

## Briefing Note

# **A Commentary on the *Agreement on Enhancing International Arctic Scientific Co-operation*: Legal and Practical Consequences**

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*International scientific co-operation in the Arctic is important to the region, and its importance is reflected in existing robust co-operation. In 2018, the Agreement on Enhancing International Arctic Scientific Co-operation (Science Agreement) came into effect. This Agreement aimed to improve access for scientists to the Arctic region and to promote scientific co-operation. On one hand, this Agreement was ground-breaking, as it was the first agreement ascribing legal obligations onto states to promote scientific co-operation in the entirety of the Arctic region. On the other hand, the text of the Agreement gives significant deference to states to implement their policies. Preliminary efforts at implementing the Agreement reflects a diversity of ambition. As a result, the potential of the Agreement to enhance international scientific co-operation is uncertain as the Agreement depends substantially on individual states' interest.*

## **Introduction**

Arctic scientific research is crucial for policy makers and the public to understand the causes and the scope of ongoing climatic changes in the region. International collaboration is vital to this research due to the global nature of climate change. The scale of financial, logistical and expert resources required also exceeds the capacities of any individual state (Smieszek, 2017: 440). For the research to be timely and relevant to policy makers, scientific research needs to keep pace with the rapid climatic changes. One of the main challenges that scientists face is access to geographical areas under different jurisdictions and transporting scientific equipment to collect data, conduct experiments, attend conferences, and more (Farrell, 2018: 17).

In 2017, members of the Arctic Council, the pre-eminent intergovernmental forum discussing Arctic matters comprised of the eight Arctic states, adopted the legally binding *Agreement on Enhancing International Arctic Scientific Co-operation* (“Science Agreement” or “Agreement”) to tackle the challenge of access. The Agreement’s purpose is to “enhance cooperation in Scientific

Activities in order to increase effectiveness and efficiency in the development of scientific knowledge about the Arctic” (Arctic Council, 2017: art. 2). It is the first instance of a legally binding agreement to promote Arctic scientific research across the entirety of the Arctic region (Smieszek, 2017: 444).

This briefing note examines the legal implications of the Science Agreement for states and the Agreement’s potential to fulfill its objective of enhancing international co-operation on Arctic scientific research. The Science Agreement creates new obligations for states to improve access for scientists. The legal nature of these obligations may be enough to entice states to invest greater political and financial capital on the subject matter of the agreement (Wood-Donnelly, 2013: 300), and empower bureaucrats to overcome domestic political obstacles (Takei, 2014: 367; Nowlan, 2011: 58; Shaffer and Pollack, 2011: 1162). The text of the Agreement gives states much flexibility in interpreting their obligations on implementation. This flexibility permits states with ambitious plans to make robust changes, but it also allows states that are ambivalent about the Agreement’s provisions to act with complacency. This paper concludes that the potential of this Agreement to enhance international scientific co-operation is uncertain as the Agreement depends substantially on individual states’ interest.

## Background to the Science Agreement

Co-operation is the dominant theme in international relations in the Arctic region. In 1996, Russia, United States, Canada, Denmark, Iceland, Norway, Sweden and Finland, the eight states with territories in the Arctic Region, established the Arctic Council through the *Ottawa Declaration*. The mandate of the Arctic Council is to provide a forum for states to collaborate on protecting the Arctic ecosystem, tackling transboundary pollution challenges, and promoting sustainable development in the region (English, 2013: 203-217; Nowlan, 2001: 9). In the last decade, the Arctic Council facilitated the negotiation and the adoption of the three legally binding agreements by the eight Arctic states: the 2011 *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic*, the 2013 *Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic*, and the 2017 Science Agreement. These agreements provide a framework to deepen co-operation on certain issues among the states.

