



ESaTDOR

European Seas and Territorial Development, Opportunities and Risks

ANNEX 8 to the Scientific Report

Governance Case Studies: Arctic Ocean

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ANNEX 8: Arctic Ocean Governance Case Studies

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The purpose of the maritime governance case studies within the ESaTDOR project is to provide a more in depth assessment of the governance experience of different maritime and coastal regions. More specifically, case studies have been chosen on the basis that they are examples of transnational governance (either bilateral or multilateral arrangements) in order to investigate the following issues:

- Management of conflicts in relation to the uses of maritime space,
- The integration of terrestrial (land-based) and marine or maritime spatial planning, and
- The contribution that existing transnational governance arrangements can make to territorial cohesion.

In addition, the evaluation of governance arrangements in each of the case studies is intended to highlight examples of good practice in maritime governance, and provide evidence for further recommendations as to how governance arrangements in different maritime regions can be strengthened, through, for example, Integrated Maritime Policy or the development of further transnational cooperation initiatives.

The case studies were undertaken using a mixture of documentary reviews and interviews with a limited number of key stakeholders. A synthesis of the case study findings for all the regional seas considered in the ESaTDOR project (the Arctic and Atlantic Oceans, and the Baltic, Black, Mediterranean and North Seas) is contained within Chapter 9 of the Scientific Report.

Arctic Ocean Case Study 1: The Northern Dimension and Arctic Council

1 Introduction

The Arctic Ocean is located in the Northern Hemisphere and mostly in the Arctic North Polar Region. There are several global and seas level governance arrangements for the Arctic Ocean. The two most important governance bodies at the regional sea level are *The Northern dimension* and *Arctic Council*. The main objectives of the Northern Dimension, which was drawn up in 1999, are “to provide a common framework for the promotion of dialogue and concrete cooperation, to strengthen stability and well-being, intensify economic cooperation, and promote economic integration, competitiveness and sustainable development in Northern Europe” (http://eeas.europa.eu/north_dim). The Arctic Council formally established in 1996 is “a high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic” (<http://www.arctic-council.org>).

In recent years the governance of the Arctic region has been one of the major issues between the bordering states. The Arctic Ocean is a unique but vulnerable ecosystem and it has large resources which represent both threats and opportunities. The governance of the ocean is also complex since it is an area situated on land of eight Arctic states as well as a large sea area defined as high seas under international law. The contemporary governance scheme of the Arctic region and the different legal and political settings participating in the Arctic governance will be presented in a later section.

Location and environment

The Arctic Ocean is bordered by Greenland, Canada, Alaska, Russia, and Norway. These are the littoral states. Eight countries are regarded as Arctic countries; these are Canada, Denmark with the Faroe Islands and Greenland, Iceland, Norway, Finland, Sweden, the Russian Federation and the United States. The Arctic Ocean is the smallest and shallowest of the world's five major oceans, and it has a total coastline of 45,389 km¹. The average depth of the ocean is app. 1000m/3400 ft, and the very deepest point is in the Eurasian basin – 5450m/17900 ft. According to The Arctic Ocean Review (AOR) Project (<http://www.aor.is/>) there is no agreed definition of the geographical extent of the Arctic. What the AOR project defines as the “Arctic marine environment” comprises an area of 20 million sq km. This includes the central Arctic Ocean, and in addition, the surrounding seas: the Bering Sea, the East Siberian Sea, the Chukchi Sea, the Beaufort Sea, the Davis Strait, Baffin Bay and Labrador Sea, the Greenland Sea, the waters around Iceland and the Faroe Islands, and northern parts of the Norwegian Sea, the Barents Sea, the Kara Sea, and the Laptev Sea. The Arctic marine environment is shown in Map 1.1.

¹ This entry gives the total length of the boundary between the land area (including islands) and the sea. CIA World Fact Book 2010.

Map 1.1: The Arctic marine environment

Source: <http://www.arcticportal.org/>

The Bering Strait connects the Arctic Ocean with the Pacific Ocean and the Greenland Sea is the chief link with the Atlantic Ocean. A sparse network of air, ocean, river, and land routes circumscribes the Arctic Ocean. The greatest inflow of water comes from the Atlantic by way of the Norwegian Current, which then flows along the Eurasian coast. The Arctic Ocean is encircled by shallow shelf waters. In the Northeast Atlantic these include the Barents Sea off Norway's northern coast and the Kola Peninsula in northwest Russia. Progressing eastward and northward from there is: the island of Novaya Zemlya (off Russia's northern coast — with its Eastern shore on the Kara Sea); the Laptev Sea (off Russia's central northern coast), the East Siberian Sea (off Russia's northeast coast), the Chukchi Sea (north of the Bering Straits), Beaufort Sea (north of Alaska and western Canada), and lastly the Lincoln Sea and the Wandel Sea (also known as the McKinley Sea), both of which are north of Greenland.

The Arctic Ocean is divided into two basins, the Eurasian Basin, and the North American Basin, by the Lomonosov Ridge. There are also submarine ridges between the Arctic and Atlantic Oceans. This results in a large stagnant pool of cold water at the bottom of the Arctic Ocean, since land and submarine ridges block water from flowing out. The main current in the Arctic Ocean is the East Greenland current. This current is strong due to the number of rivers that flow into the Arctic Sea, the low rate of evaporation, and the land and submarine ridges surrounding the ocean. Two weak currents flow out of the Arctic Ocean, the Labrador Current which runs through Smith Sound and Baffin Bay, and one that runs out of the Bering Strait. There is also a circular current in the Arctic Basin which is created by water deflecting off of Northern Greenland.

The Arctic Ocean is a unique ecosystem. Major threats to Arctic biodiversity are climate change and overharvesting which is occurring for some species in some sectors of the Arctic. Endangered marine species in the Arctic include walrus and whales. Climate change may have a profound impact on Arctic sea mammals such as polar bears, seals and whales, and sea birds. Furthermore, the Arctic ice pack is thinning, and in many years there is a seasonal hole in the ozone layer. Reduction of the area

of Arctic sea ice reduces the planet's average albedo, possibly resulting in global warming in a positive feedback mechanism. Research shows that the Arctic may become ice free for the first time in human history between 2012 and 2040. The Arctic is a fragile ecosystem slow to change and slow to recover from disruptions or damage, such as the thinning polar icepack. Oceanic circulation systems and rivers draining into the Arctic waters transport a range of toxic substances that originate or volatilize further south, including various persistent organic pollutants (POPs). Low temperatures create an arctic "cold trap", or sink, for some of these POPs, preventing further transport. The main concern surrounding offshore oil and gas activities in the Arctic is the risk of major accidents involving large-scale oil spills, a risk higher than in temperate zones. However, a summary report of long term effects of emissions to the sea from petroleum activities comprising 65 research projects in the period 2002-2011 (NRC 2012)², states that damages from oil discharge may be primarily local and short term. According to the report the Arctic Ocean may not be particularly more vulnerable than other seas further south along the Norwegian coast. This finding is based on studies of the vulnerability of single species and it should be noted that this is only one of the factors that determine if the Arctic ecosystem reacts on emissions in a similar way as temperate ecosystems. Vulnerability is also influenced by emission conditions, climate, ecological seasonal variation and distribution of the stock of species in time and space. The report emphasise the need for more scientific knowledge which can shed light on the significance of such factors for the total ecological vulnerability to oil spillages and other emissions from petroleum activities in the Arctic.

Socio-economic conditions and industrial activities

The Arctic region is sparsely populated, there are no larger cities, long distances between settlements and local employment based on natural resources is limited. Compared with other regions consisting of land and sea, the Arctic remains relatively unexplored. Statistics for the arctic regions in the Nordic countries, USA, Canada and Russia shows that almost 10 million people live in the Arctic. More than 70 per cent of the arctic people lives in the Russian Federation but population density is highest in Northern Norway and northern regions in Finland and Sweden. Canada has the largest share of Indigenous people (67,5 %), life expectancy vary from 68 year in Russia to 81 in Iceland, educational level is highest in Alaska and lowest in Greenland and the Faroe Islands and, income is also highest in Alaska and lowest in Russia, cf. Table 1a.

Arctic communities and Indigenous people in particular rely on marine ecosystems for an important part of their livelihood and wellbeing. Economic activity in the Arctic is limited to the exploitation of natural resources, including petroleum, natural gas, fish, and seals. The opening up of the Arctic will provide access to new reserves of the energy and other natural resources. The US Geological Survey estimates that the Arctic contains up to 30 per cent of the world's undiscovered gas and 13 per cent of the world's undiscovered oil resources. In addition the region contains vast amounts of coal, nickel, copper, tungsten, lead, zinc, gold, silver, diamonds, manganese, chromium and titanium³. Coastal and sea-related recreation and tourism may also be developed further in the future.

² Norwegian Research Council (NRC), (2012), *Langtidsvirkninger av utslipp til sjø fra petroleumsvirksomheten*

³ Gautier, D. et al., 'Assessment of undiscovered oil and gas in the Arctic', *Science*, 29 May 2009. ECON, *Arctic Shipping 2030: From Russia with Oil, Stormy Passage, or Arctic Great Game?*, ECON Report 2007-070 (ECON: Oslo, 2007), p. 4.

Table 1a: socio-economic conditions in Arctic regions

Region	Total population	Population density	Indigenous population Percentage tot.pop.	Youth Percentage 0-14 years	Life expectancy	Education Percentage high educat.	Personal income USD (in PPP)
	1000 pers. 2008	Pers./km2 2008	% 2006	% 2006	Year 2008	% 2006	\$ 2008
Alaska	688	0,46	13,1	21,5	77,1	24,7	40 031
Arctic Canada	108	0,03	67,5	29,1	75,8	15,4	31 535
Greenland %							
Faroe Islands	105	0,25	48,0	23,9	74,0	10,5	16 442
Iceland	319	3,18	-	21,8	81,3	23,5	22367
North-Norway	463	5,49	1,4	19,6	80,2	21,8	18 075
North-Sweden	508	3,30	1,8	15,9	80,8	16,5	17 335
North-Finland	652	4,36	0,2	18,8	78,7	22,1	16 532
North-Russia	7081	0,80	2,0	18,6	67,8	14,2	14 407
Total	9 925	0,67	3,8	19,0	71,0	16,2	17 108

Source: Report to the Storting, St.Meld 7 (2011-2012)

In recent years the polar pack ice has thinned allowing for increased navigation and raising the possibility of future sovereignty and shipping disputes among countries bordering the Arctic Ocean. In 2004, around 6000 vessels had one or more voyages in the Arctic marine area. Half of these were operating on the Great Circle Route between Asia and North America that crosses the Aleutian Islands chain. Almost 50% of the vessels were fishing boats and 20% bulk carriers. Nearly all shipping in the Arctic today is destinational, conducted for re-supply of Arctic communities, marine tourism and moving natural resources like petroleum products and various types of ore out of the Arctic. Nearly all voyages took place in the periphery of the Arctic Ocean with the Barents Sea as the most heavily trafficked area. In the central Arctic Ocean, shipping activity is low (AMSA 2009). With global warming and less sea ice marine shipping is expected to increase in the Arctic. Estimates about when the Arctic Ocean could be consistently ice-free during the summer season vary greatly, from 2013 to 2060⁴. For the near future up to at least 2020, dominating pattern of traffic is expected to be destinational, with marine shipping going to and from Arctic harbours, not trans-Arctic between continents (AMSA 2009). The melting of the Arctic ice has re-stimulated interest in maritime shipping lanes and sea floor exploration but it also poses economic, military and environmental challenges to the governance of the region.

Extensive oil and gas activity has occurred in the Arctic, mainly on land and mostly in Russia. On-land production started in western Siberia in the 1970s, with tanker transport from northern Russia to Europe beginning in 2002. So far Russia has produced about 80% of the oil and 99% of the gas extracted in the Arctic and is expected to be the main Arctic petroleum producer also in the future (AMAP 2008). Canada and Alaska has also done some offshore petroleum production. Norwegian exploration activities in the Norwegian and Barents seas started in the 1980s, production of oil and gas from fields in the Norwegian Sea began in the 1990s, and in 2007 from the "Snøhvit" gas field in the Barents Sea. The uncertainty about future offshore development in the Arctic is large. Stable and

⁴ For estimates of 2013, 2040 and 2060 see Grupta, A., 'Geopolitical implications of Arctic melt-down', Strategic Analysis, vol. 33, no. 2 (Mar. 2009), p. 174; Arctic Council, Arctic Marine Shipping Assessment 2009 Report (Arctic Council: Apr. 2009), p. 30; and US National Snow and Ice Data Center, 'Arctic Sea ice shrinks as temperatures rise', Press release, 3 Oct. 2006, <http://nsidc.org/news/press/2006_seaiceminimum/20061003_pressrelease.html>.

relatively high petroleum prices, reduced ice cover and stable political conditions regionally compared to other areas are factors that will stimulate developments in the Arctic. High costs for offshore developments and transport particularly of gas are obstacles pointing in the opposite direction. The recent blow-out in the Mexican Gulf and stronger environmental regulations may also slow down offshore developments in the Arctic (AOR 2010).

The sub-arctic parts of the Arctic area support some of the largest fish stocks and fisheries in the world, notably in the Barents, Norwegian, Iceland and Bering seas. Prominent species in these fisheries are Atlantic and Pacific cod, halibut and herring, walleye pollock, blue whiting, redfishes (*Sebastes* species), and Greenland halibut. The most important Arctic fish species is polar cod which is found mainly in the low Arctic zone around the periphery of the central Arctic Ocean. Polar cod is a dominant food item for a wide range of seabirds, seals and whales including ringed seal, beluga and narwhal. The effects of climate change on marine fish stocks and the socio-economic consequences of those effects for arctic fisheries depend on many factors and cannot be accurately predicted. The total effect of climate change on fish stocks is probably going to be of less importance than the effects of fisheries policies and their enforcement (ACIA 2005). Ocean acidification, introduced alien species and conflicts with other activities like petroleum and shipping may also affect fish stocks and fisheries. The impacts of fisheries on the ecosystems are largest in the sub-arctic parts of the area where the large-scale commercial fisheries are concentrated. The status of the exploited stocks are regularly monitored and assessed as part of the fisheries management systems. In the Northeast Atlantic, the International Council for Exploration of the Sea (ICES) is an international advisory organization to national and international fisheries management bodies.

Tourism in the Arctic has long traditions and offers different products for various client groups. Cruise ship tourism takes place in the areas around Greenland, Iceland, Norway including Svalbard, and Alaska and this traffic has increased significantly in recent years. The number of passengers probably doubled from 2004 to 2007 and is expected to continue to grow (UNEP 2007). Most of the cruise ships are not purpose-built for Arctic operations, which may increase the likelihood for accidents with risks for loss of human lives and environmental effects (AMSA 2009). With increased tourism infrastructure and passenger safety needs will also become of increasing concern. The large number of tourists already cruising Arctic waters now exceeds the emergency response capabilities of local communities.

2 Context and Conditions

This section gives a brief overview the legal and policy framework for management of the Arctic.

The legal and policy Framework for management of the Arctic

The 1982 Law of the Sea Convention (UNCLOS) is the primary international legal instrument governing maritime jurisdiction and boundary delimitation of the Arctic Ocean. This is agreed upon by all littoral states in the “Ilulissat Declaration” from 2008 (Wikipedia). The maritime jurisdictions and boundaries of nations in the Arctic region are shown in Map 1.2. In addition to The Law of the Sea there are several treaties and agreements, and organisations dealing with Arctic Sea governance. The main legal instruments and policies guiding the management of the Arctic Ocean are listed in Table 1b.

Map 1.2: Maritime jurisdictions and boundaries of nations in the Arctic Region



Maritime jurisdiction and boundaries in the Arctic region



- | | | |
|--|---|--|
| Internal waters | Norway claimed continental shelf beyond 200 nm (note 3) | Straight baselines |
| Canada territorial sea and exclusive economic zone (EEZ) | Russia territorial sea and EEZ | Agreed boundary |
| Potential Canada continental shelf beyond 200 nm (see note 1) | Russia claimed continental shelf beyond 200 nm (note 4) | Median line |
| Denmark territorial sea and EEZ | Norway-Russia Special Area (note 5) | 350 nm from baselines (note 1) |
| Denmark claimed continental shelf beyond 200 nm (note 2) | USA territorial sea and EEZ | 100 nm from 2500 m isobath (beyond 350 nm from baselines) (note 1) |
| Potential Denmark continental shelf beyond 200 nm (note 1) | Potential USA continental shelf beyond 200 nm (note 1) | Svalbard treaty area (note 8) |
| Iceland EEZ | Overlapping Canada / USA EEZ (note 6) | |
| Iceland claimed continental shelf beyond 200 nm (note 2) | Eastern Special Area (note 7) | |
| Norway territorial sea and EEZ / Fishery zone (Jan Mayen) / Fishery protection zone (Svalbard) | Unclaimed or unclaimable continental shelf (note 1) | |

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www.durham.ac.uk/ibru

Source: International Boundaries Research Unit, Durham University, UK (<http://www.dur.ac.uk/ibru/resources/arctic>)

Table 1b: Global and Seas level governance arrangements for the Arctic Ocean

Governance Arrangement	Area of Coverage	Focus of activity
Law of the Sea Convention (UNCLOS)	All global seas. The UN has no direct operational role in the implementation of the Convention. There is, however, a role played by organizations such as the International Maritime Organization, the International Whaling Commission, and the International Seabed Authority.	Defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources. Contain a number of provisions - setting limits, navigation, archipelagic status and transit regimes, exclusive economic zones (EEZs), continental shelf jurisdiction, deep seabed mining, the exploitation regime, protection of the marine environment, scientific research, and settlement of disputes.
International Maritime Organization (IMO)	IMO is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships.	Guidelines for Ships Operating in Arctic Ice-covered Waters.
Arctic Council (AC)	<p>Member States of the Arctic Council are Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America.</p> <p>In addition to the Member States, the Arctic Council has the category of Permanent Participants. This category is open equally to Arctic organizations of Indigenous peoples</p>	<p>Inter-governmental forum established in 1996, no legal, binding authority.</p> <p>Provide a means for promoting cooperation, coordination and interaction among the Arctic States.</p>
The Arctic Ocean Sciences Board (AOSB)	A non-governmental body that includes members and participants from research and governmental institutions in Canada, China, Denmark, Finland, France, Germany, Iceland, Japan, Korea, Norway, Poland, Russia, Sweden, Switzerland, the United Kingdom and the United States of America.	The long-term mission of the AOSB is to facilitate Arctic Ocean research by the support of multinational and multidisciplinary natural science and engineering programs.

