategy (AEPS), which was adopted in Rovaniemi by the eight Arctic States.[48] In the Strategy, six high-priority environmental problems facing the Arctic were first identified (persistent organic contaminants, radioactivity, heavy metals, noise, acidification and oil pollution) as well as international environmental protection treaties that apply in the region, and, finally, specific actions to counter the threats were laid out. Interestingly, the Strategy stated that "The implementation of the Strategy will be carried out through national legislation and in accordance with international law, including customary international law as reflected in the [LOS Convention]".[49] As part of the environmental protection action by the eight Arctic States, four environmental protection working-groups were established: 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). Three ministerial meetings (following the signing of the Declaration and the Strategy) were held in this first phase of Arctic co-operation, generally referred to as 'AEPS co-operation'.[50]

The establishment of the Arctic Council[51] in 1996 broadened the mandate of the co-operation to all common issues facing the Arctic (excluding matters related to military security), especially those relating to environmental protection and sustainable development. The four environmental protection working-groups of the Strategy were integrated into the structure of the Council, and one new working-group was established (the Sustainable Development

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48 See Arctic Environmental Protection Strategy, at: http://arctic-council.npolar.no/Archives/AEPS%20Docs/artic_environment.pdf (viewed: 22.05.2008).

49 See Strategy, chapter 1, Introduction, pp. 7-8 at http://arctic-council.org/filearchive/artic_environment.pdf

50 For a recent 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. 124-128.

51 Arctic Council was established to enhance Arctic cooperation among the eight Arctic States. All eight Arctic States are members of Arctic Council. The formal Agreement was concluded through Ottawa Declaration in 1996. See Arctic Council web site at: http://arctic-council.org/article/about (22.05.2006).

Working-Group (SDWG)). In the absence of a permanent secretariat, the work of the Arctic Council is heavily influenced by the priorities that the chair-State lays out for its two-year chair period, at the end of which a ministerial meeting is organized. Senior Arctic Officials (SAO), a group of high-level officials, guides the work of the Council in between the ministerial meetings. The Arctic Council has also adopted new programmes related to environmental protection, such as the Arctic Council Action Plan to Eliminate Pollution in the Arctic (ACAP), which was recently turned into a sixth working-group,[52] and has commissioned the ACIA. One unique aspect in 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 organizations 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 member States 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.[53]

The Arctic Council is engaged in various kinds of activities related to the Arctic marine area, especially through its AMAP and PAME working-groups, but to some extent also CAFF has marine projects. The main driver in the Council's marine policy is PAME's Arctic Marine Strategic Plan (AMSP), which urges actions on many fronts. 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: conducting a comprehensive assessment of Arctic marine shipping, which has lead to the Arctic Marine Shipping Assessment (AMSA) to be finalized within 2008; developing guidelines and procedures for port reception facilities for ship-generated wastes and residues; examining the adequacy of Arctic Council's Offshore Oil & Gas Guidelines; 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. PAME also regularly reviews the Arctic Shipping Guidelines[54] adopted within the International Maritime Organization (IMO). Interesting will also be Arctic Biodiversity Assessment due to be finalized 2010, which definitely will play a role in evaluating the effectiveness of conservation policies by determining whether the desired effect is being achieved.[55]

The Arctic Council is an inter-governmental forum established by a declaration (the Ottawa Declaration 1996). The decisions of the Council are although legally nonbinding, they provide strong collaborative contribution to Arctic research and governance. The most the Arctic Council can do from the governance perspective is to issue policy recommendations (such

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52 It was re-titled the Arctic Contaminants Action Program.

53 For an analysis, see Koivurova and VanderZwaag, note 50 supra, at pp. 128-159.

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

55 See Conservation of Arctic Flora and Fauna (CAFF) at: http://arcticportal.org/caff/circumpolar-biodiversity-monitoring-program-cbmp/2010-arctic-biodiversity-assessment (viewed: 22.05.2008).

as the one related to ACIA) and adopt guidelines and recommendations on how the Arctic States should operate in certain field of activity. However, the LOS Convention is a legally binding treaty and the various guidelines produced in the Arctic Council complement each other, as the latter are legally non-binding but can induce useful practices specifically tailored to Arctic conditions if Arctic states are willing to follow these.

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