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The Arctic Council at 15 Years: Edging Forward in a Sea of Governance Challenges

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ABSTRACT: With the impacts of climate change on the Arctic, including the thinning and decreasing extent of sea ice and projected dramatic increases in access to and development of regional resources, the adequacy of existing governance arrangements for the Arctic is increasingly being questioned. Through a two-part format, this article reviews how the Arctic Council is faring as the key regional governance institution for the Arctic since being established pursuant to a Declaration adopted by the eight Arctic States in September 1996. How the Council has edged forward the regional cooperation agenda through its six working groups and Ministerial meetings is first described. The recent governance innovation of establishing task forces to negotiate regional instruments on search and rescue and emergency preparedness and response is highlighted. The paper then turns to provide an overview of key challenges confronting the Arctic Council: fully implementing existing commitments and recommendations; completing the Arctic Council's restructuring; addressing future governance of ocean areas beyond national jurisdiction in the Arctic; and strengthening the 'Arctic voice' in international fora.

KEYWORDS: arctic, regional cooperation, indigenous organisations, pollutants, ocean governance, climate change

I. Introduction

Evolving from the 1991 Arctic Environmental Protection Strategy (AEPS) which focused on addressing pollutants and environmental protection in the Arctic,[1] the

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[1] For discussions of the AEPS and its history, see *David VanderZwaag/Rob Huebert/Stacey Ferrara,* The Arctic Environmental Protection Strategy, Arctic Council and Multilateral Environmental Initiatives: Tinkering While the Arctic Marine Environment Totters, Denver Journal of International

Arctic Council was established as a regional cooperation forum pursuant to a Declaration adopted in Ottawa, September 1996.[2] The Declaration set out an institutional structure which remains largely intact today. The Council consists of eight Member States,[3] it is innovative by including indigenous organisations as Permanent Participants,[4] and also includes observers.[5] The Council is charged with promoting cooperation on common Arctic issues including issues of sustainable development,[6] but security matters are excluded from the scope of the Council's mandate.[7] The four original working groups under the AEPS continued under the auspices of the Arctic Council[8] with two additional working groups subsequently added namely: the Sustainable Development Working Group (SDWG),[9] and the Arctic Contaminants Action Program (ACAP).[10] The Council has depended on voluntary financial and

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Law and Policy 30 (2002), 131, 142–153; and *Timo Koivurova,* Limits and Possibilities of the Arctic Council in a Rapidly Changing Scene of Arctic Governance, Polar Record 46 (2010), 146, 146–148.

[2] Joint Communiqué and Declaration on the Establishment of the Arctic Council, 19 September 1996, reprinted in: ILM 35 (1996), 1382.

[3] Members of the Council are: Canada, Denmark/Greenland, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States of America.

[4] Six indigenous organisations presently have permanent participant status: Aleut International Association, Arctic Athabaskan Council, Gwich' in Council International, Inuit Circumpolar Council, Russian Association of Indigenous Peoples of the North (RAIPON) and the Saami Council, see Arctic Council, Permanent Participants, available at: http://www.arctic-council.org/index.php/en/about-us/permanentparticipants (accessed on 22 November 2011).

[5] Observer status in the Arctic Council is open to non-Arctic States, inter-governmental and inter-parliamentary organisations, and non-governmental organisations, Arctic Council Declaration (note 2), para. 3. Current observer States include: France, Germany, Netherlands, Poland, Spain and the United Kingdom, see Arctic Council, Non-Arctic States, available at: http://www.arctic-council.org/index.php/en/about-us/partners-links (accessed on 22 November 2011).

[6] Arctic Council Declaration (note 2), para. 1 (a).

[7] *Ibid.,* footnote 1.

[8] They are: the Arctic Monitoring and Assessment Programme (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Protection of the Arctic Marine Environment (PAME) and Emergency Prevention, Preparedness and Response (EPPR); *ibid.,* para. 1 (b).

[9] The SDWG, building upon an AEPS Task Force on Sustainable Development and Utilization, was established in 1998, Iqaluit Declaration on the Occasion of the First Ministerial Meeting of the Arctic Council, Iqaluit, Canada, 17–18 September 1998, para. 9, available *via:* http://www.arctic-council.org/index.php/en/about/documents/category/5-declarations# (accessed on 22 November 2011).

[10] ACAP was formally endorsed as a working group at the October 2006 Ministerial meeting, Salekhard Declaration on the Occasion of the Tenth Anniversary of the Arctic Council and the Fifth AC Ministerial Meeting, 26 October 2006, Salekhard, Russia 6, available *via:* http://www.arctic-council.org/index.php/en/about/documents/category/5-declarations# (accessed on 22 November 2011).

human resource contributions from Member States for carrying out projects and holding meetings.[11]

With accelerating thinning and loss of sea ice linked to climate change[12] and projected commercial developments on numerous fronts including oil and gas, shipping, tourism and mining,[13] the adequacy of the Arctic Council has come under intensified scrutiny. Whether a 'soft law' regional forum largely dedicated to monitoring the Arctic environment and undertaking projects and assessments is up to the task of meeting the mounting challenges posed by climate change and globalisation has been questioned by various scholars and non-governmental organisations.[14] Numerous calls have been made for further strengthened Arctic cooperation through one or more legally binding agreements with various options suggested.[15] This includes a framework treaty formalising the existing Arctic Council arrangements,[16] a

[11] *Koivurova* (note 1), 148.

[12] Scientific predictions as to when the Arctic Ocean may be ice-free in summer have varied, as early as 2013 or as late as 2100, with one recent estimate being by 2030, U.S. National Snow and Ice Data Center, Frequently Asked Questions about Arctic Sea Ice, available at: http://nsidc.org/arcticseaice news/faq.html#really_declining (accessed on 22 November 2011); and The Guardian, 11 July 2011, Arctic May Be Ice-Free Within 30 Years: Data Showing Dramatic Sea Ice Melt Suggests Warming at North Pole Is Speeding Up, available at: http://www.guardian.co.uk/environment/2011/jul/11/arctic-ice-free?INTCMP=SRCH (accessed 22 November 2011).

[13] *Lawson W. Brigham,* Thinking about the Arctic's Future: Scenarios for 2040, The Futurist (September–October 2007), 27.

[14] For views emphasising the need to fully implement existing international commitments rather than developing a binding legal regime for the Arctic, see *Alf Håkon Hoel,* Do We Need a New Legal Regime for the Arctic Ocean?, The International Journal of Marine and Coastal Law 24 (2009), 443; *Olav Schram Stokke,* The Law of the Sea Convention and the Idea of a Binding Regime for the Arctic Marine Environment, Paper prepared for the 7th Conference of Parliamentarians of the Arctic Region, Kiruna, Sweden, 2–4 August 2006, available at: http://www.fni.no/doc&pdf/oss-2006-arctic-parlamentarians.pdf (accessed on 22 November 2011); *Oran R. Young,* Arctic Governance: Preparing for the Next Phase, article commissioned by the Standing Committee of Parliamentarians of the Arctic Region, June 2002, available at: http://www.arcticparl.org/files/static/conf5_scpar2002.pdf (accessed on 22 November 2011).

[15] For a review of options, see *Linda Nowlan,* Arctic Legal Regime for Environmental Protection, IUCN Environmental Policy and Law Paper No. 44 (2001), 58.

[16] *Timo Koivurova,* Alternatives for an Arctic Treaty – Evaluation and a new proposal, Review of European Community and International Environmental Law (RECIEL) 17 (2008), 14.

regional seas agreement with annexes or protocols,[17] and even a multilateral agreement dedicated to protecting the Arctic environment.[18]

A long list of reasons have been put forward for not 'disturbing the balance' too far through excessive legalization. Those reasons include: the time-consuming nature of diplomatic negotiations; the lack of ratification of existing agreements; the danger of adopting lowest common denominator standards; the need to implement existing international commitments as a first priority; and the concern over interfering with the existing status of indigenous organisations as Permanent Participants.[19]

This paper takes stock of how the Arctic Council is faring as a governance institution fifteen years after its establishment. Since a comprehensive analysis of the Council's accomplishments during its first ten years already exists,[20] this review largely focuses on initiatives and developments within the last five years. Section II highlights how the Arctic Council has edged forward with progressions on numerous fronts through its six working groups and biennial ministerial meetings. Section III evaluates the key challenges still confronting the Arctic Council: fully implementing existing commitments and recommendations; completing the Arctic Council's restructuring; addressing future ocean governance of areas beyond national jurisdiction in the Arctic and, strengthening the 'Arctic voice' in international fora.

II. Edging Forward

The bulk of progressive activities of the Council has occurred through the Council's six working groups while Ministerial meetings of the Council have served as key decision-making venues where, for example, decisions have been reached to establish

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[17] *Hans H. Hertell,* Arctic Melt: The Tipping Point for an Arctic Treaty, Georgetown International Environmental Law Review 21 (2009), 565.

[18] *Bonnie A. Malloy,* On Thin Ice: How a Binding Treaty Regime Can Save the Arctic, Hastings West-Northwest Journal of Environmental Law & Policy 16 (2010), 471.