The Northern Dimension (ND) policy, drawn up in 1999, is a common policy shared by four equal partners: the European Union, Norway, Iceland and the Russian Federation	The policy covers a broad geographic area, from the European Arctic and Sub-Arctic to the southern shores of the Baltic Sea, countries in the vicinity and from north-west Russia in the east, to Iceland and Greenland in the west.	The policy's main objectives are to provide a common framework for the promotion of dialogue and concrete cooperation, to strengthen stability and well-being, intensify economic cooperation, and promote economic integration, competitiveness and sustainable development in Northern Europe.
The OSPAR Commission	North-East Atlantic	Protect the marine environment of the North-East Atlantic.
The North East Atlantic Fisheries Commission	The NEAFC Convention Area covers the Atlantic and Arctic Oceans east of a line south of Cape Farewell - the southern tip of Greenland (42° W), north of a line to the west of Cape Hatteras - the southern tip of Spain (36° N) and west of a line touching the western tip of Novya Semlya (51°E). The Baltic and Mediterranean Seas are excluded.	Maintain the rational exploitation of fish stocks in the Convention Area, taking scientific advice from ICES, the International Council for the Exploration of the Sea.
Northwest Atlantic Fisheries Organization (NAFO)	The NAFO Convention Area encompasses a very large portion of the Atlantic Ocean and includes the 200-mile zones of Coastal States jurisdiction (USA, Canada, St. Pierre et Miquelon and Greenland)	Contribute through consultation and cooperation to the optimum utilization, rational management and conservation of the fishery resources of the Convention Area.
North Atlantic Salmon Conservation Organization (NASCO)	North Atlantic	To conserve, restore, enhance and rationally manage wild Atlantic salmon
The International Whaling Commission	All oceans in the world	To keep under review and revise as necessary the measures laid down in the Schedule to the Convention which govern the conduct of whaling throughout the world

3 Actors and Agencies

The most important governance bodies at the regional sea level are *The Northern dimension* and the regional councils *The Arctic Council (AC)*, *Council of the Baltic Sea States (CBSS)*, *The Barents Euro-Arctic Council* and the *Nordic Council of Ministers*. Only the Northern Dimension will be elaborated upon in some detail, for the regional councils there will only be short descriptions.

The Northern Dimension

The Northern dimension (ND) is an initiative in the European Union regarding the cross-border and external policies drawn up in 1999 between four equal partners - the European Union, Norway, Iceland and the Russian Federation. With the accession of Finland and Sweden to the European Union in 1995, the EU expanded to beyond the Arctic Circle and acquired a 1,300 km border with Russia. This created a need for a policy for the North and the aim of ND was to achieve sustainable development, stability, well-being and security in the northern regions and to strengthen cooperation between Russia and the European Union. The Northern Dimension, therefore, addresses the specific challenges and opportunities arising in those regions and aims to strengthen dialogue and co-operation between the EU and its member states, the northern countries associated with the EU under the European Economic Area (Norway and Iceland) and Russia. The Northern Dimension is implemented within the framework of the Partnership and Cooperation Agreement with Russia. A particular emphasis is placed on subsidiarity, and on ensuring the active participation of all stakeholders in the North, including regional organisations, local and regional authorities, the academic and business communities, and civil society.

The policy's main objectives are to provide a common framework for the promotion of dialogue and concrete cooperation, to strengthen stability and well-being, intensify economic cooperation, and promote economic integration, competitiveness and sustainable development in Northern Europe. The policy covers a broad geographic area and several policy fields. Key priority themes for dialogue and co-operation under the Northern Dimension include economy, business and infrastructure; human resources, education, culture, scientific research and health; the environment, nuclear safety, and natural resources; cross-border cooperation and regional development and, justice and home affairs.

Actors, structure and financing of the Northern Dimension

In addition to the ND partners other cooperating participants are the regional councils in the North, i.e. the Barents Euro-Arctic Council (BEAC), the Council of the Baltic Sea States (CBSS), the Nordic Council of Ministers (NCM) and the Arctic Council (AC); several international financing institutions such as European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Nordic Investment Bank (NIB) and the World Bank (IBRD). Other Northern Dimension actors are the regional and sub-regional organizations and commissions in the Baltic and Barents area, the sub-national and local authorities, non-governmental organizations and other civil society organizations (including notably indigenous peoples' organizations), universities and research centres, business and trade union communities, etc. USA and Canada has observer status to the Northern Dimension.

Northern Dimension Ministerial meetings take place every two years with the participation of the four partners at Foreign Minister or equivalent level of the European Union Member States/ Commission, Iceland, Norway and the Russian Federation. Northern Dimension Senior Officials Meetings are held at least every alternate year between Ministerial meetings. A Steering Group, composed of representatives of the European Union, Iceland, Norway and the Russian Federation, meets normally three times a year in order to provide continuity to the work. Information from ND is provided by the Northern Dimension Information system established at the European Commission's "Relex" website.

The Northern Dimension is based on co-financing through different financial sources by individual countries, EI-instruments, international financial institutions, and the private sector. The main financing for large projects is generally in the form of loans and local funds, and a small portion can be so-called donor funds. Finland provides financing mainly through funds for neighbouring area cooperation. The key financial institutions are the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Nordic Investment Bank (NIB) and the Nordic Environment Finance Corporation (NEFCO). EU financing and the EU's European Neighbourhood and Partnership Instrument, cross border cooperation (ENPI CBC) as well as the Baltic Sea Region transnational Interreg programme are among the European Union's most important sources of financing for regional cross-border cooperation.

4 Key events of the Northern Dimension and regional councils

The first "Action Plan" for the Northern Dimension in the external and cross-border policies of the European Union for 2001-2003 was adopted at the Feira European Council in 2000. A second action plan covering the period 2004-2006 was adopted at the European Council in Brussels in 2003. Annual reports on the action plans are produced by the European Commission. A political declaration and policy framework document on which the Northern Dimension Policy is based was adopted in 2006.

The cooperation within the Northern Dimension takes place through partnerships. The most concrete outcomes of the cooperation are the Northern Dimension Environmental Partnership (NDEP) and the Northern Dimension Partnership in Public Health and Social Well-being (NDPHS). In addition, the Northern Dimension Partnership on Transport and Logistics (NDPTL) and the Northern Dimension Partnership on Culture (NDPC) have recently been established. Two new initiatives have also been developed, the Northern Dimension Institute (NDI), comprising a network of universities specialising in matters related to the Northern Dimension, and the Northern Dimension Business Council (NDBC) to create a platform for dialogue between companies and the public authorities.

The *NDEP* was established in 2001 and has remained an important flagship of the ND policy. The partnership has enhanced implementation of large infrastructure projects to improve water and wastewater infrastructure, municipal and agricultural waste management and energy efficiency. In 2002 the NDEP Support Fund was established to finance environmental and energy efficiency projects in North-West Russia and Kaliningrad as well as nuclear safety projects especially in the Kola Peninsula. In 2009 environmental cooperation has been expanded to Belarus. The NDEP's environmental programme consists of 23 priority projects approved by the NDEP Assembly for co-financing from the NDEP Support Fund (<http://www.ndep.org>).

The *NDPHS* was established in 2003 aiming to reduce the spread of communicable diseases, prevent lifestyle-related diseases and enhance the well-being and quality of life of the region's inhabitants. The core of the NDPHS is made up of Expert Groups on HIV/AIDS, healthy lifestyles, primary health care and prison health. The Northern Dimension Partnership in Public Health and Social Well-being has no project fund; instead, interested countries and other interested bodies finance projects on a case by case basis. An internet-based project pipeline has been developed in order to help project financiers and those carrying out projects get in touch with one another (<http://www.ndphs.org/>).

The *NDPTL* was established in 2009. The main objectives of the partnership are to promote cooperation in order to remove bottlenecks, accelerate transport channel-related projects in Northern Europe and coordinate cooperation on major issues in transport and logistics policy. This will be done by improving the major transnational transport connections between the partner-countries and stimulate sustainable economic growth at the local/regional and global levels; accelerate the implementation of transport and logistics infrastructure projects along the major transnational connections; accelerate the removal of non-infrastructure related bottlenecks, affecting the flow of transport in and across the region, and facilitate the improvement of logistics in international supply chains; and to set up effective structures to monitor the implementation of the proposed projects and measures (<http://www.nib.int>).

The *NDPC* is a new initiative established in 2010 and it focuses on cultural co-operation in the Northern Dimension area. One of its objectives is to bridge the gap between public and private funding. NDPC is an extensive cultural co-operation tool which reaches out to cultural operators, creative entrepreneurs and to the business communities throughout the entire Northern Dimension area. The Partnership will strive to assist the networking of people active in the arts and culture and will help make cultural activities economically profitable. Enhancement of the creative economy in the Northern Dimension region is one way to increase growth and well-being. A fundamental goal is to further international awareness of cultural life in the Northern Dimension region (<http://www.norden.org>).

In addition to intergovernmental cooperation the Northern Dimension also encompasses cooperation among various stakeholders, such as universities, research institutes, parliamentarians and business and different regional and local actors. In 2009 the *Northern Dimension Institute* was established as a university network open to all interested higher-level educational institutions, researchers and research institutes. The institute aims at providing high-quality research and higher level education in the fields of energy and the environment, public health and social well-being, transport and logistics, as well as culture and society (<http://www.ndinstitute.org/>). The *Northern Dimension Business Council* strives to gather together businesses operating in the Northern Dimension region. Its purpose is to strengthen networking among companies in the region and to promote dialogue between companies and the authorities. *The Northern Dimension Parliamentary Forum*, held for the first time in 1995 at the initiative of the European Parliament, also operates within the scope of the Northern Dimension.

The regional Councils in the North

The most important regional councils for the Arctic are *The Arctic Council (AC)*, *Council of the Baltic Sea States (CBSS)*, *The Barents Euro-Arctic Council* and the *Nordic Council of Ministers*. All four councils are intergovernmental cooperation forums that operate in their own geographical region. Their task is to introduce their own development targets to the scope of the Northern Dimension policy and to support the implementation of Northern Dimension projects in various ways.

Arctic Council

The Arctic Council was established in 1996 as a high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States. The Council should ensure involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic. The member states are Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America. The main objective of the Arctic Council is to promote environment protection in the Arctic and to further the economic, social and cultural well-being of the region's population. The Council produces scientific data and scientific evidence-based recommendations for the use of national decision-makers.

Council of the Baltic Sea States (CBSS)

The Council of the Baltic Sea States (CBSS) was established in 1992. Its members are Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Russia, Sweden and the European Commission. Observer states are Belarus, France, Italy, the Netherlands, Romania, Slovakia, Spain, Ukraine, United Kingdom, and United States and some regional cooperation organisations as special members. The aim of CBSS is to promote positive democratic and economic development in the Baltic Sea region. Today when nearly all member states of the CBSS belong to the European Union the CBSS has a role in the Baltic Sea region as a forum for political dialogue.

Barents Euro-Arctic Council (BEAC) and the Barents Regional Council (BRC)

The Barents Euro-Arctic Council (BEAC) and the Barents Regional Council (BRC) was established in 1993. Members of the BEAC are Denmark, Finland, Iceland, Norway, Russia, Sweden, European Commission, and observer States are Canada, France, Germany, Italy, Japan, the Netherlands, Poland, United Kingdom and United States. Members of the BRC are 13 regions from Finland, Norway, Russia and Sweden. The objective of the Barents Euro-Arctic Council (BEAC) is to promote stability, sustainable development and security in the most densely populated Arctic area – the Barents Region. Together the BEAC and the BRC constitute an important cooperation forum for regional administrative officials, nongovernmental organisation and Northern indigenous peoples.

Nordic Council of Ministers (NCM)

Nordic Council of Ministers (NCM) was established in 1971 and is a cooperation organ between the Governments of Finland, Sweden, Norway, Denmark and Iceland. Within the Northern Dimension, the Nordic Council of Ministers has paid particular attention to Arctic issues and cultural projects. The Nordic Council of Ministers takes part in the Northern Dimension Partnership in Public Health and Social Well-being and has played an active role in developing the Northern Dimension Partnership on Culture.

5 Arctic Ocean and stakeholders perspectives

This section presents the view of some important Arctic Ocean stakeholders based on interviews with representatives from the oil and gas industry, the fisheries and the environmental community. The purpose of the interviews has been to get more in-depth assessments from stakeholders who represent important issues and challenges in the Arctic. Each interview lasted for approximately one hour and dealt with opportunities and threats related to economic and environmental development in the Arctic and governance and administration of this area.

Summary of interview with OLF

The Norwegian Oil Industry Association (OLF) is a professional body and employer's association for oil and supplier companies engaged in the field of exploration and production of oil and gas on the Norwegian Continental Shelf (<http://www.olf.no/en/>).

Opportunities and threats

The Arctic Ocean is a unique eco-system with large natural resources such as oil and gas and according to OLF it is possible to extract these resources in an environmental sustainable way. Today there are mainly activities in the Norwegian part of the Arctic Ocean and these are not substantially different from the activities in the North Sea. There, the oil activity has been going on well with almost no accidents at sea or oil spillage on land. The shipping transport along the coast is probably a larger threat for the marine environment than the oil industry and its offshore installations. The Norwegian oil industry is among the best in the world with regard to security so although the risk for spillage is always there the preparedness and the oil protection equipment will minimise the effects of eventual spillages. Therefore, OLF see no problem in combining oil activities and for instance fisheries. OLF also does not regard the Arctic Ocean as particularly vulnerable because it is a valuable ocean with a high biological production for most fishery species and with a high ability to recover.

The main challenges for oil activities in the Arctic Ocean are not related to biodiversity but to the frost. Equipment can be covered with ice. However, this problem is probably soon to be solved through the ongoing technological development. Lack of daylight may also be a problem. Furthermore, logistics and pipelines may also be somewhat problematic and costly due to large distances to the mainland. Nevertheless, all in all as OLF sees it, difficulties are manageable and the challenges in the Arctic Ocean are not bigger than those in the North Sea where the weather, waves and streams are worse than in the Arctic Ocean.

According to OLF, the oil and gas industry will have significant positive extending regional effects. In Norway approximately 250 000 are employed in the oil and gas industry and related industries and cooperation with Russia will generate new workplaces in Russia, which again will have positive effects in Norway. Employment will increase both during the expansion phase and during the operating phase.

Oil production in the Arctic Ocean is a controversial issue. In the Norwegian parliament there is a majority in favour of extended oil production in Northern Norway and the Barents Sea. Among the population, however, there is much more scepticism and most environmental organisations are strongly against oil and gas activities in the Arctic Ocean. With regard to the waters around Svalbard some legal and political issues remain to be solved before oil extracting can take place there (see case study about the Maritime Delimitation Treaty between Norway and Denmark/Greenland).

Governance and regulations

With regard to legal arrangements and agreements OLF is satisfied with the Norwegian rules and regulations for the oil and gas industry in general and that goes for the Arctic Ocean as well. The Maritime Delimitation Treaty between Norway and Russia now implies that national rules will be in force in this former disputed area, which opens up for oil production there. Norway and Russia can administer the oil resources in their respective areas according to their own rules and there are procedures for how to share common resources, which crosses the delimitation line. Norway has good experience from this kind of regulation from The North Sea vis-à-vis Great Britain.

With regard to governance arrangements there are discussions within OLF if the organisation should attend meetings in the Arctic Council as some other interest organisations do, but nothing is decided yet. OLF considers dialogue on different political levels and with other interest organisations to be important. Dialogue with Russian interest organisations is seen as particularly important. However, OLF emphasises that it is also very important not to lower the Norwegian demands on technology and security. OLF regards these standards as a competitive advantage for the Norwegian petroleum industry.

Summary of interview with Fiskarlaget

Norges Fiskarlag (Fiskarlaget) is a trade organisation and an industrial organisation for professional fishermen in Norway. It is an umbrella organisation of local and regional fisheries organisations and cooperates closely with regional and governmental authorities (www.fiskarlaget.no).

Opportunities and threats

As Fiskarlaget sees it there are conflicts of interests between fisheries and other industrial activities in the Arctic Ocean/the Barents Sea. Therefore, sustainable governance of this area is important. Offshore installation and platforms may have a negative impact on fisheries and so has shipping since both activities may increase pollution through spillages and they may also be in conflict with fixed fishing gears. So far there has been a good process with regard to possible surface area conflicts. Shipping routes follows specific corridors in order to avoid fisheries resources. However, in the Barents Sea nothing is decided so far with regard to the sharing of the surface area.

