



Transatlantic Policy Options for Supporting Adaptation in the Marine Arctic

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Table of Contents

Table of Contents	3
List of Abbreviations	4
1 Introduction: The Adaptation Challenge and the Need for Policy Action	6
2 Current Policy Framework for Environmental Governance and Adaptation in the Marine Arctic	6
2.1 International Agreements	7
2.2 Arctic Institutions	8
2.3 Shortcomings of the Current Policy Framework.....	9
3 Finding a Common Ground: Recent Policy Developments	10
3.1 Policies by the Established Arctic Council Actors	10
3.2 Policies of Non-Arctic States and Entities.....	12
3.3 Transatlantic Policy Initiatives	13
3.4 Shared Objectives, Principles and Approaches	13
4 Policy Options for Environmental Governance	14
4.1 Regional and Global Policy Options	15
4.2 EU Policy Options	16
4.3 Transatlantic Policy Options	17
5 Policy Options for Indigenous Peoples	17
5.1 EU Policy Options	18
5.2 Transatlantic Policy Options	19
6 Policy Options for Fisheries Management	19
6.1 Regional and Global.....	20
6.2 EU Policy Options	20
6.3 Transatlantic Policy Options	21
7 Policy Options for Offshore Hydrocarbon Activities.....	21
7.1 Regional and Global Policy Options	22
7.2 EU Policy Options	23
7.3 Transatlantic Policy Options	24
8 Policy Options for Shipping	25
8.1 Regional and Global Policy Options	25
8.2 EU Policy Options	26
8.3 Transatlantic Policy Options	27
9 References.....	28

List of Abbreviations

ACAP	Arctic Contaminants Action Program (working group)
ACIA	Arctic Climate Impact Assessment
AIS	Automatic Identification System
AMAP	Arctic Monitoring and Assessment Programme (working group)
AMEC	Arctic Military Environmental Cooperation
AMSA	Arctic Marine Shipping Assessment
APMs	Associated Protective Measures
ATS	Antarctic Treaty system
BEAR	Barents Euro-Arctic Region
BWM	Convention for the Control and Management of Ships' Ballast Water and Sediments
CAFF	Conservation of Arctic Flora and Fauna (working group)
CBD	Convention on Biological Diversity
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCAS	Convention for the Conservation of Antarctic Seals
CDEM	Construction, Design, Equipment and Manning
CIS	Commonwealth of Independent States
EBM	Ecosystem-Based Management
EBRD	European Bank for Reconstruction and Development
EEA	European Environment Agency
EEZ	Exclusive Economic Zone
EFTA	European Free Trade Agreement
EIA	Environmental Impact Assessment
EPPR	Emergency Prevention, Preparedness and Response (working group)
EU	European Union
FAO	Food and Agriculture Organization
GAIRAS	Generally Accepted International Rules and Standards
IACS	International Association of Classification Societies
IASC	International Arctic Science Committee
ICC	Inuit Circumpolar Council
ICES	International Council for the Exploration of the Sea
IHO	International Hydrographic Organization
IMO	International Maritime Organization
IPCC	Intergovernmental Panel on Climate Change
ISA	International Seabed Authority
LRIT	Long Range Identification and Tracking
MARPOL	International Convention for the Prevention of Pollution from Ships
MEPC	Marine Environment Protection Committee
MOU	Memorandum of Understanding
MSC	Maritime Safety Committee
NIB	Nordic Investment Bank
ND	Northern Dimension
NPFMC	North Pacific Fishery Management Council
OPRC 90	International Convention on Oil Pollution Preparedness, Response and Cooperation
OSPAR	Convention for the Protection of the Marine Environment of the North East Atlantic
PAME	Protection of the Arctic Marine Environment (working group)

POP	Persistent Organic Pollutant
PSSA	Particularly Sensitive Sea Area
RFMO	Regional Fisheries Management Organization
SAO	Senior Arctic Official
SEA	Strategic Environmental Assessment
SOLAS	International Convention for the Safety of Life at Sea
STCW	Standards of Training, Certification and Watchkeeping
UNGA	United Nations General Assembly
UNCLOS	United Nations Convention on the Law of the Sea
UNFCCC	United Nations Framework Convention on Climate Change
U.S.	United States of America
VACCA	Vulnerability and Adaptation to Climate Change in the Arctic
WWF	World Wide Fund for Nature

1 Introduction: The Adaptation Challenge and the Need for Policy Action

Climate change is occurring more rapidly in the Arctic than in any other region of the world, with sea ice retreating at a pace exceeding even the most dramatic predictions of scientists. Access to newly opened waters is creating new economic opportunities for the fishing, energy, shipping, and tourism industries, which are expected to expand in both scope and intensity. These changes bring with them new challenges. The increased activity in the Arctic marine area will require effective policies and international cooperation if the world hopes to protect fragile Arctic ecosystems and safeguard the rights and interests of indigenous peoples.

The Arctic TRANSFORM project, funded by the European Commission's Directorate General of External Relations, engaged experts in a transatlantic discussion of five Arctic-related thematic areas: indigenous peoples, environmental governance, fisheries, offshore hydrocarbon activities, and shipping. Expert working groups addressed each thematic area with the goal of developing policy options for the Arctic marine area. This policy brief draws upon a series of background papers, expert meetings and interviews to provide an overview of the international and EU governance options for addressing the rapid changes underway in the region. While reflecting the opinions of its authors, and not necessarily the views of the European Commission, this policy brief benefits from the opinions and insights of the experts participating in the five Arctic TRANSFORM working groups. An important consideration for informing the selection of policy options has been the international and transatlantic consensus reflected in recent policy developments, which is arguably an indicator of the political viability of any policy proposal. Still, where action beyond the boundaries of current national positions appears necessary, more ambitious policy options are also proposed.

Section 2 of the report summarises the current policy framework for environmental governance and climate adaptation in the Arctic marine region. The section also includes a brief description of major policy frameworks and institutions and an assessment of shortcomings that prevent an adequate response to emerging challenges.¹ Section 3 provides a synopsis of recent policy developments in the Arctic, highlighting the principles, objectives and approaches shared by relevant actors. Recommended policy options are then described in Sections 4 through 8 for the five thematic areas, including options that can be pursued at the global and regional level, the EU level, and the transatlantic level.

2 Current Policy Framework for Environmental Governance and Adaptation in the Marine Arctic

The Arctic marine area is currently governed by a complex array of legal instruments, including bilateral and multilateral agreements, supra-national, national, and sub-national legislation, and soft-law arrangements. Likewise, the institutions involved in Arctic governance may be national, regional or global in scope, and possess mandates that range from the provision of scientific advice and issuance of recommendations to the prescription of legally binding obligations. Most of these instruments and institutions do not target the Arctic marine area specifically, but rather govern issues of more global relevance that also apply to the Arctic marine area.

¹ Further information on specific policy issues can be found in the earlier background papers on environmental governance, Arctic fisheries, indigenous peoples, Arctic shipping, and offshore hydrocarbon activities, available online at: <http://arctic-transform.org/docs.html>.

2.1 International Agreements

The law of the sea regime is an international regime governing maritime activities and is widely considered to be the starting point for any future governance framework for the Arctic marine area. The five Arctic Ocean coastal states – namely Canada, Denmark, Norway, Russian Federation and the United States reaffirmed their support for the law of the sea in their Ilulissat Declaration of 28 May 2008. The **United Nations Convention on the Law of the Sea (UNCLOS)**,² which is the most important treaty in the law of the sea regime, creates a legally binding framework for matters of jurisdiction and resource control for the entire marine environment, specifying rules for coastal, flag and port states, and prescribing principles for major ocean uses and marine environmental protection. With the exception of the US, all Arctic states are party to UNCLOS.³ Article 234 of UNCLOS authorizes coastal states to take non-discriminatory measures within ice-covered areas with the limits of their exclusive economic zones (EEZs) for the prevention, reduction and control of vessel-source pollution. The **Fish Stocks Agreement**⁴ – one of two UNCLOS implementing agreements (the other being the **Part XI Deep-Sea Mining Agreement**) – counts all eight Arctic states among its parties and provides rules on straddling and highly migratory fish stocks, notably by requiring the establishment of **regional fisheries management organizations (RFMOs)**.

There are a number of other highly relevant treaties, including:

- **MARPOL.** The International Convention for the Prevention of Marine Pollution from Ships, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78, together with its Annexes)⁵ is the main treaty governing ship-based pollution. All eight Arctic states are party to it and many of its Annexes.⁶
- **OPRC.** The International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) prescribes principles for responding to oil pollution accidents.⁷ With the exception of the Russian Federation, all Arctic states are parties.
- **Espoo Convention.** The Espoo Convention requires parties to integrate potential trans-boundary pollution from certain proposed activities into the emitting state's environmental impact assessment procedure. This Convention is currently binding for only five of the Arctic states. Iceland, the Russian Federation and the U.S. have signed but not yet ratified the Convention.⁸

² United Nations Convention on the Law of the Sea, Montego Bay, 10 December 1982. In force 16 November 1994, 1833 *United Nations Treaty Series* 396; www.un.org/Depts/los.

