

# The Yearbook of Polar Law

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*Edited by*

Professor Gudmundur Alfredsson (*University of Akureyri,  
Iceland and China University of Political Science and Law*)

Professor Timo Koivurova  
(*Northern Institute for Environmental and Minority Law,  
Arctic Centre, University of Lapland, Finland*)

*Special Editors for Volume 8*

Professor Betsy Baker (*Vermont Law School and University of  
Alaska Fairbanks affiliate, USA*)

Dr. Mara Kimmel, Ph.D. (*Senior Fellow, Institute of the North,  
Anchorage, Alaska, USA*)



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# The Recent Arctic Council Assessments: Influential Tools in Policy-Making in the Council and Beyond?

*Małgorzata Śmieszek,<sup>a</sup> Adam Stepien,<sup>b</sup> and Paula Kankaanpää<sup>c</sup>*

## Abstract

The scientific assessments of the Arctic Council (AC) have been widely regarded as the most effective products of the AC. Yet, so far comparatively little scholarly attention has been given to this primary area of the Council's work. This paper examines the most recent assessment work within the Arctic Council. In order to do this, we build on the literature on global environmental assessments to analyze whether this work exhibits design features and is carried out in a way that enhances the potential for AC assessments to be effective. We understand the effectiveness of assessments to influence decision and policy-making in the Arctic Council itself, but we also look beyond its structures. This paper focuses on four case studies: Arctic Biodiversity Assessment (ABA), Arctic Human Development Report-II (ADHR-II), Arctic Resilience Report/Arctic Resilience Assessment (ARR/ARA) and Adaptation Actions for a Changing Arctic (AACCA). Whereas detailed examination of such influence is at this point not possible due to either very short time from their completion (ABA, ADHR-II) or the fact that the projects are still ongoing (ARA, AACCA), the analysis of those assessments through the lens of a series of their design features provides us with some guidance in relation to their expected effectiveness in bridging science with decision-making in the AC and beyond. The article finds that whereas different processes exhibit different individual characteristics, all the studied assessments rank from relatively high to very high in terms of how their design may affect their salience, credibility and legitimacy. However, their actual policy influence will depend first and foremost on the political will of those ordering the assessments and wielding decision-making power in the Arctic Council.

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a Arctic Centre, University of Lapland.

b Arctic Centre, University of Lapland.

c Marine Research Centre, Finnish Environment Institute (SYKE).

## Keywords

Arctic Council – assessments – governance – science-policy interface

### 1 Introduction

The Arctic Council (AC or “Council”) is today widely recognized as the primary body for circumpolar cooperation. This high-level forum was established in 1996 to promote cooperation, coordination, and interaction among the Arctic states with the involvement of indigenous representatives. The AC came to being in a time when, with demise of the Cold War, the interest in the Arctic was in decline and the world’s attention turned to other more conflicting and demanding parts of the globe. Since its establishment, the bulk of Arctic Council work revolved around the conduct of scientific assessments, which collected information on the Arctic biophysical environment and human and social development in the region under conditions of accelerating change. The assessments such as the Arctic Climate Impact Assessment (ACIA) or those on persistent organic pollutants (POPs) have become hallmarks of the Arctic Council and played an important role in the Arctic’s region-building process.<sup>1</sup> They have also contributed to raising awareness of the changes in the Arctic in the outside world and influenced certain policy-making developments. Eventually, they could be claimed to have legitimized the Arctic Council itself and ensure its unique position in the emerging circumpolar governance structures.<sup>2</sup>

Today, nearly two decades after the AC’s founding, the Arctic is again the focus of the international community. The region’s profound transformation is driven primarily by interacting forces of globalization and climate change, drawing the attention of many non-arctic actors interested in the potential economic opportunities arising with the opening of the Arctic Ocean, and in the consequences that the changing Arctic climate bears for the southern

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- 1 David L. Downie and Terry Fenge, ed., *Northern Lights against POPs: Combating Toxic Threats in the Arctic* (Montreal and Kingston: McGill-Queen’s University Press, 2003); Annika E. Nilsson “Knowing the Arctic: The Arctic Council as a Cognitive Forerunner,” in *The Arctic Council: Its Place in the Future of Arctic Governance*, ed., Thomas S. Axworthy, Timo Koivurova, and Waliul Hasanat (Munk-Gordon Arctic Security Program, 2012), 190–224.
  - 2 Koivurova Timo, Paula Kankaanpää, and Adam Stępień, “Innovative Environmental Protection: Lessons from the Arctic,” *Journal of Environmental Law* 27, no. 2 (2015): 285–311.

latitudes.<sup>3</sup> Due to rising interconnectivity between the Arctic and rest of the world, and resulting growing interest of the outside actors in the region's governance, the question arises to what extent the Council will be able to maintain and secure its role in these circumstances. The Arctic Council responded to the challenges connected with Arctic change and the international interest in the region by strengthening its structures and incorporating a broader array of actors.<sup>4</sup> Nevertheless, this paper posits that as in the past, for the foreseeable future the assessments will remain the dominant activity of the Council. Yet, so far comparatively little attention has been given to this primary area of the AC's work in the discussion on the changing role of the Arctic Council in the Arctic governance. Can the recent and ongoing AC assessments be influential in policy-making processes within the AC and beyond? Will they prove effective? Conceivably, answers to those questions matter not only as regards the effective bridging of science with decision-making in the Council, but also to importance of assessments in future activities of the AC steadily increasing array of its fields of interests and deployed instruments. It is through the lens of effectiveness and influence on policymaking that the role of assessments in Arctic governance can be evaluated.

The overall aim of this paper is to examine the most recent work within the Arctic Council in order to highlight the current trends in science-policy interface and assessment methodologies. However, the focus on recent or ongoing assessments means that the above questions on effectiveness and influence cannot be answered directly. What can be done instead – and what thus constitutes the specific objective of this article – is the evaluation of the way these assessments are designed and carried out, and isolating features that topical literature identifies as potentially enhancing or inhibiting assessments' ability to bear impact on policy-making.

The article begins with the overview of the position of the Arctic Council in the Arctic governance as well as a discussion on the role of the AC as a knowledge producer and cognitive forerunner in the Arctic, and focuses in

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- 3 Stępień, Adam, Timo Koivurova, and Paula Kankaanpää, ed., *Strategic Assessment of Development of the Arctic: Assessment Conducted for the European Union* (Arctic Centre, University of Lapland, 2014); Aki Tonami, "The Arctic Policy of China and Japan: Multilayered Economic and Strategic Motivations," *The Polar Journal* 4 (2014): 105; Duncan Depledge, "Emerging UK Arctic Policy," *International Affairs* 89, no. 6 (2013): 1445–1457.
- 4 Piotr Graczyk and Timo Koivurova, "A New Era in the Arctic Council's External Relations? Broader Consequences of the Nuuk Observer Rules for Arctic Governance," *Polar Record* 50, no. 3 (2014): 225–236; Erik Molenaar, "Current and Prospective Roles of the Arctic Council System within the Context of the Law of the Sea," *International Journal of Marine and Coastal Law* 27 (2012): 553–595.

this last respect on assessments as the most recognized and valued products of the AC. Next, to set a broader stage for reflecting on AC scientific assessments, it sheds some light on global and regional environmental assessments, their development and theoretical underpinnings of their effectiveness. The article continues with a more in-depth study of four recent AC assessments selected to present wide spectrum of the Arctic Council's activities and then, analyses these assessments through the lens of a series of design features based on the body of literature on the conduct of scientific assessments. These assessments include Arctic Resilience Report/ Arctic Resilience Assessment (ARR/ARA),<sup>5</sup> Arctic Biodiversity Assessment (ABA),<sup>6</sup> Arctic Human Development Report-II (ADHR-II),<sup>7</sup> and Adaptation Actions for a Changing Arctic (AACA). The paper concludes by pondering over potential effectiveness and influence of the studied assessments on future policy-making in the Arctic Council.