Fiskarlaget has an ambivalent view on the Maritime Delimitation Treaty between Norway and Russia since this probably will result in increased oil and gas activities on both side of the border. Fiskarlaget lived well with grey zone agreement and had good cooperation with Russian fisheries organisations. Particularly fisheries organisations in Murmansk are worried about the governance of fisheries resources at the Russian side of the border since there are weaker traditions for cooperation between different interests in Russia than exist in Norway. Some Norwegian fishermen were afraid of losing access to fishing grounds when the Barents Treaty came into force.

Oil spillage is regarded as the biggest threat to the fisheries. The former “zero emission” system is under pressure and some spillage is now accepted whereas the policies used to be that all spillages should be gathered. Leaving the zero emission system may be problematic since Norway is selling fish under slogans such as “safe seafood” and “clean sea”. If there are a lot of offshore installations and platforms in the sea this image may be damaged. It has also been a certain fear that the presence of Russian atomic submarines could harm the image of this area. One of the worst

scenarios is an accident in the oil industry in the Arctic Ocean because this could have fatal consequences for the fish fry. The Arctic Ocean is of vital importance and function as a breeding ground for many different species of fish. Spillage from ballast waters is also a problem since it may bring different organism into the ocean. This problem can increase with a warmer climate and reduced ice since this may lead to the opening of more northern sea routes.

Fiskarlaget has regular meetings with the oil and gas industries (OLF) in which the parties discuss how to combine fisheries and petroleum activities in a sustainable manner. There is a common Forum, "One Ocean" (Ett hav) for cooperation between Fiskarlaget, OLF and the fish industry. Fiskarlaget tries to find solutions that both parties can live with, but there are of course some incidents, which may cause conflicts. Seismic surveys, for instance, do not have a large impact on marine life through pollution, but it can scare the fish. This is a problem through the year and some areas are free of fish for long periods after such surveys. The problem is particularly large when good fisheries fields and interesting oilfields overlap, as they often do. With regard to tourism increased cruise activities could be a problem for the Arctic Ocean as other shipping traffic is. However, fishery tourism which is a local coastal phenomenon could be a sustainable niche that would be compatible with ordinary fisheries.

Governance and regulations

With regard to legal arrangements and agreements Fiskarlaget find that the protected fisheries area around Svalbard has been functioning well and most countries have accepted it. In principle it works like the exclusive economic zone does. There have been some incidents (recently with Russian fishermen), which could be due to strict Norwegian practices of the agreement. The legal system of today works well. There have been conflicts with Russian fisherman related to quotas, re-loading of fish etc., but this is settled now. The UN agreement on fisheries on the High Seas makes up a good framework for governance and how to settle disputes and conflicts.

While the maritime delimitation between Norway and Russia in the Barents Sea was still unsettled, several countries, among others Greenland and Iceland, tried to fish in this disputed area (the Grey zone). Norway and Russia reached an agreement with Iceland after some time. Fiskarlaget is member of The Joint Norwegian-Russian Fisheries Commission and the cooperation works well and has done so for a long time. Marine research cooperation between Norway and Russia in the Barents Sea has also been going on for a long time. If the pack ice disappears, the situation in the Arctic will be more uncertain because then we don't know where the fish stocks will move.

With regard to regulatory arrangements, The North-East Atlantic Fisheries Commission is also important for settling conflicts, particularly for pelagic fish. Herrings for instance move a lot and the stock which is grown up one place may be caught in quite another place. For the time being, there is a conflict between EU and Norway on the one hand and Iceland and the Faroe Islands on the other hand on access to fisheries in the North Atlantic, particularly over Mackerel.

The Joint Norwegian-Russian Fisheries Commission is the most important institution for Fiskarlaget. Fiskarlaget is not a member of the Arctic Council and not much involved in its work. The Nordic Council is regarded as primarily a political institution whereas the joint commission deals more with specific fisheries issues. Fiskarlaget promotes its cause through regular meeting with national authorities and industries for oil and gas and the shipping authorities but not the shipping industries. The organisation feels that its views are not too well approved. Fiskarlaget has had some acceptance

with regard to protection of the vulnerable areas in Lofoten/Vesterålen. Nevertheless, seismic surveys will soon take place in these areas also. Fiskarlaget has easy access to the government, but considers their views to have larger support in the public opinion than among authorities and industries.

Summary of interview with WWF

The World Wide Fund for Nature (WWF) is an international non-governmental organisation working on issues regarding the conservation, research and restoration of the environment. WWF Norway was founded in 1970 and is working a lot on Arctic issues.

Opportunities and threats

WWF has been involved in Arctic issues for more than 20 years and main focus of its conservation work has been on the impacts of industrial development, international marine governance, and climate change, both mitigation and adaptation. WWF regards climate change to be the greatest threat to the Arctic because the impacts will be larger and more dramatic in this region, and climate change is the main driver of change affecting also socio-economic development. The Arctic is seeing temperature increases at twice the rate compared to the rest of the planet. As the pack ice is melting, new activities will take place and, accordingly generate new stresses and potentially negative impacts for the marine and coastal ecosystem and the people who live of the resources of the sea. Climate change is already altering Arctic ecosystems and stressing the fragile food web, e.g. because new species move north. The sea ice ecosystem and its associated species and livelihoods are a main characteristic of the Arctic, but are also the most affected by the warming climate. There is no substitute for sea ice once it is melted. What happens in the Arctic has - due to a warming climate --global consequences since the region is a crucial part of the global climate system in which the sea ice albedo and ocean currents play a particularly important role. The Arctic is also a major food source for the world through its (still) enormous fisheries.

In order to cope with climate change both mitigation (energy efficiency, transition to renewable energy) and adaptation (governance, natural resource management, spatial planning, and infrastructure) strategies must be carried out. Norway has in general good governance in its exclusive economic zone. With regard to the Maritime Delimitation Treaty between Norway and Russia the preconditions for a long term planning horizon have been established and the best thing would be to establish a joint ecosystem-based management plan for the Barents Sea which provides the frame for any human activities, inclusive a joint governance regime for oil and gas as one has for fisheries. The current cooperation on fisheries seems to work well, but the main general problem is the lack of holistic thinking in the governance of the Arctic. There is need for a target-driven, flexible management regime which can handle complex problems and issues. Both the ecological and the social system must be seen in context since climate change is having ecological, social and economic impacts.

With regard to what economic activities will be sustainable in the Arctic, the most important issue is to take an ecosystem-based approach to management and generally avoid or reduce pressure on the ecosystem. WWF is against oil and gas development, primarily because it is necessary to shift to renewable energy, but also because of the unacceptable risks associated to oil spills. Oil spills will have strong negative effects in this area where there also is a lack of sufficient clean up capacity.

More shipping traffic comprises also increased environmental risk for the Arctic as new routes are opening up in sensitive marine areas due to shrinking sea ice without sufficient focus on environmental safety. Currently, the use of heavy fuel oil is prohibited in and around the Svalbard waters, but such a measure is just as important in the other Arctic areas.

Fisheries may in principle be sustainable, but this depends on the type of fishing boats, fishing gear, quota setting and trans-boundary management of migratory fishery species (e.g. mackerel in the Norwegian Sea) and so forth. The food chain is simple in the Arctic and it may easily collapse, therefore, an ecosystem-based, climate change-oriented governance regime is needed. WWF believes fisheries can be sustainable with proper regulations where one can decide how deep into the food chain it should be possible to catch, who has ownership to moving fisheries stock etc. However, sustainable activities are not possible without a legal framework and sufficient knowledge. Both are still missing or are inadequate. The need for more timely knowledge is particularly important for achieving a sustainable and adaptive Arctic governance system.

Governance and regulations

Today there is no proper legal framework to protect the Arctic. A governance regime shall provide such a framework which among other things can deal with uncertainty in a climate changed future, monitors compliance and developments. It is further important to have a long term perspective and focus on measures, including emissions reduction, that increase the resilience and adaptation capacity in order to preserve the nature and social systems in the area. It is also important to see the different oceans in relation to each other since there are no boundaries between the oceans. Norway claims to have an ecosystem-based management regime for the Barents Sea, but the concept is not clarified and important elements, like a goal, are missing. WWF is working for holistic management plans with clear aims. A set of rules for sustainable management for the Arctic is needed in order to protect this vulnerable environment and the ecosystem services it provides also beyond the region. This would prevent the Arctic to be like the North Sea, which WWF feels has seen a totally misguided management. The so-called management plan for the North Sea is actually a restoration plan.

WWF has had an observatory status at the Arctic Council (AC) since its establishment. WWF is positively disposed to the fact that such an intergovernmental forum exists where different actors have a dialogue and which draws attention to the Arctic. However, despite that the AC has many good intentions few tangible on the ground results of the AC policies have emerged so far. The AC produces a lot of important knowledge but the science-to-policy follow-up and actual implementation of policies is weak. WWF thinks that the AC should become more accountable for its decisions and policies, e.g. by making more binding decisions and ensure funding for their implementation. The world-wide interest in the Arctic has also affected the AC, and changes are underway, e.g. the first legally binding agreement, that eventually may give the AC more "teeth" which is important if the AC want to stay in the driver's seat in the Arctic. Non-arctic states, such as states within the EU and China have shown an increased interest in the Arctic and the AC, which may also result in a more important role for the council. Better cooperation between the working groups within the AC is needed and also between other environmental bodies in the Arctic. The Norwegian-Russian Environmental Commission, for instance, works in a different manner than the Joint Fisheries Commission. However, the two institutions necessarily don't work together although they are both dealing with marine resources in the same ecosystem. This illustrates the lack of a holistic approach.

As WWF sees it, the Arctic Ocean could be better managed if the UN played a more important role in the governing of this ocean, as well as all global oceans.

Lack of sustainable management of the marine environment and the Arctic may be due both to lack of legal rules, missing knowledge and “bad” practice. The regulations are still insufficient and more knowledge is required. However, it is a problem that knowledge mapping is so fragmented, topics like the seabed, fisheries stock, sea-birds, oil and gas and so forth are studied separately and not as elements in a holistic ecosystem. With this fragmented approach it is difficult to work out a coherent plan for sustainable management of the Arctic. Sustainability issues are also a question of values. WWF has been invited to comment on the work of a committee which should assess the economics of ecosystems and biodiversity in Norway, but as WWF sees it the value of nature often cannot be measured in monetary values.

With regard to how easy it is for WWF to be met with approval for its viewpoints it depends both on the target group and the topic. By and large, it is fairly easy to get agreement or recognition for sustainable management objectives at the overarching and more general level. "Everybody" seems to buy in to the greater sustainability concept, at least in speech. The more concrete it becomes, the more trickier it gets, because it suddenly requires authorities, industry and communities "to put their food where their mouth is", and it - more often than not - requires a change in practices or thinking from what it used to be without seeing the short-term benefits. And there are many paradoxes. How can you for instance make the oil and gas sector sustainable? Or what timeframe does "sustainable" refer to in such a case? And how do you consider the importance of Arctic sea ice for the global climate system and not "just" in a regional perspective?

A large problem is also bridging the gap between sustainability statements and the actual implementation. Much of it remains nice words with no footing whatsoever in reality. This isn't helped by the fact that there is no joint/overarching management structure/body in the Arctic that 'owns' the issue. As an NGO, one of WWF's daily battles is to challenge and remind authorities, but also industry constantly of the sustainability goals and language in their white papers, declarations, CSR statements etc. and get them "to walk the talk" when it comes to concrete decisions and trade-offs. At the community level, the picture mostly is more varied and divided and also depends on what the issue and its potential alternatives are. When it comes to sciences, the challenges are seldom at the level of institute or university level scientists but rather where they fill advisory functions, or where the basic science needs to be translated into recommendations and potential solutions for policy makers.

6 Project Evaluation and Lessons for Marine Spatial Planning

This section looks into the results of regional cooperation in the Arctic area and how the governance arrangements have functioned. It focuses on if, and to what extent, the governance arrangements have been sufficiently robust and powerful to deal with the complex cooperative efforts in the Arctic area. The main challenges and governance gaps are discussed in order to see how sustainable the governance arrangements are for carrying out regional cooperation. The Arctic Ocean is subject to a number of governance systems (Koivurova and Molenaar 2009), but only the Northern Dimension and the Arctic Council are elaborated upon here.

The Northern Dimension

The Northern Dimension (ND) was established in 1999 as a common partnership-based framework for promoting dialogue and concrete regional cooperation in Northern Europe between EU, Russia, Norway and Iceland. The EU-Russian relations are the main elements in this policy. The Northern Dimension was an attempt for EU to coordinate its northern policies and also to institutionally coordinate the network of regional organisations in which the EU gradually came to play a more important role, as a result of the enlargement of the union (Aalto et al 2008). However, for several years the Northern Dimension was primarily an umbrella for projects that EU already financed in its neighbouring states in the East, the Baltic States and Russia (Hønneland 2012), and not a particularly effective governance arrangement. From 2007 the New Northern Dimension was launched and this was a less EU-centric and had a more flexible framework. In the new Northern Dimension Iceland, Norway and Russia are equal partners with EU and Canada and USA have become observers. Alongside the partners several other actors are included, such as regional councils and international financial institutions.

The new ND also has a more substantial and concrete policy content through partnerships and project financing on areas such as environment, health, transport and culture. The partnership for environment (NDEP) has for instance financially supported projects for nuclear security and energy efficiency in North-west Russia (Smith 2008). Likewise has the partnership for health (NDPHS) has no project fund but has contributed to the work against infectious diseases in the Baltic Sea region and the Barents region (Aasland 2008).

Aalto et al (2008) outlines four main policy challenges of the new Northern Dimension. The first is formulated as follows: How to put the equality principle into practice? This challenge focuses on equality between partners in their cooperative effort and emphasises that the objectives of the cooperation must be based on fundamental common interests of the parties. As long as Russia was economically weak and politically unstable this was difficult to achieve but later development has improved this situation. Now the partners in ND work along several areas which should strengthen the equality principle. A second challenge is to coordinate the ND policies with other northern European regional cooperation such as the EU Baltic Sea strategy. Thirdly, there is the challenge of institutional coordination, i.e. how important formal institutions are versus more flexible governance arrangements? According to Aalto et al (2008), the success of the Northern Dimension in regional cooperation rests on flexible coordination and learning-by-doing. Finally, there is the challenge of implementation, i.e. to develop existing partnership and launch new partnership. This again is dependent on the equality principle, common interests and flexible coordination.

The Arctic Council

The intergovernmental forum the Arctic Council (AC) main focus has been on environmental issues and involvement of indigenous people in governance of the Arctic. The Council's most important contributions have been the generating of policy-relevant knowledge and scientific assessments on environmental issues and lately particularly on climate change impacts. The ACIA-report (ACIA 2004) on climate change in the Arctic, leads to increased attention on the Arctic Council. However, in a governance perspective AC is primarily a forum for *soft law* and has no binding or regulatory authority and, it is dealing with *low politics* issues such as environment and living conditions in the Arctic.

In a summary of the Arctic Council and its constitutive instruments Koivurova and Molenaar (2009) conclude that there are several main governance and regulatory gaps related to AC. First of all, the AC cannot impose legally binding obligations on its participants and decisions are based on consensus. Secondly, AC is project-driven and not an operational body which can execute policies. Thirdly, its limited participation also gives the AC a limited role and power on the international stage, particularly with non-arctic states which may be important for the development in the Arctic⁵. The arrangement with the rotating secretariat which also was listed as a gap has now been replaced by a permanent independent secretariat based in Tromsø, Norway. Finally, the lack of structural funding is also a weakness since project-funding is more uncertain and limited.

Lessons for Marine Spatial Planning

Neither the Northern Dimension nor the Arctic Council have binding or regulatory authority and accordingly have to rest on consensus-based policy recommendation and work through partnerships arrangement. Networking is the main governance mode in both institutions (Schmitter 2002). It is not easy to assess the effectiveness of the governance arrangements to deal with their different issues in the Arctic. The policy making of both institutions is characterised by learning by doing and a muddling through approach. The strength of this step-by-step approach is that it gives partners time to learn from each other in specific projects and thereby to build confidence which is critical in partnership cooperation between partners that are embedded in different politically, economically and cultural backgrounds. The weakness of this approach is that coordination may be fragmented and that important issues (hard politics) are not included in the cooperation. However, soft politics may be a necessary way to hard politics.

The Arctic Council plays a very important role in contributing to the scientific knowledge base of the Arctic Ocean, particularly on environmental issues. This makes an increasingly solid basis for a science-based policy in the area. The Arctic Council may also develop into a more important governance arrangement as more states are represented in the council. The Northern Dimension has also become gradually more important as a governance arrangement over the past years, partly in cooperation with the Arctic Council. EU programmes and initiatives under the auspices of the Northern Dimension have been critical for the development of several areas such as health and environment. If there is a main lesson to be learnt from this case study, it is that regional cooperation in the Arctic, as in general, must be based on common interests between the parties in order to build

⁵ Several states are now entitled as observers, France, the Netherlands, Poland, Spain, Great Britain and Germany are permanent observers, and other countries, among them China, and EU are ad hoc observers, see Hønneland (2012).

confidence and that coordination must be flexible enough to adapt to changes during the voyage. However, the governance arrangements must also be able to solve conflicts of interests in a constructive manner. Only then can it be sustainable.