The stable political environment in the Arctic has allowed for collaboration in scientific research to flourish. Networks of scientists established through the Arctic Council, the International Arctic Science Committee (“IASC”), the Arctic Science Partnership, and the University of the Arctic (Rhemann, 2012: 34) have harmonized scientific activities, diffused best practices, and shared costs in conducting research. This international collaboration has produced remarkable results, as seen in two examples that involved hundreds of scientists from across Arctic and non-Arctic states. First, one of the Arctic Council’s working groups published the 1997 State of the Arctic Environment Report (Arctic Council, 1997: v) and 1998 Assessment Report on Arctic Pollution Issues (Arctic Council, 1998: v). These reports influenced the adoption of the 2004 Stockholm Convention on Persistent Organic Pollutants (Kankaanpää, 2012: 66). Second, Arctic Council working groups and IASC collaborated to produce the 2005 Arctic Climate Impact Assessment, a blockbuster report which made the Arctic the “bellwether for global climate change” (Nilsson, 2009: 192). International collaboration on these reports allowed scientists to share best practices

in research, and reduced the financial burden on individual states, which would have been considerable given the region's remoteness and lack of infrastructure.<sup>1</sup>

The Science Agreement was negotiated with this backdrop of robust co-operation. In 2013, the Arctic Council established the Task Force for Enhancing Scientific Cooperation in the Arctic to improve scientific research cooperation among the eight Arctic states, co-chaired by Russia and the United States (European Commission, 2018). Initially, the Council considered non-legally binding instruments to improve international co-operation in scientific research in the Arctic (Shibata and Raita, 2016: 136). However, Russia then opined that a legally binding agreement would be preferable because the legal status could give the Russian Ministry of Education and Science, the responsible authority for facilitating international scientific co-operation, greater power to mobilize political attention and various sources of government funding. As a result of these discussions, in 2015, the members of the Task Force decided to instead pursue a legally binding arrangement to facilitate international scientific co-operation (Smieszek, 2017: 443). After a total of nine meetings since 2013, the eight Arctic states signed a legally binding agreement comprised of twenty provisions on May 11, 2017 and the Science Agreement entered into force on May 23, 2018 (Arctic Council Secretariat, 2018).

## Legal Environment for Arctic Scientific Research

A summary of relevant laws governing Arctic scientific research reveals that an international agreement is needed to facilitate access for scientists (Weidemann, 2014: 140). National laws of countries govern the entry and exit of researchers, scientific equipment, instruments, data, and samples, within their sovereign jurisdictions. Within a country, sub-national governments may impose different and additional regulations on the required permits for scientists. Internationally, the 1982 United Nations Convention on the Law of the Sea ("UNCLOS") governs access for scientists conducting marine scientific research; the 1973 *Agreement on the Conservation of Polar Bears* calls on contracting Parties to facilitate access for scientists conducting research on the polar bear species; and the 1920 Svalbard Treaty calls on its contracting Parties to promote conditions conducive to scientific investigations in the Norwegian Spitsbergen archipelago. These agreements do not cover the entire geographic region in the Arctic nor all thematic areas of scientific research. For Arctic scientists conducting work in different jurisdictions, identifying all the relevant laws and procedures to follow can be difficult.<sup>2</sup>

These existing arrangements regulate scientific research and encourage scientific co-operation to varying degrees. For example, article 246(3) of UNCLOS calls on coastal states, in normal circumstances, "to grant their consent for marine scientific research projects...[and] to establish rules and procedures ensuring that such consent will not be delayed or denied unreasonably." A scientist wishing to conduct non-marine scientific research on land does not have the backing of an international legal agreement to file legal challenges against states that delay or obstruct their research. Indeed, since Arctic scientific co-operation is extensive, for a potential agreement to be useful, it would have to focus on overcoming the main barriers that scientists face in terms of access: movements through the region,<sup>3</sup> research infrastructure, equipment when moving across borders,<sup>4</sup> and the relevant data (Grabowski, Rizzo & Graig, 2016: 77).

A few examples illustrate why a Science Agreement addressing access problems is needed. In one, Chinese students invited by researchers at the University of Alaska to participate in a workshop

activity had their visa applications rejected without explanation.<sup>5</sup> In another instance, Russian officials delayed an American-operated scientific research cruise for four days upon docking at Murmansk. Despite having prior approval, the Russian officials confiscated the American scientists' equipment, which disrupted the cruise and damaged confidence in conducting research in Russia (Hinzman, 2018: 13). As well, researchers at the University of Copenhagen reported that Russian officials had confiscated their instruments and samples.<sup>6</sup> These actions generate uncertainty in conducting scientific research, increase the cost of research, and reduce the timeliness of reporting results. A legally binding agreement could address some of these issues.