³ The U.S. has affirmed that most of the provisions of UNCLOS are legally binding on it, given that these codify customary international law; the U.S. Arctic Region Policy (National Security Presidential Directive/NSPD-66 & Homeland Security Presidential Directive/HSPD-25) of 9 January 2009 reiterates support for UNCLOS, and the designated Secretary of State, Hillary R. Clinton, likewise declared ratification of the Convention a priority in her confirmation hearing before the U.S. Senate Foreign Relations Committee on 13 January 2009.

⁴ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, New York, 4 August 1995, in force 11 December 2001, 34 *International Legal Materials* 1542 (1995); www.un.org/Depts/los.

⁵ International Convention for the Prevention of Pollution from Ships, London, 2 November 1973, as modified by the 1978 Protocol (London, 1 June 1978) and the 1997 Protocol (London, 26 September 1997) and as regularly amended. Entry into force varies for each Annex. At the time of writing Annexes I-VI were all in force.

⁶ See at http://www.imo.org/Conventions/contents.asp?doc_id=678&topic_id=258.

⁷ The International Convention on Oil Pollution, Preparedness, Response, and Cooperation, 1990, 30 November 1990, 1891 U.N.T.S. 77, 30 I.L.M. 733 (entered into force 13 May 1995).

⁸ UNECE, Convention on Environmental Impact Assessment in a Transboundary Context, 25 February 1991, 30 I.L.M. 800. This procedure is complemented by Articles 205 and 206 of the UNCLOS.

- **Biodiversity Convention.** The Convention on Biological Diversity (CBD) not only applies to the terrestrial environment but also to the entire marine environment, both areas within and beyond national jurisdiction. It has been ratified by all Arctic states other than the U.S.⁹
- **POPs Convention.** The Stockholm Convention on Persistent Organic Pollutants (POPs Convention) aims to protect human health and the environment from certain harmful substances, and specifically acknowledges the threat they pose for Arctic ecosystems and indigenous peoples.¹⁰
- **Polar Bear Agreement.** The Polar Bear Agreement *inter alia*, aims at coordinating research activities, preserving habitat, and prohibits the “taking” of polar bears for all purposes except scientific research and indigenous subsistence hunting.¹¹

At the regional level, the **Convention on the Protection of the Marine Environment of the North-East Atlantic (OSPAR)**¹² utilises an ecosystem-based approach for the management of the North-East Atlantic marine environment, including the Atlantic section of the Arctic Ocean. RFMOs provide another example of regional cooperation, with several applying either to the entire Arctic marine area or portions thereof. Moreover, sub-regional forms of cooperation also create important structures for marine Arctic governance. For instance, Norway, United Kingdom, Russia, and the U.S. co-operate on defence-related environmental projects through the **Arctic Military Environmental Cooperation (AMEC)** initiative. And finally, at the national and sub-national level, each Arctic coastal state has adopted national legislation applicable to the Arctic marine area within its jurisdiction.¹³

A number of non-legally binding instruments complement the foregoing legally binding instruments, including the **International Maritime Organization (IMO) Guidelines for Ships Operating in Arctic Ice-Covered Waters (Arctic Shipping Guidelines)**¹⁴ and the **Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries**.¹⁵ There are also numerous informal initiatives with a lesser degree of institutionalisation and mostly ad-hoc cooperation that have emerged in the Arctic marine area.

2.2 Arctic Institutions

While there are many institutions that are involved in the governance of the Arctic marine area, the most important among these is the **Arctic Council**. Created in 1996 by the eight

⁹ Convention on Biological Diversity, Nairobi, 22 May 1992. In force 29 December 1993, 31 *International Legal Materials* 822 (1992); www.biodiv.org.

¹⁰ Stockholm Convention on Persistent Organic Pollutants, see at <http://chm.pops.int/Portals/0/Repository/conf/UNEP-POPS-CONF-4-AppendixII.5206ab9e-ca67-42a7-afee-9d90720553c8.pdf>. Of the Arctic states, the U.S. and the Russian Federation are not parties (Faroe Islands and Greenland are excluded by Denmark from the scope of the Convention).

¹¹ Agreement on the Conservation of Polar Bears and Their Habitat, Oslo, 15 November 1973. In force 26 May 1976; text at <http://pbsg.npolar.no/en/index.html>.

¹² Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992. In force 25 March 1998, www.ospar.org. Annex V, Sintra, 23 September 1998. In force 30 August 2000; amended and updated text available at www.ospar.org.

¹³ For the EU and the US, however, see the Arctic TRANSFORM Background Paper on Comparative Policy Analyses: U.S., EU and Transatlantic Arctic Policy.

¹⁴ See IMO MSC/Circ. 1056, MEPC/Circ. 399 (23 December 2002). In early June 2009, IMO’s Maritime Safety Committee (MSC) approved the ‘Guidelines for Ships Operating in Polar Waters’, which will replace the 2002 Guidelines provided they are also approved by IMO’s Marine Environment Protection Committee (MEPC) in July 2009 and adopted by means of an IMO Assembly resolution, which is expected to happen in November 2009. Important are also the Unified Requirements Concerning Polar Class adopted by the International Association of Classification Societies (IACS).

¹⁵ Code of Conduct for Responsible Fisheries. Adopted by the Twenty-eight Session of the FAO Conference, Rome, 31 October 1995, www.fao.org/fi.

Arctic nations, the Arctic Council is an inter-governmental forum for discussions on sustainable development and environmental governance in the Arctic. It also serves as a monitoring body that tracks Arctic policy initiatives and environmental and development trends. A key strength of the Council is the participation of six indigenous peoples' organizations, which are supported by the Indigenous Peoples Permanent Secretariat in Copenhagen.

In 2004, the Arctic Council, together with the **International Arctic Science Committee (IASC)**, compiled the **Arctic Climate Impact Assessment (ACIA)**, the seminal policy document on the effects of climate change in the Arctic. While the Council is an influential contributor to policy making in the Arctic, its mandate does not encompass the power to adopt legally binding rules, but rather a more limited role of issuing non-binding guidelines and recommendations. To support its work, the Arctic Council can draw upon the expertise of a number of Working Groups, including:

- Protection of the Arctic Marine Environment (PAME),
- Emergency Prevention, Preparedness and Response (EPPR),
- Conservation of Arctic Flora and Fauna (CAFF),
- Arctic Monitoring and Assessment Programme (AMAP),
- Arctic Contaminants Action Program (ACAP), and
- Sustainable Development Working Group (SDWG).

Through AMAP and PAME, the Arctic Council has conducted a number of important assessments for the Arctic marine area, such as the **Arctic Marine Shipping Assessment (AMSA)** and the **Arctic Council Oil and Gas Assessment (OGA)**. While the Arctic Council remains the central pillar of the institutional framework in the Arctic marine area, a number of other bodies also conduct relevant work, usually with a highly specific mandate. These are mentioned in their respective sectoral context in Chapters 4-8, below.

2.3 Shortcomings of the Current Policy Framework

It is unlikely that the current governance framework of the Arctic marine area is adequate to address the rapid changes underway in the Arctic. The combination of economic expansion and mounting environmental stress poses novel management challenges for the entire Arctic region. As mentioned above, no governance body currently possesses a mandate to adopt and enforce a comprehensive set of legally binding rules for the entire Arctic marine area. UNCLOS sets up a general governance framework, but generally stops short of providing specific regulatory guidance, instead relying on global and regional sectoral institutions to implement its provisions. Thus there is a lack of integrated governance and regulatory systems within and between states in the Arctic region. Fragmentation and an absence of coordinated leadership characterize the current system of governance in the marine Arctic.

In addition to regulatory gaps between different sectoral governance regimes, there are also many gaps *within* these regimes as they apply to the Arctic.

Regarding fisheries:

- New bilateral arrangements between the relevant Arctic Ocean coastal states are needed for the conservation and management of shared fish stocks.
- A large part of the Arctic marine area is not covered by any RFMO or arrangement with competence over target species other than tuna and tuna-like species and anadromous species.

Regarding offshore hydrocarbon activities:

- There are no internationally binding rules for the prevention, reduction and control of pollution caused by offshore hydrocarbon activities.
- The emergency response infrastructure is inadequate for quickly responding to incidents caused by offshore hydrocarbon activities in order to protect the marine environment and to ensure human safety.