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Arctic Ocean Case Study 2: Maritime Delimitation Treaty between Norway and Denmark/Greenland (the Svalbard Treaty)

1 Introduction

On the 20th of February 2006, the Government of Denmark together with the Home Rule Government of Greenland and the Government of Norway concluded an agreement on the maritime boundary between Greenland and Svalbard within 200 nautical miles of the baselines from which the territorial sea of each party is measured.⁶ The boundary line has been determined on the basis of the median line between relevant coastlines of Greenland and Svalbard and established as a straight line. Furthermore, the boundary line between the respective Parties' part of the continental shelf in the area between Greenland and Svalbard constitutes also the boundary line between the exclusive economic zone of Greenland and the Fisheries Protection Zone (FPZ) around Svalbard. The agreement in addition regulates how the parties should deal with the possible existence of a mineral deposit on the continental shelf (shelves). However, lately there have been some discussions whether the other partners in the Svalbard Treaty also should have the rights to extract the resources in Svalbard's maritime zone(s).

Location and environment

Svalbard (approximately 62 700 square kilometres in area) is located halfway between Mainland Norway and the North Pole. It is situated roughly at the same latitude as the northern part of Greenland (2.2 million square kilometres in area) and the Russian archipelagos of Franz Josef Land (16 100 square kilometres in area) and Novaya Zemlya (83 400 square kilometres in area). The largest island of the Svalbard archipelago is Spitsbergen.

The maritime areas around Svalbard are home to key marine ecosystems. They provide nursery grounds, and are therefore critical for the growth and development of the several juvenile fish stocks with broad distribution patterns. Norwegian Arctic cod is one of the fish stocks with broad migration patterns in the Barents and Norwegian seas.⁷

Socio-economic conditions and industrial activities

About 54 per cent of the land territories is ice-covered. Svalbard has no native population. Most settlements were originally based on coal mining, which were the main activities. Until 1975, when the airport was opened, the archipelago was isolated from the mainland during large parts of the year. In certain cases, some mining companies created "company towns" similar to those related to extractive industries in other isolated Arctic regions. Svalbard has lately become a very popular tourist destination. Furthermore, several nations have established research stations at the

⁶ See Appendix 1 for the full text of the Agreement.

⁷ <http://www.regjeringen.no/en/dep/ud/selected-topics/civil--rights/spesiell-folkerett/folkerettslige-sporsmal-i-tilknytning-ti.html?id=537481>

archipelago. The continental shelf in the areas around Svalbard has not yet been opened for petroleum activities.⁸

People have lived on Greenland for about 5 000 years. Today, 80 percent of the island's people are Inuit; the rest are Danish. Greenland is, with a population of around 56 thousand, the least densely populated dependency or country in the world. The ice cap or inland ice covers over 80 percent of Greenland's total area. The island's economy is mainly based on the fishing industry in addition to quarrying and tourism.⁹

An assessment carried out by geologists indicates that northeastern Greenland may have large oil and gas resources. According to The National Oil Company of Greenland, a total of 50 000 square kilometers and 19 blocks at the north-east coast of Greenland will be licensed for exploration during 2012/ 2013 with an exploration period of 16 years. However, so far there has not been commercial discovery of oil and gas. Arctic resource assessment and exploitation are extremely challenging with high geological uncertainty, technical difficulty, operation costs and environmental sensitivity.¹⁰

2 Context and Conditions

Legal and policy Framework

The 1982 Law of the Sea Convention (UNCLOS) is the primary international legal instrument governing maritime jurisdiction and boundary delimitation of the Arctic Ocean. The rights of coastal States over the continental shelf are reflected in article 77 of UNCLOS.¹¹ All coastal States have a continental shelf that, according to the legal definition, stretches at least to 200 nautical miles as measured from the baselines (1 nautical mile = 1.852 km). In some areas countries will have overlapping claims concerning the continental shelves. The delimitation of the continental shelf between States with opposite or adjacent coasts shall be effected by an agreement on the basis of international law (UNCLOS Article 83).

Consistent with the Svalbard Treaty (also called the Spitsbergen Treaty)¹², Norway has sovereignty over the Archipelago of Svalbard, including Bear Island. Greenland has since 1953 enjoyed home-rule government under Danish rule, and (like the Faroe Islands) is also entitled to send two representatives to the Danish Parliament.¹³

⁸ <http://www.regjeringen.no/en/dep/ud/selected-topics/civil--rights/spesiell-folkerett/folkerettslige-sporsmal-i-tilknytning-ti.html?id=537481>

⁹ <http://www.geographia.com/denmark/greenland.html> and <http://en.wikipedia.org/wiki/Greenland>.

¹⁰ http://www.geo365.no/sfiles/2/12/9/file/oilgasgreenland56_60.pdf and http://www.intsok.com/style/downloads/Nunaoi_PDF_Intsok%20-%20Nunaoil%20fin.pdf

¹¹ http://www.un.org/depts/los/convention_agreements/texts/unclos/part6.htm.

¹² The Spitsbergen Treaty (treaty Concerning the Archipelago of Spitsbergen) was adopted the 9th of February 1920 and entered into force on the 14th of August 1925. See Appendix 2 for the full text of the Treaty.

¹³ <http://www.geographia.com/denmark/greenland.html>.

New baselines for Svalbard were established in 2001 and for Greenland in 2004. According to the documents, which presented the 2006 Agreement on the maritime boundary between Greenland and Svalbard to the Norwegian Parliament, the parties intended to revert to the delimitation of the continental shelf beyond 200 nautical miles in connection with the establishments of the outer limits of the continental shelves of Norway and Denmark, see St. prp. No 51 (2005-2006) and Elferink (2007).¹⁴ The area of overlapping claims delimited by the maritime delimitation treaty between Norway and Denmark/Greenland measured about 150 thousand square kilometres and the boundary line was about 800 kilometres in length¹⁵.

The original Svalbard Treaty entered into force on the 14th of August 1925. All the parties to the Treaty recognized Norway's "full and absolute sovereignty" over the islands (Article 1), but also that the nationals of the non-Norwegian parties retained an equal right to carry out economic activities on the islands as well as in their territorial waters (Articles 2 and 3). All nationals of the contracting parties were to have the same access and were to be treated on equal footing, and Norway was not allowed to benefit economically from their activities through excessive taxation (Article 8). In 1920 - as well as in 1925 - Norway had territorial waters of 4 nautical miles, based on general legislation dating back to 1812. In 2004 Norway established a 12-mile territorial sea in accordance with UNCLOS. The Norwegian Foreign Ministry states the relevant provisions of the Svalbard Treaty that refer to the territorial waters of the archipelago, are given full application out to the limit of the 12-mile territorial sea.

Norway has not established a full economic zone, but a Fisheries Protection Zone around Svalbard (see Map 2.1). This is a 200-nautical-mile zone of fisheries jurisdiction which was established on the 3rd of June 1977 pursuant to the Act of the 17th of December 1976 relating to the Economic Zone of Norway. In accordance with the United Nations Convention on the Law of the Sea, vessels and nationals of other states that are fishing in the Fisheries Protection Zone must comply with the management measures and conditions set out in the legislation and regulatory measures of the coastal State and must comply with that State's enforcement measures. Under the United Nations Convention on the Law of the Sea, Norway, as a coastal State, must ensure that the living resources in the zone are not overharvested. Under the Convention the authority to implement measures in this respect rests with the coastal State.

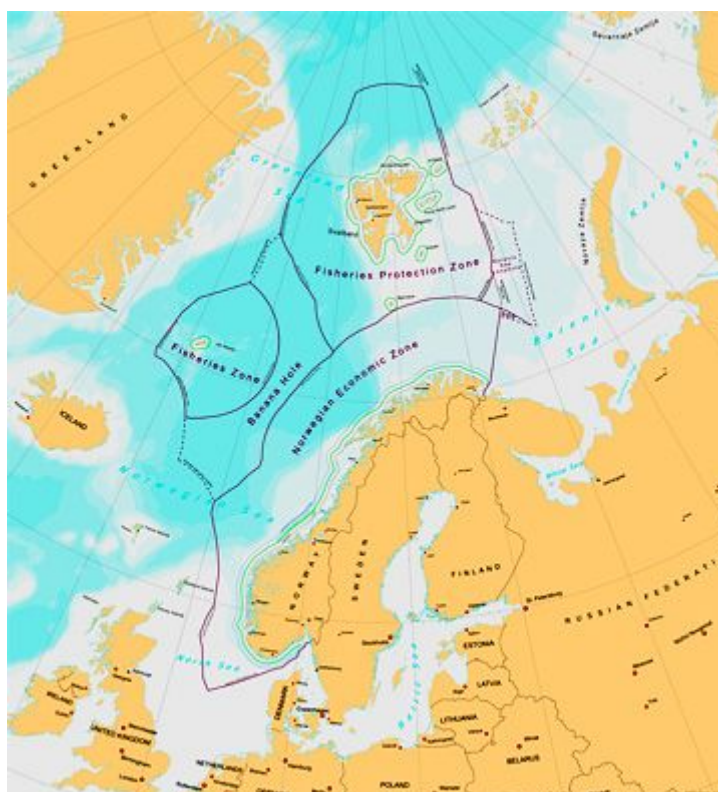
The quotas allocated by Norway are based on fishing activities in the area in the previous ten-year period, an allocation principle that is recognized as non-discriminatory and hence in the spirit of the Svalbard Treaty.¹⁶

¹⁴ According to article 76 and article 4 of Annex II of UNCLOS, each country has an obligation to submit information on the outer limits of its continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. This information is to be submitted to the Commission on the Limits of the Continental Shelf in New York, which has to issue its recommendations. Only on this basis can the coastal State establish the outer limits of its continental shelf finally and with binding effect.

¹⁵ St.prp. nr. 51(2005-2006).

¹⁶ Source: <http://www.regjeringen.no/en/dep/ud/selected-topics/civil--rights/spesiell-folkerett/folkerettslige-sporsmal-i-tilknytning-ti.html?id=537481>

Map 2.1: Norwegian Economic Zone, Fisheries Zone and Fisheries Protection Zone



Source: <http://www.regjeringen.no/en/dep/ud/selected-topics/civil--rights/spesiell-folkerett/folkerettslige-sporsmal-i-tilknytning-ti.html?id=537481>

Other Actors and Agencies

In addition to the 1982 United Nations Convention on the Law of the Sea and the contracting parties of the Svalbard Treaty, the most important governance bodies at the sub-regional sea level are The Arctic Council (AC) and the Nordic Council of Ministers, see Table 1.

Arctic Council

The Arctic Council was established in 1996 as a high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States. The Council should ensure involvement of the Arctic Indigenous Communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic. The member state are Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America. The main objective of the Arctic Council is to promote environment protection in the Arctic and to further the economic, social and cultural well-being of the region's population. The Council produces scientific data and scientific evidence-based recommendations for the use of national decision-makers.

In addition to the member states several Indigenous peoples' organisations have been granted Permanent Participants status in the Arctic Council. The Permanent Participants have full consultation rights in connection with the Council's negotiations and decisions. The Chairmanship of the Arctic Council rotates every two years between the eight member states. The Council's activities are conducted in six working groups. The working groups are composed of representatives at expert

level from sectoral ministries, government agencies and researchers. The groups cover a broad field of subjects, from climate change to emergency response - Arctic Contaminants Action Program (ACAP), Arctic Monitoring and Assessment Programme (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Emergency Prevention, Preparedness and Response (EPPR), Protection of the Arctic Marine Environment (PAME) and Sustainable Development Working Group (SDWG) (<http://www.arctic-council.org/index.php/en/>).

The Nordic Council of Ministers

The Nordic Council of Ministers is the forum for Nordic governmental co-operation. The Prime Ministers have the overall responsibility for Nordic Co-operation. In practice, responsibility is delegated to the Ministers for Nordic Co-operation and to the Nordic Committee for Co-operation, which co-ordinates the day-to-day work of the official political Nordic co-operation.

The Nordic Council of Ministers was established in 1971. The purpose of inter-governmental co-operation in the Nordic Council of Ministers is to work toward joint Nordic solutions that have tangible positive effects – Nordic synergies – for the citizens of the individual Nordic countries.

Denmark, Finland, Iceland, Norway and Sweden have been members of the Nordic Council of Ministers since 1971. In addition, Greenland, the Faroe Islands and Åland have also increased their representation and position in the Nordic Council of Ministers, with the same representation as the above mentioned countries. <http://www.norden.org/en/nordic-council-of-ministers/the-nordic-council-of-ministers>

Table 2a: Global and Seas level governance arrangements for the Arctic Ocean

Governance Arrangement	Area of Coverage	Focus of activity
<p>The 1982 United Nations Convention on the Law of the Sea is often referred to as a constitution for the oceans.</p> <p>Law of the Sea Convention (UNCLOS)</p>	<p>All global seas. The UN has no direct operational role in the implementation of the Convention. There is, however, a role played by organizations such as the International Maritime Organization, the International Whaling Commission, and the International Seabed Authority.</p> <p>The Convention has 162 parties.</p>	<p>Defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources. Contains a number of provisions - setting limits, navigation, archipelagic status and transit regimes, exclusive economic zones (EEZs), continental shelf jurisdiction, deep seabed mining, the exploitation regime, protection of the marine environment, scientific research, and settlement of disputes. The Convention's most important principles and rules are considered to be customary law, and thus also binding on non-parties. States' rights, obligations and responsibilities in relation to the continental shelf and 200-mile zones follow from the Convention's provisions.</p>
<p>Arctic Council (AC)</p>	<p>Member States of the Arctic Council are Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America.</p> <p>In addition to the Member States, the Arctic Council has the category of Permanent Participants. This category is open equally to Arctic organizations of Indigenous peoples</p>	<p>Inter-governmental forum established in 1996, no legal, binding authority.</p> <p>Provide a means for promoting cooperation, coordination and interaction among the Arctic States.</p>

The Nordic Council of Ministers	<p>The Nordic Council of Ministers is a forum for Nordic governmental co-operation.</p> <p>Denmark, Finland, Iceland, Norway and Sweden have been members of the Nordic Council of Ministers since 1971. In addition, Greenland, the Faroe Islands and Åland have also increased their representation and position in the Nordic Council of Ministers, with the same representation as the above mentioned countries.</p>	The purpose of inter-governmental co-operation in the Nordic Council of Ministers is to work toward joint Nordic solutions that have tangible positive effects – Nordic synergies – for the citizens of the individual Nordic countries.
The Svalbard Treaty	Afghanistan, Albania, Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, the Czech Republic, Denmark, the Dominican Republic, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, India, Italy, Japan, Monaco, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, the Russian Federation, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, the United Kingdom, the United States of America, Venezuela.	<p>From Article 1 of the Treaty:</p> <p>«The High Contracting Parties undertake to recognise, subject to the stipulations of the present Treaty, the full and absolute sovereignty of Norway over the Archipelago of Spitsbergen, comprising, with Bear Island or Beeren-Eiland, all the islands situated between [...], together with all islands great or small and rocks appertaining thereto.»</p>

3 Chronology

Cooperation concerning fishing in the arctic waters between Greenland and Svalbard was regulated in a treaty between Greenland/ Denmark and Norway in 1992. The Maritime Delimitation Treaty between Greenland/ Denmark and Norway of 2006 does therefore not specifically bring up fisheries as an issue. However - as mentioned above - the Maritime Delimitation Treaty deals with possible exploration of mineral deposits in the defined area. The treaty was seen by the Norwegian Government to be in accordance with international and national law and was approved by the Parliament (Stortinget).¹⁷ Furthermore, the Norwegian Petroleum Directorate has lately signed a framework agreement with the Greenland Bureau of Minerals and Petroleum for the exchange of information regarding resource management in the two countries. In addition to a general exchange of experience, cooperation is foreseen regarding the exploration and exploitation of petroleum

¹⁷ St.prp.nr. 51 (2005-2006).

resources in the Arctic. The framework agreement can be supplemented with sub-agreements in specific areas agreed on by the parties.¹⁸

Disputed maritime zones around Svalbard

Although Norway has sovereignty over the Archipelago of Svalbard, the other 39 contracting parties (among them all States members of the Arctic Council, China, Japan and most of the larger EU Member States) to the Svalbard Treaty have the same commercial rights (for instance access to hunting, fishing, mining, etc) as Norwegians and all taxes and duties levied there should be devoted exclusively to the archipelago.

There are, however, different views on the geographical scope of application of particular provisions of the Svalbard Treaty. Some of the contracting parties claim that their rights should be extended to include a maritime zone of 200 nautical miles around Svalbard. Denmark has also advocated such a view (Pedersen 2009:320-321).

In addition to states, the autonomous provinces Greenland and the Faroe Islands are independent actors in the Svalbard offshore controversy. The European Union (the Commission) has also been identified as an independent actor (Pedersen 2008:23).