## 2 Role of the Arctic Council in Arctic Governance

The Arctic Council is a primary circumpolar body dealing with matters pertaining to the Arctic. It was established in 1996 as a successor to the Arctic Environmental Protection Strategy (AEPS) to broaden the scope of cooperation among eight Arctic states from its earlier emphasis on the protection of environment to address issues of sustainable development in the Arctic.<sup>8</sup> Since the AEPS was incorporated into the newly formed Council, a new body inherited most of the operational practices and structural elements from its predecessor, including, *inter alia*, four working groups<sup>9</sup> and a position of Senior

5 Arctic Council, *Arctic Resilience Interim Report* (Stockholm Environment Institute and Stockholm Resilience Centre, Stockholm: 2013).

6 See report: CAFF (Conservation of Arctic Flora and Fauna), *Arctic Biodiversity Assessment: Status and trends in Arctic biodiversity* (2013), accessed February 18, 2016, [www.arcticbiodiversity.is](http://www.arcticbiodiversity.is).

7 See final report: Joan. N. Larsen and Gail Fondahl, ed., *Arctic Human Development Report: Regional Processes and Global Linkages* (TemaNord, 2014): 567.

8 E. Carina H. Keskitalo, *Negotiating the Arctic. The Construction of an International Region* (New York, London: Routledge, 2004). In fact, the AEPS also worked on sustainable development issues via its task force on sustainable development and utilization (TFSDU), which had in its agenda more high level and controversial sustainable development issues that the SDWG eventually came to deal with.

9 Conservation of Arctic Flora and Fauna (CAFF), Arctic Monitoring and Assessment Programme (AMAP), Emergency Prevention, Preparedness and Response (EPPR), and the Protection of Arctic Marine Environment (PAME). A new working group, Sustainable

Arctic Affairs officials (SAAOs, renamed later to SAOs, Senior Arctic Officials) to coordinate work within the Council. Furthermore, similarly to the AEPs, the Arctic Council was established through a signed declaration (*Declaration on the Establishment of the Arctic Council*, hereinafter *Ottawa Declaration*) and not by an international treaty, thus reflecting political – but not legal – commitment of Arctic states towards enhanced cooperation in the region.<sup>10</sup> That resulted in the emergence of soft law arrangement rather than an international organization. Finally, the relatively low profile of the Council at that time was reflected in its lack of permanent funding and secretariat, and the AC did not take on in its agenda any controversial matters, instead gradually focusing on providing scientific expertise on environmental and social changes in the region.

Despite this unpromising beginning, the Arctic Council has succeeded beyond the expectations of most of those involved in its creation<sup>11</sup> and managed to position itself as the central player in the Arctic.<sup>12</sup> In fact, as Koivurova et al.<sup>13</sup> argue, it is exactly the institutional structure and the soft-law mechanism of the Arctic regional cooperation – together with the commitment of epistemic community which gradually grew around the Arctic Council – that enabled trust-building and bottom-up evolution of the Council's working structures and practices, contributing to its success. The AC has been highly appraised for its distinct, adopted mode of involvement of indigenous organizations as Permanent Participants, providing for their active participation and full

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Development Working Group (SDWG) was established to address the part of the mandate on the sustainable development.

- 10 Evan T. Bloom, "Establishment of the Arctic Council," *American Journal of International Law* 93, no. 3 (1999): 712–22; Timo Koivurova, "Limits and Possibilities of the Arctic Council in a Rapidly Changing Scene of Arctic Governance," *Polar Record* 46, no. 02 (2010): 146–156.
- 11 Arctic Governance Project, *Arctic Governance in an Era of Transformative Change: Critical Questions, Governance Principles, Ways Forward* (2010), accessed March 20, 2016, <http://www.arcticgovernance.org/>.
- 12 Timo Koivurova, and David VanderZwaag, "The Arctic Council and 10 Years: Retrospect and Prospects," *University of British Columbia Law Review* 40, no. 1 (2007): 121–94; Thomas S. Axworthy, Timo Koivurova, and Waliul Hasanat, ed., *The Arctic Council: Its Place in the Future of Arctic Governance. . . . Arctic Security Program & . . . Munk-Gordon Arctic Security Program* (2012); Paula Kankaanpää, and Oran R. Young, "The Effectiveness of the Arctic Council," *Polar Research* 31 (2012): 1–14; Olav Schram Stokke, and Geir Hønneland, ed., *International Cooperation and Arctic Governance. Regime Effectiveness and Northern Region Building* (London: Routledge, 2007).
- 13 Koivurova et al. (2015), *supra*, note 2.



consultation in all decision-making.<sup>14</sup> Finally, the forum has found its ‘cognitive niche’ by collecting knowledge and producing large-scale scientific assessments, including recommendations primarily directed at the Arctic countries’ governments. Those assessments have been regarded as the most effective products of the AC<sup>15</sup> and played a key role in raising the Council’s profile within and beyond the region. They have been instrumental in identifying Arctic pollution problems, influential in international environmental policy-making processes,<sup>16</sup> and have paved the way for recognition of the Arctic as a distinct region in the international political consciousness.<sup>17</sup> In this last respect, the Arctic Climate Impact Assessment (ACIA) stands out as it drew attention to the profound consequences of climate change for the Arctic and its indigenous inhabitants, and strongly contributed to the view of the region undergoing a thorough transformation,<sup>18</sup> influencing the perception of the Arctic within the Arctic countries and beyond.

The foundations of Arctic formalized cooperation were coined at times when the Arctic was a matter of only regional, not global interest.<sup>19</sup> However,

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14 Indigenous contributions to works of the Arctic Council include traditional knowledge and strengthening of the messages delivered to the public by Council’s assessments, thus enhancing the legitimacy of the AC in dealing with environmental matters (see Timo Koivurova, and Leena Heinämäki, “The Participation of Indigenous Peoples in International Norm-Making in the Arctic,” *Polar Record* 42, no. 221 (2006): 101–9; Monica Tennberg, *Arctic Environmental Cooperation. A Study in Governmentality*, (Rovaniemi: University of Lapland Press, 1999); Koivurova 2010, *supra*, note 10).

15 Kankaanpää and Young, *supra*, note 12.

16 Lars-Otto Reiersen, Simon Wilson, and Vitaly Kimstack, “Circumpolar Perspectives on Persistent Organic Pollutants: The Arctic Monitoring and Assessment Programme,” in *Northern Lights against POPs: Combating Toxic Threats in the Arctic*, ed. by D.L. Downie and T. Fenge (Montreal and Kingston: McGill-Queen’s University Press, 2003).

17 Nilsson, *supra*, note 1.

18 Perhaps paradoxically, the assessments the Council has been, and is, sponsoring are further consolidating the view of the ‘Arctic in change,’ which in turn energize the redrawing of Arctic policies by Arctic actors and agencies in the face of possible regime change, see Koivurova 2010, *supra*, note 10.