Regarding shipping and tourism:

- There are no discharge, emission or ballast water exchange standards specifically adopted for the Arctic marine area.
- Key navigation controls are missing (e.g. routing systems and traffic separation schemes, especially for key straits).
- There are no international legally binding construction, design, equipment and manning standards specifically tailored to the Arctic marine area.
- A regional agreement on search and rescue has yet to be adopted by all participating states.
- Existing agreements on monitoring, contingency planning and preparedness for pollution incidents do not cover the entire Arctic marine area or do not include the participation of all Arctic Ocean coastal states.

Complicating matters further, even where sectoral and regional forms of cooperation exist, not all Arctic states are parties to the relevant instruments. Moreover, many of these instruments are voluntary in nature or merely require parties to provide information.

The political body with the broadest reach and legitimacy, the Arctic Council, does not have the authority to adopt and enforce legally binding rules. While it has adopted guidelines relating to offshore hydrocarbon activities, compliance is voluntary. In other areas, such as fisheries management, the Arctic Council does not have an explicit mandate.

Relevant regional data and scientific knowledge suffer from similar gaps, owing to both the complexity of Arctic marine ecosystems, as well as inadequate coordination among relevant actors. In addition, most scientific efforts have been directed toward specific issues, with comparatively little attention paid to the interdependencies and cause-and-effect relationships present in Arctic ecosystems.

3 Finding a Common Ground: Recent Policy Developments

The melting Arctic sea ice has contributed to a sense of urgency in discussions on Arctic governance. This section identifies common perceptions and policy approaches in Arctic states and the Arctic Council. First, it examines the dynamics within the Arctic Council member states and permanent participants. Next, it explores recent efforts by nations with no previous involvement in the Arctic Council that are seeking to establish themselves as permanent observers to allow participation in discussions over future Arctic governance. Finally, it summarises recent political initiatives from the EU and the U.S. to provide the basis for suggested transatlantic policy options that follow in Chapters 4 to 8.

3.1 Policies by the Established Arctic Council Actors

The dynamic among the established actors in the Arctic Council has been undergoing a fairly significant shift. In part, this change has been provoked by a meeting of five Arctic Ocean coastal states in Ilulissat, Greenland, in May 2008. Perceiving that the Arctic Ocean was on the brink of crossing a significant threshold, they declared that “[b]y virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean the five

coastal states are in a unique position to address these possibilities and challenges.”¹⁶ The Arctic Ocean coastal states also announced their intention to protect the Arctic environment and the interests of indigenous people and other local inhabitants:

Climate change and the melting of ice have a potential impact on vulnerable ecosystems, the livelihoods of local inhabitants and indigenous communities... The Arctic Ocean is a unique ecosystem, which the five coastal states have a stewardship role in protecting. Experience has shown how shipping disasters and subsequent pollution of the marine environment may cause irreversible disturbance of the ecological balance and major harm to the livelihoods of local inhabitants and indigenous communities.

The Arctic Ocean coastal states expressed their opinion that there is “no need to develop a new comprehensive international legal regime to govern the Arctic Ocean” because:

Notably, the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea. We remain committed to this legal framework and to the orderly settlement of any possible overlapping claims. This framework provides a solid foundation for responsible management by the five coastal States and other users of this Ocean through national implementation and application of relevant provisions.

Despite the fact that Denmark, which is an Arctic state by virtue of Greenland, had earlier insisted that Arctic Ocean coastal state cooperation should not compete with the Arctic Council,¹⁷ the meeting in Ilulissat caused friction among the Arctic Council members. Iceland has expressed the greatest concern among the three non-Arctic Ocean coastal states (the other two being Finland and Sweden). It had already expressed its reservations about strengthened Arctic Ocean coastal state cooperation at a 2007 meeting of **Senior Arctic Officials (SAOs)**,¹⁸ and reiterated its concern during the August 2008 Conference of Arctic parliamentarians.¹⁹

The meeting in Ilulissat in May 2008 also provoked a reaction from one of the strongest Arctic Council permanent participants, the Inuit Circumpolar Council (ICC) and national Inuit

¹⁶ Arctic Ocean Conference, Ilulissat Declaration of the Five Arctic States, Ilulissat, Greenland, 27 to 29 May 2008 (hereafter the “Ilulissat Declaration”), at <http://arctic-council.org/filearchive/Ilulissat-declaration.pdf>.

¹⁷ Final Report of the Arctic Council SAO Meeting in Narvik, Norway, 28 to 29 November 2007, at <http://arctic-council.org/filearchive/Narvik%20-FINAL%20Report-%2023Apr08.doc>.

¹⁸ In the discussions at the Narvik SAO meeting, supra note 17, Iceland expressed concerns that “separate meetings of the five Arctic states, Denmark, Norway, US, Russia and Canada, on Arctic issues without the participation of the members of the Arctic Council, Sweden, Finland and Iceland, could create a new process that competes with the objectives of the Arctic Council. If issues of broad concern to all of the Arctic Council Member States, including the effect of climate change, shipping in the Arctic, etc. are to be discussed, Iceland requested that Denmark invite the other Arctic Council states to participate in the ministerial meeting. Permanent participants also requested to participate in the meeting. Denmark responded that the capacity of the venue may be an issue”.

¹⁹ 8th Conference of Parliamentarians of the Arctic Region, Fairbanks, US, 12 to 14 August 2008, Conference Report, at http://www.arcticparl.org/res/site/file/files%20from%208th%20conference/Conference_Report_Fairbanks_final.pdf. The report, in paragraph 39, “[n]otes the information from the Danish delegation concerning the Ilulissat Declaration, and the concerns of the Icelandic delegation regarding full participation of all states of the Arctic Council.”

leaders, who issued a statement outlining, *inter alia*, their concerns over the five Arctic Ocean coastal state meeting:²⁰

Concern was expressed among us leaders gathered in Kuujuaq that governments were entering into Arctic sovereignty discussions without the meaningful involvement of Inuit, such as the May, 2008 meeting of five Arctic ministers in Ilulissat, Greenland. The Kuujuaq summit noted that while the Ilulissat Declaration asserts that it is the coastal nation states that have sovereignty and jurisdiction over the Arctic Ocean, it completely ignores the rights Inuit have gained through international law, land claims and self-government processes. Further, while the ministers strongly supported the use of international mechanisms and international law to resolve sovereignty disputes, it makes no reference to those international instruments that promote and protect the rights of indigenous peoples.

But the ICC and the Inuit leaders were also critical of current Arctic governance structures:

We recognized the value of the work of the Arctic Council ...We further noted the meaningful and direct role that indigenous peoples have at the Arctic Council, while at the same time expressing concern that the Council leaves many issues considered sensitive by member states off the table, including security, sovereignty, national legislation relating to marine mammal protection, and commercial fishing.

Clarifying their position regarding the creation of any new governance arrangements, the ICC made the following statement:

We called upon Arctic governments to include Inuit as equal partners in any future talks regarding Arctic sovereignty. We insisted that in these talks, Inuit be included in a manner that equals or surpasses the participatory role Inuit play at the Arctic Council through ICC's permanent participant status.

3.2 Policies of Non-Arctic States and Entities

An increasing number of non-Arctic states and other political entities, such as the EU, are developing their own Arctic policies. Emerging global powers are vying to become permanent observers at the Council, and in the process, shifting the forum's internal dynamics. Another sign of this emerging trend is the fact that six current permanent observer states (all of them EU Member States) have begun demanding a higher status at the Council and a stronger role its work.²¹ According to recent media reports, some non-Arctic states have even contemplated filing for membership status,²² although this would be difficult under the Ottawa Declaration by which the Arctic Council was established and the Arctic Council's 1998 Rules of Procedure, which do not mention the possibility of broadening membership.

The European Commission announced in its November 2008 Arctic Communication that it intends to seek permanent observer status at the Arctic Council, marking a change from its previous policy of applying for ad-hoc observer status. However, at the recent April 2009 Ministerial, a decision on permanent observer status was delayed for all applications, including the European Commission, China, Italy and South Korea. Although the EC was denied membership – perhaps in large part due to Russia's reluctance as well as their recent

²⁰ Inuit Leaders' Summit on Arctic Sovereignty, 6 to 7 November 2008, Kuujuaq, Canada, "Towards an Inuit Declaration on Arctic Sovereignty", Statement issued by Inuit Leaders, at <http://www.sikunews.com/art.html?artid=5711&catid=2>.

²¹ Non-Arctic states with permanent observer status include: France, Germany, Poland, Spain, the Netherlands and the United Kingdom. Non-Arctic states and entities that obtained ad-hoc observer status in the past include: China, Italy, South Korea and the European Commission.