Pedersen (2009:329) argues that through the agreement on the delimitation between Greenland and Svalbard in 2006, Denmark acknowledged that Norway has coastal state jurisdiction in the maritime zones around the archipelago. Nevertheless, Article 3 of the Treaty on Maritime Delimitation between Denmark/ Greenland and Norway has the following wording: «This agreement is without prejudice to the respective Parties' views on questions that are not governed by this Agreement, including questions relating to their exercise of sovereign rights or jurisdiction over the sea and the sea-bed and its subsoil.» According to Elferink (2007:376), the paper which was presented as the 2006 Agreement to the Danish Parliament indicates that the interpretation of the Svalbard Treaty is an example of a question that is covered by the "without prejudice" provision of Article 3 of the Agreement.¹⁹

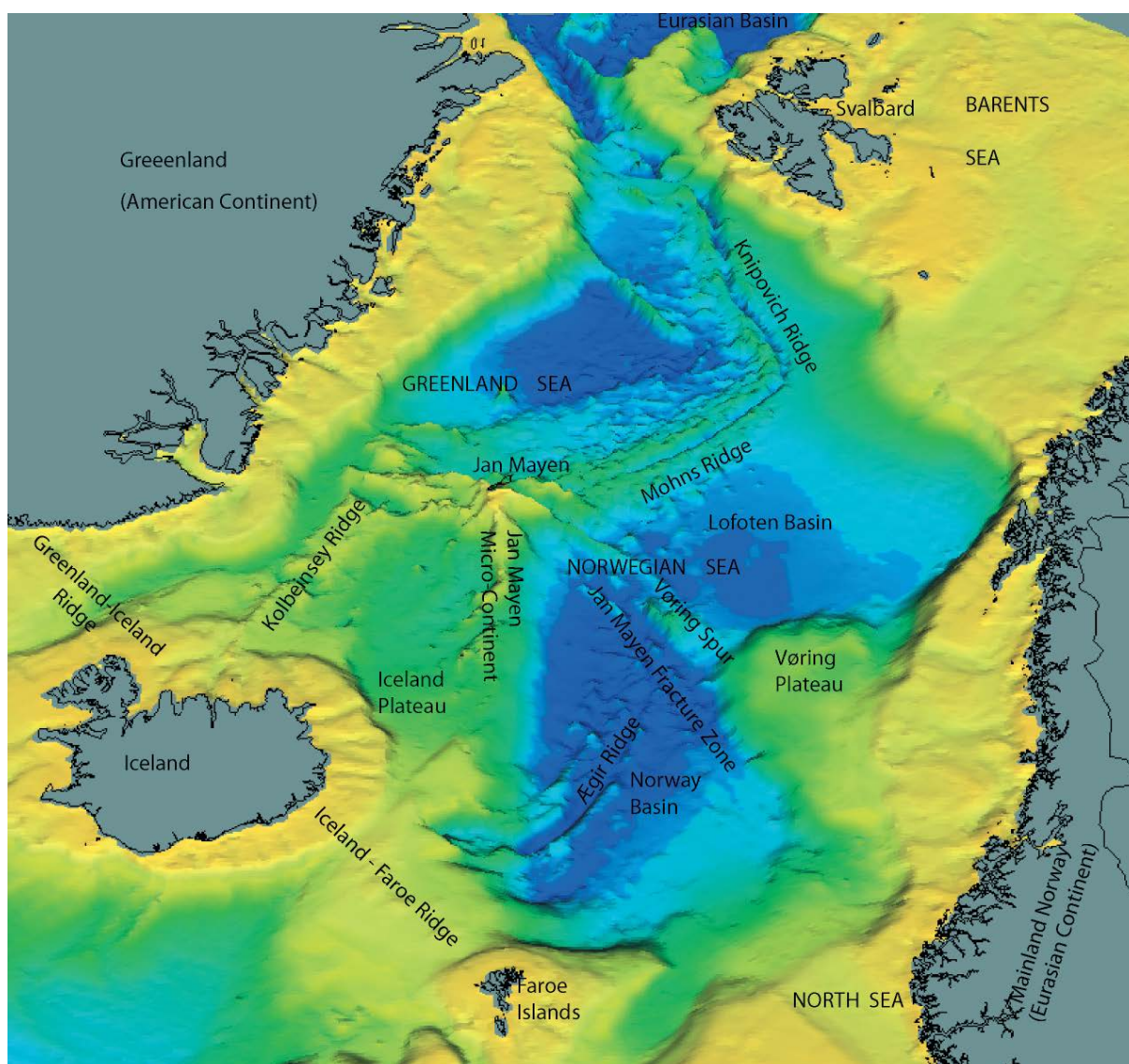
The Ministry of Foreign Affairs states that Norwegian legislation has been based on a premise that there is a continuous continental shelf extending northwards from the coast of the Norwegian mainland, embracing Svalbard.²⁰ The three-dimensional map of the North East Atlantic and adjacent seas in Figure 1Ia illustrates this feature.

¹⁸ <http://www.npd.no/Templates/OD/Article.aspx?id=3507&epslanguage=en>.

¹⁹ Source: <http://www.regjeringen.no/en/dep/ud/selected-topics/civil--rights/spesiell-folkerett/folkerettslige-sporsmal-i-tilknytning-ti.html?id=537481>.

²⁰ <http://www.regjeringen.no/en/dep/ud/selected-topics/civil--rights/spesiell-folkerett/folkerettslige-sporsmal-i-tilknytning-ti.html?id=537481>.

Figure IIa Continental shelves



Source: The Royal Ministry of Foreign Affairs

(<http://www.regjeringen.no/upload/kilde/ud/prm/2006/0375/ddd/pdfv/299461-sokkel.pdf>)

Churchill and Ulfstein (2010) examine the different sets of arguments connected with the disputed maritime zones around Svalbard and reach the conclusion that there is no clear-cut answer to the question whether the equal rights of fishing and mining apply beyond the territorial sea. According to Churchill and Ulfstein (2010:567-568), «the proposition that Svalbard has no continental shelf contradicts Article 121 of UNCLOS, under which (...) every island, apart from an uninhabitable rock, has a continental shelf. The Norwegian government's argument is also contradicted by some of its own recent practice. The boundary established by the 2006 maritime boundary agreement between Norway and Denmark/ Greenland (...) is based on the principle of equidistance, such equidistance being determined by basepoints on Greenland and Svalbard. It is difficult to see how Svalbard can provide basepoints for determining an equidistance line if it does not have a continental shelf. Second, the map accompanying that part of Norway's submission to the Commission on the Limits on the Continental Shelf relating to the area north of Svalbard, the Western Nansen Basin, shows an

area marked as “Continental Shelf beyond 200 miles”. The area shown is beyond 200 miles as measured from Svalbard. But if Svalbard has no continental shelf (as the Norwegian government argues), the “Continental Shelf beyond 200 miles” would have to be delimited from the Norwegian mainland, not Svalbard. Finally, it is difficult to see how Svalbard could generate a 200-mile Fisheries Protection Zone, as Norway claims, but not a continental shelf. Of the other treaty parties, one at least, namely the United Kingdom, has explicitly rejected the Norwegian government’s argument that Svalbard has no continental shelf of its own. The Norwegian government has not referred to this argument in its more recent papers dealing with Svalbard, so it is possible that the argument has been abandoned, and that therefore Norway’s submission to the Commission on the Limits of the Continental Shelf and its agreement with Denmark/ Greenland should be seen as confirmation of such a development rather than as a contradiction of Norway’s (previous) position.

When it comes to the term territorial waters in the Svalbard Treaty, Churchill and Ulfstein (2010:569) argue that «the term “territorial waters” in Article 2 in the Svalbard Treaty must be considered to have the same meaning as the term “territorial sea” has in UNCLOS. This means that “territorial waters” cannot include areas beyond 12 miles from Svalbard’s baselines.»

Nevertheless, it could be discussed whether the Svalbard Treaty should be applied to an Exclusive Economic Zone (EEZ) or Fishery Protection Zone (FPZ) around Svalbard. The authors conclude as follows: «Whether the rights to fish and engage in mining on a footing of equality that all parties to the Treaty expressly enjoy in the territorial sea under Articles 2 and 3 extend to Svalbard’s maritime zones beyond the territorial sea, is uncertain and the subject of dispute between Norway and the other parties to the Svalbard Treaty. On the one hand, it can be argued (as the Norwegian government does) that on a literal reading of the Treaty, the rights in question do not apply beyond the territorial sea. On the other hand, the object and purpose of the Treaty, an evolutionary interpretation, and the anomalies that would be created if the Treaty did not extend beyond the territorial sea all point to the opposite conclusion. Decisions of international courts and tribunals that in the past have been faced with comparable situations do not show a uniformity of view as to how the matter should be resolved: there are cases to support both arguments just outlined. It is therefore not possible to reach a clear-cut and unequivocal conclusion as to the geographical scope of the non-discriminatory right of all parties to the Svalbard Treaty to fish and mine in the waters around Svalbard.»

4 Project Evaluation and lessons for Marine Spatial Planning

The Government of Denmark, the Home Rule Government of Greenland and the Government of Norway concluded in 2006 an agreement on the maritime boundary between Greenland and Svalbard within 200 nautical miles of the baselines from which the territorial sea of each party is measured. There are supposed to be considerable petroleum resources in this area. The agreement regulates how the parties should deal with the existence of a mineral deposit in or on the continental shelf (shelves). So far, there is an ongoing exploration for petroleum resources on the continental shelf of Greenland whereas Svalbard has a 200 miles fisheries protection zone and no petroleum activities.

There seems to be some disputes whether Norway has the rights to all the economic resources in the maritime zones beyond the 12 nautical miles territorial waters of Svalbard or whether the other 39 contracting partners to the Svalbard Treaty should have the possibilities to extract resources on equal footing with the Norwegian. According to the Ministry of Foreign Affairs, Norway is entitled to exercise the rights of the coastal state over the maritime zones beyond the 12 nautical miles territorial waters. It is uncertain whether any of the other contracting partners will take this dispute to an international court – which might be the consequences for the Maritime Delimitation Treaty between Norway and Denmark/Greenland. Arctic resource assessment and exploitation are extremely demanding with high geological uncertainty, technical difficulty, operation costs and environmental sensitivity. The maritime areas around Svalbard are home to key marine ecosystems. The more partners involved in an area, the more challenging the resource management might be.

The most important governance body at the Arctic Sea level are The Arctic Council (AC) and the Nordic Councils of Ministers. The Arctic Council's main focus has been on environmental issues and involvement of indigenous people in governance of the Arctic. However, in a governance perspective the Arctic Council is primarily a forum for *soft law* and has no binding or regulatory authority and, it is dealing with *low politics* issues such as environment and living conditions in the Arctic.

In a summary of the Arctic Council and its constitutive instruments Koivurova and Molenaar (2009) conclude that there are several main governance and regulatory gaps. First of all, the Arctic Council cannot impose legally binding obligations on its participants and decisions are based on consensus. Secondly, the Arctic Council is project-driven and not an operational body which can execute policies. Thirdly, its limited participation also gives the Arctic Council a limited role and power on the international agenda, and vis-à-vis non-arctic states which may be important for the development in the Arctic²¹. The arrangement with the rotating secretariat which also was listed as a gap has now been replaced by a permanent independent secretariat based in Tromsø, Norway. Finally, the lack of bespoke funding is also a weakness since project-funding is more uncertain and limited.

²¹ Several states are now entitled as observers, France, the Netherlands, Poland, Spain, Great Britain and Germany are permanent observers, and other countries, among them China, and EU are ad hoc observers, see Hønneland (2012).

Lessons for Marine Spatial Planning

The Arctic Council has no binding or regulatory authority and therefore has to rest on consensus-based policy recommendation and work through partnerships and networks. Although the Nordic Councils of Ministers can make decisions concerning inter-Nordic matters, the dispute on the maritime zones around Svalbard involves many additional countries.

How such disputes may affect the governance effectiveness in the Arctic is hard to tell. The Arctic Council plays a very important role in contributing to the scientific knowledge base of the Arctic Ocean, particularly on environmental issues. This makes a solid basis for a science-based policy in the area. The Arctic Council may also develop into a more important governance arrangement as more states are represented in the council. Nevertheless, there is the necessity of having an integrated governance approach to the management of oceans. Another lesson from the case study is that regional cooperation in the Arctic, as in general, must be based on common interests between the parties in order to build confidence (social capital) and that coordination must be flexible enough to adapt to changes during the voyage. At the same time, governance arrangements must be strong enough to solve conflicts of interests in a constructive manner. Only then can governance be sustainable.

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APPENDIX 1**Agreement between the Government of the Kingdom of Norway on the one hand, and the Government of the Kingdom of Denmark together with the Home Rule Government of Greenland on the other hand concerning the delimitation of the continental shelf and the fisheries zones in the area between Greenland and Svalbard²²**

The Government of the Kingdom of Norway on the one hand, and the Government of the Kingdom of Denmark together with the Home Rule Government of Greenland on the other hand,

Desiring to maintain and strengthen the good neighbourly relations between Norway and Greenland/Denmark, and

Intending to revert to the delimitation of the continental shelf beyond 200 nautical miles in connection with the establishment on the outer limits of the continental shelf,

Have agreed as follows:

Article 1

Within 200 nautical miles of the baselines from which the territorial sea of each Party is measured, the boundary line between the respective Parties' part of the continental shelf in the area between Greenland and Svalbard, which also constitutes the boundary line between the exclusive economic zone of Greenland and the Fisheries Protection Zone around Svalbard, has been determined on the basis of the median line between relevant coastlines of Greenland and Svalbard and on the basis of negotiations between the Parties and established as straight lines joining the following points in the order specified below:

[.....]

All straight lines are geodetic lines.

The points listed above are defined by geographic latitude and longitude in accordance with the World Geodetic System 1984 (WGS84).

By way of illustration, the boundary line and the points listed above have been drawn on the chart annexed to the Agreement.

Article 2

If the existence of a mineral deposit in or on the continental shelf of one of the Parties is established and the other Party is of the opinion that the said deposit extends onto its continental shelf, the latter Party may notify the former Party accordingly, at the same time submitting the data on which it bases its opinion.

If such an opinion is submitted, the Parties shall initiate discussions on the extent of the deposit and the possibility for exploitation. In the course of these discussions, the Party initiating them shall support its opinion by evidence from geophysical data and geological data, including in due course any drilling data, and both Parties shall use their best efforts to ensure that all relevant information is made available for the purposes of the discussions. If it is established during these discussions that the

²² An English translation of the Agreement (registered at the United Nations on the 7th of July 2006, Registration No. 42887), accessed from Elferink (2007) Appendix 1.

deposit extends onto the continental shelf of both Parties and also that the minerals in the continental shelf of the one Party can be exploited wholly or in part from the continental shelf of the other party, or that the exploitation of the minerals in the continental shelf of the one party would affect the possibility of exploitation of the minerals in the continental shelf of the other Party, agreement on the exploitation of the deposit shall be reached at the request of one of the Parties, including as to the manner in which any such deposit shall be most effectively exploited and the proceeds relating thereto shall be apportioned.

The Parties shall make every effort to resolve any disagreement as rapidly as possible. If, however, the Parties fail to agree, they shall jointly consider all of the options for resolving the impasse including inviting the opinion of independent experts.

Article 3

This agreement is without prejudice to the respective Parties' views on questions that are not governed by this Agreement, including questions relating to their exercise of sovereign rights or jurisdiction over the sea and the sea-bed and its subsoil.

Article 4

This Agreement enters into force when the Parties have notified each other in writing that the necessary procedures have been completed.

Done at Copenhagen on the 20th day of February 2006 in duplicate in the Norwegian, Danish and Greenlandic languages, all three texts being equally authentic.

FOR THE GOVERNMENT OF THE KINGDOM OF NORWAY

FOR THE GOVERNMENT OF THE KINGDOM OF DENMARK

FOR THE HOME RULE GOVERNMENT OF GREENLAND

APPENDIX 2**Treaty between Norway, the United States of America, Denmark, France, Italy, Japan, the Netherlands, the Great Britain and Ireland and the British Dominions beyond the Seas and Sweden relating to Spitsbergen of 9 February 1920**

The Treaty has been ratified by all of the said signatories and the instruments of ratification have been deposited at Paris on the following dates: the Netherlands 3 September 1920, Great Britain and Ireland 29 December 1923, Denmark 24 January 1924, the United States of America 2 April 1924, Italy 6 August 1924, France 6 September 1924, Sweden 15 September 1924, Norway 8 October 1924, Japan 2 April 1925.

The Treaty entered into force in its entirety on 14 August 1925.

As of 14 September 1999, the following states are parties to the Svalbard Treaty: Afghanistan, Albania, Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Chile, China, Denmark, the Dominican Republic, Estonia, Egypt, Finland, France, Germany, Greece, Hungary, Iceland, India, Italy, Japan, Monaco, the Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russia, Saudi Arabia, Spain, Sweden, Switzerland, South Africa, the United Kingdom, the United States of America and Venezuela

Article 1

The High Contracting Parties undertake to recognize, subject to the stipulations of the present Treaty, the full and absolute sovereignty of Norway over the Archipelago of Spitsbergen, comprising, with Bear Island of Beeren-Eiland, all the islands situated between 10° and 35° longitude East of Greenwich and between 74° and 81° latitude North, especially West Spitsbergen, North-East Land, Barents Island, Edge Island, Wiche Islands, Hope Island or Hopen-Eiland, and Prince Charles Forland, together with all islands great or small and rocks appertaining thereto.

Article 2

Ships and nationals of all the High Contracting Parties shall enjoy equally the rights of fishing and hunting in the territories specified in Article 1 and in their territorial waters.

Norway shall be free to maintain, take or decree suitable measures to ensure the preservation and, if necessary, the re-constitution of the fauna and flora of the said regions, and their territorial waters; it being clearly understood that these measures shall always be applicable equally to the nationals of all the High Contracting Parties without any exemption, privilege or favour whatsoever, direct or indirect to the advantage of any one of them.