19 According to Oran Young, the Arctic in the last three decades has experienced two fundamental state changes, each of them having major consequences for Arctic policymaking and governance in broader terms. The first change, ‘a delinking or decoupling shift,’ took place in the late 1980s/early 1990s and was closely linked to the waning of cold war and the collapse of the Soviet Union. It resulted in launch of numerous formalized structures of collaboration, was marked by a strong focus on Arctic-specific matters and allowed for gradual development of ‘the idea of the Arctic as distinctive region with a policy agenda of its own.’ At the same time this process brought in also ‘a separation between Arctic

the scientific outlook for Arctic climate change, the widely reported 2007 Arctic sea-ice minimum, as well as the planting of the Russian flag on the seabed under the North Pole in the summer of same year all sparked speculation about geopolitical tensions as well as economic opportunities in the opening Arctic Ocean. That led to a change in the international perception of the region and resulted in increasing public focus on the Arctic. This growing interest of the outside world has presented new challenges to the Arctic Council, reflected, *inter alia*, in the influx of both state and non-state non-Arctic actors willing to join the AC as observers. The AC on its side took numerous efforts to address these challenges, among others, through elaborating on criteria for admission of new observers in Nuuk in 2011 and accepting six new states as observers at the Ministerial meeting in Kiruna in 2013, opening of a permanent secretariat in Tromsø in 2013 and recently facilitating the creation of the Arctic Economic Council.<sup>20</sup> In order to address issues of growing concern in the region, it has also provided a venue for negotiation of two legally-binding international agreements, on cooperation on aeronautical and maritime search and rescue that was concluded in 2011 and on marine oil pollution preparedness and response adopted in 2013,<sup>21</sup> with the third one – on scientific cooperation in the region – presently under way.

As Koivurova and two authors of this paper point out, the strength of the AC in adapting to the changing circumstances lies in the flexibility of its institutional design and operation modes, ‘certain degree of informality of co-operation’<sup>22</sup> and finding a niche of increasing knowledge on the circumpolar

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governance and the pursuit of governance on a global scale.’ The second state change, ‘a linking change’ began in the Arctic in the early 2000s and continues until today, and it has been to large extent driven by processes of global environmental change and globalization, a mix of forces of environmental and socioeconomic character. See Oran R. Young, “The Arctic in Play: Governance in a Time of Rapid Change,” *The International Journal of Marine and Coastal Law* 24 (2009): 423–442.

20 Arctic Economic Council brings together businesses, including those representing indigenous livelihoods, from eight Arctic states. Although developed under the auspices of the Arctic Council and having as one of its goals bringing the voice of Arctic private sector to Arctic Council work, it is a fully autonomous institution.

21 Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic (signed in Nuuk on May 12, 2011, entered into force January 19, 2013) 50 I.L.M. 1119 (2011) (SAR Agreement); Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic (signed in Kiruna on May 15, 2013), accessed December 2, 2014, [www.arctic-council.org/eppr](http://www.arctic-council.org/eppr) (Oil Spills Agreement).

22 Koivurova et al. (2015), *supra*, note 2.

Arctic both within and beyond the region.<sup>23</sup> To this end they identify the large-scale scientific assessments as the best policy-shaping instruments that the Council has at its disposal. As laid out, assessments have been of utmost importance in the Council's past but the question arises if they will play also the same role in the future and whether they can exert further influence over AC decision-making. To answer this question, we will first revert to the broader discussion on global and regional environmental assessments, which in last few decades have become an increasingly common element of both international and national policy-making, so that the study on the proper conduct of such assessments can give us important hints in how to look at present AC projects.

### 3 Global and Regional Assessments

The increasing interest in global and regional assessments of different kinds stems primarily from concerns for better-informed, more effective, more efficient, and more transparent policy-making;<sup>24</sup> and can be linked to international and cross-boundary nature of many present environmental problems. Since air and water pollution, climate change, or loss of biodiversity know no jurisdictional limits, addressing them effectively requires cooperation among countries with inclusion of actors from all levels, from the local to the global,<sup>25</sup> as well as interaction between scientists and policy-makers. Assessments have become one form of such interaction. They can be understood as collective and organized efforts aiming at assembling scientific information for the use of policy-makers at all stages of decision-making, both within public and private sectors. As Clark et al. elaborate,<sup>26</sup> the increasing role of assessments has had its roots in a view that better and more widely shared information

23 See for example Stokke and Hønneland, *supra*, note 12.

24 Gerald Berger, "Sustainability Impact Assessment: Approaches and Applications in Europe," *ESDN Quarterly Report* (June 2007).

25 Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge: Cambridge University Press, 1990); Oran R. Young, *The Institutional Dimensions of Environmental Change: Fit, Interplay, and Scale* (Cambridge, Massachusetts: MIT Press, 2002).

26 William C. Clark, Ronald B. Mitchell, and David W. Cash. "Evaluating the Influence of Global Environmental Assessments," in *Global Environmental Assessments. Information and Influence*, ed. Ronald B. Mitchell, William C. Clark, David W. Cash, and Nancy M. Dickson, (Cambridge, Massachusetts: MIT Press, 2006), 1–28.

can add to a more effective management of complex, transnational interactions between humans and nature. In addition, the reasoning behind assessments supposes that a better understanding of impacts of human actions, decisions and behaviours, presented with options for alleviation of these impacts, can provide incentives for political, social, and economic decision-makers to carry out their policies in a more sustainable way.

The assessments are considered a key interface between science and policy. As such, they may influence the formulation, implementation, and evaluation of public policy. Hence they are of interest not only to actors involved in them, but also to business, non-governmental organizations, regulatory offices etc.<sup>27</sup> Yet, the influence of assessments over policy-making is by no means straightforward. Assessments may vary to a great extent as regards the type of influence they exert. To comprehend better the influence of assessments it is not enough to look at their scientific output and the products they deliver, frequently in the form of a report or publication. The report (like the ones released by, for example, the International Panel on Climate Change IPCC) is only the concluding stage of what can be much better understood as a social process:

in which scientists, policymakers, and other stakeholders are (or are not) gathering data, conducting analyses, explaining, debating, learning, and interacting with each other around the issue on which the assessment focuses . . . From the time at which a few scientists, policymakers, and/or stakeholders initiate an assessment, it is this process of interactions by which knowledge is created and transmitted among actors that determines whether . . . the [assessment] will be influential.<sup>28</sup>

#### 4 Assessments' Effectiveness and Evaluation

In general, the main aim of assessments is to inform decisions taken with regard to an issue under consideration. In other words, assessment's influence refers in principle to its ability to lead actors to adopt policies and behaviours different to the ones they would undertake if no assessment was

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<sup>27</sup> Clark A. Miller, "The Design and Management of International Scientific Assessments. Lessons from Climate Regime," in *Assessments of Regional and Global Environmental Risks. Designing Processes for the Effective Use of Science in Decision-making* (Washington, DC: RFF Press, 2006), 187–205.

<sup>28</sup> Clark et al., *supra*, note 26 at 14.

carried out.<sup>29</sup> However, being influential does not have to mean necessarily, as is often assumed, direct translation into adopted formal legislative or regulatory practices. When evaluating the assessment's effectiveness,<sup>30</sup> one should look instead at the entire issue domain including not only actors, but also their interests, beliefs, and resources; the institutional settings that enable and constrain interactions among those actors; the actors' behaviours such as decisions, policies or agreements; and, finally impacts of these behaviours on the outside world. Such approach is justified if we consider that a change in the issue domain is a continuous process. It may start by introduction of a new understanding of issues, which may consequently affect beliefs of participants to the process and over time – usually very long one – lead to shifts in interests related to problems addressed by the assessment.

The assessments may vary a great extent in their ability to affect policy-making. The existing literature suggests that these discrepancies stem from the level of fit into scientific and political contexts in which the assessments are conducted, the diversity of their goals and scope of their mandates, as well as a time scale upon which their effectiveness is being evaluated. Perhaps most importantly, such discrepancies can be associated with the way how different actors' distinct perspectives and interests affect their particular evaluation of assessments. Regardless of these variations, consensus exists among large group of scholars<sup>31</sup> that the general determinants of effectiveness of assessments can be found in the attributes of their salience, credibility, and legitimacy.

Salience, or relevance, relates to the ability of the assessment and its results to address particular concerns and needs of its user, whether this user finds it as providing information on issues over which they have control, in a form and at a time, which makes this information applicable for them in practice.