[19] *David L. VanderZwaag,* Climate Change and the Future of Arctic Governance: A Slushy Seascape and Hard Questions, in: Timo Koivurova/E. Carina H. Keskitalo/Nigel Bankes (eds.), Climate Governance in the Arctic (2009), 403, 416; *Oran R. Young,* If an Arctic Ocean Treaty Is Not the Solution, What Is the Alternative?, Polar Record 47 (2011), 327, 332.

[20] *Timo Koivurova/David L. VanderZwaag,* The Arctic Council at 10 Years: Retrospect and Prospects, University of British Columbia Law Review 40 (2007), 121.

task forces to negotiate regional agreements on 'search and rescue' and 'emergency preparedness and response'.

A. Arctic Council Working Groups

1. Arctic Monitoring and Assessment Programme (AMAP)

The AMAP Working Group has been progressive in monitoring and assessing the status, trends and risks of pollutants in the Arctic and has developed a typical assessment approach of first issuing non-technical summary reports followed by more detailed, fully-referenced scientific reports.[21] Six summary reports, issued since the 2006 non-technical report on Arctic Acidification and Haze,[22] provide an illustration of AMAP assessment progressions and are briefly summarised here.

A 2011 mercury assessment report[23] provides updated information on the levels and sources of mercury in the Arctic and offers various policy recommendations. About 100 tonnes of mercury are estimated to enter the Arctic Ocean from the air each year with an additional 100 tonnes (approximately), thought to inflow, from the Atlantic and Pacific Oceans, rivers and coastal erosion.[24] Asian States, with China and India being the highest emitters, are estimated to be responsible for 65 % of global mercury emissions.[25] The report issues a warning call on the possible effects of climate change on the mercury cycle with increased releases arising from permafrost thaws, ice melts and rising river discharges.[26] The report notes that some Arctic biota, especially marine top predators like polar bears, exhibit high levels of mercury in their bodies which exceed thresholds for biological effects.[27] In light of the scientific findings, the 2011 assessment recommends, *inter alia,* that the Arctic Council should

[21] Reports are available at: http://www.amap.no/Assessment/GeneralPublic.htm (accessed on 27 October 2011).

[22] AMAP, Arctic Pollution 2006: Acidification and Arctic Haze (2006).

[23] AMAP, Arctic Pollution 2011 (2011).

[24] *Ibid.,* iv.

[25] *Ibid.,* 6.

[26] *Ibid.,* v.

[27] *Ibid.,* 26.

continue supporting intergovernmental negotiations to develop a legally-binding global instrument on mercury, and that health authorities develop culturally appropriate communication strategies concerning contaminants and human health.[28]

AMAP's Snow, Water, Ice and Permafrost in the Arctic (SWIPA) Assessment,[29] also released in 2011, provides an update on climate change impacts on the Arctic 'cryosphere', that is, seasonally or perennially frozen areas.[30] Key findings include: the revelation that surface air temperatures in the Arctic since 2005 have been higher than any five-year period since measurements began around 1880;[31] multi-year sea ice, mountain glaciers, ice caps and the Greenland Ice Sheet have all been declining faster since 2000 than they did in the previous decade;[32] the Arctic Ocean is projected to become nearly ice-free in summer, likely within the next 30 to 40 years;[33] and Arctic infrastructure faces increased risks of damage due to changes in the cryosphere, particularly the loss of permafrost and land-fast ice.[34] Among the recommendations, the report urges Arctic governments to develop and implement Arctic adaptation strategies and Member States of the Arctic Council to increase their leadership in international negotiations to reduce global greenhouse gas emissions as a matter of urgency.[35]

Building on previous AMAP assessments in 1997 and 2002,[36] a 2009 'State of the Arctic Environment Report' gave an updated picture on three areas: persistent organic pollutants, human health and radioactivity.[37] The assessment highlighted the need to consider further international and national regulatory actions for groups of chemicals accumulating in Arctic food webs including brominated flame retardants and fluorinated compounds used as stain repellents and as non-stick surfaces in cookware.[38]

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[28] *Ibid.*, iii.

[29] AMAP, SWIPA 2011 Executive Summary (2011).

[30] *Ibid.*, 3.

[31] *Ibid.*, 4.

[32] *Ibid.*, 6.

[33] *Ibid.*, 7.

[34] *Ibid.*, 9.

[35] *Ibid.*, 15.

[36] AMAP, Arctic Pollution 2002 (2002) and AMAP, Arctic Pollution Issues: A State of the Environment Report (1997).

[37] AMAP, Arctic Pollution 2009 (2009).

[38] *Ibid.*, 6–20.

The report noted 65 high-production volume (>100,000 tonnes per year) industrial organic chemicals and pesticides may have the ability to biomagnify into Arctic indigenous peoples' traditional foods.[39] About 4,300 organic chemicals, most with low or unknown production, are thought to have Arctic accumulation properties.[40]

The report also reviewed the risks and inputs of radioactivity from existing sources, such as nuclear fuel reprocessing plants, nuclear power plants in the vicinity of the Arctic, nuclear submarine decommissioning in the Russian Federation and radioisotope thermoelectric generators (RTGs).[41] The report summarised some of the numerous international assistance efforts to help the Russian Federation to decommission nuclear submarines, to better manage stored nuclear wastes and to dismantle existing RTGs.[42] Potential sources of radionuclides were highlighted including Russian plans for developing floating nuclear power plants and technologically enhanced naturally occurring radioactive materials (TENORM) from various industrial activities such as mineral mining, oil and gas extractions, phosphate production and the use of geothermal energy.[43] The assessment report recommended increased attention to TENORM in future assessments and urged information to be provided from all countries engaged in or planning Arctic oil and gas extraction and uranium or other mining.[44]

Two additional reports were also published by AMAP in 2009. The first was the 'Summary – The Greenland Ice Sheet in a Changing Climate'[45] which emphasised the worrisome rate of loss in the Greenland Ice Sheet with the annual loss of ice between 1995 and 2000, averaging about 50 gigatonnes (Gt),[46] and this transitioned to a dramatically increasing average annual loss during 2003–2006 of about 160 Gt.[47] The report was presented in December 2009 as an Arctic Council contribution to a

[39] *Ibid.*, 22.

[40] *Ibid.*

[41] RTGs are self-contained devices using radioactive decay to produce electricity for remote areas, such as lighthouses, *ibid.*, 73.

[42] *Ibid.*, 70–74.

[43] *Ibid.*, 74–78.

[44] *Ibid.*, ix.

[45] AMAP, Summary – The Greenland Ice Sheet in a Changing Climate: Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2009 (2009).

[46] A Gt = 1,000,000,000 tonnes. *Ibid.*, 9.

[47] *Ibid.*

side event at the United Nations Framework Convention on Climate Change 15th Conference of the Parties.[48] The second report was the "Update on Selected Climate Issues of Concern."[49] It highlighted the substantial contributions of short-lived climate forcers, black carbon, methane and ozone to Arctic warming and suggested mitigation options.[50]

AMAP's Arctic Oil and Gas 2007 report, finalised in 2008,[51] provided an overview of present and potential future impacts of oil and gas activities in the Arctic and the likely course of hydrocarbon developments. Russia was identified as the dominant Arctic producer of oil and gas with Russia possessing over 75 % of known Arctic oil and over 90 % of known Arctic gas.[52] An increase in oil and gas activity was projected given that the Arctic contains an estimated quarter of the world's undiscovered oil and gas.[53] Among numerous recommendations, the report urged Arctic oil and gas activities to be conducted in accordance with the precautionary approach and polluter pays principle,[54] and suggested that consideration be given to the need for additional protected areas and areas closed for oil and gas activities.[55]

AMAP is in the process of preparing additional assessment reports for the Council's next Ministerial meeting in 2013. AMAP expert groups are also assessing Arctic Ocean acidification and short-lived climate forcers with a particular focus on tropospheric ozone and methane.[56]

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[48] AMAP, Information on GRIS and the SWIPA Project, available at: http://amap.no/swipa/press2009/GRISContent.html (accessed on 27 October 2011).

[49] AMAP, Update on Selected Climate Issues of Concern: Observations, Short-lived Climate Forcers, Arctic Carbon Cycle, and Predictive Capability (2009).

[50] Options include, among others: emissions controls on diesel engines and oil and gas flaring; improvements in agricultural practices such as reduced burning; and capturing or eliminating methane emissions from major industrial and waste treatment sources, *ibid.*, 8.

[51] AMAP, Arctic Oil and Gas 2007 (final 1 May 2008).

[52] *Ibid.*, ix.

[53] *Ibid.*, 32.

[54] *Ibid.*, v.

[55] *Ibid.*, vii.

[56] AMAP, Work Plan for 2011–2013 with tentative deliverables in: Senior Arctic Officials (SAO) Report to Ministers, Nuuk, Greenland (May 2011), 30, 31, available at: http://www.arctic-council.org/index.php/en/about/documents/category/20-main-documents-from-nuuk (accessed on 23 November 2011).