Occupiers of land whose rights have been recognized in accordance with the terms of Articles 6 and 7 will enjoy the exclusive right of hunting on their own land: 1) in the neighbourhood of their habitations, houses, stores, factories and installations, constructed for the purpose of developing their property, under conditions laid down by the local police regulations; 2) within a radius of 10 kilometres round the headquarters of their place of business or works; and in both cases, subject always to the observance of regulations made by the Norwegian Government in accordance with the conditions laid down in the present Article.

Article 3

The nationals of all the High Contracting Parties shall have equal liberty of access and entry for any reason or object whatever to the waters, fjords and ports of the territories specified in Article 1; subject to the observance of local laws and regulations, they may carry on there without impediment all maritime, industrial, mining and commercial operations on a footing of absolute equality.

They shall be admitted under the same conditions of equality to the exercise and practice of all maritime, industrial, mining or commercial enterprises both on land and in the territorial waters, and no monopoly shall be established on any account or for any enterprise whatever.

Notwithstanding any rules relating to coasting trade which may be in force in Norway, ships of the High Contracting Parties going to or coming from the territories specified in Article 1 shall have the right to put into Norwegian ports on their outward or homeward voyage for the purpose of taking on board or disembarking passengers or cargo going to or coming from the said territories, or for any other purpose.

It is agreed that in every respect and especially with regard to exports, imports and transit traffic, the nationals of all the High Contracting Parties, their ships and goods shall not be subject to any charges or restrictions whatever which are not borne by the nationals, ships or goods which enjoy in Norway the treatment of the most favoured nation; Norwegian nationals, ships or goods being for this purpose assimilated to those of the other High Contracting Parties, and not treated more favourably in any respect.

No charge or restriction shall be imposed on the exportation of any goods to the territories of any of the Contracting Powers other or more onerous than on the exportation of similar goods to the territory of any other Contracting Power (including Norway) or to any other destination.

Article 4

All public wireless telegraphy stations established or to be established by, or with the authorization of, the Norwegian Government within the territories referred to in Article 1 shall always be open on a footing of absolute equality to communications from ships of all flags and from nationals of the High Contracting Parties, under the conditions laid down in the Wireless Telegraphy Convention of July 5, 1912, or in the subsequent International Convention which may be concluded to replace it.

Subject to international obligations arising out of a state of war, owners of landed property shall always be at liberty to establish and use for their own purposes wireless telegraphy installations, which shall be free to communicate on private business with fixed or moving wireless stations, including those on board ships and aircraft.

Article 5

The High Contracting Parties recognize the utility of establishing an international meteorological station in the territories specified in Article 1, the organization of which shall form the subject of a subsequent Convention.

Conventions shall also be concluded laying down the conditions under which scientific investigations may be conducted in the said territories.

Article 6

Subject to the provisions of the present Article, acquired rights of nationals of the High Contracting Parties shall be recognized.

Claims arising from taking possession or from occupation of land before the signature of the present Treaty shall be dealt with in accordance with the Annex hereto, which will have the same force and effect as the present Treaty.

Article 7

With regard to methods of acquisition, enjoyment and exercise of the right of ownership of property, including mineral rights, in the territories specified in Article 1, Norway undertakes to grant to all nationals of the High Contracting Parties treatment based on complete equality and in conformity with the stipulations of the present Treaty.

Expropriation may be resorted to only on grounds of public utility and on payment of proper compensation.

Article 8

Norway undertakes to provide for the territories specified in Article 1 mining regulations which, especially from the point of view of imposts, taxes or charges of any kind, and of general or particular labour conditions, shall exclude all privileges, monopolies or favours for the benefit of the State or of the nationals of any one of the High Contracting Parties, including Norway, and shall guarantee to the paid staff of all categories the remuneration and protection necessary for their physical, moral and intellectual welfare.

Taxes, dues and duties levied shall be devoted exclusively to the said territories and shall not exceed what is required for the object in view.

So far, particularly, as exportation of minerals is concerned, the Norwegian Government shall have right to levy an export duty which shall not exceed 1 per cent of the maximum value of the minerals exported up to 100 000 tons, and beyond that quantity the duty will be proportionately diminished. The value shall be fixed at the end of the navigation season by calculating the average free on board price obtained.

Three months before the date fixed for their coming into force, the draft mining regulations shall be communicated by the Norwegian Government to the other Contracting Powers. If during this period one or more of the said Powers propose to modify these regulations before they are applied, such proposals shall be communicated by the Norwegian Government to the other Contracting Powers in order that they may be submitted to examination and the decision of a Commission composed of one representative of each of the said Powers. This Commission shall meet at the invitation of the Norwegian Government and shall come to a decision within a period of three months from the date of its first meeting. Its decisions shall be taken by a majority.

Article 9

Subject to the rights and duties resulting from the admission of Norway to the League of Nations, Norway undertakes not to create nor to allow the establishment of any naval base in the territories

specified in Article 1 and not to construct any fortification in the said territories, which may never be used for warlike purposes.

Article 10

Until the recognition by the High Contracting Parties of a Russian Government shall permit Russia to adhere to the present Treaty, Russian nationals and companies shall enjoy the same rights as nationals of the High Contracting Parties.

Claims in the territories specified in Article 1 which they may have to put forward shall be presented under the conditions laid down in the present Treaty (Article 6 and Annex) through the intermediary of the Danish Government, who declare their willingness to lend their good offices for this purpose.

The present Treaty, of which the French and English texts are both authentic, shall be ratified.

Ratifications shall be deposited at Paris as soon as possible.

Powers of which the seat of the Government is outside Europe may confine their action to informing the Government of the French Republic, through their diplomatic representative at Paris, that their ratification has been given, and in this case, they shall transmit the instrument as soon as possible.

The present Treaty will come into force, in so far as the stipulations of Article 8 are concerned, from the date of its ratification by all the signatory Powers; and in all other respects on the same date as the mining regulations provided for in that Article.

Third Powers will be invited by the Government of the French Republic to adhere to the present Treaty duly ratified. This adhesion shall be effected by a communication addressed to the French Government, which will undertake to notify the other Contracting Parties.

In witness whereof the above named Plenipotentiaries have signed the present Treaty.

Done at Paris, the ninth day of February, 1920, in duplicate, one copy to be transmitted to the Government of His Majesty the King of Norway, and one deposited in the archives of the French Republic; authenticated copies will be transmitted to the other Signatory Powers.

Annex***1.***

(1) Within three months from the coming into force of the present Treaty, notification of all claims to land which had been made to any Government before the signature of the present Treaty must be sent by the Government of the claimant to a Commissioner charged to examine such claims. The Commissioner will be a judge or jurisconsult of Danish nationality possessing the necessary qualifications for the task, and shall be nominated by the Danish Government.

(2) The notification must include a precise delimitation of the land claimed and be accompanied by a map on a scale of not less than 1:1,000,000 on which the land claimed is clearly marked.

(3) The notification must be accompanied by the deposit of a sum of one penny for each acre (40 acres) of land claimed, to defray the expenses of the examination of the claims.

(4) The Commissioner will be entitled to require from the claimants any further documents or information which he may consider necessary.

(5) The Commissioner will examine the claims so notified. For this purpose he will be entitled to avail himself of such expert assistance as he may consider necessary, and in case of need to cause investigation to be carried out on the spot.

(6) The remuneration of the Commissioner will be fixed by agreement between the Danish Government and the other Governments concerned. The Commissioner will fix the remuneration of such assistants as he considers it necessary to employ.

(7) The Commissioner, after examining the claims, will prepare a report showing precisely the claims which he is of opinion should be recognized at once and those which, either because they are disputed or for any other reason, he is of opinion should be submitted to arbitration as hereinafter provided. Copies of this report will be forwarded by the Commissioner to the Governments concerned.

(8) If the amount of the sums deposited in accordance with clause (3) is insufficient to cover the expenses of the examination of the claims, the Commissioner will, in every case where he is of opinion that a claim should be recognized, at once state what further sum the claimant should be required to pay. This sum will be based on the amount of the land to which the claimant's title is recognized. If the sums deposited in accordance with clause (3) exceed the expenses of the examination, the balance will be devoted to the cost of the arbitration hereinafter provided for.

(9) Within three months from the date of the report referred to in clause (7) of this paragraph, the Norwegian Government shall take the necessary steps to confer upon claimants whose claims have been recognized by the Commissioner a valid title securing to them the exclusive property in the land in question, in accordance with the laws and regulations in force or to be enforced in the territories specified in Article 1 of the present Treaty, and subject to the mining regulations referred to in Article 8 of the present Treaty.

In the event, however, of a further payment being required in accordance with clause (8) of this paragraph, a provisional title only will be delivered, which title will become definitive on payment by the claimant, within such reasonable period as the Norwegian Government may fix, of the further sum required of him.

2.

Claims which for any reason the Commissioner referred to in clause (1) of the preceding paragraph has not recognized as valid will be settled in accordance with the following provisions:

(1) Within three months from the date of the report referred to in clause (7) of the preceding paragraph, each of the Governments whose nationals have been recognized will appoint an arbitrator.

The Commissioner will be the President of the Tribunal so constituted. In cases of equal division of opinion, he shall have the deciding vote. He will nominate a Secretary to receive the documents referred to in clause (2) of this paragraph and to make the necessary arrangements for the meeting of the Tribunal.

(2) Within one month from the appointment of the Secretary referred to in clause (1) the claimants concerned will send to him through the intermediary of their respective Governments statements indicating precisely their claims and accompanied by such documents and arguments as they may wish to submit in support thereof.

(3) Within two months from the appointment of the Secretary referred to in clause (1) the Tribunal shall meet at Copenhagen for the purpose of dealing with the claims which have been submitted to it.

(4) The language of the Tribunal shall be English. Documents or arguments may be submitted to it by the interested parties in their own language, but in that case must be accompanied by an English translation.

(5) The claimants shall be entitled, if they so desire, to be heard by the Tribunal either in person or by counsel, and the Tribunal shall be entitled to call upon the claimants to present such additional explanations, documents or arguments as it may think necessary.

(6) Before the hearing of any case the Tribunal shall require from the parties a deposit or security for such sum as it may think necessary to cover the share of each party in the expenses of the Tribunal. In fixing the amount of such sum the Tribunal shall base itself principally on the extent of the land claimed. The Tribunal shall also have power to demand a further deposit from the parties in cases where special expense is involved.

(7) The honorarium of the arbitrators shall be calculated per month, and fixed by the Governments concerned. The salary of the Secretary and any other persons employed by the Tribunal shall be fixed by the President.

(8) Subject to the provisions of this Annex the Tribunal shall have full power to regulate its own procedure.

(9) In dealing with the claims the Tribunal shall take into consideration:

- a. any applicable rules of International Law;
- b. the general principles of justice and equity;
- c. the following circumstances:
 - i. the date on which the land claimed was first occupied by the claimant or his predecessors in title;
 - ii. the date on which the claim was notified to the Government of the claimant;
 - iii. the extent to which the claimant or his predecessors in title have developed and exploited the land claimed. In this connection the Tribunal shall take into account the extent to which the claimants may have been prevented from developing their undertakings by conditions or restrictions resulting from the war of 1914-1919.

(10) All the expenses of the Tribunal shall be divided among the claimants in such proportion as the Tribunal shall decide. If the amount of the sums paid in accordance with clause (6) is larger than the

expenses of the Tribunal, the balance shall be returned to the parties whose claims have been recognized in such proportion as the Tribunal shall think fit.

(11) The decisions of the Tribunal shall be communicated by it to the Governments concerned, including in every case the Norwegian Government.

The Norwegian Government shall within three months from the receipt of each decision take the necessary steps to confer upon the claimants whose claims have been recognized by the Tribunal a valid title to the land in question, in accordance with the laws and regulations in force or to be enforced in the territories specified in Article 1, and subject to the mining regulations referred to in Article 8 of the present Treaty. Nevertheless, the titles so conferred will only become definitive on the payment by the claimant concerned, within such reasonable period as the Norwegian Government may fix, of his share of the expenses of the Tribunal.

3.

Any claims which are not notified to the Commissioner in accordance with clause (1) of paragraph 1, or which not having been recognized by him are not submitted to the Tribunal in accordance with paragraph 2, will be finally extinguished.

Arctic Ocean Case Study 3: Maritime delimitation treaty between Norway and Russia (Barents Treaty)

1 Introduction

On 15th September 2010 Norway and Russia signed the treaty on maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean. The treaty was approved by the national assembly's of Norway (the Storting) and Russia (the Duma) in spring 2011 and ratified later that year. The treaty entered into force on the 7th of July 2011 and it marked an end to an almost forty year long border disputes in the Barents Sea and the Arctic sea between Norway and Russia. The Treaty applies to Norway's and Russia's respective exclusive economic zones (in addition to the Fisheries Protection Zone around Svalbard) and the continental shelf within and beyond 200 nautical miles (Jensen 2011). The treaty will ensure the continuation of the Norwegian-Russian fisheries cooperation, and governs cooperation on the exploitation of any petroleum deposits that extend across the delimitation line.

Location and environment

The Barents Sea is the part of the Arctic Ocean to the north of the Norwegian and Russian mainland coasts. It is a rather deep shelf sea, its average depth is 230 m and maximum depth is 450 m. The Barents Sea is bordered by the shelf edge towards the Norwegian Sea in the west, the islands of Svalbard (Norway) in the northwest, and the islands of Franz Josef Land and Novaya Zemlya (Arkhangelsk Oblast) in the northeast and east. Novaya Zemlya separates the Kara Sea from the Barents Sea, (see Map 3.1). The southern half of the Barents Sea, including the ports of Murmansk (Russia) and Vardø (Norway) remains ice-free all year round due to the warm North Atlantic drift which is an eastern extension of the Gulf Stream (<http://www.weatheronline.co.uk>). In September, the entire Barents Sea is more or less completely ice-free.

The land along the coast of the Barents Sea is named the Barents Region. The concept came in to use after the fall of the Soviet Union and can be seen as a political ambition to establish international cooperation. The regional cooperation was formally opened on January 11, 1993, initiated by Norway. The total population of the Barents Euro-Arctic Region is approximately 5.54 million people. The surface Area is 1 755 800 sq km, which equals the combined surface area of France, Spain, Germany, Italy and the Netherlands. The population density is 3.2 inhabitants per sq km and varies from 0.3 (Nenets) to 8.0 (Oulu). The region consists of 13 counties (equiv.) in the northernmost parts of Norway, Sweden, Finland and Russia. The largest cities in the region are; in Russia Murmansk (317 500 in 2007), Archangelsk (335 000 in 2006), Petrozavodsk (266 300 in 2007) and Syktyvkar (228 928 in 2005); in Sweden Umeå (111 771 in 2007) and Luleå (73 313 in 2006); in Norway Tromsø (65 286 in 2008) and Bodø (46 049 in 2008); in Finland Oulu (131 926 in 2008) and Rovaniemi (58 964 in 2008) (www.barentsinfo.org).

Map 3.1: The Barents Sea



Source: http://en.wikipedia.org/wiki/Barents_Sea

Socio-economic conditions and industrial activities

The Barents Sea is an area of high economic interest due to valuable natural resources, particularly fish and oil and gas. The fisheries resources in the area are amongst the richest in the world, generating a considerable level of economic activities and are vital for keeping up sustainable coastal societies in the Barents region. All economically significant fish stocks have been overexploited in the past, but the introduction of fishing bans, the adoption of management measures, and the fight against illegal, unregulated, and unreported fishing have proved effective in helping stocks to recover. Today the stock of cod is the largest in the world, the stock of haddock is also very high and so is the smelt. The Joint Norwegian-Russian Fisheries Commission (<http://www.jointfish.com/eng>), which was established in 1976 to manage cod, haddock and capelin in the Barents Sea, has been a significant body in achieving this result. The Commission is also involved in other aspects of fisheries regulation, and since 1993 fishery control has become an important dimension of the bilateral management cooperation in the Barents Sea.

The Barents Sea is also expected to hold vast hydrocarbon resources. A recent assessment by the U.S. Geological Survey estimated the mean undiscovered, conventional and technically recoverable petroleum resources in the Barents Sea Shelf includes eleven billion barrels of crude oil, 380 trillion cubic feet of natural gas, and two billion barrels of natural gas liquids (Klett and Gautier 2009).

Norway and Russia extended their exploration activities to the potential hydrocarbon-bearing reservoirs in the region in the late 1970s, but in the 1980s they agreed not to carry out exploration or exploitation activities in the previously disputed area.

With an increasing global energy demand and high oil prices, the Barents Sea has increasingly become a main centre of attention of the oil industry. The world's largest offshore gas reserve, Shtockman, was discovered in the Russian sector of the Barents Sea in 1988, but it is not yet in production. Discussions are on-going on how and when to develop this giant field. Starting in 2007, LNG gas from the Snøhvit field is produced in the Norwegian sector to supply the world market, while the Goliat oil field - also in the Norwegian sector - will enter its production phase in the coming years. In 2011 two new fields were discovered in the Norwegian sector, the Skrugard oil field and Norvarg gas field, and in 2012 one more oil field, Havis, was found. With an increasing offshore oil and gas industrial activities, there will be an increasing maritime transport along the coast of Russia and Norway. This may endanger the Barents Sea eco-system.

2 Context and Conditions

This sector gives a brief overview of the legal and policy framework for management of the Barents Sea.