²² See <http://www.barentsobserver.com/non-arctic-countries-want-membership-in-arctic-council.4516094-16174.html>.

conflict with Canada over a proposed seal import ban – the strongest and most comprehensive policy statements from the group of non-Arctic players has come from the EU. Policy statements include a European Parliament resolution and, more recently, the European Commission’s Arctic Communication, which identifies a number of interests and multiple actions in the region. In the Communication, the Commission stated its support for the “...full implementation of already existing obligations, rather than proposing new legal instruments should be advocated”, but recognized a need to adapt existing frameworks to the unique conditions of the Arctic conditions and to “explore the possibility of establishing new, multi-sector frameworks for integrated ecosystem management.” The Communication also makes clear that the “EU should ... not support arrangements which exclude any of the Arctic EU Member States or Arctic EEA EFTA countries”.²³

3.3 Transatlantic Policy Initiatives

Both the EU and the U.S. recently released important statements regarding their Arctic policies. In November 2008, the European Commission issued its Arctic Communication, which laid out EU policy objectives in a number of different areas, including environmental protection, indigenous peoples, sustainable use of resources, and international governance options. The January 2009 Presidential Directive on Arctic Region Policy outlined a similar set of issues, with the notable addition of U.S. security interests. The policy statements were remarkable in their level of agreement, with clear areas for potential policy cooperation. Areas of agreement include the following:

- Both affirmed their commitment to the extensive law of the sea framework already in place.
- Both indicated a preference for working within existing institutions and frameworks rather than creating a new overarching governance regime, though they both indicated a willingness to modify some of these frameworks to fit the unique conditions in the Arctic.
- Both recognised the threats posed to indigenous communities by rapid environmental change and poorly regulated economic expansion, and supported efforts to include them in the decisions that affect them.
- Both indicated a commitment to greater cooperation in scientific research and monitoring.
- Both highlighted the need for greater coordination on matters of safety and emergency response.

Although policy cooperation would likely be easiest to organise within the Arctic Council, the recent delay in decision on whether the European Commission will be granted permanent observer status means that transatlantic dialogue on the Arctic may be more difficult to achieve.

3.4 Shared Objectives, Principles and Approaches

There is increasing interest from non-Arctic states and entities in Arctic governance, and especially in the Arctic Council. Arctic governance is no longer solely of interest to Arctic states, indigenous peoples, academics and NGOs, but rather, it has become a major item on the policy agenda for influential international actors. With the increasing interest, Arctic Ocean coastal states are on the defensive, and all members of the Arctic Council maintain

²³ European Commission, Communication from the Commission to the European Parliament and the Council, The European Union and the Arctic Region, COM(2008) 763 of 20 November 2008 (hereafter the “Arctic Communication”), at http://ec.europa.eu/maritimeaffairs/pdf/com08_763_en.pdf.

that the Council and existing frameworks are sufficient—with certain modifications—to govern the Arctic.

The Illulisat Declaration may be the best indicator of which way the political winds are blowing. A central purpose of the meeting of the five Arctic Ocean coastal states in Greenland was to demonstrate to the international community and the media that there would not be a scramble for resources in the region, but rather an orderly process governed by UNCLOS. They embraced the rhetoric of environmental conservation, stating “the Arctic Ocean is a unique ecosystem, which the five coastal states have a stewardship role in protecting”. Perhaps there remains the prospect that the melting Arctic ice will induce stronger measures of governance at some point in the future. John B. Bellinger, one of the architects of the Ilulissat Declaration from U.S. Department of State, recently stated:

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

This observation seems to portend a willingness to examine more ambitious governance options – perhaps even treaty solutions – before economic activities enter the region on a larger scale. A crucial next step will be to produce a second instalment of ACIA, given that the understanding and monitoring of sea ice dynamics has increased significantly since 2004 and the ACIA projection – that the Arctic Ocean will retain ice cover during the summer months until the end of this century – has become sorely outdated.

While the political dynamics are changing even faster than the ice is melting, there does not appear to be any real threat to the existing governance frameworks. Although there are signs of dissatisfaction with the Arctic Council among some of its participants, such as the ICC²⁴, this is unlikely to translate into a serious challenge to the Council’s authority. While the European Parliament resolution suggestion for stronger forms of Arctic governance might be desirable, the Commission did not further pursue such options in its recent Communication. In fact, the Communication closely adheres to the near-consensus position of the eight Arctic states that:

- The Arctic Council should serve as the predominant institution for debating and studying Arctic issues, with the Council offering guidance on the emerging regional challenges;
- The UNCLOS and other existing international agreements provide a good governance framework for the Arctic; and
- The existing governance framework can be supplemented by modifications and additions to existing treaties and through non-binding instruments issued by institutions such as the Arctic Council.

While this consensus still holds, the debate on Arctic governance is evolving at a very rapid pace, and new policy options and political preferences will continue to emerge in the months and years ahead.

4 Policy Options for Environmental Governance

The Arctic is currently undergoing rapid environmental change, with uncertain implications for the region’s ecological and climatic systems. Given this state of affairs, the fundamental environmental governance challenge is to build resilient and adaptable governance regimes capable of protecting fragile Arctic ecosystems. The following section highlights opportunities

²⁴ See the Inuit Leaders’ Summit on Arctic Sovereignty, supra note 20.

for improved environmental governance at the regional and global scales, as well as specific options for the EU and through transatlantic cooperation.

4.1 Regional and Global Policy Options

Cross-sectoral governance strategies, which take into account both natural systems and human activities in a holistic and integrated manner, should be the aim of regional and global policies. Cross-sectoral policy options can be distinguished from those of a more narrow focus by their substantive scope and level of participation. There are four main ways by which a cross-sectoral system of governance in the marine Arctic could be implemented, each carrying various degrees of political support from the different Arctic players.

1. Relevant actors could establish new complementary issue- or sector- specific instruments and institutions.
2. Relevant actors could engage in multilateral negotiations within the context of existing institutions and instruments in order to modify them in a coordinated fashion.
3. The Arctic Council could serve as a coordinator in an effort to supplement or modify existing frameworks so that they function in a more integrated and comprehensive fashion.
4. State actors, with the involvement of relevant actors, could negotiate an overarching legally binding regional instrument specifically tailored to address the unique conditions of the Arctic.

Given the need for a flexible governance regime, the utility of soft-law instruments should not be underestimated. Existing international bodies such as the Arctic Council and legal instruments with institutional components may be well situated to create and update guidelines and best practices for the region, although the non-legally binding nature of soft-law instruments presents its own set of problems. Regardless of the approach, the following outlines some strategies that could provide the foundation of any resulting governance framework.

- **Ecosystem-Based Management (EBM).** EBM is widely regarded as a best practice of international environmental governance and comprises an important component of the EU Commission's Arctic Communication and the U.S. Presidential Directive on Arctic Region Policy. Arctic ecosystems often span national boundaries, so many EBM regimes would need to be implemented at the regional or international level. While coordination among Arctic states is necessary for this type of approach, it is not clear who would take the lead in this effort. The Arctic Council, with its network of research-based Working Groups, is a strong potential candidate for filling the role of coordinator.
- **Marine Protected Areas (MPAs).** MPAs are often an important component of EBM and can be an important tool for implementing the precautionary principle. Very little of the Arctic marine area is currently designated as a MPA; perhaps less than one percent by some estimates. Arctic coastal states should designate MPAs in the Arctic, either independently or as part of a larger EBM framework, before the scramble for resources leads to the entrenchment of interests in certain areas.
- **Research and monitoring.** A commonly identified problem among Arctic policy makers is the lack of information. Arctic states, via the Arctic Council and other international scientific institutions as well as non-Arctic states and other entities, should continue to improve coordination among research initiatives. Additional research is needed on Arctic systems to inform EBM initiatives, as most Arctic research has had a narrow issue-based focus so far. Traditional knowledge of indigenous communities should be incorporated into these efforts.

There may be a legal basis for a more comprehensive regional agreement in UNCLOS. For example, Article 234 of UNCLOS allows states to enact special legislation to protect ice-

covered waters against vessel-source pollution, albeit only within their EEZ. Additionally, the Convention allows for cooperation between states bordering an enclosed or semi-enclosed sea.²⁵ Article 123 calls on the states bordering such an enclosed or semi-enclosed sea to cooperate through “an appropriate regional organization” in order to:

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

This article, in combination with Article 234, could thus provide a starting point for Arctic states to develop a comprehensive marine environment treaty. Greater flexibility and depth of regulation would be allowed by negotiating a separate regional treaty, however, which could then aim to encompass:

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

4.2 EU Policy Options

While the EU is not an Arctic Ocean coastal state, it is, by virtue of its collective member states, among the largest maritime powers in the world. As such, it can significantly contribute to the discussion on environmental governance in the marine Arctic. The high seas enclave at the centre of the Arctic Ocean, an area where the EU has a clear interest, should also not be overlooked. The EU released its Integrated Maritime Policy in October 2007. The Integrated Maritime Policy outlined principles and action items for maritime governance. Many of these items would be relevant to discussions on governance of the marine Arctic.

