

## Arctic Council Resilience Workshop

### Summary Report

March 14, 2016

Board of Regents Conference Room, Butrovich Building  
University of Alaska, Fairbanks, USA

The recent Paris climate agreement in December, 2015 and the establishment of global Sustainable Development Goals in September, 2015 have both dramatically increased global momentum for addressing climate change and linkages to human development. Aside from national efforts to reduce greenhouse gas emissions, many international bodies around the world are adopting frameworks and strategies to build resilience and address the impacts of climate change. For example, the recently-adopted Sendai Framework for Disaster Risk Reduction 2015-2030, brings together a diversity of global actors to strategically and cooperatively reduce disaster risk and losses.<sup>1</sup> Regional bodies, such as the Pacific Island Forum, the Association of Southeast Asian Nations (ASEAN), the African Union and the European Commission, have also adopted or are developing frameworks and strategies to build resilience and address the impacts of climate change. In the Arctic, arguably the global region most known for dramatic climate impacts, such a coordinated response is even more important as a basis to foster development and prosperity and sustainable communities and ecosystems. The Arctic Council, as the leading intergovernmental forum on issues of sustainable development and environmental protection, is well-positioned to support and encourage measures to improve the resilience of threatened communities and ecosystems.<sup>2</sup>

Many of the projects and initiatives taking place within the Arctic Council Working Groups and Expert Groups address various aspects of resilience, including the Arctic Resilience Assessment, Adaptation Actions for a Changing Arctic initiative, the Arctic Adaptation Exchange Portal and many others. It is unclear, however, if the current initiatives **alone** by the Arctic Council and its member states will adequately address the top resilience needs and priorities in the region, or if they are strategically aligned to provide the greatest benefit. Arctic Council members have expressed an interest in building on current efforts to develop a more structured strategy or framework – similar to those being developed for other regions of the globe – that will enhance collaboration, identify shared priorities, and develop a community of practice for building resilience.

At the October 2015 SAO meeting in Anchorage, Alaska, USA, the United States formally proposed to hold a resilience workshop in March 2016 in Fairbanks, Alaska to explore how the Arctic Council can support a regional resilience strategy and community of practice. The workshop was developed by a steering committee composed of representatives from Arctic Council States, Permanent Participants (PPs), Observers, and Working Groups (WGs).<sup>3</sup> This report is a summary of the results of the workshop.

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<sup>1</sup> Sendai Framework for Disaster Risk Reduction, 2015-2030. <http://www.unisdr.org/we/coordinate/sendai-framework>

<sup>2</sup> <http://www.arctic-council.org/index.php/en/about-us>

<sup>3</sup> See Appendix A for a list of steering committee members

## **Participants:**

There were 50<sup>4</sup> individuals that participated in the workshop. These participants represented six of the eight Arctic Council Member States, three of the six Permanent Participant organizations, all six Working Groups, and several of the Arctic Council Observers.

## **Workshop Objectives:**

The workshop had the following objectives:

1. Establish what we know about resilience
2. Examine resilience priorities, challenges, and successes across Member States, Permanent Participants (PPs), Observers, and Working Groups (WGs) and identify common ground
3. Begin development of a cross-cutting Arctic Council Framework for action to build Arctic resilience

The objectives were addressed chronologically throughout the course of the day.<sup>5</sup>

### **Objective 1:** Establish what we know about resilience

The day began with a welcome from the U.S. Senior Arctic Official, Ms. Julia Gourley, who noted the importance and cross-cutting nature of building resilience in the Arctic.

Dr. Gary Kofinas provided an overview of resilience. He defined resilience as “the ability of a system to absorb disturbance and re-organize so as to retain the same structure, functions, feedbacks and (therefore) identity.” He also noted the following about current resilience thinking:

- A *transdisciplinary* approach and lexicon is needed to build resilience. Developing a common vocabulary among stakeholders is a first step.
- General good practices for building resilience include maintaining connectivity and diversity, encouraging learning and experimentation, promoting polycentricity, and understanding the socio-ecological system as a complete, adaptive system.