Credibility of the assessment refers to its scientific believability, of the quality of data as well as of utilized methods and approaches. In other words, the

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29 Clark et al., *supra*, note 26.

30 This paper follows a simple definition of effectiveness proposed within the Global Environmental Assessment Project according to which 'more effective assessments are more likely to have significant influences on the corresponding issue domain and its development.' See Alexander E. Farrell, Jill Jäger, and Stacy D. VanDeveer, "Overview: Understanding Design Choices," in *Assessments of Regional and Global Environmental Risks. Designing Processes for the Effective Use of Science in Decision-making*, ed. Alexander E. Farrell and Jill Jäger (Washington, DC: RFF Press, 2006), 1–24.

31 Clark et al., *supra*, note 26; National Research Council, *Analysis of Global Change Assessments: Lessons Learned* (Washington, DC: The National Academies Press, 2007).

assessment's audience has to believe that the scientific content is 'true' or at least that it is more credible than the competing information.

Finally, legitimacy is a matter of perceived fairness and political acceptability of the assessment, giving due consideration to concerns, values and perspectives of assessment's various users. It is strongly tied to questions of participation and exclusion from the process as well as causes, impacts and policy options taken into account – one of the key observations from research on global environmental assessments was that “an assessment cannot promote knowledge regarding facts and causal beliefs without simultaneously, if often implicitly, promoting certain goals and values over others.”<sup>32</sup>

It should be stressed that the three above-listed elements, identified as essential in raising potential effectiveness of an assessment, are not objectively existent factors per se, but are ascribed to assessments by their users. They are a matter of a subjective judgement made by the final users of the information on the basis of the process that led to creation or collection of this information. In sum, the assessment viewed by its audience as more salient, more credible and more legitimate, is more likely to induce change in this audience's beliefs and consequently be more effective and influential.<sup>33</sup> At the same time, evaluation of an assessment's effectiveness is not a straightforward task since any discernible changes in policy-makers' views or behaviour often become visible only in the long run. Moreover, acceptance of assessments' scientific output frequently depends on values, stakes as well as political, social and economic factors not explicitly related to the assessment itself. Finally, the formulation of policy responses is a result of on-going interactions between various people, groups and organizations, and within these broader dynamics assessment's scientific outputs are one element among many other forces.

It is not to say that the effectiveness of assessments relies completely upon external factors. On the contrary, a number of design elements have been identified which can foster or, if addressed inadequately, inhibit the users' perception of the assessment as salient, credible, and legitimate. For example, the effectiveness of assessment can be severely impeded by focusing on questions relevant from the perspective of the scientific community, but not important for final users of the collected information or by adopting too broad scale without tailoring the collected knowledge to fit the users' needs and concerns. Yet, such flaws can (and should) be avoided through the proper design of the assessment process, through paying careful consideration to elements like

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32 Farrell et al., *supra*, note 30 at 8.

33 Therefore, the goal should be to increase number of stakeholders who find and consider the assessment as salient, credible, and legitimate.

framing of the process, the science-policy interface, engaging stakeholders, and treatment of uncertainty.

Since any evaluation of the assessment's effectiveness needs to encompass the entire issue domain and requires much longer time perspective, the aim of the authors of this paper does not lie in evaluating the tangible influence of the most recent assessment activities of the AC over decision-making processes in the Council. First, such an attempt would not be possible at this point in time where two of selected projects are still ongoing and two others have been only recently completed. Second, proper accounting for change in the issue domain shall take into account a highly compound nature of the process with different actors, ideas and interests involved, in which causal influence may oftentimes be indirect and where elements of an issue domain can change over time in response to non-assessment factors such as norms or the availability of technical solutions, an undertaking that lies beyond the scope of this article.<sup>34</sup>

Instead, building on the academic work and literature on global and regional environmental assessments, the authors selected a series of design features that have bearing on the potential influence of the AC assessments on policy-making and their expected effectiveness in bridging science with decision-making in the Council and beyond. Chosen elements are: ownership of the process; level of fit and time congruence; identification of the target audience; methodology; stakeholder participation/ engagement; and, the follow-up activities.

The *ownership of the process* relates to legitimacy and salience of the project and it allows for investigation of whether the assessment came from the broad consensus (in case of the Arctic Council – of the Arctic states and Permanent Participants), or if it was an initiative stemming from perhaps a narrower group that defined the goals of the process, which could consequently affect the effectiveness of the whole activity.

The *level of fit and time congruence* factor looks at whether the assessment seeks to be salient to its users by including the information responsive to local and regional conditions and specificities (so with regard to the Arctic – not only adopting the circumpolar perspective), focusing on issues over which assessment's users have control, and taking into account the time factor, so correspondence with other policy-making processes or larger developments in the issue domain (like the work on establishing or reviewing international arrangements).

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34 Clark et al., *supra*, note 26.

The *identification of the target audience* is closely linked to applied communication and outreach strategies, diversification of formats of the final products and presentation of findings of the projects, whether they seek to resonate with local communities but also broader international society.

The *methodology* factor refers to assessment's scientific credibility, and consequently, legitimacy in the eyes of its users.<sup>35</sup>

The *stakeholder participation and engagement* has been often identified in the literature as one of the most significant factors affecting the influence of assessments. It allows for incorporation into the process stakeholders' knowledge and expertise (often very precise and context-specific). What is more, it repositions them from being mere objects of a given impact to the role of active agents. Here it should be remembered that the definition of a stakeholder depends to a large extent on the assessment domain and focus.

Finally, the *follow-up activities* constitute the element which is quite frequently neglected, e.g. due to a lack of sufficient funding and decreasing interest of the processes' participants upon completion of the main report, and which, if not addressed adequately and not incorporated into the assessment process, may strongly inhibit the assessment's overall impact.

In order to scrutinize each of the above factors the authors defined a list of auxiliary questions on which basis we attempted to examine the potential influence of ABA, ADHR-II, ARR, and AACA on their corresponding issue domains and development of these domains. The assessments have been selected to present a wide spectrum of the AC activities and topics taken up in the Council's work. Whereas the four cases under consideration do not provide a representative sample of multitude of projects carried out under the AC's auspices, each of them has been conducted under a different AC working group and altogether they represent a variety of concepts, aims and applied methodological approaches. The overview below presents the main findings and strongest points identified in each of the assessments under consideration.

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35 "… [M]ethodology is related to… answers to i.e. following questions: what is the geographical scope of the assessment? What are the sources of information and how was it accessed or obtained? Is TEK mentioned in the methodology of the assessment? Is the assessment based on any new concepts or rather well-established models and standards? Does it follow more disciplinary approach or seeks to promote an integrated one? Was there a review of the assessment product? Often, giving answers to all these interrogations is not possible. Nevertheless, it is worth to keep them in mind when investigating the Arctic Council assessments and searching for foundation of their potential impact." Paula Kankaanpää and Malgorzata Smieszek, eds. *Assessments in Policy-Making: Case Studies from the Arctic Council* (Arctic Centre, University of Lapland, 2014), 66.



## 5 Recent Assessments of the Arctic Council

“There is consensus on the proposition that what the AC has done best is to identify emerging issues, carry out scientific assessments addressing these issues and use the results of the assessments both to frame issues for consideration and to set the agenda in policy settings.”<sup>36</sup> Examples of such assessments include already mentioned ACIA as well as the Arctic Marine Shipping Assessment (AMSA) which in 2009 provided an influential study of shipping sector in the Arctic and the overview of its possible future developments.