In particular, the EU could also take the lead in pushing for an Arctic Ocean Assessment. Several Arctic Ocean coastal states, notably Canada, Norway and the U.S., have begun organising their national Arctic governance regimes around the concept of large marine ecosystems (LMEs). However, LMEs often cross national borders, and there is as yet no established framework for coordinating LME regulatory activities at the bilateral or international level. The EU could contribute with lessons from its own experience coordinating maritime management policy of multiple sovereign nations, including the utility of ocean assessments. An Arctic Ocean Assessment could complement the LME work already taking place and better harmonise governance approaches to issues common to multiple ecosystems.

²⁵ Article 122 of UNCLOS defines an enclosed or semi-enclosed sea as: a gulf, basin or sea surrounded by two or more States and connected to another sea or the oceans by a narrow outlet or consisting entirely or primarily of the territorial sea and exclusive economic zones of two or more coastal states; there is, however, currently debate on whether the Arctic Ocean qualifies as an enclosed or semi-enclosed sea.

4.3 Transatlantic Policy Options

The recently released EU and the U.S. statements regarding their Arctic policies point to broad areas of agreement, as outlined in Section 3.3. In addition to the synergies identified relating to indigenous peoples, the environment and the general legal framework, they also seem to agree that marine Arctic governance should be informed by the principles of ecosystem-based management. The Commission's Arctic Communication states that "holistic, ecosystem-based management of human activities" should complement any efforts to mitigate and adapt to the changes in the Arctic caused by climate change. Similarly, the U.S. Presidential Directive states that the relevant executive agencies should "pursue marine ecosystem-based management in the Arctic."

Both the EU and the U.S. have experience with EBM within their own maritime zones and could push for their wider application in transboundary Arctic marine governance. They could work bilaterally on an Arctic Ocean Assessment, identifying important marine areas in need of protection. Their co-operation in the existing regulatory bodies, such as the IMO and in international fisheries negotiations is also key to ensuring that environmental goals remain at the top of the agenda.

5 Policy Options for Indigenous Peoples

Indigenous peoples have inhabited the Arctic for thousands of years, and are therefore not only stakeholders in the Arctic, but also rights holders, and deserve a special status in the decision making process. Indigenous communities are extremely vulnerable to climate change due to the dependence of their livelihoods on Arctic ecosystems. However, their interests are often marginalised or neglected in current Arctic governance institutions.

One political strategy that indigenous communities have used to press for stronger climate change mitigation measures has been litigation in domestic and international courts. Legally binding human rights instruments provide opportunities for treating climate change issues as human rights violations before courts (as shown by the petition of the Inuit against the U.S. government). The use of litigation is not limited to pushing for stricter CO₂ emission targets, but can also be used for obtaining compensation and developing adaptation strategies. Furthermore, this strategy can also raise overall awareness about the negative impacts of climate change and the urgency of taking adaptation measures, as evidenced by the petition of the Inuit against the U.S. government.

Another possible strategy for indigenous communities would be to seek special recognition under the United Nations Framework Convention on Climate Change (UNFCCC)²⁶ similar to that under the POPs Convention, which acknowledges their unique vulnerability. Such recognition under the UNFCCC would give indigenous communities the opportunity to influence the debate on adaptation and shed light on sensitive social and cultural elements that are often not considered. Furthermore, there are many practical benefits; for instance, access to various adaptation funds established under the UNFCCC, which are only open to especially vulnerable groups. This might be an opportune time to seek recognition, given that the current round of climate-change negotiations is scheduled to conclude in December 2009 in Copenhagen. Indigenous communities could also seek a similarly enhanced role in other relevant governance frameworks, such as the Polar Bear Agreement.

²⁶ United Nations Framework Convention on Climate Change, New York, 9 May 1992. In force 21 March 1994, 1771 *United Nations Treaty Series* 107; <http://unfccc.int/2860.php>.

5.1 EU Policy Options

Until recently, EU policy on indigenous peoples has focused on regions of the world outside the Arctic, although the Northern Dimension policy only addressed the issues concerning the Saami and other Arctic indigenous peoples in passing. This is changing, with the more recent EU policy statements indicating an increased sensitivity to its relationship with indigenous communities and the local effects of its policy choices.

For instance, the October 2008 resolution of the European Parliament emphasised that the involvement and active participation of indigenous peoples, especially in issues related to climate change, is essential to supporting measures in the region. The European Commission's Arctic Communication operationalises the EU's policy towards Arctic indigenous communities in general and the Saami people in particular. The Commission recognises that Arctic indigenous communities are "particularly vulnerable to the increasing pressures of climate change and globalisation", and proposes several actions in this regard.

Interestingly, the Arctic Communication addressed two contentious policy issues – whaling and sealing – and it indicated a desire on the part of the EU to "[e]ngage Arctic indigenous peoples in a regular dialogue" regarding these issues. The Communication stated that subsistence hunting of both seals and whales should be protected, indicating that the two sides may share some common ground. With respect to these particular issues, though, the EU's stance is ambiguous at best, with potentially conflicting policy objectives in the areas of animal welfare and whale conservation. The EU import prohibitions for these species have often impeded the adaptation efforts of Arctic indigenous peoples. This potential conflict is exhibited in the European Parliament's recent decision on 5 May 2009 to ban the import of seal products.²⁷ One policy suggestion would be for the EU to grant more control over adaptation decisions to indigenous communities, which may be the most viable policy in the long-term.

The EU could also become active in facilitating the conclusion of the Nordic Saami Convention,²⁸ which would also further the goals outlined in the Communication to promote further integration within the Scandinavian Saami community and to "[p]rovide opportunities for self-driven development and the protection of their lifestyle." The Arctic Communication also urges "[s]upport in particular [for] the organisations and activities of the Saami". If it could facilitate agreement between the three Scandinavian states for the conclusion of the Nordic Saami Convention, the EU would contribute towards creating a stronger Saami community, which is in itself a precondition for adaptation to climate change impacts facing the Saami. The Nordic Saami Convention would be highly relevant for strengthening adaptation in the Barents Sea, as it strengthens the rights of Saami to their traditional fishing practices.

²⁷ EU seal ban raises trade tensions with Canada, available online at: <http://www.euractiv.com/en/trade/eu-seal-ban-raises-trade-tensions-canada/article-182007>

²⁸ Finland, Sweden and Norway have developed the idea for a Nordic Saami Convention under the auspices of the Nordic Council. An ambitious draft was produced by an expert committee in 2005. The draft promotes - in its altogether 51 articles - the idea of a joint indivisible Saami community in the three Nordic states. Even though the Saami are not formal parties in the envisaged Convention, they possess an unparalleled status in the draft, which accords the respective Saami Parliaments a strong role in its ratification, amendment, development and supervision. This reflects the idea advanced in the Convention (Article 3) that the Saami have a self-determination within the territory of the three Nordic states. The Draft for a Nordic Saami Convention has not progressed as was originally planned. The idea was to commence negotiations on the basis of the draft in 2007, but Finland in particular has experienced problems in even starting the negotiation stage. Currently, it seems that the negotiations will start by the decision of the Co-operation Committee (consisting of the representatives of the three Saami parliaments and responsible ministers from the three Nordic states) November this year. For an unofficial text of the draft, see <http://www.saamicouncil.net/?newsid=2223&deptid=2192&languageid=4&news=1> (18 June 2009). For an analysis of the Draft and its progress, see Martin Scheinin, "The Right of a People to Enjoy Its Culture: Towards a Nordic Saami Rights Convention", chapter 7 in Cultural Human Rights (eds. Francesco Francioni and Martin Scheinin), Brill 2008; Timo Koivurova, "Draft for a Nordic Saami Convention", in European Yearbook of Minority Issues, 2006/7 s. 103-136; and Timo Koivurova, "Draft for a Nordic Saami Convention: Nations Working Together", in International Community Law Review 2008 s. 279-293.

5.2 Transatlantic Policy Options

The EU and the U.S. have both recognised the particular vulnerability of indigenous communities in their recently released Arctic policy statements. The best forum for them to support the adaptation of indigenous communities in the marine Arctic is the Arctic Council. The Arctic Council affords indigenous groups special status as permanent participants, empowering them to influence the debate on climate change-related issues and include their perspectives in the ACIA.

The ACIA was a groundbreaking report that assessed climate change impacts in the Arctic. The EU and U.S. should propose that the ACIA be updated in a process similar to that used by the IPCC for its assessment reports. This would enhance the importance of ACIA and help policy makers stay abreast of the constantly evolving circumstances in the region. These updates should retain the ACIA's unique incorporation of traditional knowledge of Arctic indigenous peoples and include a chapter on the impacts of climate change on traditional livelihoods.