The legal and policy Framework for management of the Barents Sea

The 1982 Law of the Sea Convention (UNCLOS) is the primary international legal instrument governing maritime jurisdiction and boundary delimitation of the Arctic Ocean, included the Barents Sea. This Convention is referred to and make up the legal basis for the Barents Sea Treaty. The main legal instruments and policies guiding the management of the Barents Sea are listed in Table 3a.

Table 3a: Global and Seas level governance arrangements for the Arctic Ocean

Governance Arrangement	Area of Coverage	Focus of activity
Law of the Sea Convention (UNCLOS)	All global seas. The UN has no direct operational role in the implementation of the Convention. There is, however, a role played by organizations such as the International Maritime Organization, the International Whaling Commission, and the International Seabed Authority.	Defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources. Contain a number of provisions - setting limits, navigation, archipelagic status and transit regimes, exclusive economic zones (EEZs), continental shelf jurisdiction, deep seabed mining, the exploitation regime, protection of the marine environment, scientific research, and settlement of disputes.
Arctic Council (AC)	Member States of the Arctic Council are Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America. In addition to the Member States, the Arctic Council has the category of Permanent Participants. This category is open equally to Arctic organizations of Indigenous peoples	Inter-governmental forum established in 1996, no legal, binding authority. Provide a means for promoting cooperation, coordination and interaction among the Arctic States.
Barents Euro-Arctic Council (BEAC)	Denmark, Finland, Iceland, Norway, Russia, Sweden, European Commission, and observer States are Canada, France, Germany, Italy, Japan, the Netherlands, Poland, United Kingdom and United States.	Forum for intergovernmental and interregional cooperation in the Barents Region. Promote stability, sustainable development and security in the most densely populated Arctic area.
Barents Regional Council (BRC)	13 regions from Finland, Norway, Russia and Sweden and a representative of the indigenous peoples in the northernmost parts of Finland, Norway and Sweden and north-west Russia.	A Regional Council for the Barents Euro-Arctic Region with the same objectives as the BEAC - to support and promote co-operation and development in the Barents Region.
The Norwegian-Russian Joint Fisheries Commission	Norway and Russia	Control Barents Sea fishing, set quotas, fish size and mesh size. Bilateral management cooperation and long-term strategies for the fish stock in the Barents Sea.

3 Actors and Agencies

The most important governance bodies at the sub-regional sea level are The Arctic Council (AC), Council of the Baltic Sea States (CBSS), The Barents Euro-Arctic Council and the Nordic Council of Ministers and, The Norwegian-Russian Joint Fisheries Commission.

Arctic Council

The Arctic Council was established in 1996 as a high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States. The Council should ensure involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues, in particular issues of sustainable development and environmental protection in the Arctic. The member states are Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America. The main objective of the Arctic Council is to promote environment protection in the Arctic and to further the economic, social and cultural well-being of the region's population. The Council produces scientific data and scientific evidence-based recommendations for the use of national decision-makers.

In addition to the member states several Indigenous peoples' organisations have been granted Permanent Participants status in the Arctic Council. The Permanent Participants have full consultation rights in connection with the Council's negotiations and decisions. The Chairmanship of the Arctic Council rotates every two years between the eight member states. The Council's activities are conducted in six working groups. The working groups are composed of representatives at expert level from sectoral ministries, government agencies and researchers. The groups cover a broad field of subjects, from climate change to emergency response - Arctic Contaminants Action Program (ACAP), Arctic Monitoring and Assessment Programme (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Emergency Prevention, Preparedness and Response (EPPR), Protection of the Arctic Marine Environment (PAME) and Sustainable Development Working Group (SDWG).

Barents Euro-Arctic Council (BEAC) and the Barents Regional Council (BRC)

The Barents Euro-Arctic Council (BEAC) and the Barents Regional Council (BRC) were established in 1993. Members of the BEAC are Denmark, Finland, Iceland, Norway, Russia, Sweden, European Commission, and observer States are Canada, France, Germany, Italy, Japan, the Netherlands, Poland, United Kingdom and United States. Members of the BRC are 13 regions from Finland, Norway, Russia and Sweden. The objective of the Barents Euro-Arctic Council (BEAC) is to promote stability, sustainable development and security in the most densely populated Arctic area – the Barents Region. Together the BEAC and the BRC constitute an important cooperation forum for regional administrative officials, nongovernmental organisation and Northern indigenous people.

The BEAC meets at Foreign Ministers level in the chairmanship country at the end of term of office. The chairmanship rotates every second year, between Norway, Finland, Russia and Sweden. Between the BEAC meetings at Foreign Minister level every second year, work is organised by the Committee of Senior Officials (CSO). The CSO consists of civil servants representing the governments of the six member countries and the European Commission. Representatives of the nine observer states are also often given the possibility to participate. The CSO meets on a regular basis 4-5 times per year and most often in the country holding the Chair of the BEAC. The activities of the Barents Euro-Arctic Council (BEAC) have expanded over time. A number of working groups have been established to assist the CSO. The working groups report to the CSO each year and the CSO gives guidance to the

groups. The CSO has the mandate to establish new Working Groups or terminate groups that have completed their task.

The Barents Regional Committee is a forum for civil servants from the member counties and a representative of the indigenous peoples which is responsible for preparing the meetings of the Barents Regional Council. The Committee prepares the meetings of the Regional Council and implements the decisions taken by the Regional Council. The Chairmanship of the Regional Committee is held by the same county as that of the Regional Council, and consequently alternates every second year. There are working groups for environment, communications, youth issues, information technology and economic cooperation and also four joint working groups with the Barents Euro-Arctic Council: health and related social issues, education and research, energy and culture. The joint working groups have a shared chairmanship on national and regional levels. They report both to the Regional Council and the BEAC. Working group of indigenous peoples is the only working group established on a permanent basis and given an advisory role to the Barents Euro-Arctic Council and the Regional Council. Each country has the responsibility to cover expenses for their participation in the regional working groups. The Chair County of each working group has the general financial responsibility for the activities, for example apply for funding at relevant finance institutions i.e. EU programmes (http://www.beac.st/in_English/Barents_Euro-Arctic_Council.iw3).

The Norwegian-Russian Joint Fisheries Commission

The Norwegian-Russian Joint Fisheries Commission is an instrument for a common management of the most important fish stocks in the Barents Sea and the Norwegian Sea. It was established in 1974 and had its first meeting in 1976. Since the Commission was established it has dealt with questions on quotas, minimum size for living marine resources, regulation of mesh size and satellite monitoring of fisheries and transport vessels in addition to several other issues related to the control of catchment of living marine resources in the Barents sea. The new Barents Sea Treaty also states that the Norwegian-Russian Joint Fisheries Commission shall continue to assess how to improve measures for monitoring and control of stocks of fish under common Norwegian-Russian management.

There are several sub-committees for The Norwegian-Russian Joint Fisheries Commission. Firstly, there is the permanent Norwegian-Russian Committee for management and control of fisheries (Det permanente utvalg). This committee was established in order to increase the efficiency of the resource control and the regulation of the fisheries. The committee implements measures from the fisheries commission and exchange information on legal fisheries issues in the Barents Sea and the Norwegian Sea, the NEAFC-area. There is also a sub-committee for the permanent committee which prepares common control measurements and imposes penalties for violation of the fisheries regulation in the NEAFC-area. There are several working groups, such as the group for preparing technical regulation for sustainable and economically fishing of the common fisheries stock in the Barents and the Norwegian Sea. Another group is responsible for re-calculation of the stock of cod and haddock in order to ensure an accurate estimate of the total fisheries in the area. There is also an expert-group a pilot-project on electronic reporting and catchment diary. Finally, there is an analyse group which assess the total catchment of cod and haddock by using a method data from satellites and information on transport and landing of fisheries products in harbours (<http://www.jointfish.com/nno>).

4 Chronology

This section gives a brief overview of the Maritime delimitation negotiations between Norway and Russia and The Barents Sea Treaty and some of its implications.

Maritime delimitation negotiations between Norway and Russia

The maritime delimitation between Norway and Russia started in 1967 as a negotiation on delimitation of the continental shelf between the two countries. Formal negotiation began in 1974 and the Barents Sea Treaty came into force in 2011. The two parties held very different views on the demarcation line (Aasen 2010). Norway advocated the *median-line* principle and wanted to share the waters and seabed areas equally between the two states. The USSR and later Russia insisted that the demarcation line should coincide with western limit of Russia's Arctic position, and should be drawn along a *sector line* along the 32nd meridian east (Jensen 2011, Østreng and Prydz 2007). The Russian position was based on "special circumstances" of geographical and non-geographical factors referred to in the Law of the Sea Convention (Henriksen and Ulfstein 2011). Russia emphasised security reasons, ice conditions, the form and length of the coastline, the population size of the Kola Island compared to northern Norway, fisheries, shipping and other economic interests and, geological factors. In addition, a Soviet sector decree from 1926 was referred to as an established administrative custom.

In 1957 Norway and the Soviet Union agreed on their first maritime boundary in the Arctic ("1957 Agreement"). This boundary runs from the northern end point of the land boundary in a north-eastern direction through the Varangerfjord and terminates on the Varangerfjord's closing line, thereby not extending into the Barents Sea. The 1957-agreement solved a pressing problem of third-over-fishing in the disputed area in the Barents Sea. In 2007 an agreement between Norway and Russia on the maritime delimitation in the Varanger area was made as an extension of the 1957-Agreement.

Negotiation between Norway and Russia on exclusive rights to the continental shelves has been going on since 1970 and for the 200 mile EEZ since 1984. The maritime disputed area between the median line and the sector line covered an area of app. 175 000 square kilometres, and it was divided between Norway and Russia in approximately equal parts, see Map 3.2. Of particular interest in the disputed area was the so-called grey zone area which was important for fisheries. In 1978 the two states agreed on a provisional fishing arrangement for this grey zone area ("The Grey Zone Agreement") in order to regulate foreign fishing activities. In addition there is the so-called "Loop Hole" in the middle of the Barents Sea which covers an area of some 62,400 square kilometres of high seas. This international sea area was beyond Norwegian and Russian jurisdiction and exposed to foreign fishing, particularly from Iceland. In 1999 a "Loop Hole" agreement was reached with Iceland. The Barents Sea Treaty put an end to almost four decades of negotiations between Norway and Russia. This long time span can be explained by the complex issues that should be solved in the negotiations. The treaty regulates how sea areas larger than several European states should be divided and these areas contain vast biological and mineral resources. The negotiations also comprise two delimitations, one for the continental shelf and another for the maritime zones. The one large remaining issue between Norway and Russia now is Svalbard and how the Norwegian sovereignty should be executed, see Arctic case study 2: Maritime Delimitation Treaty between Norway and Denmark/Greenland.

Map 3.2: The disputed area between Norway and Russia in the Barents Sea



Source: UNEP

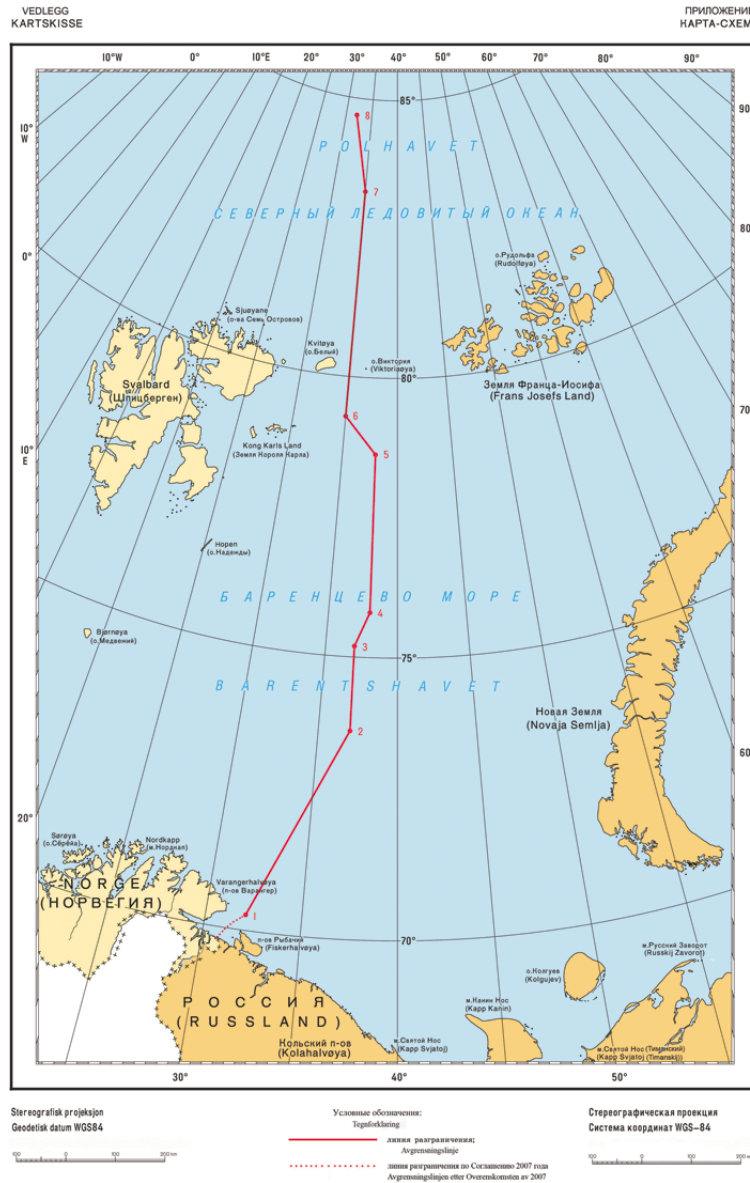
The Barents Sea Treaty

The Barents Sea treaty establish a single delimitation line for Norway's and Russia's EEZs and the continental shelf in areas within 200 miles of their coasts, and a delimitation line between the Norwegian and Russian continental shelf that extends beyond 200 miles. The delimitation line divide the former disputed area between the median and the sector line "in two parts of approximate the same size" (Joint statement 2010) which is about 88 000 square kilometres. The delimitation line is neither following the median line nor the sector line principle. The joint statement refers to major disparities in respective coast lines as the most important geographical circumstances for drawing the line. The treaty also concludes that the agreement on fisheries cooperation between the Norway and Russia will continue as before and that the parties shall cooperate on extracting cross-bordering petroleum resources. The agreement terminates the Grey Zone Agreement of 1978 and the 1980s moratorium on the exploration of hydrocarbon resources.

Implications

The Barents Sea Treaty implies that Norway has clarified its last maritime boundary within 200 nautical miles off its coast. The Barents Sea Treaty ensures predictability and legal certainty which is important for enacting and enforcing environmental rules and fishery regulations in the Barents Sea and the Arctic sea. Map 3.3 shows the delimitation line between Norway and Russia.

Map 3.3: The delimitation line between Norway and Russia



Source: Ministry of Foreign Affairs

However, although it is certain which areas belong to the EEZ or the continental shelf of Norway and Russia, questions concerning dividing of shared resources will have to be solved in the future. The marine living resources will now become subject to the sovereign rights of a single coastal state but in article four in treaty it is stated that “The fishing opportunity of either Party shall not be adversely affected by the conclusion of the present Treaty”. Article two also states that “the Parties shall pursue close cooperation in the sphere of fisheries” (Treaty). The parties will strive to ensure *relative stability* in the fisheries. This concept is known in the EU Common Fisheries Policy “as the principle of allocation of fishing opportunities based on predictable shares” (Henriksen and Ulfstein 2011). This aim shall be ensured through the cooperation in the Norwegian-Russian Joint Fisheries Commission.

The sharing of hydrocarbon resources that extends across the delimitation line is also regulated in the treaty, in article 5 and in Annex II. The Parties shall share information and if it is established that a hydrocarbon deposit is shared, either part may request that an agreement on its exploitation and

allocation be reached. The Annex includes procedures to resolve disputes between the parties on a unitisation agreement. Similar rules and procedures are included in the 2007 Varanger Agreement between Norway and Russia, and also in the 1965 Agreement between Norway and the United Kingdom on Delimitation of the Continental Shelf (Henriksen and Ulfstein 2011).

There are several reasons behind the Barents Sea Treaty - legal, economic and political. The Law of the Sea provides important principles for informing the delimitation solution and the delimitation line is justified with reference to recent international case law (Jensen 2011). Economic reasons has also been important, particularly the large petroleum resources that are expected to be found in the area. With an agreed maritime boundary the states can enact domestic legislation based in international law when planning the development of oil and gas industry in the former disputed area. Changes in foreign policy after the cold war period and a more stable Russian foreign policy in the past decade has also laid the foundation for more mutual trust between the parties and a better climate for negotiation and an increased willingness to compromise.

The status of the maritime zones of Svalbard is still an unresolved boundary issue. Neither the joint statement nor the treaty includes reference to the Svalbard archipelago or any of its islands. Henriksen and Ulfstein (2011:10) put it like this: "The settlement of the maritime boundary with Russia will likely contribute to the consolidation of the maritime zones claimed or established by Norway on the basis of Svalbard. But the two parties have formally reserved their rights by including a clause in the September 2010 treaty ensuring that their rights and obligations under multilateral treaties are not prejudiced by the delimitation. The focus in coming years will be on the question of the application of the Svalbard Treaty within these zones. The wider impact of the Norwegian-Russian treaty on Arctic maritime delimitation is more uncertain. The treaty will, however, add to the orderly governance of the Arctic region."²³

²³ Regarding the disputed maritime zones around Svalbard, see also the sub-sea case study on the Maritime Delimitation Treaty between Norway and Denmark/Greenland.