## Legal Implications of the Science Agreement

This paper focuses on the provisions of the Science Agreement that are related to access. Provisions covering intellectual property (art. 3), opportunities for emerging scientists (art. 8), and local and traditional knowledge (art. 9) are beyond the scope of this paper. Other provisions discuss amendments (art. 18), provisional application, entry into force, and withdrawal (art. 19), and depositary (art. 20) are not discussed further. The following section analyses the clauses that have legal implications for the Parties (the Arctic states) or alter the existing environment for co-operation in scientific research in the Arctic.

Article 1 defines "facilitates" as pursuing all necessary procedures, including giving timely consideration and making decisions as expeditiously as possible. The scope of "all necessary procedures," "timely," and "as possible" are not defined in detail and are left to the interpretation of the Parties.

Article 4 addresses the movement of persons, equipment, and material across borders. This provision calls on Parties to use their best efforts to facilitate entry to, and exit from, its territory of persons, research platforms, materials, samples, data, and equipment of the Participants. No other existing multilateral legal agreement relating to Arctic scientific research creates this obligation. "Best efforts" is not clarified in this provision nor in subsequent ones.

Article 5 covers access to research infrastructure and facilities. This provision calls on Parties to use their best efforts to facilitate access for participants to national civilian research infrastructure, facilitates, and logistical services. This is a broader legal obligation than the one ascribed in articles 4 and 5 of the Svalbard Treaty, which allows the Treaty's contracting Parties to use wireless telegraphy stations on Svalbard. The Science Agreement's Article 5 covers more research stations in different areas and types.

Article 6 provides more details about access to research areas. Article 6(1) states that the Parties shall facilitate access to terrestrial, coastal, atmospheric, and marine areas to conduct research. This article is like Articles 239 and 255 of UNCLOS, which calls on states to "promote...marine scientific research." In the context of the Arctic, the Science Agreement covers a relatively larger geographic area than UNCLOS to conduct research, since UNCLOS only covers marine areas. Article 6(2) of the Science Agreement states that Parties shall facilitate the processing of applications to conduct marine scientific research consistent with UNCLOS. Article 6(3) calls on Parties to facilitate joint Scientific Activities that require airborne scientific data collection in the Identified Geographic Areas of the Agreement. Articles 6(2) and 6(3) are more precise obligations as they identify a certain research theme (maritime and airborne). Overall, Article 6 also does not prescribe a specific set of actions for states to undertake.

Article 7 addresses access to data. Article 7(1) states that Parties shall facilitate access to scientific information in connection to Scientific Activities. Article 7(2) calls on Parties to support full and open access to scientific metadata, encourage open access to scientific data, data products and published results with minimum time delay, preferably online and free of charge at no more than the cost of reproduction and delivery. Article 7(3) calls on Parties to facilitate distribution and sharing of scientific data and metadata. Networks such as IASC and the Arctic Data Committee (Arctic Data Committee, n.d.) already work substantially in this area, and states have been involved in this work by funding data sharing projects and sharing data it collects (Rogne & Rachold, 2015: 57-58). This Agreement makes it a legal obligation for states to facilitate access to data, but leaves it up to the state to decide how they would like to do so.

Article 10 notes that the Agreement does not alter international, national, and subnational laws, procedures, and regulations. Activities and obligations conducted pursuant to the Agreement must respect those arrangements. If states wish to change their domestic laws and regulations to enhance scientific co-operation, they may do so, but the Agreement does not impose that obligation.

Under Article 11, Parties bear their own costs from implementing the Agreement, and implementation is subject to the availability of relevant resources. This is consistent with the Arctic Council's work, as all activities conducted by the Council are funded on a voluntary basis from contributions of states. There is no prescribed minimum that Parties should commit to in implementing the Agreement.

Article 12 states that there shall be a meeting to review this Agreement no later than a year after its entry into force to discuss the status of implementation. This meeting occurred on 11 March 2019.<sup>7</sup> As per the Agreement, Parties can choose when to hold future meetings, and it is likely that it will be held in 2020 in conjunction with the Arctic Science Summit Week in Iceland.<sup>8</sup> Besides from the initial meeting, there is no legal obligation in the Agreement for a periodic review of the states' undertakings to implement the Agreement. Unlike the two other legally binding agreements negotiated under the auspices of the Arctic Council, there is no working group to support or monitor the Agreement's implementation. The other two legally binding agreements were the product of a working group, which is a permanent body of the Arctic Council. The Science Agreement was the result of a Task Force, which disbands after the Task Force's work is complete. The Task Force's job was to work on an arrangement to promote scientific co-operation. Its result was the agreement, so it disbanded.