### 5.1 *Arctic Biodiversity Assessment (ABA)*

The ABA, whose final report was presented in the Ministerial meeting in May 2013, was carried out as a support to one of the key findings and recommendations of the Arctic Climate Impact Assessment. In response to calls for an expansion and enhancement of monitoring of Arctic biodiversity, the Conservation of the Arctic Flora and Fauna (CAFF) Working Group of the AC launched an assessment of Arctic biodiversity in order to synthesize and assess the status and trends of biological diversity in the Arctic; and to inform, guide and serve as a baseline for future works of the AC and other international bodies. Though the process itself began in 2006, the final report came to be one of the main deliverables of the Swedish Chairmanship of the Arctic Council when it was presented in Kiruna in May 2013. It was the major assessment ever carried by CAFF and overall included contributions from more than 250 scientists from 15 Arctic and non-Arctic countries. It has provided up-to-date knowledge on Arctic biodiversity retrieved from scientific publications and complemented with inputs from traditional ecological knowledge (TEK), ensured by two appointed TEK coordinators. Overall, ABA consists of five components: *Arctic Biodiversity Trends 2010: Selected indicators of change*;<sup>37</sup> *Arctic Biodiversity Assessment: status and trends in Arctic biodiversity*;<sup>38</sup> *Arctic Biodiversity Assessment: synthesis*;<sup>39</sup> *Arctic Biodiversity Assessment: report for*

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36 Kankaanpää and Young, *supra*, note 12.

37 Conservation of Arctic Flora and Fauna Working Group (thereafter CAFF), *Arctic Biodiversity Trends 2010: Selected indicators of change* (Arctic Council, Akureyri, Iceland, 2010).

38 CAFF, *Arctic Biodiversity Assessment. Status and Trends in Arctic Biodiversity* (Akureyri, Iceland, 2013).

39 CAFF, *Arctic Biodiversity Assessment: Synthesis*. Conservation of Arctic Flora and Fauna (Akureyri, Iceland, 2013).

*policy makers*;<sup>40</sup> and *Life Linked to Ice: a guide to sea-ice-associated biodiversity in this time of rapid change*.<sup>41</sup>

With regard to level of fit and time congruence, ABA's process was well aligned with other international developments in its field and its preliminary report from 2010 served as the contribution of the Arctic Council to the United Nations 2010 Biodiversity Target, to the International Biodiversity Year of 2010, and to the Convention of Biological Diversity (CBD) and its third Global Biodiversity Report. Such outreach ensured much broader audience for ABA which findings otherwise aim primarily at the Arctic states' governments and which many recommendations correspond with those of other AC projects. Moreover, great attention has been paid to delivery of assessment materials in various formats and languages, to enhance their resonance with the public. To this end next to the full scientific assessment and its synthesis, a report for policy makers was produced along with a movie on status and trends in Arctic biodiversity. In addition, a series of postcards with key ABA findings was made accessible in nine languages, among them Even, Inuktitut, Sakha and Yukagir and before that a summary of the Arctic biodiversity report was presented at the Convention on Biological Diversity COP10 in 2010 in Chinese, Danish, English, Greenlandic, German, Icelandic, Norwegian, and Russian.

The *Arctic Biodiversity Assessment. Report for Policy Makers* presented under 6 headlines its 17 recommendations for addressing the nine key findings of ABA.<sup>42</sup> They were all approved in the Kiruna Declaration by the AC Ministers, who also encouraged Arctic States to follow up on them.<sup>43</sup> Consequently, the Arctic Biodiversity Assessment team brought about a meticulous implementation plan for the ABA recommendations. Not only in this development CAFF has been searching for complementarities between ongoing works and new actions of the Arctic Council to address and implement ABA's

40 CAFF, *Arctic Biodiversity Assessment: Report for Policy Makers*. Conservation of Arctic Flora and Fauna (Akureyri, Iceland, 2013).

41 CAFF. *Life Linked to Ice: A Guide to Sea-ice Associated Biodiversity in this Time of Rapid Change*. Conservation of Arctic Flora and Fauna (Iceland, 2013).

42 Six headlines included: climate change; ecosystem-based management; mainstreaming biodiversity; identifying and safeguarding important areas for biodiversity; addressing individual stressors for biodiversity and improving knowledge and public awareness. CAFF. *Actions for Arctic Biodiversity, 2013–2021: Implementing the recommendations of the Arctic Biodiversity Assessment*. Conservation of Arctic Flora and Fauna (Akureyri, Iceland, 2015).

43 Arctic Council. *Kiruna Declaration, on the occasion of the Eighth Ministerial Meeting of the Arctic Council*. Arctic Council Secretariat (Kiruna, Sweden, May 15, 2013).

endorsements, but in an effort to ensure the input from a bigger and open group of stakeholders it organized in December 2014 the Arctic Biodiversity Congress – the largest gathering in the AC history with more than 450 participants – in Trondheim, Norway where scientific, indigenous, policy, NGO, academia, and industry audiences had the opportunity to discuss themes around ABA. The ABA implementation plan, *Actions for Biodiversity 2013–2021: implementing the recommendations of the Arctic Biodiversity Assessment*, which came as a result of these consultations and discussions among the AC Members, Permanent Participants, Working Groups, Task Forces and Observers was presented in the AC Ministerial Meeting in April 2015. For each of 17 ABA recommendations CAFF identified main gaps and needs, along with specific implementation options to address them. Whereas the ABA recommendations are directed to the Arctic Council as a whole, some recommendations are intended to be implemented through CAFF, while others are to be led in full, or in part, by other AC working groups and subsidiary bodies, and still some will require action by national authorities, stakeholders, and international organizations.<sup>44</sup> The eight-year implementation plan including those options is meant as a living document that will be reviewed and updated every two-years (from 2013 to 2021), corresponding to the cycle of rotation of the chairmanship of Arctic Council and CAFF – the right idea aiming to ensure smooth alignment of priorities, allocation of resources and reporting within the AC.

### 5.2 *Arctic Human Development Report-II (ADHR-II)*

The second Arctic Human Development Report (AHDR-II)<sup>45</sup> was published ten years after its predecessor. The Arctic Human Development Report (AHDR) in 2004 provided a first comprehensive overview of human development in the Arctic in terms of demographics, economy, culture, health and well-being, gender, legal and political issues. The ADHR-I had been considered a success as it established a baseline of knowledge on social matters in the region and contributed to the shift in the way how human development in the North was approached. The AHDR constituted one of the milestones in the evolution of Arctic cooperation from the AEPS's focus on environmental conservation to ever-increasing attention to questions of sustainable development,<sup>46</sup> and from the perception of the Arctic region as a “frozen desert”<sup>47</sup> and a wilderness

44 See *supra*, note 38.

45 Larsen and Fondahl, *supra*, note 7.

46 Koivurova and VanderZwaag, *supra*, note 12 at 151.

47 Koivurova (2010), *supra*, note 10.

towards the vision of the Arctic as a “region in change” and a homeland for indigenous and non-indigenous inhabitants.<sup>48</sup>

Like the ADHR-I, the AHDR-II was carried out under the auspices of the SDWG and initiated by the Stefansson Arctic Institute from Iceland. It was presented for endorsement to the AC in 2011, prepared by a group of 25 lead authors with a number of contributing experts, and eventually published in 2015 by the Nordic Council of Ministers. The latter also provided bulk of assessment funding. The volume focuses on changes, which took place since 2004 in social environments in the Arctic, to enable comparisons and identify major current and emerging trends in human development in the region. At least in principle, the AHDR-II had complemented well the emerging discussion on Arctic economic developments. The follow-up of the first AHDR, namely the process to develop tailored to regional specifics Arctic Social Indicators (ASI),<sup>49</sup> brings AHDR-related work closer to the global and regional assessment processes carried out by, *inter alia*, the United Nations Development Programme (UNDP).<sup>50</sup> However, AHDR, ASI, and AHDR-II are not linked directly to any larger international processes.