2. Arctic Contaminants Action Program (ACAP)

The ACAP Working Group has mainly focused on undertaking inventories and pollution reduction and control projects in the Russian Federation.[57] These projects have been implemented through seven Project Steering Groups (PSGs).[58] They address areas of integrated hazardous waste management, environmentally-sound management of obsolete and prohibited pesticides, reduction and elimination of dioxin and furan releases, reduction of mercury releases, phasing out polychlorinated biphenyls (PCB), the reduction and elimination of sources and releases of brominated flame retardants, and local sources of contamination in indigenous communities.[59]

The project outcomes can be deduced from ACAP's report for the Senior Arctic Officials (SAOs) which summarises main achievements from 2009 to 2011.[60] Some of the progress made include the improved storage of 6,500 tonnes of obsolete pesticides in nine northern Russian priority districts directly impacting the Arctic,[61] and the completion in 2010 of a project in several Russian chlor-alkali facilities to reduce mercury releases in wastewater and improve mercury monitoring systems.[62] Further, ACAP has identified the lack of facilities in Russia to destroy obsolete pesticide stocks in an environmentally sound manner as a major limitation.[63]

In addition, ACAP in 2010 established a Project Steering Group on Short-lived Climate Forcers. Initial activities are expected to focus on demonstration projects for reducing Arctic black carbon emissions.[64]

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[57] The need to broaden activities to be more circumpolar in nature has been identified by ACAP as a desirable future direction, see ACAP Report for 2009–2011 in: SAO Report, *ibid.*, 9.

[58] For a full listing and more detailed project descriptions, see ACAP, ACAP Projects, available at: http://www.ac-acap.org/Page_project_eng.htm (accessed on 13 October 2011).

[59] The Indigenous Peoples Contaminants Action Programme, having its Project Steering Group terms of reference approved by ACAP in September 2010, is tasked with developing model demonstration projects addressing local sources of contamination in indigenous communities, *ibid.* and SAO Report (note 56), 11.

[60] SAO Report (note 56), 9–11.

[61] *Ibid.*, 10.

[62] *Ibid.*

[63] *Ibid.*, 9.

[64] *Ibid.*, 11.

3. Conservation of Arctic Flora and Fauna (CAFF)

A comprehensive review of CAFF's monitoring assessment and conservation activities is beyond the scope of this paper;[65] nonetheless two main initiatives stand out on the monitoring and assessment front. First, the Circumpolar Biodiversity Monitoring Program (CBMP), endorsed by Arctic Council Ministers in 2004,[66] continues to evolve as an international network of scientists and conservation experts dedicated to harmonising and integrating efforts to monitor living resources in the Arctic.[67] Working through Expert Monitoring Groups, the CBMP is developing four umbrella monitoring plans for marine, terrestrial, freshwater and coastal ecosystems.[68] In addition, a Pan-Arctic Polar Bear Monitoring Plan is under development.[69] In April 2011, the Marine Expert Monitoring Group released the first of the four general plans: the Arctic Marine Biodiversity Monitoring Plan.[70] The Plan establishes eight Arctic Marine Areas by which monitoring efforts and results will be organised,[71] sets out a suite of biological parameters and indicators to be monitored,[72] identifies existing monitoring programs with contribution potential for the CBMP,[73] and includes a ten year implementation schedule and budget.[74]

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[65] For a detailed listing of CAFF initiatives, see CAFF Report, in: SAO Report (note 56), 14–19.

[66] Reykjavik Declaration on the Occasion of the Fourth Ministerial Meeting of the Arctic Council, 24 November 2004, available at: http://www.arctic-council.org/index.php/en/about/documents/category/5-declarations (accessed on 23 November 2011).

[67] CBMP, History of the CBMP, available at: http://caffportal.arcticportal.org/about-the-cbmp/history-of-the-cbmp (accessed on 28 December 2011).

[68] CBMP, e-CBMP Newsletter, Summer 2011, available at: http://www.caff.is/e-cbmp-newsletter (accessed on 2 October 2011).

[69] See *Dag Vongraven/Elizabeth Peacock,* Development of a Pan-Arctic Monitoring Plan for Polar Bears: Background Paper, CAFF Monitoring Series Report No. 1 (January 2011).

[70] *Mike J. Gill et al.,* Arctic Marine Biodiversity Monitoring Plan, CAFF Monitoring Series Report No. 3 (April 2011).

[71] The eight areas are: Atlantic Arctic, Davis-Baffin, Hudson Complex, Arctic Archipelago, Beaufort, Pacific-Arctic, Kara-Laptev and Arctic Basin, *ibid.,* 22.

[72] Suggested parameters and indicators are set out for plankton, sea-ice biota, benthos, fish, seabirds and marine mammals, *ibid.,* 32–40.

[73] *Ibid.,* 41–47.

[74] *Ibid.,* Appendix A.

region; and recommends that a systematic survey be undertaken of current and projected HNS shipping in the Arctic.[82]

At the Arctic Council Ministerial meeting held in May 2011 the Working Group was given a further task. Ministers called for the EPPR, in cooperation with other relevant working groups, to develop recommendations and best practices for the prevention of marine oil pollution and to submit preliminary or final results at the next Ministerial meeting in 2013.[83] During the EPPR Working Group meeting in June 2011, a decision was reached to establish a Prevention Correspondence Group, co-led by Norway and Canada, to convene a scoping workshop and to develop a prevention project work plan.[84]

5. Protection of the Arctic Marine Environment (PAME)

The PAME Working Group's most substantial strides forward relate to Arctic shipping. Following a mandate set out in the Arctic Council's Arctic Marine Strategic Plan,[85] PAME undertook a comprehensive assessment of present and likely future shipping activities in the Arctic. Consequently, the 2009 Arctic Marine Shipping Assessment (AMSA) report[86] provided a detailed critique of the adequacy of applicable international agreements and guidelines.[87] The report made seventeen recommendations organised under three themes for strengthening shipping governance. Under the 'Enhancing Arctic Marine Safety' theme, AMSA recommended that Arctic States should support the updating and mandatory application of relevant parts of the

[82] *Ibid.*, 95.

[83] Nuuk Declaration on the Occasion of the Seventh Ministerial Meeting of the Arctic Council, 12 May 2011, Nuuk, Greenland, 4, available at: http://www.arctic-council.org/index.php/en/about/documents/category/5-declarations (accessed on 23 November 2011).

[84] EPPR Working Group Meeting Final Report, Whitehorse, Yukon Canada, 15–16 June 2011, 20, available at: http://eppr.arctic-council.org/content/reports/EPPR-Working-Group-Meeting-Final-Report%209-10-11.pdf (accessed on 23 November 2011).

[85] Para. 7.1.5 called for a comprehensive assessment of Arctic marine shipping at current and projected levels, Arctic Council, Arctic Marine Strategic Plan, 24 November 2004, available at: http://www.pame.is/arctic-marine-strategic-plan (accessed on 23 November 2011).

[86] Arctic Council, Arctic Marine Shipping Assessment 2009 Report (2009), available at: http://arcticportal.org/uploads/4v/cb/4vcbFSnnKFT8AB5lXZ9_TQ/AMSA2009Report.pdf (accessed on 23 November 2011).

[87] *Ibid.*, 50–69.

Guidelines for Ships Operating in Arctic Ice-Covered Waters;[88] augment global International Maritime Organisation (IMO) ship safety and pollution prevention conventions with specific mandatory requirements or other provisions aimed at protecting the Arctic environment;[89] consider possible harmonisation of national shipping regulatory regimes;[90] and develop and implement a multi-national Arctic Search and Rescue (SAR) instrument.[91] Under the second theme, "Protecting Arctic People and the Environment," AMSA, among other things, urged Arctic States to identify areas of heightened ecological and cultural significance and to implement protective measures from the impacts of Arctic marine shipping;[92] explore the need for internationally designating areas of the Arctic Ocean for special environmental protection (possibly through the IMO by the use of 'Special Area' or Particularly Sensitive Sea Area (PSSA) designations);[93] and consider working with the IMO to address shipping impacts on marine mammals through developing and implementing mitigation strategies.[94] Recommendations under the third theme, 'Building Arctic Marine Infrastructure', included the need for Arctic States to improve Arctic marine infrastructure;[95] continue developing circumpolar environmental pollution response capabilities (for example, through circumpolar or bilateral agreement(s));[96] and increase investments relating to the provision of hydrographic, meteorological and oceanographic data for Arctic waters.[97]

The AMSA report might be described as a 'living document' as monitoring implementation of AMSA recommendations will be an ongoing part of the PAME agenda with regular reports to Arctic Council Ministers. Therefore, many recommendations

[88] *Ibid.*, 6, Recom. I. B.

[89] *Ibid.*

[90] *Ibid.*, Recom. I. C.

[91] *Ibid.*, Recom. I. E.

[92] *Ibid.*, 7, Recom. II. C.

[93] *Ibid.*, Recom. II. D.

[94] *Ibid.*, Recom. II. G.

[95] *Ibid.*, Recom. III. A.

[96] *Ibid.*, Recom. III. C.