After the overview of resilience thinking by Dr. Kofinas, there was a series of short presentations about key ongoing and recently-completed reports. Dr. Marcus Carson provided an overview of the Arctic Resilience Assessment (ARA), which is examining thresholds, drivers, impacts, and responses of socio-ecological systems. The ARA is also analyzing a series of case studies to evaluate factors known to strengthen resilience, such as capacity for self-organization, diversity, and capacity for learning. The full ARA scientific report will be released in late 2016. Dr. Tom Armstrong provided an overview of the Adaptation Actions for a Changing Arctic (Part-C) initiative. The AACA will produce information that assists local decision-makers and stakeholders in three pilot regions (to be released in 2017). The AACA proposes an adaptive management framework to feed information from the user back to the scientist

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<sup>4</sup> See Appendix B for list of participants

<sup>5</sup> See Appendix C for full agenda

about the usefulness of the information. The ARA and AACA initiatives are tightly interlinked and mutually reinforcing.<sup>6</sup>

Finally, Dr. Peter Schweitzer outlined key messages from the second Arctic Human Development Report (AHDR-II), which was released in 2015. The AHDR-II evaluated trends that affect human development in the circumpolar region and was intended to help facilitate priority-setting for policy makers. The AHDR-II argues that more information is needed about youth and elderly; gender dimensions of Arctic change; the influence of Arctic actors and institutions; and food, water, and energy. It also argues for a more aggressive adoption of 'best practices' for adaptation.

**Objective 2:** Examine resilience priorities, challenges, and successes across Member States, Permanent Participants (PPs), Observers, and Working Groups (WGs) and identify common ground

When the Arctic Council Resilience Workshop was formally proposed to the SAOs in October 2015, Mr. Joel Clement (U.S. Department of the Interior) posed two questions to each Member State, Permanent Participant, Observer, and Working Group:

1. What are three of the most challenging climate change vulnerabilities or concerns that you or your constituents face?
2. What are your top three most pressing priorities or needs (for example, certain tools, information, capacity, funding, etc.) for building resilience for you or your constituents?

The Arctic Council Secretariat collected 14 formal responses. Six of these were from Member States, six were from Observers, two were from Working Groups, and one was from a Permanent Participant. The responses were categorized and analyzed. During the workshop, Ms. Sarah Abdelrahim provided an overview of the responses.

Analysis of the preliminary responses reveals a wide range of vulnerabilities across the region. Some of the most common responses to the first question referred to changes in living conditions (especially subsistence patterns and food security); risks to infrastructure from increased flooding and thawing permafrost; and changes in ecosystems and species composition. Some of the most common responses to the second question referred to capacity building (especially for local communities); research and innovation; better management tools; and improved data, modeling and forecasting. Working group responses referred to several recent Arctic Council assessments and subsequent policy recommendations.

The overview of questionnaire results was followed by the presentation of selected success stories in building resilience. Participants were then divided into four groups, each of which addressed four questions. The information that was shared in response to the questions was broad but provided a good starting point for the more in-depth afternoon discussions. The four questions were:<sup>7</sup>

1. Would meeting the priorities/needs that were identified in the survey address the challenges/vulnerabilities that were identified?

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<sup>6</sup> For more information about the similarities and differences between the ARA and the AACA, see [http://www.arctic-council.org/images/Password-Area/SAO\\_Fairbanks\\_2016/InfoDocs/EDOCS-3383-v1-ACSAOUS202\\_Fairbanks\\_2016\\_InfoDoc15\\_AACA\\_and\\_ARR\\_Primer.PDF](http://www.arctic-council.org/images/Password-Area/SAO_Fairbanks_2016/InfoDocs/EDOCS-3383-v1-ACSAOUS202_Fairbanks_2016_InfoDoc15_AACA_and_ARR_Primer.PDF)

<sup>7</sup> See Appendix D for more information about the morning break-out sessions.

2. Are there additional management, financing and/or investment mechanisms that you have used that might meet challenges to resilience in the Arctic?
3. Are there additional scientific and/or decision support tools that you have used that might meet challenges to resilience in the Arctic?
4. What other human and/or ecosystem resilience successes in the Arctic are important to share?