Arctic Human Development Report-II has a fair chance to build upon a success of the first AHDR as its focus on social dimension of developments in the Arctic is crucial within the Arctic Council's policy-shaping role in the region. The editors hope that “[a]s a second circumpolar assessment of human development and quality of life in the Arctic that identifies important and emerging issues relating to sustainable human development in the Arctic, the report provides a basis for the development of policies and actions to address these issues.”<sup>51</sup> The high quality of the final product has been guaranteed by the participation of key Arctic experts. The draft chapters were externally peer-reviewed with a help of the International Arctic Science Committee (IASC).

48 The perception of “Arctic as a homeland” goes back some decades earlier, at the very least to 1977 Berger report *Northern Frontier, Northern Homeland*, in Canada.

49 Joan N. Larsen, Gail Fondahl, and Peter Schweitzer, *Arctic Social Indicators: A follow-up to the Arctic Human Development Report*, 2010, accessed March 15, 2016, <http://norden.diva-portal.org/smash/record.jsf?pid=diva2%3A701571&dswid=-3421>. The ASI were developed under the auspices of the SDWG and the Nordic Council of Ministers. The phase II of the ASI applied the developed framework of indicators to chosen case studies. See Arctic Social Indicators: ASI II: Implementation (TemaNord 2014): 568, Nordic Council of Ministers, accessed March 15, 2016, <http://sdwg.org/wp-content/uploads/2015/02/ASI-II.pdf>.

50 See human development reports on UNDP website, accessed March 15, 2016, <http://hdr.undp.org/en>.

51 Larsen and Fondahl, *supra*, note 7, Preface at 13.

The AHDR-II is “an academic report” aiming to “help inform... work [of the AC] and that of the SDWG in particular, in furthering sustainable development in the Arctic.”<sup>52</sup> Whereas it clearly has a potential to deliver this goal, there are certain elements, which might have been addressed better throughout the process of preparing the report to enhance its resonance among wider public and while policy-makers and governments are mentioned as key audience,<sup>53</sup> design features that could increase assessment’s influence over those groups – as identified in earlier sections of this article – appear not to have been addressed properly.

The stakeholder engagement was not particularly underlined, a shortcoming that was only partly mitigated by diverse authorship bringing together scholars from all Arctic states, including indigenous authors. The results of the project are available only in a form of academic report written in English, without any summaries translated into other languages (in particular, the lack of Russian version should be noted).

So far, no follow-up activities are scheduled, although actions connected to AHDR-II are proposed in the report, including dissemination via “well-targeted town hall meetings,” production of dissemination materials targeting Arctic youth, the implementation of the Arctic Social Indicators monitoring system, as well as drafting an “AHDR-II science plan” addressing gaps in knowledge.<sup>54</sup> Perhaps most importantly from the perspective of the potential of AHDR-II to exert influence, several policy-relevant conclusions are proposed. These, significantly, include well-known in research community but largely absent from public discourse issues such as multidimensionality of the Arctic change (going beyond climate-induced changes), moderate view of economic developments, increasing role of urbanization processes, and Arctic governance innovations. These ideas have been reiterated in other assessments focused on social questions,<sup>55</sup> and highlighting them can be seen as yet another attempt to shift discussion (and ultimately, policy-making) in the Arctic from the

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52 *Ibid.*

53 *Ibid.*; see also Arctic Human Development Report II: Regional Processes and Global Linkages (Proposal to SDWG), (2010, revised August 2011); Stefansson Arctic Institute, SAO Meeting (Lulea, November 2011); SAO Meeting Reports: Torshavn, October 2010; Copenhagen, March 2011; Lulea November 2011; Sustainable Development Working Group (SDWG).

54 The report identifies a number of knowledge gaps, including problems of youth and elderly, gender, food, water and energy security, Arctic urban development, as well as Arctic-global socio-economic linkages.

55 Stepien et al., *supra*, note 3; Ole R. Rasmussen, ed. *Megatrends* (TemaNord 2011): 527, Nordregio (Nordic Centre for Spatial Development) and Nordic Council of Ministers, 2011.

emphasis on strategic competition and large-scale economic developments towards human-centered development thinking. However, the AHDR has not produced clear and specific policy recommendations. There was no – typical for the Arctic Council – process of developing recommendations jointly by scientists and state officials (in the AC represented by SAOs and national representatives within the working groups).

The science-politics interaction proved to be particularly challenging for the AHDR-II process. The utmost care paid to scientific content of the report did not prevent representatives of some of the Arctic states to raise reservations with regard to certain chapters of the report. In their views, some parts and statements included in the ADHR-II – if endorsed by the Arctic Council – could have been interpreted as positions of the Arctic states to which there was no official consent. Eventually, to proceed with the project and preserve the scientific integrity of the report it was decided that the final volume was not officially endorsed by the Arctic Council, which instead “note[ed] the work done for the Arctic Council through the second Arctic Human Development Report.”<sup>56</sup> This illustrates well the complexities of science-policy interface of which assessments are the major tools, and challenges, which should be overcome to enable better communication and long-term impact of assessment processes.

In sum, the AHDR-II takes up important but often overlooked socio-economic issues and trends and could be an important voice in debates on development in the Arctic, contributing to the way how policy-makers see the region. What supports the potential for influence of the AHDR-II is the methodology, which highlights key trends and changes since 2004 and links the assessment to the ASI process, time congruence with the ongoing multidimensional debate on Arctic development and with Canada’s AC chairmanship that highlighted community development, and the credibility of highly-respected authors. However, the outreach capacity of the report to policy-makers is not convincing. Lack of straightforward recommendations and ambiguous link to the Arctic Council limits assessment’s potential to reach policy-makers, and in particular those associated with the Council itself. Absence of broader stakeholder engagement adversely affects legitimacy of the assessment and positions it chiefly as an academic endeavour. Proposed dissemination actions, while interesting and potentially effective, have not been implemented. In fact, the dissemination has been so far limited to AHDR-II editors’ presentations at various conferences. Overall, the potential of AHDR-II

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56 Arctic Council. *Iqaluit Declaration on the occasion of the Ninth Ministerial Meeting of the Arctic Council*, Iqaluit, April 24, 2015, para. 19.

to influence discourses and policy-making is constrained, despite the very high quality of its final output (i.e. the report).

### 5.3 *Arctic Resilience Report/ Arctic Resilience Assessment (ARR/ARA)*

The ARR/ARA<sup>57</sup> presents an interesting example of the Arctic Council's assessment conducted not by any of its working groups, but by the external institutions – the Stockholm Environment Institute and the Stockholm Resilience Center. The project came about as one of the priorities of Swedish chairmanship in the AC 2011–2013 term, and was initiated by the Swedish Ministry of the Environment in order to research and assess capacity and resilience of Arctic nature and communities in face of occurring and intensifying disturbances. Originally it was meant to be a part of AACA (see more below) but eventually, to speed up the process of its approval, it was taken out of this bigger scheme and accepted as a stand-alone project during the meeting of Senior Arctic Officials in November 2011.

Initially the ARR was to comprise of two phases, divided between two successive AC chairmanships, the Swedish and Canadian (2013–2015) chairmanships and the Arctic Resilience Interim Report<sup>58</sup> was delivered during the Ministerial meeting in May 2013. It received fairly good media coverage as it was mentioned among others in the New York Times and BBC pieces from the event, somewhat in contrast to final report of ABA that did not find its place in the mainstream media though was presented at the same meeting. In October 2014, the U.S. joined Sweden to co-chair the ARA, making strong engagement for resilience an important part of its own Arctic Council Chairmanship (2015–2017) program as well as trying to actively secure support for the resilience framework beyond 2017, into Finnish and Icelandic AC chairmanships. Coming outputs include a scientific assessment report in mid-2016, a synthesis for policy-makers in 2017 and a resilience-related contribution to the AACA.<sup>59</sup>

With regard to methodology, the Arctic Resilience Report project uses the integrative concept of resilience to contribute to systematic understanding of

57 The name has been changed from ARR to ARA during the course of the preparation of the scientific report of the project to be more reflective of the scope of effort as well as to signal the intention to continue work on the resilience framework into the future in some fashion.