[97] *Ibid.*, Recom. III. D.

have already received substantial follow-ups.[98] The IMO is in the process of developing a legally binding Polar Shipping Code.[99] The five Arctic coastal States on 6 October 2010 established an Arctic Regional Hydrographic Commission under the auspices of the International Hydrographic Commission to promote enhanced charting and routing in the Arctic region.[100] Further, under the leadership of Norway, Russia and the United States, a PAME project is reviewing the risks associated with the carriage of heavy fuel oil (HFO) in the Arctic and exploring ways for minimising risks including the possibility of international regulations.[101] Furthermore, the Sustainable Development Working Group, AMAP and CAFF are cooperating in a study of areas of heightened ecological and cultural significance in the Arctic.[102] And in May 2011, Arctic States adopted an Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic.[103]

PAME has also made advances in addressing land-based marine pollution and oil and gas activities. In 2009 PAME completed a revision of the Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities (RPA).[104] The RPA reviews the status of nine pollution source categories in the

[98] For a full review see Arctic Council, Status on Implementation of the AMSA 2009 Report Recommendations, May 2011, available at: http://www.arctic-council.org/index.php/en/about/documents/category/26-pame-nuuk-ministerial (accessed on 23 November 2011).

[99] In 2009 the Maritime Safety Committee (MSC) of IMO tasked its Design and Equipment Sub-Committee with developing a mandatory code for ships operating in polar waters with a target completion date of 2012 and the IMO's Marine Environment Committee (MEPC) subsequently concurred in the decision, see MSC, Report of the Maritime Safety Committee at Its Eighty-Sixth Session, MSC 86/26 (12 June 2009), 111 and MEPC, Report of the Marine Environmental Protection Committee on Its Sixtieth Session, MEPC 60/22 (12 April 2010), 104.

[100] See Statutes of the Arctic Regional Hydrographic Commission, 6 October 2010, available at: http://www.iho.int/srv1/index.php?option=com_content&view=article&id=435&Itemid=690 (accessed on 23 November 2011).

[101] Arctic Council (note 98), 5.

[102] *Ibid.*, 8.

[103] Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, 12 May 2011, available at: http://arctic-council.npolar.no/accms/export/sites/default/en/meetings/2011-nuuk-ministerial/docs/Arctic_SAR_Agreement_EN_FINAL_for_signature_21-Apr-2011.pdf (accessed on 23 November 2011).

[104] Arctic Council, Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities, 29 April 2009, available at: http://www.arctic-council.org/index.php/en/about/documents/category/62-pame (accessed on 23 November 2011).

Arctic,[105] ranks source categories as high, medium or low in priority for action,[106] and suggests specific measures for addressing the two highest priorities: persistent organic pollutants[107] and heavy metals.[108]

PAME also led the revision of Arctic Offshore Oil and Gas Guidelines (the Guidelines), adopted by the Arctic Council on 29 April 2009.[109] The Guidelines encourage regulators in the eight Arctic States to adopt common principles[110] and practices in managing oil and gas activities. The Guidelines encourage the application of environmental assessment procedures with special consideration given to potential impacts on indigenous ways of life and cultural heritage.[111] The Guidelines suggest various operating practices to control or prevent waste discharges, for example, the use of non oil-based drilling fluids and zero discharge from wastes where feasible.[112]

A further PAME initiative, launched in 2009, holds particular promise to influence future strengthening in Arctic Ocean governance. PAME's Arctic Ocean Review (AOR) project in Phase I, completed in 2011, produced a descriptive overview report on the existing global and regional agreements and arrangements relevant to marine environmental protection in the Arctic.[113] Phase II of the AOR is expected to produce a final report to Arctic Council Ministers in 2013 with suggested options for

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[105] The nine categories are POPs, heavy metals, physical alteration and destruction of habitats, radionuclides, petroleum hydrocarbons, sewage, nutrients, sediments and litter, *ibid.*, 6–12.

[106] POPs and heavy metals are listed as high priorities while sewage, nutrients, sediments and litter are listed as low, *ibid.*

[107] For example, Arctic States are encouraged to ratify the Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Persistent Organic Pollutants, 24 June 1998, UNTS 2230, 79 (LRTAP POPs Protocol), and the Stockholm Convention on Persistent Organic Pollutants, 22 May 2001, UNTS 2256, 119, and to phase out certain POPs in addition to existing requirements under international agreements, *ibid.*, 14.

[108] For example, Arctic States are encouraged to ratify the Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Heavy Metals, 24 June 1998, UNTS 2237, 4 (LRTAP Heavy Metals Protocol), and to cooperate in activities at the global level on mercury reduction, *ibid.*

[109] Arctic Council, Arctic Offshore Oil and Gas Guidelines, 29 April 2009, available at: http://www.pame.is/offshore-oil-and-gas (assessed on 23 November 2011).

[110] Key general principles include the precautionary approach, polluter pays, continuous improvement and sustainable development, *ibid.*, 6–7.

[111] *Ibid.*, 13.

[112] *Ibid.*, 31–33.

[113] PAME, The Arctic Ocean Review: Phase I Report (2009–2011), 2011, available at: http://arctic-council.npolar.no/en/meetings/2011-nuuk-ministerial/docs/ (accessed on 23 November 2011).

enhancing global and regional agreements and measures for the management of the Arctic marine environment.[114] An AOR Expert Workshop, held in Reykjavik, Iceland, 20–21 September 2011, provided a venue for initial exploration of ideas to advance cooperation in the areas of Arctic marine science, Arctic pollution sources, living marine resource management, offshore oil and gas, and shipping.[115]

6. Sustainable Development Working Group (SDWG)

The SDWG carried out numerous projects and activities[116] under six thematic areas,[117] but they largely focused on Arctic human health and socio-economic issues.[118] The SDWG in collaboration with the PAME Working Group undertook a major policy-relevant project, "Best Practices in Ecosystem-based Oceans Management in the Arctic," which was completed in 2009.[119] The project produced a comprehensive report on indigenous perspectives and the practices of seven Arctic States relating to ecosystem-based management.[120] It also developed a summary document on best practices in ecosystem-based ocean management in Arctic countries.[121] The

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[114] Arctic Council, Arctic Ocean Review (AOR) Project 2009–2013, available at: http://www.aor.is/index.php?option=com_content&view=category&layout=blog&id=2&Itemid=3 (accessed on 23 November 2011).

[115] The author was a participant.

[116] For a chronological listing of SDWG projects and activities since 1996, see SDWG Work Plans and Projects List, available at: http://portal.sdwg.org/content.php?doc=86 (accessed on 19 October 2011).

[117] The themes are Arctic human health, Arctic socio-economic issues, adaptation to climate change, energy and Arctic communities, management of natural resources, and Arctic cultures and languages, SDWG Work Plan 2011–2013, in: SAO Report (note 56), 44.

[118] For example, the Arctic Human Health Initiative, led by the United States and began as an International Polar Year coordinating project for human health research, has continued with 28 projects under its umbrella, SDWG, Arctic Human Health Initiative Report to the Arctic Council Ministerial, April 2009, available at: http://portal.sdwg.org/content.php?doc=77 (accessed on 23 November 2011).

[119] *Alf Håkon Hoel* (ed.), Best Practices in Ecosystem-based Oceans Management in the Arctic, Norwegian Polar Institute Report No. 129 (2009).

[120] Case studies included: Russia, Finland, Norway, Iceland, Denmark/Greenland, Canada and USA.

[121] PAME, Observed Best Practices in Ecosystem-based Oceans Management in the Arctic Countries, available at: http://arcticportal.org/uploads/C8/gZ/C8gZgqLpt59hrMU2gJHpXQ/Dec-08.final-draft-OBP-document---PAME-Nov-2008.pdf (accessed on 23 November 2011).

report highlighted a major gap in existing ecosystem-based management, namely, the lack of integrated planning in the transboundary context.[122]

The SDWG's Workplan for 2011–2013 stands out for its limitations. Projects are proposed under the themes of Arctic human health, socio-economic issues and Arctic cultures and languages. However, no ongoing projects are proposed under the themes of adaptation to climate change, energy and Arctic communities, and management of natural resources.[123]

At the Nuuk Ministerial meeting in May 2011, Arctic Council Ministers issued a further assessment mandate to be taken up by the SDWG. Ministers called for an assessment of the current state of human development on the Arctic and its relationship with climate change and other factors affecting Arctic communities.[124] The SDWG is in the process of developing a project, Arctic Human Development II, to provide a circumpolar assessment of human development and quality of life in the Arctic.[125]

B. Arctic Council Ministerial Meetings

For most of the Arctic Council's history, Ministerial meetings could be characterised as largely discussional and limited in law and policy impacts. Decisions were dominated by approving working group workplans and projects and other recommendations suggested by SAOs.[126]

At the Sixth Ministerial meeting in Tromsø, Norway on 29 April 2009, a major shift occurred with Ministers taking more of a policy-shaping role. Ministers decided to establish a task force on short-lived climate forcers (SLCF) to identify measures to reduce emissions and to recommend immediate response actions with a progress report

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[122] See *e.g.* the Canadian report and its highlighting the lack of integrated planning in the shared marine waters of the Beaufort Sea (Canada-USA) and Baffin Bay and Davis Strait (Canada-Denmark/Greenland), *Robert Siron/David VanderZwaag/Helen Fast,* Ecosystem-based Ocean Management in the Canadian Arctic, in: Hoel (note 119), 81.

[123] SDWG Workplan (note 117), 45.

[124] Nuuk Declaration (note 83), 2.

[125] SDWG Work Plan (note 117), 46.