*Plenary Discussion:*

After the group re-convened, and the highlights of the break-out sessions were presented, participants engaged in a short plenary discussion about an Arctic Resilience Framework. It was noted that the first step in building a common strategy for resilience is to develop a community of practice, ensuring that all of the right people are at the table. It is also important to engage other global actors beyond the Arctic Council. Many conversations around resilience are already happening at the global scale or in other regions. Finally, it was noted that it is important to evaluate what has worked so far in order to prioritize the most impactful actions going forward.

**Objective 3:** Begin development of a cross-cutting Arctic Council Framework for action to build Arctic resilience

Mr. Joel Clement and Dr. Julian Wilson guided the group into a more substantive discussion of what an Arctic Resilience Framework could contain. Using the results of the initial pre-workshop questionnaire, Dr. Wilson guided the group through a visualization of what a framework could look like. Using the Arctic Council Framework on Methane and Black Carbon<sup>8</sup> as a model, a framework could propose actions at three scales:

- Take leadership nationally
- Enhance collective action within the Arctic
- Promote action by others

The identified vulnerabilities and challenges could be mapped according to local-regional, national-pan-Arctic, and hemispheric-Global spatial scales.

Participants noted that it is also important to look at institutional capacity and the roles of different stakeholders when developing a framework. It was suggested that we identify projects and initiatives that already attempt to address the identified challenges. It was also noted that the categories should not be fixed, as vulnerabilities and challenges are dynamic.

Mr. Johan Kuylenstierna then led participants through a second round of small group discussions. Participants were divided into five groups, each addressing four questions. A selection of key responses to the four questions are highlighted below.

1. **Capacity Building:** What specific actions (at the national, circumpolar, or global level) could support capacity development for building resilience?
  - Develop ongoing training, education, and leadership programs

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<sup>8</sup> See [https://oaarchive.arctic-council.org/bitstream/handle/11374/610/ACMMCA09\\_Iqaluit\\_2015\\_SAO\\_Report\\_Annex\\_4\\_TFBCM\\_Framework\\_Document.pdf?sequence=1&isAllowed=y](https://oaarchive.arctic-council.org/bitstream/handle/11374/610/ACMMCA09_Iqaluit_2015_SAO_Report_Annex_4_TFBCM_Framework_Document.pdf?sequence=1&isAllowed=y)

- Ensure local workforce development and capacity in maintaining local infrastructure
  - Improve multi-stakeholder communication and collaboration networks
  - Allocate resources, i.e., through a circumpolar resilience fund
- 2. Research and Innovation:** What specific actions (at the national, circumpolar, or global level) in research and/or innovations build resilience?
- Encourage interdisciplinary research and co-production of knowledge
  - Enable local and indigenous peoples, especially youth and elders, to innovate their own solutions to emerging problems
  - Identify and allocate long-term funding, especially for interdisciplinary research
  - Expand local observing programs and networks
  - Encourage the collection of trans-boundary data and identification of trans-boundary research priorities
- 3. Implementation:** What specific actions (at the national, circumpolar, or global level) could result in improved decision-making, management, and implementation of resilience-building activities?
- Develop long-term strategies and long-term commitment
  - Ensure better “translation” of knowledge
  - Identify sources of funding, especially for communities
  - Record failures, successes, and best practices
- 4. Stakeholder Engagement:** What other key actors would be important to involve in the development of an Arctic Council framework on Resilience and what role could they play?
- Communities (define questions/priorities, monitor changes, share lessons learned)
  - Private sector/industry (invest, evaluate risk of investments)
  - Civil society (educate, move the agenda)
  - Scientific community (research, provide input)
  - Scientific networks, such as the Arctic Science Summit Week (review research agendas and outline roles and responsibilities)
  - Non-Arctic states (provide input and funding, research, implement)
  - National funding agencies
  - Global frameworks such as the UN Sendai Framework

### **Conclusion:**

Participants broadly supported the development of an Arctic Resilience Framework that would coordinate efforts to build resilience in the region, identify shared priorities and gaps, and build a community of practice for Arctic resilience and adaptation. They also agreed that the Arctic Council was in the best position to spearhead the development of such a framework. It was noted that Mr. Joel Clement would present the outcomes of the workshop to the Senior Arctic Officials (SAOs) on March 17, 2016. All participants were invited to stay engaged in the follow-on work.