The EU and U.S. could also jointly support the creation of an assessment on vulnerability and adaptation in the Arctic. Such an undertaking was originally proposed by the Arctic Council's project on Vulnerability and Adaptation to Climate Change in the Arctic (VACCA). This assessment could extend to cover issues and challenges associated with the implementation of adaptation policies.

Recently, there have been new developments in Arctic cooperation, particularly the meeting of the five Arctic Ocean coastal states in Greenland in May 2008 that culminated in the Ilulissat Declaration. It is too early to predict whether this or any other new governance initiative poses a threat to the Arctic Council as the predominant forum for Arctic cooperation, but it is important that the status of Arctic indigenous peoples remains as strong in any new governance options as it is now under the Arctic Council. If this status were lost, it would result in less visibility for indigenous peoples' interests, and the use of traditional knowledge in adaptation-related work would likely disappear. Thus, a viable policy option for the EU and the U.S. could be to recognise and promote the importance and high-level status of indigenous participation in any future forum or mechanism.

Furthermore, across the Arctic, a number of national and subnational climate change adaptation strategies have been developed. Such strategies have been launched by Canada, the state of Alaska and Greenland among others. Evaluating these existing adaptation strategies and their effectiveness could provide valuable information and best practices for wider use. Critical attention should be paid to the present and future social, cultural and economic consequences of the strategies and existing projects, as they sometimes may have unintended results. This could be achieved, for instance, by establishing a special working group under the Arctic Council. Such an evaluation and assessment exercise could be launched as a (pilot) project of the Arctic Council aimed at creating policy recommendations on adaptation, especially for the region's indigenous peoples, with the initial proposal coming from the European Commission, EU Member States and the U.S.

Finally, the establishment of an Indigenous Rights Review Working Group under the Arctic Council could assist in analysing the legal and institutional barriers to adaptation. This could be important in the Arctic marine area, since it is an area to which indigenous rights rarely extend, given that it is so heavily governed by the law of the sea and central governments.

6 Policy Options for Fisheries Management

While warmer areas of the Arctic marine area have supported commercial fishing activities for decades, until recently there was little or no major fishing activity in the colder areas of the Arctic, with ice-covered regions completely cutting off access to fishing. The retreat of Arctic

sea ice is opening up new parts of the Arctic Ocean to fishing vessels, and there are already signs that certain marine species are migrating north at a surprising rate.

6.1 Regional and Global

The expansion of marine capture fisheries in the Arctic may necessitate adjustments to the relevant international legal framework. Any such process would benefit from a needs assessment based on basic fisheries research and an evaluation of likely future scenarios regarding habitats, migration patterns, impacts on target and non-target species, fishing techniques, etc. For certain Arctic fisheries that have been commercially fished for years, policy makers have access to a wealth of information. In other areas, almost nothing is known. For instance, new fishing opportunities on the Pacific side of the Arctic Ocean may remain located primarily in the maritime zones of coastal states for the near future, whereas fishing opportunities on the Atlantic side may soon extend to areas in the high seas that were previously not fished. Such an assessment could be carried out in the framework of the Arctic Council through its CAFF working group or in other fora, such as the International Council for the Exploration of the Sea (ICES). In light of the discussion at the meeting of SAOs in November 2007, however, there is currently considerable opposition within the membership of the Arctic Council for the Council to become actively involved in fisheries management and conservation.

In addition to ensuring the availability of relevant scientific data, other potential policy options include:

- a freeze on the expansion of commercial fishing in the Arctic, such as the one enacted by the North Pacific Fishery Management Council (NPFMC), until adequate assessments of its potential impacts on target and non-target species and livelihoods of indigenous peoples have been carried out;
- a declaration that the relevant general principles of the Fish Stocks Agreement, the recent UNGA Resolutions in relation to vulnerable marine ecosystems and destructive fishing practices, and relevant conservation and management measures drawn from regional fisheries management organisations (RFMOs)²⁹ would apply to new and existing fisheries in the Arctic marine area. In particular, this declaration could stipulate that there shall be no expansion of commercial fishing in the Arctic until adequate assessments of its potential impacts on target and non-target species and livelihoods of indigenous peoples have been carried out;
- individual or collective initiatives geared towards developing mechanisms or procedures similar to an environmental impact assessment (EIA) or a strategic environmental assessment (SEA) for new fisheries in the Arctic marine area; and
- one or more state-of-the-art RFMOs or similar arrangements for species other than tuna and tuna-like species and anadromous species, whether self-standing or as part of a legally binding framework instrument for the Arctic, and possibly in conjunction with adjustments in the competence of existing RFMOs or arrangements, in particular in geographical terms.

All of these options would entail bilateral or multilateral consultations with a number of relevant players, including other Arctic Ocean coastal states.

6.2 EU Policy Options

Vessels flying the flag of EU Member States (Community vessels) and natural and legal persons with the nationality of one of the EU Member States could be directed not to engage in fishing in certain parts of the Arctic marine area at all or only when certain conditions are

²⁹ E.g. Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Conservation Measures 21-01 (2008) 'Notification that Members are considering initiating a new fishery' and 21-02 (2008) 'Exploratory fisheries'.

met. It could also be explicitly stated that such action would be taken in response to the relevant paragraphs of UNGA Resolution No. 61/105 on bottom fisheries³⁰ and in support of the Arctic Fishery Management Plan (FMP) developed by the United States within its NPFMC. Such action could be complemented by action in a capacity comparable to that of a port state or market state, for instance by directing that certain catches in certain parts of the Arctic marine area are not landed, transshipped, processed or packaged in Community ports, and that vessels involved in these catches - including supporting vessels - are prohibited from using any services in Community ports, in particular refueling and resupplying.³¹

Last but certainly not least, the EU may wish to address the need for basic fisheries research and for the development of potential scenarios. This could be done by stimulating research by EU Member States individually or collectively, or jointly with non-EU Member States. Moreover, efforts could be made to ensure that ICES addresses the abovementioned needs, for instance by adjusting the work plan and terms of reference of its Arctic Fisheries Working Group.

6.3 Transatlantic Policy Options

As diminishing ice coverage attracts fishing vessels looking for new fishing opportunities, Arctic Ocean coastal states will have to develop national regulation in order to discharge their obligations under international law. Arctic Ocean coastal states and other states can adopt individual regulations on fishing activities in the Arctic marine area within their own maritime zones and/or for their natural and legal persons. The EU and the U.S. could coordinate their efforts in this regard and thereby expand the geographic scope and relevance of any adopted regulations. Over time, such transatlantic regulations could serve as a model for international rule-making. Interests that the U.S. and the EU and its Member States have in common are the long-term sustainable use and conservation of marine living resources and marine biodiversity. They also share an interest in the long-term exercise of their entitlements over marine living resources, even though the EU and its Member States do not have entitlements as coastal states.

The U.S. Senate has adopted a joint resolution directing the U.S. to initiate international discussions and take steps to negotiate an agreement for managing migratory and transboundary fish stocks in the Arctic Ocean.³² Thus far, however, no interstate negotiations have commenced.

The EU and the U.S. should consider cooperating by means of a joint and harmonised approach towards supporting or initiating the various individual, regional and global options mentioned earlier. Relevant international bodies in this regard include the Arctic Council, FAO, ICES and various RFMOs.

7 Policy Options for Offshore Hydrocarbon Activities

Though the Arctic holds a significant share of the world's oil and gas reserves, there is no instrument providing comprehensive global regulation of offshore hydrocarbon activities, nor

³⁰ UNGA Resolution No. 61/105, of 8 December 2006, 'Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments', in particular paras 80-86.

³¹ See in this regard the Chairperson's Draft Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing of 18 May 2009; in particular Arts 9 and 17.

³² S.J. Res. No. 17 of 2007, passed by the Senate on 4 October 2007, at <http://www.opencongress.org/bill/110-sj17/text>. The House of Representatives voted in favour of S.J. Res. No. 17 in May 2008, and the President signed it on 4 June 2008.

is there any global regulatory or governance body with such a mandate. There are, however, a number of instruments with broader scope that *also* apply to offshore hydrocarbon activities, including those taking place in the Arctic.

7.1 Regional and Global Policy Options

Among global instruments, UNCLOS sets out the basic rules on access to and control over offshore hydrocarbon resources and the mandate of the International Seabed Authority (ISA). Other instruments with more limited applicability to offshore hydrocarbon activities include MARPOL, the OSPAR Convention, OPRC, and the Espoo Convention. There are also multilateral and bilateral agreements that deal with offshore oil and gas activities, yet none of them are comprehensive in their coverage. Nor are these specifically tailored to address the unique circumstances of the Arctic. Thus, there is still a need to examine opportunities for reforming the international governance of offshore hydrocarbon activities in the Arctic.