[126] A common practice is for Working Groups to provide reports to SAOs and for SAOs to draw many of their recommendations to Ministers from the submitted reports.

requested for the next Ministerial meeting.[127] The Ministers approved recommendations of the AMSA report, urged that parts of the Guidelines for Ships Operating in Arctic Ice-covered Waters be made mandatory, and called for augmenting global IMO ship safety and pollution conventions in order to better protect the Arctic environment.[128] The greatest jump to a policy formation role was the decision to establish a task force to develop and complete negotiation by the next Ministerial meeting in 2011 of an international instrument on cooperation in Arctic SAR operations.[129]

A task force under Arctic Council auspices subsequently negotiated an Arctic Search and Rescue Agreement (the Agreement) which was signed during the Arctic Council Ministerial meeting in Nuuk, Greenland on 12 May 2011.[130] Besides delineating regions of national SAR responsibility, the Agreement, among other things, calls for carrying out joint SAR exercises and training, and facilitating expeditious cooperative responses to SAR situations. Canada hosted the first gathering of SAR specialists from the eight Arctic Council States for an Arctic SAR table top exercise, 5–6 October 2011 in Whitehorse, Yukon.

Also at the Seventh Ministerial meeting in Nuuk, Greenland on 12 May 2011, Ministers welcomed reports on SLCF and encouraged Arctic States to implement at the national level relevant recommendations for reducing emissions of black carbon.[131] Ministers also decided to establish a Short-Lived Climate Forcer Contaminants project steering group to undertake circumpolar demonstrative projects to reduce black carbon and other SLCF emissions.[132] Ministers further advanced the Council's governance shaping role by deciding to establish a task force to develop an international instrument on Arctic marine oil pollution preparedness and response.[133]

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[127] Tromsø Declaration on the Occasion of the Sixth Ministerial Meeting of the Arctic Council, 29 April 2009, Tromsø, Norway, 3, available at: http://www.arctic-council.org/index.php/en/about/documents/category/5-declarations (accessed on 23 November 2011). An initial report was subsequently published: Technical Report of the Arctic Council Task Force on Short-Lived Climate Forcers, An Assessment of Emissions and Mitigation Options for Black Carbon for the Arctic Council, May 2011, available at: http://www.arctic-council.org/index.php/en/about/documents/category/7-working-groups-scientific-reportsassessments (accessed on 23 November 2011).

[128] Tromsø Declaration (note 127), 4.

[129] *Ibid.*, 5.

[130] Agreement on Cooperation in Aeronautical and Maritime Search and Rescue (note 103).

[131] Nuuk Declaration (note 83), 3.

[132] *Ibid.*

[133] *Ibid.*, 4.

III. Sea of Challenges

The key challenges facing the Arctic Council as it voyages beyond its first fifteen years may be largely summarised under four headings. They include: fully implementing existing commitments and recommendations; completing the Arctic Council's restructuring; addressing future governance of Arctic areas beyond national jurisdiction; and strengthening the 'Arctic voice' in international fora.

A. Fully Implementing Existing Commitments and Recommendations

Getting a firm grip on how the numerous commitments and recommendations flowing from Arctic Council Ministerial meetings and reports have been implemented is difficult since the Council has not generally required national reporting or project follow-up monitoring.[134] For example, although the Regional Programme of Action for the Protection of the Arctic Marine Environment from Land-based Activities recommended the development of a reporting procedure and format for assessing RPA implementation and effectiveness,[135] no national reporting system has been created. Nevertheless, various implementation challenges stand out with three of them reviewed below.

1. Getting Full Ratification of International Agreements

While various encouragements have been given to Arctic States to sign and ratify key international agreements, implementation remains a challenge. For example, the RPA urges Arctic States to ratify the 2001 Stockholm Convention on Persistent Organic Pollutants (POPs) and the Convention on Long-range Transboundary Air Pollution (LRTAP) Protocols on POPs and heavy metals.[136] However, the United

[134] The exception standing out is the AMSA report where review is ongoing, see *supra,* note 98.

[135] RPA (note 104), 16.

[136] *Ibid.,* 14. Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on Persistent Organic Pollutants (note 107) and Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution on Heavy Metals (note 108).

States have not ratified the Stockholm Convention;[137] the Russian Federation and USA are not parties to the LRTAP POPs Protocol[138] and Iceland and the Russian Federation are not parties to the Heavy Metals Protocol.[139]

Ratification of the International Convention for the Control and Management of Ships Ballast Water and Sediments[140] was one of the key recommendations of the AMSA report,[141] but implementation has been slow. Only Canada, Norway and Sweden have ratified the Convention.[142] National reasons for the lack of ratifications are too diverse to elaborate in this article.

2. Following Through with AMSA Recommendations

While considerable progress in implementing AMSA recommendations has occurred since the report was published in 2009,[143] many 'unfinished agendas' remain. For example, the AMSA Implementation Status Report of May 2011 noted that more work needs to be done to identify and protect areas of heightened ecological and culture significance within the Arctic. Further, sharing Arctic maritime domain awareness information on positions and movements of ships should be enhanced

[137] The Russian Federation ratified the Convention on 17 August 2011 and it will enter into force for the Federation on 15 November 2011 (this statement was correct at the time of writing, and at the time of going to press the Stockholm Convention entered into force for Russia). Denmark has ratified but with a territorial exclusion of Faroe Islands and Greenland. Stockholm Convention status of ratification is available at: http://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-15&chapter=27&lang=en (accessed on 23 November 2011).

[138] LRTAP POPs Protocol status of ratification is available at: http://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-1-g&chapter=27&lang=en (accessed on 23 November 2011).

[139] LRTAP Heavy Metals Protocol status of ratification is available at: http://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-1-f&chapter=27&lang=en (accessed on 23 November 2011).

[140] International Convention for the Control and Management of Ships' Ballast Water and Sediments, 23 February 2004, IMO Doc. BWM/CONF/36 Annex.

[141] AMSA (note 86), 7, Recom. II. E.

[142] As of 30 September 2011, IMO, Status of Conventions, available at: http://www.imo.org/About/Conventions/StatusOfConventions/Pages/Default.aspx (accessed on 23 November 2011).

[143] Arctic Council (note 98).

among Arctic Council member governments.[144] More effort to ensure adequate spill response capacity across the Arctic was also identified as a further item for attention.[145]

A priority challenge is the completion of negotiations towards an effective Polar Shipping Code (the Code). However, numerous issues remain to be resolved regarding its contents. They include: types of vessels to be covered such as possible extension to fishing vessels; the appropriate balance between mandatory and recommendatory provisions; the inclusion of ice navigational training requirements; vessel-source pollution discharge standards; and voyage planning requirements, such as possible pairing of ships to assist potential search and rescue.[146] In July 2011, a Working Group Report on the development of a mandatory Polar Shipping Code to the IMO's Sub-Committee on Ship Design and Equipment (DE) noted the lack of final agreement for the various draft chapters of the Code.[147] The inclusion of an environmental chapter within the Code has become particularly controversial with an IMO Workshop held from 27–30 September 2011 to discuss environmental aspects of the Code.[148]

A further complication is resolving how to make the Code mandatory with three main possible options: adopting the Code as an amendment to the SOLAS Convention;[149] developing amendments to SOLAS, MARPOL,[150] the Anti-fouling Systems Convention[151] and the Ballast Water Management Convention;[152] and creating a new convention on polar shipping.[153] The IMO Subcommittee on Ship Design and

[144] *Ibid.*, 3.

[145] *Ibid.*

[146] See IMO Sub-Committee on Ship Design and Equipment, Comments on the Report of the Correspondence Group on the Development of a Mandatory Code for Ships Operating in Polar Waters, Submitted by Denmark, IMO Doc. DE 55/12/15 (31 January 2011).

[147] IMO Sub-Committee on Ship Design and Equipment, Report of the Working Group (Part 2), Development of a Mandatory Code for Ships Operating in Polar Waters, IMO Doc. DE 56/10 (7 July 2011), para. 6.

[148] See IMO, Circular Letter No. 3201/Add. 1, 24 August 2011.

[149] International Convention for the Safety of Life at Sea, 1 November 1974, UNTS 1184, 3.

[150] International Convention for the Prevention of Pollution from Ships, 2 November 1973, UNTS 1340, 184.

[151] International Convention on the Control of Harmful Anti-fouling Systems on Ships, 5 October 2001, IMO Doc. AFS/CONF/26 Annex.

[152] International Convention for the Control and Management of Ships' Ballast Water and Sediments (note 140).

[153] IMO Sub-Committee on Ship Design and Equipment, Outcome of DE 55 – Legal Opinion on Making the Polar Code Mandatory, IMO Doc. MEPC 62/11/14. Add 1 (6 May 2011).