58 Arctic Council (2013), *supra*, note 5.

59 *Arctic Resilience Report Trifold*, accessed March 25, 2016, <http://arctic-council.org/arr/wp-content/uploads/2016/02/150603-Revision-of-Arctic-Resilience-leaflet-Final.pdf>.

developments in the Arctic, including a very complex issue of the cumulative impacts of interacting drivers of change in the region. The applied conception describes the long-term capacity of a social-ecological system (SES) to deal with change and disturbance, and responding to and recovering from them in ways that maintain system's essential functions and identity. It offers not only the potential for integration of different kinds of knowledge, pivotal from the perspective of adaptation capacities of the Arctic SES, but also of various levels of governance where decisions on adaptation actions are taken. To its advantage, the ARR includes also a number of case studies, *inter alia*, on the reindeer herding in the Yamal Peninsula in Russia, coastal erosion and community relocation in Newtok, Alaska, and Skolt Sámi salmon finishing and restoration in the Näätämö River in Finland – to be further developed with the project. Those case studies allow not only for enhanced comprehension of the idea of resilience in practice, but provide a localized context that is very important as a realistic and applicable assessment that could be of use to its potential final users.

However, to this last point, of probable resonance and influence of the assessment, the ARR project so far has not aligned much with larger ongoing processes, has not included much stakeholder participation, and the materials produced up-to-now are primarily in English (with the notable exception of one part of the study on China's views on the Arctic, available both in English and Chinese) and available only in a form of report and online presentations. These deficiencies raise questions about the applicability and direct usefulness of the ARR to local and regional decision-makers in different parts of the Arctic, but as the project is still ongoing there is a chance to address those points. In addition, since the project is not a part of any regular process within AC, it was clearly undertaken upon the Swedish initiative and has been carried out by external institutions. However, there have been efforts to strengthen links between the ARR and AC working groups to ensure some institutional continuity of the project beyond its completion date. One example has been exploration by the ARR and the AACA teams of opportunities to coordinate outreach efforts to clarify and amplify key messages. The commonality between the two assessment processes, which allows for such concerted action, is that they both seek to move beyond identifying or describing the state of science related to specific characteristics of a given Arctic system and instead provide information how to address the impacts associated with rapidly changing Arctic. Their difference lies in the applied methodology, while the ARR “draws on a substantial set of recent case studies where major thresholds (or tipping points) are already apparent, in order to identify properties that make systems



more resilient to both anticipated and unanticipated changes,”<sup>60</sup> the AACA examines adaptation opportunities based on projections well into the future.

## 6 Adaptation Actions for a Changing Arctic (AACA)

The AACA constitutes a major programme of the Arctic Council intended to provide more timely and focused information to guide actions and policies related to adaptation in the situation of rapid transformation of the Arctic.<sup>61</sup> The project is comprised of three phases. The first two included the overview of findings from other AC assessments as well as compendium of existing national, regional, and local adaptation efforts in the region and they formed the basis for the main phase of the project (AACA-C) which is run by the Arctic Monitoring and Assessment Programme (AMAP) and planned to be completed by 2017. In the AACA-C three regional case studies are carried out: in the Barents region, the Baffin Bay/ Davis Strait and in the Bering/Chukchi/Beaufort Seas. They all represent integrated assessments where relevant environmental, social, cultural and economic dimensions are taken into account to inform the development and implementation of local-specific adaptation actions in various parts of the Arctic.

Concerning its targeted audience, AACA, like most others AC assessments, is prepared for the Arctic countries' officials gathering in the Arctic Council. However, its main users are defined as authorities of various levels as well as local and indigenous peoples. The chair of the AACA, Tom Armstrong stated that “[d]eveloping a comprehensive knowledge base of how the drivers of

60 *Adaptation and Resilience in the Arctic: A Primer on the Arctic Resilience Report and the Adaptation Actions for a Changing Arctic Report* distributed ahead of the Arctic Council Resilience Workshop organized in Fairbanks on March 14, 2016 during the Arctic Science Summit Week and ahead of the AC Senior Arctic Officials' meeting, where initial results from the meeting were reported.

61 *Adaptation Actions for a Changing Arctic*, Arctic Council, March 15, 2016, <http://www.arctic-council.org/index.php/en/our-work2/8-news-and-events/346-adaptation-actions-for-a-changing-arctic-aaca>; Adaptation of Actions for a Changing Arctic. DMM02-15 May 2012-Stockholm, Sweden. Item 4, [www.arctic-council.org](http://www.arctic-council.org); Shearer, Russel (AMAP Chair); Adaptation Actions for a Changing Arctic. Presentation at SAO Meeting, Haparanda, November 14, 2012, [www.arctic-council.org](http://www.arctic-council.org); Adaptation Actions for a Changing Arctic (A), Draft Synthesis Report, 8 April 2013; Arctic Monitoring and Assessment Programme, Working Group Meeting Minutes, accessed March 15, 2016, [www.amap.no](http://www.amap.no): AMAP Report 2011: 3, Moscow, Russia, October 3–5, 2011; AMAP Report 2012: 2, Stockholm, Sweden, October 3–5, 2012; AMAP Report 2013: 2, Torshavn, Faroe Islands, September 16–18, 2013.

the rapidly changing Arctic interact will provide decision makers with the resources they need to respond to the challenges and prudently take advantage of opportunities.”<sup>62</sup> Their engagement in the process constitutes a significant element of the AACA assessment work and their involvement as stakeholders is realized, among others, by workshops organized in each of the studied regions. Stakeholders are tasked, in principle, with defining key sectors of interest, issues, and questions, which they consider relevant and would like to see addressed by policy- and decision-makers. Consequently, such approach not only ensures focus on local specificities, but also enhances communication and a more open, two-way dialogue between scientists and assessment’s end users. In contrast to AHDR-II, the broad stakeholder engagement makes it more likely that various social groups in the chosen assessment regions are aware of the AACA process and might take interest in its outcomes when they become available in 2017.

The project’s team intends to deliver AACA results in various formats, including laymen’s report, policy-makers report, press kits, and a film.

Even though at the time of completing this article, there is still one year until completion of the project (scheduled for 2017 Ministerial Meeting), the AACA is said to propose to the Arctic Council follow-up activities, which will relate to its key policy-relevant findings (as in the case of Arctic Biodiversity Assessment or Arctic Marine Shipping Assessment completed in 2009 and appraised for its follow-up practices).<sup>63</sup> One potential limitation is that the regional recommendations may take the format of policy-relevant key findings, somewhat softer than policy recommendations.<sup>64</sup>

As the project is still running, it is impossible to properly assess even its potential influence over future developments in the AC. However, already at this stage the assessment can be considered a cutting-edge in its efforts to bridge local adaptation planning with global level information on climate change and co-production of knowledge. The “general principles” adopted for AACA-C assessments<sup>65</sup> reflect the key factors for assessment’s influence we identified above:

- The science report utilizes up-to-date science results from multiple disciplines;

62 *Adaptation Actions for a Changing Arctic*, Arctic Council, *supra*, note 61.

63 AMAP (October 1, 2013). Draft Implementation Plan. Version 1.1, Adaptation Actions for a Changing Arctic part C (AACA-C), accessed 20 November 2015, [www.arctic-council.org](http://www.arctic-council.org).

64 *Ibid.*; also personal communication with one of the regional assessment leaders.