The existing Arctic Council's Arctic Offshore Oil and Gas Guidelines could go a long way toward addressing the current regulatory gaps if put into practice by the Arctic states. The Guidelines were adopted by the Arctic Council in 1997 and then revised in 2002.³³ A third revision was released in 2008, and adopted in the Ministerial meeting in April 2009.³⁴ The guidelines provide recommendations on standards, technical and environmental best practices, management policy, and regulatory control for Arctic offshore oil and gas operations.³⁵ The Guidelines also recommend that regulation of offshore hydrocarbon activities utilises the precautionary approach, the polluter-pays principle and the principle of sustainable development.³⁶ The Guidelines have separate chapters on EIAs, interests that are to be taken into account (e.g. indigenous communities, biodiversity), safety and environment management, monitoring, operating practices, emergencies and decommissioning and site clearance. Although providing an important step in the creation of a comprehensive regulatory regime, the Guidelines are not legally binding and leave the coastal states with a wide margin of discretion in their implementation.

Though no move has been made to pursue them, the following policy options are also available and could be explored:

- develop legally binding regulations for offshore hydrocarbon activities in the Arctic marine area through a new regional treaty, drawing on the model of the foregoing Arctic Offshore Oil and Gas Guidelines, the OSPAR Convention, and the relevant acts of the OSPAR Commission;
- ensure that the aforementioned regulations have an institutional component with the mandate to implement and update substantive standards when necessary. The spatial competence of this body should, at a minimum, complement that of the OSPAR Commission and the ISA, thus achieving full coverage of the Arctic marine area;
- develop a regional agreement on contingency planning and emergency preparedness for incidents involving offshore hydrocarbon activities that (1) establishes a body mandated to implement and update the substantive standards, and (2) provides for adequate investments in infrastructure.

³³ See Offshore Oil and Gas Guidelines (1997) PAME <http://old.pame.is/sidur/uploads/oilandgasguidelines.pdf>; Arctic Offshore Oil and Gas Guidelines (2002) PAME <http://old.pame.is/sidur/uploads/ArcticGuidelines.pdf>.

³⁴ See Offshore Oil and Gas Guidelines (revised in 2009) PAME <http://arctic-council.org/filearchive/Arctic%20Offshore%20Oil%20and%20Gas%20Guidelines%202009.pdf> (viewed: 15.06.2009).

³⁵ See *ibid.*

³⁶ 2002 Arctic Offshore Oil and Gas Guidelines (available at www.pame.is), at p. 10.

7.2 EU Policy Options

The Arctic is becoming increasingly more relevant for the EU in part due to its abundant offshore and onshore hydrocarbon reserves. While neither the EU nor its Member States have entitlements under the international law of the sea over the hydrocarbon resources in the Arctic Ocean (except for those in the 'Area'), clearly both Norway and Russia – two of Europe's largest energy suppliers – are actively engaged in extraction and development of these resources.

A large quantity of oil and gas reserves is expected to be discovered in the continental shelves of the Arctic coastal states.³⁷ Currently, the EU imports approximately 50% of its total consumption. In the next 20 years, this share is predicted to rise to 65-70%.³⁸ Currently, oil imports to the EU originate from Russia and the Commonwealth of Independent States (CIS) (38%, a figure which has been constantly increasing in recent years), the Middle East (22%), Norway (15%), North America (14%) and other countries (11%).³⁹ A Communication entitled "Climate Change and International Security"⁴⁰ adopted by the European Commission in the beginning of 2008 highlighted the increasing geopolitical importance of the Arctic in EU policy.

The EU Northern Dimension (ND) policy, adopted in 1999, created an institutional framework for cooperation and partnerships between the EU and its neighbours.⁴¹ Energy was identified as one of the key sectors in the EU's ND policy, including both energy efficiency and renewable energy.⁴² The ND policy identifies the Arctic and sub-Arctic areas, including the Barents region, as priority areas.⁴³ EU energy security is inextricably linked to its regional supply networks. Therefore, it is in the strategic interest of the EU to ensure that its traditional energy suppliers in the north will be able to continue delivering in the future.

In order to progressively integrate the EU's neighbours into its internal energy market, the ND energy agenda focuses on three components: security of supply, competitiveness, and protection of the environment. Specific policy goals include the harmonisation⁴⁴ of regulations governing energy trading and environmental requirements, the development of a stable

³⁷ USGS (2008); As a party to both the UNCLOS and the 1994 Agreement related to the implementation of part XI (The European Community became a party to both agreements through a formal confirmation on April 1st, 1998), the European Union is subject to the regime of the International Seabed Authority (ISA). Art. 4(2) of the 1994 CS Agreement requires a state first to ratify UNCLOS in order to become party to the agreement.

³⁸ See Adele Airoldi, "The European Union and the Arctic policies and actions", Nordic Council of Ministers, Copenhagen (2008) at p. 47. Also see COM(2006) 105 final, Green paper on A European Strategy for Sustainable, Competitive and Secure Energy, p. 3, available online http://ec.europa.eu/energy/green-paper-energy/doc/2006_03_08_gp_document_en.pdf (Viewed 8 October, 2008). Demand of external energy is projected to increase further and by 2040, the EU's dependency on imports can be as high as 70%.

³⁹ See Energy Policy and Maritime Policy: Ensuring a Better Fit, Brussels 10 Oct 2007, SEC (2007) 1283 provisional version, at p. 6.

⁴⁰ See "Climate Change and International Security", Paper from the High Representative and the European Commission to the Council, 14 March 2008, available at: http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/reports/99387.pdf (Viewed: 02.10.2008)

⁴¹ In fact, Finland played an active role to promote cooperation in the north after its accession to the EU. The resulting consequence is a proposal for Northern Dimension (ND) in 1997. The European Council, however, endorsed the concept in 1999. See Adele Airoldi, "The European Union and the Arctic policies and actions", Nordic Council of Ministers, Copenhagen (2008) at pp.17-18.

⁴² See 'Strengthening the Northern Dimension of European Energy Policy', Communication from the Commission, at: http://ec.europa.eu/external_relations/north_dim/docs/index_en.htm.

⁴³ See Adele Airoldi, "The European Union and the Arctic policies and actions", Nordic Council of Ministers, Copenhagen (2008) at p. 22.

⁴⁴ See Adele Airoldi, "The European Union and the Arctic policies and actions", Nordic Council of Ministers, Copenhagen (2008) at p. 48.

framework for public and private investments in the energy sector, more efficient production and use of energy, and the development of a gas network that supports a sustainable supply and use of energy.⁴⁵ To achieve these goals, the EU has developed a variety of instruments such as the Trans-European (Energy) Networks Programme,⁴⁶ the Energy Framework Programme,⁴⁷ and the TACIS project in north-west Russia.⁴⁸ In addition, there are other cooperation instruments that contribute to the economic development of the region and supplement EU funds, such as the European Bank for Reconstruction and Development (EBRD), regional development banks, the Nordic Investment Bank (NIB), and other national programs active in the region.⁴⁹

On a longer time horizon, another strategic consideration is the potential for hydrocarbon reserves located at the centre of the Arctic beyond the national jurisdiction of any Arctic state. Of course, the actual commencement of new hydrocarbon development in the Arctic will depend on a number of factors, notably the going price of oil.

Although the EU does not have direct access to hydrocarbon development in the Arctic marine area, it could potentially influence these activities. For example, the EU could seek to promote sustainable development of these resources through the following policy options:

- strengthen co-operation within the existing ND policy framework related to sustainable offshore hydrocarbon activities in the Arctic;
- provide financial assistance and facilitate investment in hydrocarbon infrastructure and development with a view to ensuring best practice, use of modern technology and the security of supply chain;
- co-operate with the offshore oil and gas producing nations in the Arctic to adopt effective mechanisms for the implementation of the Arctic Oil and Gas Guidelines; and
- facilitate information sharing about best practises in developing offshore oil and gas resources between experienced EU Member States and the five Arctic coastal states.

7.3 Transatlantic Policy Options

The positions of the U.S. and the EU in relation to offshore hydrocarbons activities in the Arctic are fundamentally different. As a coastal state, the U.S. represents one of the key actors directly involved in offshore hydrocarbon extraction, with significant reserves — possibly 30% of total Arctic reserves — off the coast of Alaska.⁵⁰ By contrast, the EU does not have any coastal state jurisdiction in the Arctic Ocean. Given these differences, the most promising area for transatlantic cooperation lies in promoting best practices within, and uniformity between, coastal state maritime zones generally.