Equipment (DE) has re-established the Correspondence Group on Development of a Mandatory Code under the co-ordination of Norway to further develop the Code with a report to be submitted to the 56th session of the DE Sub-Committee.[154]

The target completion date of 2012 for the Polar Shipping Code negotiations seems unlikely to be met in light of the numerous issues to be resolved. Arctic Council Ministers in the Nuuk Declaration in 2011 already emphasised the need for timely completion of the Polar Code.[155] The PAME Working Group in its meeting in September 2011 recommended that member governments consider the submission of a paper to the IMO, which emphasizes the importance of the completion of the Polar Code to Arctic Council Member States.[156]

Reducing air emissions from ships, also an AMSA recommendation[157] remains a 'work in progress'. Although the IMO's Marine Environment Protection Committee (MEPC) at its 62nd session in July 2011 adopted new regulations on energy efficiency for ships,[158] sorting out further commitments on reducing greenhouse gas emissions from ships remains. Challenges such as market-based measures and possible setting of emission caps and reduction targets are to be considered further at the MEPC's 63rd session.[159] The MEPC has also tasked the Bulk Liquids and Gases (BLG) Sub-Committee with investigating appropriate control measures to reduce the impacts of black carbon emissions from international shipping and to submit a final report at the MEPC's 65th session.[160]

In order to ensure compliance on the AMSA recommendation, shipping-related infrastructure in the Arctic needs to be improved by Arctic States. This stands out as a difficult challenge given the long list of infrastructure deficits identified,[161] and concurrently with the need for major national financial and human resource commit-

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[154] DE Sub-Committee Report to the Maritime Safety Committee, IMO Doc. DE55/22 (15 April 2011), 28–29.

[155] Nuuk Declaration (note 83), 4.

[156] PAME, Record of Decisions and Follow-Up Actions PAME II-2011 (21–23 September 2011), 1.

[157] AMSA (note 86), 7, Recom. II. H.

[158] See MEPC, Report of the Marine Environment Protection Committee on its Sixty-Second Session, IMO Doc. MEPC 62/24 (26 July 2011), Annex 19.

[159] *Ibid.*, paras. 5.44 and 5.46.

[160] *Ibid.*, para. 4.20.

[161] AMSA (note 86), 7, Recom. III. A.

ments.[162] Shipping infrastructure is clearly more advanced in the Barents Sea and Northern Sea Route regions than in other areas of the Arctic.[163]

3. Putting the Ecosystem Approach into Practice

While the Arctic Council's Arctic Marine Strategic Plan highlights an ecosystem approach as a way forward in managing the Arctic marine environment,[164] subsequent Council activities relating to the ecosystem approach might be described as largely 'conceptual and informative'. The Council's project on "Best Practices in Ecosystem-based Management in the Arctic" developed a list of core elements essential to implementing the ecosystem-based management concept.[165] The PAME Working Group has established an Ecosystem Approach Expert Group. They held a workshop in January 2011, which discussed possible revisions to an existing map of seventeen Large Marine Ecosystems (LMEs) in the Arctic and collected information on the numerous assessments already being carried out in the LMEs.[166] The Ecosystem Approach Expert Group is expected to plan the further development of ecosystem status reports for the various LMEs. This will help identify possible ways to better integrate existing national and international monitoring and assessment programmes and to contribute to the revision of the Arctic Marine Strategic Plan in light of the ecosystem approach expertise.[167]

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[162] For a recent lament over limited infrastructure in the Arctic, see *Lawson Brigham,* Marine Protection in the Arctic Cannot Wait, Nature 478 (2011), 157.

[163] See, *e.g.,* AMSA (note 86), 5, and *Mia Bennett,* The Northwest Passage Versus the Northern Sea Route (19 August 2011), available at: http://foreignpolicyblogs.com/2011/108/19/the-northwest-passage-versus-northern-sea-route/ (accessed on 26 August 2011).

[164] Arctic Council (note 85), para. 7.4.

[165] Some core elements include: the application of the best available scientific and other knowledge to understand ecosystem interactions and to manage human activities; an integrated and multi-disciplinary approach to management that takes into account the entire ecosystem; the assessment of cumulative impacts; setting explicit conservation standards, targets and indicators; and enhancing transboundary arrangements, PAME (note 121), 1–2.

[166] PAME, Report from the PAME Workshop on Ecosystem Approach to Management, 22–23 January 2011, Tromsø, Norway, available at: http://arctic-council.npolar.no/en/meetings/2011-nuuk-ministerial/docs/ (accessed on 23 November 2011).

[167] PAME, PAME Work Plan 2011–2013, 7, available at: http://arctic-council.npolar.no/en/meetings/2011-nuuk-ministerial/docs/ (accessed on 23 November 2011).

However, ways in which the ecosystem approach will be further advanced within the Arctic Council remains uncertain. Arctic Ministers at the Ministerial meeting in May 2011 decided to establish an expert group on Arctic ecosystem-based management for the Arctic environment. It has been mandated to recommend further activities in that field for possible consideration by the SAOs before the end of the Swedish chairmanship.[168] How the new experts group and the PAME Expert Group will interact is unclear, as they have overlapping interests. The International Union for Conservation of Nature (IUCN), an observer to the Arctic Council, has collaborated with the Natural Resources Defense Council in hosting three workshops on ecosystem-based management in the Arctic marine environment. They have suggested, among others things, the possible development of an Arctic Marine Ecosystem-based Management Strategy by the Council,[169] and identified ecologically and biologically significant areas (EBSAs) in the Arctic which may warrant special protection.[170]

Navigating from high level discussions and assessments to concrete management commitments and measures in light of ecosystem-based management is likely to be incremental. Establishment of a network of marine protected areas in the Arctic and development of integrated management planning in the LME and transboundary contexts stand out as unmet challenges.[171]

B. Completing the Arctic Council's Restructuring

While the issue of the Arctic Council's efficiency and effectiveness has been in the Arctic Council's agenda since Norway chaired the Council from 2006–2009, prog-

[168] Nuuk Declaration (note 83), 4.

[169] IUCN/NRDC, IUCN/NRDC Workshop on Ecosystem-based Management in the Arctic Marine Environment Workshop Report, 16–18 June 2010, Washington, D.C., available at: http://cmsdata.iucn.org/downloads/arctic_workshop_report_final.pdf (accessed on 23 November 2011).

[170] IUCN/NRDC, IUCN/NRDC Workshop to Identify Areas of Ecological and Biological Significance or Vulnerability in the Arctic Marine Environment, Workshop Report, 2–4 November 2010, La Jolla, CA, available at: http://data.iucn.org/dbtw-wpd/edocs/Rep-2011-001.pdf (accessed on 23 November 2011).

[171] While the CAFF Working Group has provided useful maps identifying protected areas in the Arctic, CAFF has not been successful in developing a circumpolar protected areas network (CPAN) and a CPAN programme is currently listed as dormant, see Arctic Council, CAFF – Conservation of Arctic Flora and Fauna, available at: http://arctic-council.org/index.php/en/caff (accessed on 28 October 2011).

ress in making changes in the administration and organisation of the Council has been slow.[172] Through the Tromsø Declaration in 2009, Ministers as a small step forward decided to further strengthen the political role of the Council by having deputy minister level meetings, with representatives of Permanent Participants, to discuss emerging issues between Ministerial meetings.[173] Ministers called for further consideration of how the Arctic Council should be best structured and for continued discussions on the role of observers in the Arctic Council.[174] Ministers also decided to develop guidelines for engagement in outreach activities and an Arctic Council communication and outreach plan.[175]

A breakthrough occurred at the Nuuk Ministerial meeting in May 2011 where key steps towards strengthening the Arctic Council occurred. Ministers decided to establish a Standing Arctic Council Secretariat in Tromsø, Norway, to be operational no later than the beginning of the Canadian chairmanship of the Council in 2013.[176] Ministers also decided to establish a task force to implement decisions to strengthen the Arctic Council including necessary arrangements for the Secretariat and approved the terms of reference for the task force as set out in the SAO Report to Ministers in 2011.[177] The SAO Report included an annex, "Framework for Strengthening the Arctic Council," which partly focused on providing details regarding the proposed secretariat. A key commitment was to provide an administrative budget to cover the operating costs of the secretariat with the budget to be determined at the Ministerial meeting every second year and the budget financing to be equally shared by the eight Arctic States in an amount which should not exceed US $ 1 million.[178] The Framework also indicated that the Arctic Council would utilise a wide range of approaches to address

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[172] See *Koivurova* (note 1), 152–153.

[173] Tromsø Declaration (note 127), 8.

[174] *Ibid.*, 9. The addition of further observers has become controversial with requests for permanent observer status by the EU, China, Italy, and South Korea being denied in 2009 pending further discussions within the Arctic Council on how to address the criteria for observers, see EU Observer, 30 April 2009, Arctic Council Rejects EU Observer Application, available at: http://euobserver.com/885/28043 (accessed on 31 October 2011).

[175] Tromsø Declaration (note 127), 9.

[176] Nuuk Declaration (note 83), 2.

[177] *Ibid.*

[178] SAO Report (note 56), Annex 1, 49.

emerging challenges in the Arctic, including scientific assessments, guidelines, best practices, new legally binding instruments, and an increased use of task forces.[179]

In Nuuk, Ministers also adopted recommendations of SAOs on the role and criteria for observers to the Arctic Council and decided to apply the criteria to evaluate pending applicants for observer status.[180] The criteria by which observer suitability is to be determined by the Council include the extent to which observers:

- accept and support the objectives of the Arctic Council defined in the Ottawa declaration,
- recognise Arctic States' sovereignty, sovereign rights and jurisdiction in the Arctic,
- recognise that an extensive legal framework applies to the Arctic Ocean including, notably, the Law of the Sea, and that this framework provides a solid foundation for responsible management of this ocean,
- respect the values, interests, culture and traditions of Arctic indigenous peoples and other Arctic inhabitants,
- have demonstrated a political willingness as well as financial ability to contribute to the work of the Permanent Participants and other Arctic indigenous peoples,
- have demonstrated their Arctic interests and expertise relevant to the work of the Arctic Council, and
- have demonstrated a concrete interest and ability to support the work of the Arctic Council, including through partnerships with Member States and Permanent Participants bringing Arctic concerns to global decision making bodies.[181]

The role of observers is also clarified. For example, observers may submit written statements at Ministerial meetings and at meetings of the Council's subsidiary bodies observers may, at the discretion of the Chair, make statements after Arctic States and Permanent Participants, present written statements and submit relevant documents. Observers may propose projects through an Arctic State or a Permanent Participant

[179] *Ibid.*, 49–50.