Article 13 calls on states to designate a competent national authority as the responsible point of contact responsible for the Agreement's implementation, which is listed in Annex II. These designated authorities are located within a state's agency conducting and funding scientific research (such as Polar Knowledge Canada, the US Arctic Research Commission, or the Research Council of Norway), ministry of education and culture (such as in Finland), ministry of foreign affairs, or a combination of these. The lists of competent authorities outlined in Annex II help stakeholders identify the starting point for dialogue, which enhances the efficiency of their interactions. Annex II of the Agreement lists general contact points (for example in Canada, the email address provided was [info@polar.gc.ca](mailto:info@polar.gc.ca) rather than a specific person), but subsequent correspondences between Parties resulted in a more detailed list.

Article 15 calls on states to settle disputes through direct negotiations. This is identical to the dispute resolution provision in other two legally binding agreements negotiated under the auspices

of the Arctic Council (art. 17 of the SAR Agreement and art. 18 of the MOPPR Agreement), which calls for states to engage in direct consultations. Arctic states that are parties to UNCLOS are still entitled to use the dispute resolution mechanism (for example, arbitration or judicial settlement) for disputes on marine scientific research covered by part XV of UNCLOS.

Article 17 states that Parties may continue to enhance and facilitate co-operation with non-Parties for Arctic scientific research and this provision to co-operate with non-Parties is not legally binding on Parties. This is important because Arctic science is global and has always been conducted between Arctic and non-Arctic states.<sup>9</sup> This provision has been criticized in other scholarly works, such as the ones by Shibata and Raita (158-162), and Liu (55), for potentially creating a two-tier system in the Arctic. This could hinder rather than promote international co-operation on science.

### **Potential of the Science Agreement**

The effectiveness of an Agreement to enhance scientific co-operation is assessed by how likely it is to encourage states to act to reduce barriers of access. An effective Agreement means that states are likely to take concrete steps at an international and national level to reduce barriers of access for scientists. An ineffective Agreement means that states are unlikely to act, and the Agreement does not do much to change the status quo.

Several features of the Agreement suggest that it has a high potential to encourage states to reduce barriers to access. First, the Agreement helps to co-ordinate national efforts to facilitate access by identifying four areas of improvement: entry and exit of persons, research infrastructure, research areas, and data. It provides a framework for states to fill in the gaps left in pre-existing legal arrangements. Second, the designated contact list of implementing authorities may help to overcome scientists' access problems at an international level. Scientists experiencing challenges in travelling or moving equipment across the Arctic are able to more easily resolve their issue, as they can identify an individual in each of the governments of the Arctic states whose job is to implement this Agreement and facilitate access.<sup>10</sup> Third, as the Russian delegation noted, the Agreement's legal status may be sufficient to incentivize states to act. A legally binding instrument can hold states accountable to their commitments (Bodansky, 2015: 162), entice states to commit greater political and financial capital on the subject matter of the agreement (Wood-Donnelly, 2013: 300), raise the political profile of an issue (Nowlan, 2001: 58) and empower bureaucrats to overcome domestic political obstacles (Takei, 2014: 367; Nowlan, 2001: 58; Shaffer & Pollack, 2011: 1162).

At the same time, examining the text of the Agreement reveals that there is a lot of flexibility for states to act, which increases the unpredictability of the Agreement's potential to facilitate access. As described above, this flexibility is seen in the varying possible ways to interpret the definition of "facilitate" or "best efforts," the voluntary nature of funding, and minimal obligations for states to report their activities to the other Parties. This flexibility, if aligned with a national government that embraces the Science Agreement, could lead that state to ambitiously implement the Agreement. The state could change national laws that would make it easier for scientists to enter and exit their jurisdiction, access research infrastructure and research areas, and data. However, since the provisions do not prescribe a minimum standard of involvement, the flexibility of the Agreement's provisions could also mean that the state does nothing to implement the Agreement.<sup>11</sup>

Overall, this flexibility suggests that implementation of the Science Agreement will vary between states.