⁴⁵ See 'Strengthening the Northern Dimension of European Energy Policy', Communication from the Commission, at: http://ec.europa.eu/external_relations/north_dim/docs/index_en.htm.

⁴⁶ The Trans-European Networks Programme (TENS), adopted by the Council since 1995, supports and fosters by co-financing studies on the energy networks development and interconnections necessary for supplying the market and enhancing security of supply, taking account of the need to link island landlocked and peripheral regions with the central regions of the Community and to establish or improve interconnections with third countries. See *ibid*, Annex-II.

⁴⁷ Energy Network Programme has supported Energy Policy activities in Latvia and Poland, in the context of its international co-operation program – Synergy. See *ibid*, Annex-II.

⁴⁸ TACIS is an acronym for Technical Assistance to the CIS (or Commonwealth of Independent States). The Tacis programme has taken both a sector specific and regional approach to the provision of technical assistance to Russia. A number of projects have been supported in the region of North West Russia, concentrating primarily on energy efficiency and environmental issues. See *ibid*, Annex-II.

⁴⁹ See *ibid*.

⁵⁰ Background Paper on Comparative policy analyses: U.S., EU and transatlantic Arctic Policy, Arctic Transform, p. 41.

It is also important to note that several Member States of the EU possess offshore resources and have been involved in offshore activities for a number of years. Although these activities have not been conducted in the Arctic seabed, sharing related experiences, knowledge and other emergency measures in the event of pollution could help the EU and the U.S. engage in transatlantic cooperation. And finally, strengthening existing transatlantic dialogues and cooperation within the Arctic Council could be an additional platform for transatlantic cooperation aside from state-level bilateral cooperation. These and similar platforms could be used by the EU to promote best practices from within the EU Member States.

8 Policy Options for Shipping

With sea ice melting, new intra- and trans-Arctic shipping routes are opening to industry and tourism. The Intergovernmental Panel on Climate Change (IPCC) predicted that the Arctic Ocean would be ice free during summers before the end of the century. However, more recent studies suggest this might occur much earlier. It is important to address the numerous safety and environmental risks associated with increased shipping.

8.1 Regional and Global Policy Options

There are various options available for modifying the current international legal framework for shipping to account for the risks presented by Arctic shipping to Arctic marine ecosystems and human safety. While options for the Arctic Council are not separately identified, some of the following options could be pursued there as well.

Options to pursue within the IMO⁵¹ include making the IMO Arctic Shipping Guidelines mandatory, possibly by incorporating them into the **International Convention for the Safety of Life at Sea (SOLAS)**⁵² and aligning them with other important elements (for example, training for ice navigators, which could be incorporated in the STCW.⁵³ Additionally, the IMO could pursue the adoption of special standards, including:

- special discharge or emission standards for all or part of the Arctic marine area under MARPOL;
- special fuel content or ballast water treatment standards;
- one or more mandatory ships' routing systems, possibly in the form of a comprehensive 'Arctic Sea Lanes' proposal;
- ship reporting systems;
- compulsory pilotage and ice-breaker or tug assistance; and
- special anti-fouling standards.

Also, the IMO could designate the marine Arctic (or parts thereof) as a particularly sensitive sea area (PSSA), accompanied by a comprehensive package of associated protective measures (APMs) consisting of one or more of the above standards and other special standards such as ballast water exchange standards.

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

⁵¹ As recommended by the Arctic Marine Strategic Plan, at p. 10. Note also the commitment by the five Arctic Ocean coastal states to work within IMO as expressed in the Ilulissat Declaration of 28 May 2008.

⁵² International Convention for the Safety of Life at Sea, London, 1 November 1974. In force 25 May 1980, with protocols and regularly amended.

⁵³ International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, London, 1 December 1978. In force 28 April 1984, as amended and modified by the 1995 Protocol. Cf. D. VanderZwaag and others, Governance of Arctic Marine Shipping, (August 2008) <http://arcticportal.org/en/pame> at p. 68.

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- entering into legally binding agreements on monitoring, contingency planning and preparedness for pollution incidents, as well as on search and rescue, including by designating places of refuge;
 - agreeing on a harmonised approach on enforcement and ensuring compliance, *inter alia* by means of shared platforms (e.g. “shiprider agreements”);
 - implementing the Convention for the Control and Management of Ships’ Ballast Water and Sediments (BWM Convention) individually or in concert; and
 - taking other action under Article 234 of UNCLOS, especially if the IMO Arctic Shipping Guidelines are not made mandatory.

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

- developing a strategy for port state control in the Arctic, for instance by establishing an Arctic Memorandum of Understanding (MOU) on Port State Control or by adjusting the Paris and Tokyo MOUs on port state control to ensure that proper account is taken of intra-Arctic and trans-Arctic marine shipping;
- implementing Article 218 of UNCLOS in concert; and
- exercising port state residual jurisdiction in concert – relying in part on Article 234 of UNCLOS – in case the IMO Arctic Shipping Guidelines are not made mandatory.

Other options for Arctic states in particular, individually or collectively, are:

- addressing the need for hydrographic surveying and charting;
- considering the need to develop a regional liability regime;
- encouraging self-regulation by the shipping industry – for instance the cruise industry⁵⁴ – by means of positive and negative incentives (e.g. positive discrimination and limiting landings and access to ports to cooperating players);
- urging the International Association of Classification Societies (IACS) to restrict the margin of discretion that individual members have in relation to the IACS Unified Requirements concerning Polar Class, which set out criteria for the operational capability and strength of steel ships; and
- requiring the marine insurance industry to promote compliance with the IACS Unified Requirements concerning Polar Class, for instance by linking the level of compliance to the height of premiums.

Other options for all states, individually or collectively, in their capacities as flag states, include imposing standards on their vessels that are more stringent than generally accepted international rules and standards (GAIRAS), for instance special discharge, emission and ballast water exchange standards or by implementing the IMO Arctic Shipping Guidelines into their legislation.

8.2 EU Policy Options

In the area of shipping, the EU could unilaterally promote a number of measures outlined in the earlier section on global and regional policy options, including:

- hydrographic surveying and charting within areas of national jurisdiction and beyond, possibly through the International Hydrographic Organization (IHO);
- encouraging self-regulation by the shipping industry;

⁵⁴ See in this regard the Association of Arctic Expedition Cruise Operators (AECO; www.aeco.no).

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- imposing standards on vessels registered with EU Member States that are more stringent than current GAIIRAS, for instance special discharge, emission and ballast water exchange standards; and
 - implementing the IMO Arctic Shipping Guidelines in EU legislation.

Many of the observations made in relation to fisheries management apply to shipping as well. In considering the suitability of regional and global options in the sphere of shipping vis-à-vis individual options, particular account should be taken of the function of competent international organisations like IMO and the need for uniformity in the international regulation of shipping.

Even though the EU cannot act in a capacity comparable to that of an Arctic Ocean coastal state, it can act in a capacity comparable to that of a flag state, a port state, a market state or with regard to its natural and legal persons. The regional and global policy options are to some extent categorized in line with these different capacities. For instance, the EU could impose requirements on EU vessels that are more stringent than generally accepted international rules and standards (GAIIRAS) (e.g. related to special discharge, emission and ballast water exchange standards) or by implementing non-legally binding instruments (e.g. the IMO Arctic Shipping Guidelines) into EU legislation.

As regards hydrographic surveying and charting, the EU could encourage efforts by EU member states individually, collectively or jointly with non-EU member states through the IHO.

Finally, the EU could support or initiate a dialogue between the European Commission and relevant EU Member States on the one hand and Canada and the Russian Federation on the other hand, as regards consistency with international law of their legislation and other practices with respect to the Northwest Passage and the Northern Sea Route. It is unclear whether it would be possible to hold a dialogue within an existing forum such as the IMO. If it is possible, other interested states, including China, Japan, Norway and the United States, might also be invited to participate in the ad hoc dialogue.

8.3 Transatlantic Policy Options

In the area of shipping, the EU and the U.S. could cooperate to promote the shipping policy options already described (hydrographical surveying, industry self-regulation, and more stringent standards). If the EU and the U.S. both implement the IMO Arctic Shipping Guidelines in domestic legislation, this could catalyse action by other states and industry.

Even though the EU is not an Arctic coastal state, it shares an interest in the protection and preservation of the marine environment and marine biodiversity, as well as in the continued exercise of navigational rights and freedoms for their flagged vessels.

The EU and the U.S States should consider coordinating a joint and harmonised approach towards supporting or initiating the various unilateral, regional and global shipping options outlined above. Relevant international bodies in this regard include the Arctic Council, IHO, IMO and the Paris and Tokyo MOUs on port state control. The EU and U.S. could also consider opening a dialogue with Canada and the Russian Federation regarding the Northwest Passage and the Northern Sea Route.

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