65 AMAP, *supra*, note 63, at 34.

- The analyses must utilize standardized approaches (methodologies must be defined)
- Multiple ways of knowing must be utilized (i.e., traditional and local knowledge, scientific information);
- Report in written in an acceptable style for non-specialists;
- Results and recommendations must be formulated and integrated so they address issues of regional (including decision makers) and stakeholder identified concerns and needs;
- Provides a synthesis of findings to inform possible adaptation options of use to decision-makers.

Nonetheless, the potential constraint on the AACCA's influence as an assessment is the fact that its main aim is to capture the multidimensionality of Arctic change. Multiple drivers and three studied regions suggest that the final report will deliver a highly complex picture. Therefore, much depends on the way, how final report is formulated and how its key findings will be presented, reconciling the complexity of outcomes and the clarity of messages. Clarity and simplicity of message may be key to attracting attention and influencing the way of thinking of time-constrained and information-overloaded policymakers.

## 7 Conclusions

We have looked at four recent Arctic Council assessments to examine whether the way they are designed and produced enhance or inhibit their potential to influence policy-making. Our focus was mostly on the assessment process that led up to the final outcome (i.e. assessment report) as well as on (implemented or planned) forms of dissemination of collected information and follow-up activities. For this purpose, we drew upon the analytical framework developed in the literature on global environmental assessments that finds attributes of salience, legitimacy and credibility as determinants of effectiveness of assessments. These attributes bear upon the assessments' ability to change the beliefs of their participants or users; and, to induce change in the issue domain. Importantly, these three determinants are not factors that are objectively existent elements of any assessment. Instead, they are attributions made by assessment users. In order to enhance the effectiveness of an assessment, the aim of its designers and participants should be therefore to increase the number of users who view this assessment as salient, legitimate, and credible. They can promote these properties through choices they make with regard

to design of the assessment and its design features. For the purpose of this analysis the authors selected six of them: ownership of the process, level of fit and time congruence, identification of target audience, applied methodology, stakeholder participation, and follow-up activities. While the choice was necessarily partly arbitrary, these features offer some guidance in relation to the expected effectiveness of ABA, AHDR-II, ARA/ARR, and AACA in bridging science with decision-making in the Council and beyond.

Each of the analysed assessments has its specific characteristics. They are located under the auspices of different AC working groups and conducted through different institutional arrangements. The AMAP is a working group of the Arctic Council, which has the greatest experience in the conduct of scientific assessments. That allowed AMAP to develop own practices and learn through experience.<sup>66</sup> This learning process is visible for example in the way the AACA process has been designed and conducted, clearly in order to incorporate elements that increase the potential effectiveness of the assessment.

The assessments can influence both general policy-making of the Arctic states (represented in the AC by foreign affairs and sectoral ministries' officials) as well as further activities of the Arctic Council itself. Processes that are fully integrated into the AC structures are therefore more likely to make a difference. The AHDR-II and to some extent ARR (pre-2013 phase of the ARA entirely led by Swedish institutions) point to the limitations for assessments located outside of the Council structures, which in turn speak to the importance of the ownership of the assessment processes.

While assessments may sometimes exert more direct influence over decision-making, their potential to affect discourses and the issue framing should not be underestimated. For that reason, assessments like ARA and AHDR-II may prove to be the most influential over the long course of time through shaping public or policy discourses and through affecting indirectly policy processes, as the latter are hoped to incorporate more strongly the notions of resilience and Arctic human development, highlighted in ARA and AHDR respectively.

Analysed assessments generally meet high standards when it comes to the quality of the process; in terms of well-designed methodology, respected and diverse authorship, identification of target groups, and time congruence. However, two aspects appear more problematic: stakeholder participation and follow-up activities.

Stakeholder participation is currently often seen as an indispensable aspect of assessment work, but it is also a major challenge for those carrying out

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66 Koivurova et al. (2015), *supra*, note 2.

assessments. Arctic Council projects typically include involvement (or at least invitation for) indigenous peoples' representatives. While in the Arctic context involvement of indigenous organizations is indispensable, currently it can be seen as insufficient to meet expectations for the desired broader stakeholder participation. For the AHDR-II, the *de facto* lack of stakeholder involvement (apart from case studies in one chapter) was a clear-cut shortcoming. In contrast, for AACA, stakeholder involvement is at the very core of the assessment and engaging stakeholders has proven so far relatively successful.<sup>67</sup>

Lack of clear and robust follow-up processes are likely to limit the long-term influence of the AHDR-II, while the process carried out after publication of the ABA in 2013 gives hope for the assessment to make imprint on policy-making. Next steps regarding the ARA still remain to be seen as at time of this writing the assessment's team concentrates its efforts not only on timely delivery of a scientific report, but also on ensuring the continued application of resilience framework in the work of the Arctic Council – beyond the project duration and perhaps in some combination with follow-up steps of the AACA.

In sum, assessments of the Arctic Council remain at the forefront of both regional and global efforts that aim to provide the best available and relevant knowledge to inform policy-making processes on the Arctic. Whereas different processes exhibit different individual characteristics, all the assessments analysed in this article rank from relatively high to very high in terms of design features that can enhance their salience, credibility, and legitimacy. However, once again, it should not be forgotten that those attributes are ascribed to assessments by their users – and hence it is important to increase the numbers of those who will find them salient, credible, and legitimate. In this respect, in the past, one of the main shortcomings of the Arctic Council assessment works was the fact that they remained relatively unknown to the audience outside of Arctic Council circles, both within the Arctic states and in the countries outside of the region. This fact should be addressed, particularly in light of a growing number of actors interested in Arctic developments and equipped in capacity to influence many Arctic-related issues. The problem of dissemination of results of assessment work carried out in the AC comes closely with the one of lack of monitoring of not only how the AC assessments are disseminated but also implemented at sub-national and national levels, and followed at the international ones.<sup>68</sup>

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67 Personal communication, one of leaders of Barents regional assessment, March 2016.

68 For the interesting study of the World Bank on how its policy reports meet the stated objective of informing the public debate please see Doerte Doemeland and James Trevino, *Which World Bank reports are widely read?* Policy Research working paper,

This consequently brings us to the question of translating collected knowledge into action. Effective handling of this issue could be one of the main challenges ahead of the Arctic Council as the forum – according to some commentators<sup>69</sup> – turns from policy-shaping into more a policy-making kind of body. The interest in more action-oriented Arctic Council could be seen in increasing attention paid to the AC task forces which work on specific issues, within a given mandate and for a limited time, and from which two first of legally-binding agreements negotiated under the auspices of the AC came. Both agreements (and the third one, on scientific cooperation, currently under negotiation) gained a lot of coverage among observers of the Arctic affairs. That resulted in a debate concerning future directions of development of the Council, in terms of the possible matching of growing expectations on the AC and what the forum can actually deliver. However, this debate should not overshadow the bulk of work that has been going on in the Arctic Council that generates and constantly deepens our knowledge on the rapidly changing region. As shown in this article, the AC assessments provide very good examples of lessons learnt and best available practices in such endeavors. Acting upon and following-up the assessments' recommendations is nevertheless a different question. The appropriate addressing of qualities of salience, credibility, and legitimacy makes assessments more effective and usable as instruments of policy influence. However, the actual policy influence of these assessments depends first and foremost on the political will of those who order them and who wield decision-making power in the Arctic Council. Policy-makers have to make a political choice to act upon information aggregated and presented in AC assessments. The responsibility for making assessments matter lies therefore primarily with the eight Arctic states – both as regards future activities of the Council as well as the Arctic states' international, national and subnational decision-making.

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WPS 6851 (Washington, DC: World Bank Group, 2014), accessed March 15, 2016, <http://documents.worldbank.org/curated/en/2014/05/19456376/world-bank-reports-widely-read-world-bank-reports-widely-read>.

69 Kankaanpää and Young, *supra*, note 12; Young, *supra*, note 19.