The Agreement's early days of implementation provides some indication as to direction of the Science Agreement. At the 11 March 2019 meeting to review the implementation of the Agreement, each state presented their position to the rest of the Parties.<sup>12</sup> Polar Knowledge Canada reported that it is developing "resource checklists" that scientists can use to make sure they have all the relevant permits in the jurisdiction they are entering, given the fragmented nature of the Canadian laws governing scientific research.<sup>13</sup> The US Arctic Research Commission is working with the State Department to draft a letter that international scientists can attach to their visa application to enter the United States, with reference specifically to the Science Agreement.<sup>14</sup> These efforts by Canada and the US are examples of concrete action, though modest, that states have taken to facilitate access for scientists in light of the Agreement. On the other hand, even though Russia was influential in shaping the nature of the Agreement, it did not present any deliverables in the form of a new initiative or program at the meeting.<sup>15</sup>

It is possible that the states' initiatives would have occurred in the absence of a Science Agreement (Smieszek, 2017: 445). However, from limited conversations with implementing authorities, it appears that at least some of these initiatives began because the Agreement focused states' attention to the challenges of scientific co-operation. One can only speculate whether a legally binding agreement was necessary for the creation of these initiatives, or if a memorandum of understanding would have been enough. Nonetheless, the Agreement appears to have successfully mobilized some bureaucrats to undertake new initiatives to enhance co-operation in their capacities as implementing authorities. At the time of writing, no states reported invoking the legal status of the Agreement to compel an immigration or border official to allow for speedier visa processing times or easier entry and exit procedure for Arctic scientific researchers. It is unknown whether scientists have mentioned the Science Agreement to a permitting or immigration official as a basis for their entry, and if they did, whether that mention changed the position of the official.

## Conclusion

The Science Agreement is a legally binding instrument with a purpose to enhance scientific co-operation in the Arctic, where co-operation has historically been robust. Based on the text, it appeared that its potential to achieve its purpose is unclear. In implementing the Agreement, states have worked to improve communications between the incoming scientist and the state, or within a state's ministries and agencies, on entry and permitting procedures or informing them of the existence of the Agreement.

International scientific co-operation serves the common interests of many states. The Science Agreement sheds light on what role a legally binding instrument can play to enhance this co-operation. This assessment of the Agreement suggests that a legally binding instrument can have a role, but its success depends on states' ambitions. Given the number of climatic changes that are currently ongoing in the Arctic and globally, examining the potential of a legally binding agreement can be helpful to see how this instrument can help states understand these changes.

## Notes

1. G. Song, personal communication, 11 March 2019. Gloria Song is a senior policy analyst at Polar Knowledge Canada.
2. G. Song, personal communication, 11 March 2019.
3. J. Farrell, personal communication, 28 February 2019. John Farrell is Executive Director of the US Arctic Research Commission. He has attended the meetings for the negotiation and implementation of the Science Agreement.
4. F. Dichmann, personal communication, 26 February 2019. Frej Dichmann is a senior advisor at the Danish Agency for Science, Technology and Innovation. He has attended the meetings for the negotiation and implementation of the Science Agreement.
5. J. Farrell, personal communication, 17 March 2019.
6. F. Dichmann, personal communication 26 February 2019.
7. V. Rachold, personal communication, 27 February 2019. Volker Rachold is head of the German Arctic Office. He has attended as part of the German delegation, which is an observer to the Arctic Council, at meetings regarding scientific co-operation. He previously served as Executive Secretary of IASC during the negotiation of the Science Agreement and attended meetings of the Scientific Co-operation Task Force.
8. V. Rachold, personal communication, 25 March 2019.
9. G. Song, personal communication, 11 March 2019.
10. J. Farrell, personal communication, 17 March 2019.
11. F. Dichmann, personal communication, 22 March 2019.
12. A. Pope, personal communication, 8 February 2019. Allen Pope is Executive Secretary of IASC. He has been present, in IASC's capacity as an observer state to the Arctic Council, during discussions of the Arctic states about scientific co-operation.
13. G. Song, personal communication, 11 March 2019.
14. J. Farrell, personal communication, 17 March 2019.
15. J. Farrell, personal communication, 17 March 2019. F. Dichmann, personal communication, 22 March 2019.