6 Project Evaluation and Lessons for Marine Spatial Planning

This section looks into how the governance arrangements in the Barents Sea have functioned and the results and possible implications of the maritime delimitation negotiations between Norway and Russia. It focuses on, and if to what extent the governance arrangements have been a sufficiently robust and powerful to deal with the complex cooperative efforts in the Barents Sea. The main challenges and governance gaps are focused on seeing how sustainable the governance arrangements are for carrying out regional cooperation.

Regional councils

The most important governance body at the Barents Sea level is The Arctic Council (AC). In addition there are regional councils such as Council of the Baltic Sea States (CBSS), The Barents Euro-Arctic Council and the Nordic Council of Ministers. For marine living resources issues The Norwegian-Russian Joint Fisheries Commission is also important. Only the Arctic Council is elaborated on here.

The intergovernmental forum the Arctic Council (AC) main focus has been on environmental issues and the involvement of indigenous people in governance of the Arctic. The Council's most important contributions have been the generating of policy-relevant knowledge and scientific assessments on environmental issues and lately particularly on climate change impacts. The ACIA-report (ACIA 2004) on climate change in the Arctic has led to increased attention on the Arctic Council. However, in a governance perspective AC is primarily a forum for *soft law* and has no binding or regulatory authority and, it is dealing with *low politics* issues such as environment and living conditions in the Arctic.

In a summary of the Arctic Council and its constitutive instruments Koivurova and Molenaar (2009) conclude that there are several governance and regulatory gaps related to AC. First of all, the AC cannot impose legally binding obligations on its participants and decisions are based on consensus. Secondly, AC is project-driven and not an operational body which can execute policies. Thirdly, its limited participation also gives the AC a limited role and power on the international agenda, particularly with regards non-Arctic states which may be important for the development in the Arctic²⁴. The arrangement with the rotating secretariat which also was listed as a gap has now been replaced by a permanent independent secretariat based in Tromsø, Norway. Finally, the lack of structural funding is also a weakness since project-funding is more uncertain and limited.

Maritime delimitation negotiations and the Barents Treaty

The Barents Treaty put an end to an almost 40 year long dispute between Norway and Russia on border issues in this part of the Arctic Ocean. The key drivers to the Treaty were of legal, as well as, economical and political character. The Law of the Sea provided a legal framework, large economic resources were at stake and the end of the cold war paved the way for a better political climate for negotiations. Norway and Russia shared the common interest of establishing a boundary between the two states which can ensure a predictable and legal use of resources in this area. Although the status of the maritime zones of Svalbard is still an unresolved issue, the Barents Treaty has added to a more orderly governance of the Arctic region.

²⁴ Several states are now entitled as observers, France, the Netherlands, Poland, Spain, Great Britain and Germany are permanent observers, and other countries, among them China, and EU are ad hoc observers, see Hønneland (2012).

Lessons for Marine Spatial Planning

The Arctic Council plays a very important role in contributing to the scientific knowledge base of the Arctic Ocean, particularly on environmental issues. This makes a solid basis for a science-based policy in the area. The Arctic Council may also develop into a more important governance arrangement as more states are represented in the council. Such a development may also affect the other regional councils in the Arctic. With regard to the Norwegian-Russian Joint Fisheries Commission it has a more specialised functions related to the management of important fish stocks in the Barents Sea and the Norwegian Sea and, as such is not a governance body on the same level as the regional councils. However, it is also an important institution for regional cooperation in the Arctic Ocean since it deals with management of one of the most important resources in this ocean. This emphasise the necessity of having an integrated governance approach to the management of oceans. Another lesson from the case study is that regional cooperation in the Arctic, as in general, must be based on common interests between the parties in order to build confidence (social capital) and that coordination must be flexible enough to adapt to changes during the voyage. At the same time, governance arrangements must be strong enough to solve conflicts of interests in a constructive manner. Only then can governance be sustainable.

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Annex I

Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean

The Kingdom of Norway and the Russian Federation (hereinafter “The Parties”),

Desiring to maintain and strengthen the good neighbourly relations,

Bearing in mind the developments in the Arctic Ocean and the role of the Parties in this region,

Desiring to contribute to securing stability and strengthen the cooperation in the Barents Sea and the Arctic Ocean,

Referring to the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 (hereinafter “the Convention”),

Referring to the Agreement between the Kingdom of Norway and the Russian Federation on the Maritime Delimitation in the Varangerfjord area of 11 July 2007 (hereinafter “the 2007 Agreement”) and desiring to complete the maritime delimitation between the Parties,

Aware of the special economic significance of the living resources of the Barents Sea to Norway and the Russian Federation and to their coastal fishing communities and of the need to avoid economic dislocation in coastal regions, whose inhabitants have habitually fished in the area,

Aware of the traditional Norwegian and Russian fisheries in the Barents Sea,

Recalling their primary interest and responsibility as coastal States for the conservation and rational management of the living resources of the Barents Sea and in the Arctic Ocean, in accordance with international law,

Underlining the importance of efficient and responsible management of their hydrocarbon resources,

Have agreed as follows:

Article 1

1. The maritime delimitation line between the Parties in the Barents Sea and the Arctic Ocean shall be defined as geodetic lines connecting points defined by the following coordinates:

1. 70° 16' 28.95" N 32° 04' 23.00" E

(This point corresponds to point 6 of the delimitation line as defined in the 2007 Agreement.)

2. 73° 41' 10.85" N 37° 00' 00.00" E

3. 75° 11' 41.00" N 37° 00' 00.00" E

4. 75° 48' 00.74" N 38° 00' 00.00" E
5. 78° 37' 29.50" N 38° 00' 00.00" E
6. 79° 17' 04.77" N 34° 59' 56.00" E
7. 83° 21' 07.00" N 35° 00' 00.29" E
8. 84° 41' 40.67" N 32° 03' 51.36" E

The terminal point of the delimitation line is defined as the point of intersection of a geodetic line drawn through the points 7 and 8 and the geodetic line connecting the easternmost point of the outer limit of the continental shelf of Norway and the westernmost point of the outer limit of the continental shelf of the Russian Federation, as established in accordance with Article 76 and Annex II of the Convention.

2. The geographical coordinates of the points listed in paragraph 1 of this Article are defined in World Geodetic System 1984 (WGS84 (G1150, at epoch 2001.0)).

3. By way of illustration, the delimitation line and the points listed in paragraph 1 of this Article have been drawn on the schematic chart annexed to the present Treaty. In case of difference between the description of the line as provided for in this Article and the drawing of the line on the schematic chart, the description of the line in this Article shall prevail.

Article 2

Each Party shall abide by the maritime delimitation line as defined in Article 1 and shall not claim or exercise any sovereign rights or coastal State jurisdiction in maritime areas beyond this line.

Article 3

1. In the area east of the maritime delimitation line that lies within 200 nautical miles of the baselines from which the breadth of the territorial sea of mainland Norway is measured but beyond 200 nautical miles of the baselines from which the breadth of the territorial sea of the Russian Federation is measured (hereinafter "the Special Area"), the Russian Federation shall, from the day of the entry into force of the present Treaty, be entitled to exercise such sovereign rights and jurisdiction derived from exclusive economic zone jurisdiction that Norway would otherwise be entitled to exercise under international law.

2. To the extent that the Russian Federation exercises the sovereign rights or jurisdiction in the Special Area as provided for in this Article, such exercise of sovereign rights or jurisdiction derives from the agreement of the Parties and does not constitute an extension of its exclusive economic zone. To this end, the Russian Federation shall take the necessary steps to ensure that any exercise on its part of such sovereign rights or jurisdiction in the Special Area shall be so characterized in its relevant laws, regulations and charts.

Article 4

1. The fishing opportunities of either Party shall not be adversely affected by the conclusion of the present Treaty.

2. To this end, the Parties shall pursue close cooperation in the sphere of fisheries, with a view to maintain their existing respective shares of total allowable catch volumes and to ensure relative stability of their fishing activities for each of the stocks concerned.

3. The Parties shall apply the precautionary approach widely to conservation, management and exploitation of shared fish stocks, including straddling fish stocks, in order to protect the living marine resources and preserve the marine environment.

4. Except as provided for in this Article and in Annex I, nothing in this Treaty shall affect the application of agreements on fisheries cooperation between the Parties.

Article 5

1. If a hydrocarbon deposit extends across the delimitation line, the Parties shall apply the provisions in Annex II.

2. If the existence of a hydrocarbon deposit on the continental shelf of one of the Parties is established and the other Party is of the opinion that the said deposit extends to its continental shelf, the latter Party may notify the former Party and shall submit the data on which it bases its opinion.

If such an opinion is submitted, the Parties shall initiate discussions on the extent of the hydrocarbon deposit and the possibility for exploitation of the deposit as a unit. In the course of these discussions, the Party initiating them shall support its opinion with evidence from geophysical data and/or geological data, including any existing drilling data and both Parties shall make their best efforts to ensure that all relevant information is made available for the purposes of these discussions. If the hydrocarbon deposit extends to the continental shelf of each of the Parties and the deposit on the continental shelf of one Party can be exploited wholly or in part from the continental shelf of the other Party, or the exploitation of the hydrocarbon deposit on the continental shelf of one Party would affect the possibility of exploitation of the hydrocarbon deposit on the continental shelf of the other Party, agreement on the exploitation of the hydrocarbon deposit as a unit, including its apportionment between the Parties, shall be reached at the request of one of the Parties (hereinafter “the Unitisation Agreement”) in accordance with Annex II.

3. Exploitation of any hydrocarbon deposit which extends to the continental shelf of the other Party may only begin as provided for in the Unitisation Agreement.

4. Any disagreement between the Parties concerning such deposits shall be resolved in accordance with Articles 2-4 of Annex II.

Article 6

The present Treaty shall not prejudice rights and obligations under other international treaties to which both the Kingdom of Norway and the Russian Federation are Parties, and which are in force at the date of the entry into force of the present Treaty.

Article 7

1. The Annexes to the present Treaty form an integral part of it. Unless expressly provided otherwise, a reference to this Treaty includes a reference to the Annexes.

2. Any amendments to the Annexes shall enter into force in the order and on the date provided for in the agreements introducing these amendments.

Article 8

This Treaty shall be subject to ratification and shall enter into force on the 30th day after the exchange of instruments of ratification.

DONE in duplicate in Murmansk on 15 September 2010, each in Norwegian and Russian languages, both texts being equally authentic.

For the Kingdom of Norway

For the Russian Federation

Annex I to the Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean

Fisheries matters

Article 1

The Agreement between the Government of the Kingdom of Norway and the Government of the Union of Soviet Socialist Republics on co-operation in the fishing industry of 11 April 1975 and the Agreement between the Government of the Kingdom of Norway and the Government of the Union of Soviet Socialist Republics concerning mutual relations in the field of fisheries of 15 October 1976 shall continue to stay in force for fifteen years after the entry into force of the present Treaty. After the expiry of this term each of these Agreements shall remain in force for successive six year terms, unless at least six months before the expiry of the six year term one Party notifies the other Party about its termination.

Article 2

In the previously disputed area within 200 nautical miles from the Norwegian or Russian mainland technical regulations concerning, in particular, mesh and minimum size of catches set by each of the Parties for their fishing vessels shall apply for a transitional period of two years from the day of entry into force of the present Treaty.

Article 3

Total allowable catches, mutual quotas of catches and other regulatory measures for fishing shall continue to be negotiated within the Norwegian-Russian Joint Fisheries Commission in accordance with the Agreements referred to in Article 1 of the present Annex.

Article 4

The Norwegian-Russian Joint Fisheries Commission shall continue to consider improved monitoring and control measures with respect to jointly managed fish stocks in accordance with the Agreements referred to in Article 1 of the present Annex.

Annex II to the Treaty between the Kingdom of Norway and the Russian Federation concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean**Transboundary Hydrocarbon Deposits**

Article 1

The Unitisation Agreement between the Parties concerning exploitation of a transboundary hydrocarbon deposit, referred to in Article 5 of the present Treaty, shall provide for the following:

1. Definition of the transboundary hydrocarbon deposit to be exploited as a unit (geographical coordinates normally shown in an annex to the Agreement).
2. The geographical, geophysical and geological characteristics of the transboundary hydrocarbon deposit and the methodology used for data classification. Any geological data used as a basis for such geological characterisation shall be the joint property of the legal persons holding rights under the Joint Operating Agreement, referred to in paragraph 6 a) of the present Article.
3. A statement of the total amount of the hydrocarbon reserves in place in the transboundary hydrocarbon deposit and the methodology used for such calculation, as well as the apportionment of the hydrocarbon reserves between the Parties.
4. The right of each Party to copies of all geological data, as well as all other data of relevance for the unitised deposit, which are gathered in connection with the exploitation of the deposit.
5. The obligation of the Parties to grant individually all necessary authorisations required by their respective national laws for the development and operation of the transboundary hydrocarbon deposit as a unit in accordance with the Unitisation Agreement.
6. The obligation of each Party
 - a) to require the relevant legal persons holding rights to explore for and exploit hydrocarbons on each respective side of the delimitation line to enter into a Joint Operating Agreement to regulate the exploitation of the transboundary hydrocarbon deposit as a unit in accordance with the Unitisation Agreement;
 - b) to require the submission of a Joint Operating Agreement for approval by both Parties, as well as to issue such approval with no undue delay and not to unduly withhold it;
 - c) to ensure that the provisions contained in the Unitisation Agreement prevail over the provisions of the Joint Operating Agreement in case of any discrepancy between them;
 - d) to require the legal persons holding the rights to exploit a transboundary hydrocarbon deposit as a unit to appoint a unit operator as their joint agent in accordance with the provisions set out in the Unitisation Agreement, such an appointment of, and any change of, the unit operator being subject to prior approval by the two Parties.
7. The obligation of each Party not to withhold, subject to its national laws, a permit for the drilling of wells by, or on account of, the legal persons holding rights to explore for and produce hydrocarbons on its respective side of the delimitation line for purposes related to the determination and apportionment of the transboundary hydrocarbon deposit.

8. Unless otherwise agreed by the Parties, the obligation of each Party not to permit the commencement of production from a transboundary hydrocarbon deposit unless the Parties have jointly approved such commencement in accordance with the Unitisation Agreement.
9. The obligation of the Parties to determine by mutual agreement in due time before the production of hydrocarbons from the transboundary hydrocarbon deposit is about to cease, the timing of cessation of the production from the transboundary hydrocarbon deposit.
10. The obligation of the Parties to consult each other with respect to applicable health, safety and environmental measures that are required by the national laws and regulations of each Party.
11. The obligation of each Party to ensure inspection of hydrocarbon installations located on its continental shelf and hydrocarbon activities carried out thereon in relation to the exploitation of a transboundary deposit, the obligation of each Party to ensure inspectors of the other Party access on request to such installations, and to relevant metering systems on the continental shelf or in the territory of either Party, as well as the obligation of each Party to ensure that relevant information is given to the other Party on a regular basis to enable it to safeguard its fundamental interests, including inter alia those related to health, safety, environment, hydrocarbon production and metering.
12. The obligation of each Party not to alter the right to explore for and produce hydrocarbons awarded by one Party, which applies to a field that is subject to unitisation in accordance with the Unitisation Agreement, nor to assign it to other legal persons, without prior consultation with the other Party.
13. The obligation of the Parties to establish a Joint Commission for consultations between the Parties on issues pertaining to any planned or existing unitised hydrocarbon deposits, providing a means for ensuring continuous consultation and exchange of information between the two Parties on such issues and a means for resolving issues through consultations.

Article 2

The Parties shall make every effort to resolve any disagreement as rapidly as possible. If, however, the Parties fail to agree, they shall jointly consider all options for resolving the impasse.

Article 3

1. If the Parties fail to reach the Unitisation Agreement referred to in Article 1 of the present Annex, the disagreement should as rapidly as possible be resolved by negotiations or by any other procedure agreed between the Parties. If the disagreement is not settled within six months following the date on which a Party first requested such negotiations with the other Party, either Party shall be entitled to submit the dispute to an ad hoc Arbitral Tribunal consisting of three members.
2. Each Party shall appoint one arbitrator, and the two arbitrators so appointed shall elect a third arbitrator, who shall be the Chairperson. The Chairperson shall not be a national of or habitually reside in Norway or the Russian Federation. If either Party fails to appoint an arbitrator within three months of a request to do so, either Party may request that the President of the International Court of Justice make the appointment. The same procedure shall apply if, within one month of the appointment of the second arbitrator, the third arbitrator has not been elected.
3. All decisions of the Arbitral Tribunal shall, in the absence of unanimity, be taken by a majority vote of its members. The Arbitral Tribunal shall in all other matters determine its own rules of procedure.

The decisions of the Arbitral Tribunal shall be binding upon the Parties and the Unitisation Agreement referred to in Article 1 of the present Annex shall be concluded by them in accordance with these decisions.

Article 4

1. In the event that a failure to reach agreement concerns the apportionment of the hydrocarbon deposit between the Parties, they shall appoint an independent expert to decide upon such apportionment. The decision of the independent expert shall be binding upon the Parties.
2. Notwithstanding the provisions contained in paragraph 1 of this Article, the Parties may agree that the hydrocarbon deposit shall be reapportioned between them