The results of the workshop were received by the SAOs with interest and enthusiasm. The SAOs requested that a draft resilience framework be presented for their consideration at the October 2016 SAO meeting in Portland, Maine, USA.

**Next Steps:**

- In April 2016, the original workshop steering committee will reconvene to devise a timeline and way forward. Workshop participants with time and interest are encouraged to provide additional input.
- At the behest of the US Chairmanship, the Arctic Council Secretariat has asked that all Member States, Permanent Participants, and Working Groups designate a representative to form a framework review committee.
- The steering committee will work to obtain additional input and devise a draft framework, which will be submitted to the review committee in June for additional feedback.
- Following review, the draft will be submitted to the SAOs no later than September 1, 2016.

## **Appendix A: Workshop Facilitation and Steering Committee**

### **Workshop Facilitator:**

- **Sarah Palmer**, Office of Collaborative Action and Dispute Resolution, U.S. Department of the Interior

### **Workshop Steering Committee:**

- **Sarah Abdelrahim** and **Joel Clement**, U.S. Department of the Interior, United States of America
- **Nikolaj Bock**, European Environment Agency and **Julian Wilson**, DG Joint Research Centre, European Commission
- **Rita Cerutti**, Environment Canada and **Robert Kadas**, Foreign Affairs Canada
- **Jim Gamble**, Aleut International Association
- **Jaana Kaipainen**, Ministry of Agriculture and Forestry, Finland
- **Johan Kuylenstierna**, Stockholm Environment Institute, Sweden

## Appendix B: List of Workshop Participants

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## Appendix C: Workshop Agenda

### Arctic Council Resilience Workshop

Monday, March 14, 2016

8:30 – 17:30

*Note: All session times are Alaska Daylight Savings Time.*

#### Meeting Location:

Board of Regents Conference Room  
Butrovich Building  
University of Alaska,  
Fairbanks, Alaska, USA

#### Meeting Objectives

- Establish what we know about resilience
- Examine resilience priorities, challenges, and successes across Member States, Permanent Participants (PPs), Observers, and Working Groups (WGs) and identify common ground
- Begin development of a cross-cutting Arctic Council Framework for action to build Arctic resilience

8:00            **Registration, Meet, and Greet**

8:30            **Welcome by Julie Gourley (U.S. SAO)**

8:35            **Introductions**

8:50            **Agenda Review and Expectations for the Day** – Sarah Palmer (Facilitator) and Joel Clement

9:00            **Resilience: Definition and Overview** – Gary Kofinas

9:15            **Preview of Key Findings From Recent Assessments**

- Arctic Resilience Assessment – Marcus Carson (15 minutes)
- Adaptation Actions for a Changing Arctic (AACCA) Part C project – Tom Armstrong (15 minutes)

- Arctic Human Development Report – Peter Schweitzer (15 minutes)

10:00 **BREAK**

10:15 **Challenges, Priorities and Successes in Arctic Resilience**

- A. Overview of resilience priorities and challenges questionnaire – Sarah Abdelrahim (30 minutes including discussion)
- B. Success stories in meeting Arctic resilience challenges (30 minutes)
  - Joshua Glasser, SDWG - One Health: a strategy for resilience in a changing Arctic
  - Sally Cox, Department of Commerce, Community, and Economic Development, State of Alaska - Addressing Coastal Erosion Impacts in Alaska through Village Planning Groups
  - Gunn-Britt Retter, Saami Council – Community resilience to invasive alien species

11:15 **Small Group Discussions**

- A. Would meeting the priorities/needs that were identified in the survey address the challenges/vulnerabilities that were identified?
- B. Are there additional management, financing and/or investment mechanisms that you have used that might meet challenges to resilience in the Arctic?
- C. Are there additional scientific and/or decision support tools that you have used that might meet challenges to resilience in the Arctic?
- D. What other human and/or ecosystem resilience successes in the Arctic are important to share?