[180] Nuuk Declaration (note 83), 2.

[181] SAO Report (note 56), Annex 1, 50.

but financial contributions from observers to any given project may not exceed the financing from Arctic States, unless otherwise decided by SAOs.[182]

A final strengthening component adopted by Ministers in Nuuk related to Arctic Council communications. Ministers adopted Communication and Outreach Guidelines and instructed SAOs to develop a Strategic Communications Plan for the Council.[183]

While the Arctic Council's structural transitionings in process offer hope for a more effective Council, other challenges loom on the horizon. Whether the Indigenous Peoples Secretariat should be integrated with the permanent Arctic Council Secretariat is under review by Permanent Participants and it remains to be seen how services to Permanent Participant organisations might be strengthened.[184]

By far the biggest challenge may be ensuring adequate financing for Arctic Council assessments and projects and other activities.[185] The new budgetary expenditures being proposed for covering the Arctic Council are limited to secretariat costs.[186] The Nuuk Declaration itself highlighted the continuing financial limitations of the Council. Ministers reiterated:

> [t]he need to finance circumpolar cooperation, as well as the importance of providing adequate funding to Permanent Participants to support their preparations for, and participation in, the Arctic Council, the working groups, task forces and Arctic Council projects.[187]

The suggestions for ways in which the Arctic Council can be strengthened, offered by various groups and authors, have not been followed. Suggestions have included:

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[182] *Ibid.*, 50–51.

[183] Nuuk Declaration (note 83), 2.

[184] SAO Report (note 56), Annex 1, 49.

[185] A Project Support Instrument (PSI), managed by the Nordic Environment Finance Corporation (NEFCO), has been launched to support Arctic Council projects but since priority is to be given to projects related to pollution prevention, abatement and elimination, it appears likely most funding will be directed towards Russian clean-up and pollution reduction projects, see NEFCO, PSI Status, ACAP Working Group Meeting, Ottawa, Canada, 16–18 September 2009, available at: http://www.ac-acap.org/WGM%2016-18.09.09%20Ottawa.htm (accessed on 23 November 2011); The Voice of Russia, 5 October 2011, Russia Gives 10 mln Euros for Arctic Clean-Up, available at: http://english.ruvr.ru/2011/10/05/58195725.html (accessed on 11 October 2011).

[186] SAO Report (note 56), 49.

[187] Nuuk Declaration (note 83), 6.

holding one or more Ministerial meetings at the head of State level,[188] reforming the Council's mandate to include security and education,[189] restructuring the working groups,[190] and creating a category of consultative party status to enhance the role of leading non-State actors and to encourage them to contribute to an Arctic Fund.[191]

C. Addressing Future Ocean Governance of Areas Beyond National Jurisdiction in the Arctic

Another pressing challenge is the need to consider future directions for governance arrangements in the Central Arctic Ocean (CAO) beyond national jurisdiction. A large high seas 'donut hole' exists in the CAO beyond the 200 nm zones of coastal States and at least two deep seabed areas have been predicted to lie beyond national jurisdiction once the Arctic coastal States delimit the outer extent of their continental shelves.[192]

Multiplicities of future governance proposals have emanated from academics, non-governmental organisations (NGOs) and others. Suggestions include: establishment of a regional fisheries management organisation;[193] possible expansion of the fisheries

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[188] The Arctic Governance Project, Arctic Governance in an Era of Transformative Change: Critical Questions, Governance Principles, Ways Forward, Report of the Arctic Governance Project, 14 April 2010, 18, available at: http://img9.custompublish.com/getfile.php/1219555.1529.wyaufxvxuc/AGP+Report+April+14+2010%5B1%5D.pdf?return=arcticgovernance.custompublish.com (accessed on 23 November 2011).

[189] *Ibid.*, 17.

[190] For example, merging working groups with environmental action roles, specifically PAME, ACAP and EPPR and part of CAFF, Arctic Athabaskan Council, Improving the Efficiency and Effectiveness of the Arctic Council: A Discussion Paper, March 2007, 8, available at: http://arcticgovernance.custompublish.com/improving-the-efficiency-and-effectiveness-of-the-arctic-council-a-discussion-paper.4640516-142902.html (accessed on 23 November 2011).

[191] *Franklyn Griffiths,* Towards a Canadian Arctic Strategy, Foreign Policy for Canada's Tomorrow No. 1, Canadian International Council, May 2009, 16, available at: http://2030north.carc.org/docs/Session%205%20-%20Canadian%20Arctic%20Strategy%20Paper%20-%20Griffiths.pdf (accessed on 23 November 2011).

[192] See *Ron Macnab,* Outer Continental Shelves in the Arctic Ocean: Sovereign Rights and International Cooperation, Meridian (Spring/Summer 2006) 1, 2. Regarding the legal complexities and uncertainties relating to continental shelf extensions see *Alexander Proelss/Till Müller,* The Legal Regime of the Arctic Ocean, Zeitschrift für ausländisches öffentliches Recht und Völkerrecht 68 (2008), 651.

[193] See *Rob Huebert/Brooks B. Yeager,* A New Sea: The Need for a Regional Agreement on Management of the Arctic Marine Environment, WWF International Arctic Programme (2008), 33.

jurisdiction of the North-East Atlantic Fisheries Commission;[194] creation of a regional ocean management organisation;[195] adoption of an Arctic Ocean framework convention applicable to the Arctic marine environment both within and beyond national jurisdictions;[196] a regional *sui generis* approach whereby the five coastal States would divide the area beyond national jurisdiction (ABNJ) into national sections;[197] and a freeze on jurisdictional claims to the central Arctic basin.[198]

While the Arctic Council has not specifically addressed the topic of ABNJ governance, representatives of the five Arctic coastal States did tangentially consider future directions in governance at their meeting in Ilulissat, Greenland in May 2008. They indicated that the Law of the Sea[199] provides a solid foundation for responsible management by the five coastal States and other users of the Arctic Ocean.[200] Under a Law of the Sea approach, various freedoms would be open to all States including the freedoms of navigation and fishing.[201] Mineral exploration and exploitation of the deep seabed would come under the jurisdiction of the International Seabed Authority.[202] Flag State jurisdiction would prevail as the prime principle for controlling

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[194] For a discussion of the option and its unlikely feasibility see *Timo Koivurova/Erik J. Molenaar/David L. VanderZwaag,* Canada, the European Union, and Arctic Ocean Governance: A Tangled and Shifting Seascape and Future Directions, in: Timo Koivurova *et al.* (eds.), Understanding and Strengthening European Union – Canada Relations in Law of the Sea and Ocean Governance (2009), 107, 137–141.

[195] See *Rosemary Rayfuse,* Protecting Marine Biodiversity in Polar Areas Beyond National Jurisdiction, RECIEL 17 (2008) 3, 11; and *id.,* Melting Moments: The Future of Polar Oceans Governance in a Warming World, RECIEL 16 (2007), 196, 215.

[196] *Timo Koivurova/Erik J. Molenaar,* International Governance and Regulation of the Marine Arctic: A Proposal for a Legally Binding Instrument, WWF International Arctic Programme (2010).

[197] *Douglas M. Johnston,* The Future of the Arctic Ocean: Competing Domains in International Public Policy, Ocean Yearbook 17 (2003) 596, 616.

[198] *Oran R. Young,* Whither the Arctic? Conflict or Cooperation in the Circumpolar North, Polar Record 45, Issue 1 (2009), 73, 79.

[199] While representatives did not specifically refer to the 1982 UN Law of the Sea Convention, the Convention largely codifies the law of the sea, United Nations Convention on the Law of the Sea, 10 December 1982, UNTS 1833, 3 (UNCLOS).

[200] Representatives further emphasised that there was no need to develop a new comprehensive international legal regime to govern the Arctic Ocean, Ilulissat Declaration, 28 May 2008, available at: http://www.oceanlaw.org/downloads/arctic/Ilulissat_Declaration.pdf (accessed on 30 October 2011).

[201] Art. 87 UNCLOS.

[202] Art. 157 UNCLOS.

activities.[203] Various responsibilities would fall upon States to control activities of their vessels and nationals on the high seas, for example, their duty to: conserve fish stocks[204] and to cooperate with other States in seeking to manage fish stocks jointly exploited;[205] undertake environmental impact assessments for planned activities, that may cause substantial pollution or significant and harmful changes to the marine environment;[206] and generally to protect and preserve the marine environment.[207]

The role of the Arctic Council in addressing future governance arrangements for ABNJ in the Arctic Ocean remains uncertain with at least three main approaches possible. First, a 'reactive approach' could be followed whereby Arctic States would forestall law and policy responses until actual development pressures arise, such as proposed commercial fisheries in parts of the ABNJ. Second, a 'global first' strategy could be followed where Arctic States defer addressing ABNJ issues in the Arctic until after global discussions and processes result in clarifications as to legal principles[208] and consensus on the appropriate international legal framework applicable to ocean areas beyond national jurisdiction.[209] Third, Arctic States could follow a 'proactive approach' with various steps taken under the Arctic Council umbrella,

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[203] Art. 92 UNCLOS.