12:15 **Lunch** (provided)

13:15 **Small Group Report Out and Discussion**

14:00 **Developing an Arctic Council Framework: Overview, Purpose and Need, Audience, and Key Themes Heard Thus Far** – Joel Clement

14:15 **The Spatial Dimension of Vulnerabilities and Resilience Priorities** – Julian Wilson

14:45 **BREAK**

15:00 **Small Group Discussions**

- A. **Capacity Building:** What specific actions (at the national, circumpolar, or global level) could support capacity development for building resilience?
- B. **Research and Innovation:** What specific actions (at the national, circumpolar, or global level) in research and/or innovations build resilience?
- C. **Implementation:** What specific actions (at the national, circumpolar, or global level) could result in improved decision-making, management, and implementation of resilience-building activities?
- D. **Stakeholder Engagement:** What other key actors would be important to involve in the development of an Arctic Council framework on Resilience and what role could they play?

16:00 **Small Group Report-Out and Discussions**

17:15 **Next Steps** – Sarah Palmer and Sarah Abdelrahim

Review and confirm action items established during the workshop.

17:25 **Closing** – Johan Kuylenstierna

18:00-20:00 **RECEPTION**

All participants are invited to take part in a reception following the workshop. The reception will take place at the following location:

Room 501, International Arctic Research Center, Akasofu Building  
University of Alaska Fairbanks Campus

## Appendix D: Highlights from the Small Morning Discussions

The small morning discussions addressed the following questions:

1. Would meeting the priorities/needs that were identified in the survey address the challenges/vulnerabilities that were identified?
2. Are there additional management, financing and/or investment mechanisms that you have used that might meet challenges to resilience in the Arctic?
3. Are there additional scientific and/or decision support tools that you have used that might meet challenges to resilience in the Arctic?
4. What other human and/or ecosystem resilience successes in the Arctic are important to share?

The responses were broad, but they stimulated fruitful discussions that continued into the afternoon session of the workshop.

1. Would meeting the priorities/needs that were identified in the survey address the challenges/vulnerabilities that were identified?
  - A few vulnerabilities, such as wildfire, were not identified.
  - It is important to consider scale when identifying vulnerabilities and priorities. Local-scale challenges may or may not effectively be addressed by larger-scale solutions.
  - It is important to consider temporal scale as vulnerabilities change and actions are taken to address vulnerabilities.
  - A multi-hazard approach should be considered, such as the one set out in the [UNISDR Sendai Framework](#).
2. Are there additional management, financing and/or investment mechanisms that you have used that might meet challenges to resilience in the Arctic?
  - There are a few general best practices to consider, including building accountability, more effective engagement processes, fostering diversity, and understanding people's drivers, values, and behaviors.
  - It is critical to recognize that returns on investments go beyond monetary value, and policy incentives can change the status quo.
  - It is important that locals have a stake in investments that capitalize on Arctic resources.
  - Existing global and regional mechanisms can be modified to the Arctic context.
3. Are there additional scientific and/or decision support tools that you have used that might meet challenges to resilience in the Arctic?
  - Education and capacity building, especially at the local level, are critical.
  - Improved data and monitoring is important, and local and community-based monitoring, in particular, can play a big role.
  - Scenario planning, maps, and decision-support tools are important to develop and deploy.

- All stakeholders should do a better job at evaluating adaptation actions, identifying best practices, and making those best practices available to the public.
- Mechanisms that bring a diversity of stakeholders together, such as climate outlook fora, the Arctic Council, and public-private partnerships, can enhance problem-solving capabilities.

4. What other human and/or ecosystem resilience successes in the Arctic are important to share?

- Participants identified a number of examples that demonstrated effective policy, management, collaboration, and technological innovation. Many of these examples illustrate broad stakeholder engagement and collaboration and multi-sectoral approaches.