[204] Art. 117 UNCLOS.

[205] Art. 118 UNCLOS.

[206] Art. 206 UNCLOS.

[207] Art. 192 UNCLOS.

[208] A major principled debate among States continues over whether marine genetic resources beyond national jurisdiction should be subject to the common heritage of mankind principle or considered as one of the freedoms of the high seas, see, *e.g., David Leary,* International Law and the Genetic Resources of the Deep Sea, in: Davor Vidas (ed.), Law, Technology and Science for Oceans in Globalization: IUU Fishing, Oil Pollution, Bioprospecting, Outer Continental Shelf (2010), 353, 361–367; and *Harlan Cohen,* Some Reflections on Bioprospecting in the Polar Regions, in: *id.,* 339, 351.

[209] The need for an implementation agreement on high seas marine biodiversity is subject to ongoing debate and the *ad hoc* Open-ended Informed Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond national jurisdiction (ABNJ WG) has held four meetings without resolving differing national views. At its last meeting in June 2011, the Working Group did make some progress on the procedural front in recommending that the UN General Assembly initiate a process for identifying gaps and ways forward in addressing marine biodiversity issues beyond national jurisdiction including through the implementation of existing instruments and the possible development of a multilateral agreement under UNCLOS. The process would take place within the ABNJ WG and through intersessional workshops, see Letter dated 30 June 2011 from the Co-Chairs of the *ad hoc* Open-ended Informal Working Group to the President of the General Assembly, UN Doc A/66/119 (2011), 2.

such as: convening a workshop or workshops to discuss the preferred policy future;[210] engaging non-Arctic States and actors in understanding their governance perspectives;[211] establishing a task force to review law and policy options; and encouraging a precautionary moratorium on future commercial living marine resource exploitations until appropriate scientific and management parameters are in place.[212]

D. Strengthening the 'Arctic Voice' in International Fora

Many of the environmental threats to the Arctic arise largely from outside the region and an ongoing challenge is to translate the seriousness of Arctic human and environmental stresses into effective law and policy responses particularly at the global level.[213] While AMAP assessments have been influential in the negotiation of agreements relating to chemicals[214] and heavy metals,[215] the ability for the Arctic Council to push a strong environmental agenda in global fora, besides the IMO, has been weak to non-existent. For example, adequate climate change mitigation responses, reflecting the serious Arctic consequences of melting ice and rising temperatures, have yet to be forged under the UN Framework Convention on Climate Change (UNFCCC).[216]

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[210] Various futures might be envisioned including commercialisation, preservation and conservation.

[211] On the need for greater engagement with the European Union in particular see *Timo Koivurova et al.*, The Present and Future Competence of the European Union in the Arctic, Polar Record (2011), available on CJO 2011doi:10.1017/S0032247411000295.

[212] For such a precautionary approach suggestion see The Aspen Institute, The Shared Future: A Report of the Aspen Institute Commission on Arctic Climate Change (2011), 5, available at: http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/Aspen_Climate_Change_Report_2011.pdf (accessed on 23 November 2011).

[213] *VanderZwaag/Huebert/Ferrara* (note 1); *Young* (note 19), 334.

[214] See David L. Downie/Terry Fenge (eds.), Northern Lights Against POPs: Combating Toxic Threats in the Arctic (2003).

[215] For example, AMAP mercury assessments have fed into the decision of the UN Environmental Programme Governing Council in 2009 to develop a global legally binding instrument on mercury and subsequent negotiations with a goal of a final agreement in 2013. UNEP, The Negotiating Process, available at: http://www.unep.org/hazardoussubstances/Mercury/Negotiations/tabid/3320/Default.aspx (accessed on 24 August 2011).

[216] At the Nuuk meeting, Ministers merely confirmed the commitment of all Arctic States to work together and with other countries to implement the agreements reached in Cancun by the next climate talks in Durban, South Africa, and urged all parties to the United Nations Framework Convention on Climate Change, 9 May 1992, UNTS 1771, 107 (UNFCCC) to take urgent action to meet the long-term goal of holding the increase in global average temperature below 2° above pre-industrial levels,

In light of the large number of chemicals being found in the Arctic with bioaccumulation potential which are not subject to international controls, there is a need to consider more proactive approaches to chemicals management.[217]

The Council's Arctic Ocean Review project holds considerable promise to help mobilise an Arctic Council agenda for taking action at the global and regional levels to better protect Arctic communities and their environment. The Phase II report expected to be published in 2013 has the development of options to strengthen international agreements and measures as one of its major aims.[218]

However, it remains to be seen how influential the AOR report and implementation follow-ups will be. Final AOR recommendations are expected to be negotiated by representatives of the eight Arctic States. As a consensus-based, discussion forum, the Arctic Council is limited by the political views and sensitivities of its eight Member States and reaching consensus on a common voice may be difficult. Furthermore, it is Member States that are parties to international agreements and possess membership in international organisations, not the Arctic Council itself.

Conceptualising how the Council might best find ways to make the voice of the Arctic heard in international settings is difficult.[219] Suggestions have included the establishment of an International Cooperation Working Group or a coordinating committee for external relations[220] and a joint working group on the voice of the Arctic among key partners.[221]

Nuuk Declaration (note 83), 4. On the inadequacy of mitigation efforts see *Meinhard Doelle,* The Climate Change Regime and the Arctic Region, in: Koivurova/Keskitalo/Bankes (note 19), 27.

[217] For a recent review of more precautionary ways forward including the possibility of a global reverse listing approach where only chemicals on a 'safe list' would be allowed to be produced and marketed, see *David L. VanderZwaag,* The Precautionary Approach and the International Control of Toxic Chemicals: Beacon of Hope, Sea of Confusion and Dilution, Houston Journal of International Law 33 (2011), 605.

[218] PAME (note 167), 26.

[219] *Young* (note 14), 13.

[220] *Koivurova* (note 1); *VanderZwaag/Huebert/Ferrara* (note 1), 177.

[221] Partners might include the Indigenous Peoples Secretariat, the Executive Committee of the Northern Forum and Senior Arctic Officials of the Arctic Council, *Young* (note 14), 18.

Arctic Council Communication and Outreach Guidelines, adopted at the Nuuk Ministerial meeting in 2011, may assist to some extent.[222] These Guidelines give the SAO Chair the key role of disseminating information and appearing at conferences, seminars and meetings of international organisations in order to increase the profile of the Arctic Council. However, in communication on behalf of the Arctic Council, the Chair is to confine comments to factual information and agreed positions. When faced with inquiries to which a common position cannot be obtained, the Chair must make it clear that any communication made is on behalf of the Chairmanship and not the Council.[223]

IV. Conclusion

After fifteen years of existence, the Arctic Council, often criticised for its soft law status and structural limitations,[224] certainly has evolved from being just a 'study and talk' venue to a policy shaping and even law-making forum. The Arctic Marine Shipping Assessment represented a significant shift with its seventeen recommendations leading to concrete follow-up actions at the global, regional and national levels.[225] The use of task forces to actually negotiate instrument texts under the auspices of the Council has become an innovation with a Search and Rescue Agreement concluded in May 2011 and a further instrument on regional emergency preparedness and response under development.

A sea of governance challenges still confronts the Arctic Council. Those challenges include: full implementation of existing commitments and recommendations; completing the Council's restructuring; addressing future ocean governance of areas beyond national jurisdictions; and strengthening the influence of Arctic perspectives in international fora.

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[222] Arctic Council, Report on Communication and Outreach Guidelines, 21 March 2011, available at: http://arctic-council.npolar.no/en/meetings/2011-nuuk-ministerial/docs/ (accessed on 2 November 2011).

[223] *Ibid.*, 1.

[224] *Koivurova* (note 1).

[225] Arctic Council (note 98).

An apt phrase that captures the essence of how the Arctic Council is faring after fifteen years is 'a work in progress'. The Council continues to flexibly and incrementally evolve on many fronts through task forces, assessments, reviews, expert groups, work-plans and other plans.[226] Many issues have yet to be addressed by the Council, including bioprospecting and geoengineering,[227] and harmonised national regulatory approaches have yet to be forged particularly in the area of oil and gas regulation. Whether the Council will be able to adequately stem the powerful tides of climate change and globalisation has yet to be answered.

[226] On the innovative and flexible nature of the Arctic Council with regulatory arrangements being developed as needed see *Oran R. Young,* Whither the Arctic 2009? Further Developments, Polar Record 45, Issue 2 (2009), 179; and *Young* (note 19), 333.

[227] See *Bjørnar Egede-Nissen/Henry David Venema,* Desperate Times, Desperate Measures: Advancing the Geoengineering Debate at the Arctic Council, August 2009, available at: http://www.iisd.org/pdf/2009/desperate_times_desperate_measures.pdf (accessed on 23 November 2011).