Chapter 11
Fostering US-Russia Cooperation in the Arctic Through Disaster Diplomacy Efforts

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Abstract Warming Arctic temperatures raise concerns about emerging disaster risks caused by the increasing levels of resource extraction, maritime shipping, and other development in the region. This chapter illustrates the role of disaster diplomacy in reducing risks and simultaneously fostering peace in the region through cooperation between US and Russian disaster experts. The analysis consisted of an in-depth review of historic and current bilateral cooperation agreements and joint agreements with other Arctic states, and case study analysis of individual US-Russia cooperative efforts in the Bering Strait. The analysis revealed that the two states are already engaged in disaster diplomacy efforts through the Arctic Council agreements. However, bilateral disaster-related collaborations in the Arctic had been ceased after the 2014 friction between Russia and the United States over the conflict in Ukraine and consequent geopolitical tensions in the lower latitudes. The paper illustrates that the mere signing of the Arctic Council binding agreements cannot ensure effective cooperation and coordination among Russia and the United States. To be effective, the agreements should also include cooperation measures that involve all relevant participants – scientists, disaster practitioners, Indigenous and local knowledge holders, policymakers, NGOs, and industry – from both sides. This chapter also illustrates continuous US-Russia cooperation, in spite of geopolitical tensions, as an Arctic Triumph. The ability of US and Russian disaster experts to pursue opportunities to collaborate on the mutual goal of disaster risk reduction and find solutions to common challenges in the times of restrictions on bilateral contacts is triumphant.

Keywords Disaster diplomacy · Disaster risk reduction · Russia · United States · Arctic Council

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N. Sellheim et al. (eds.), *Arctic Triumph*, Springer Polar Sciences,
https://doi.org/10.1007/978-3-030-05523-3_11

11.1 Introduction

Since American independence, Russia and the United States have had a dynamic and multi-faceted diplomatic relationship. Over this period, the two states have competed for political and economic influence, but also often put their differences aside to jointly address global challenges. Even during the Cold War – the decades-long struggle for global supremacy marked by mutual distrust and propaganda, the US and Russia (then the Soviet Union) continued to cooperate. In fact, the grandest US-Russia cooperation to date, the *Apollo-Soyuz* Mission, took place during the midst of the Cold War in 1975. Bound by mutual scientific goals, such as space exploration, the two countries have continued to collaborate despite political barriers.

Scientific cooperation between Russia and the United States has been especially prominent in the Arctic. The two countries share a maritime border along the Bering Strait. They also share an interest in advancing economic development and preserving the environment on both sides of the strait. The cooperation has intensified in the last two decades, however stalled after the 2014 Ukrainian Revolution, due to assumptions of climate change opening new shipping routes and facilitating access to oil and gas resources. New opportunities, however, pose additional challenges to the region, such as oil spills, ship wrecks and other disasters. Due to climate change, the characteristics of climatological and hydrological hazards are also rapidly changing in the Arctic.

The primary goal of this chapter is to illustrate the role of disaster-related science diplomacy (hereinafter disaster diplomacy) in reducing disaster risks in the US and Russian Arctic while simultaneously fostering peace in the region through disaster-relevant expert cooperation. The chapter elaborates on the importance and challenges of disaster risk reduction in the high latitudes, introduces key concepts of disaster diplomacy, provides examples of the existing US-Russia disaster diplomacy efforts, and suggests strategies to foster these opportunities and create new ones.

The current tensions between Russia and the United States over the conflicts in Ukraine and Syria, the imposition of sanctions on Russia, and accusations of Putin's administration in the hacking of the US 2016 presidential election have led to bilateral tension worse than it has been since the Cold War. Yet, the Arctic remains a place of peace. Bound by the mutual goal to advance Arctic development, while anticipating and reducing risks, Russia and the United States continue to cooperate. This chapter illustrates continuous US-Russia cooperation, in spite of geopolitical tensions, as an Arctic Triumph. The ability of US and Russian disaster experts to pursue opportunities to collaborate on the mutual goal of disaster risk reduction and find solutions to common challenges in the times of restrictions on bilateral contacts is triumphant.

11.2 Disaster Risk Reduction in the Arctic

Disaster risk reduction is a relatively new concept in disaster-related research and management. It entails the development and application of policies and practices to lessen, or ideally eliminate, a population's vulnerability to disasters (UNISDR 2017). It incorporates disaster preparedness, mitigation, and prevention within the broad context of a community's sustainable development (see also Duda & Kelman in this volume).

A large number of academic disciplines – including but not limited to geography, ecology, economics, psychology, anthropology, and political science – have applied their concepts to various aspects of disaster risk reduction. Thus, no universally accepted definitions of the key concepts yet exist. This paper draws heavily on the vocabulary produced by the United Nations Office for Disaster Risk Reduction (UNISDR) in 2017 due to its mass acceptance among academics as well as practitioners and policymakers, but also incorporates other commonly accepted definitions. Thus, *risk* is defined in this chapter as the likelihood of a specific hazard occurring and resulting in loss, injuries, damage and destruction to vulnerable individuals or communities (Wisner et al. 2012; UNISDR 2017). *Hazard* is "a physical phenomenon, technological incident, or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation" (UNISDR 2017, no pagination). *Vulnerability* represents the characteristics of an individual or a group and circumstances that influence their capacity to anticipate, resist, and recover from the adverse impacts of hazards (Wisner et al. 2012; UNISDR 2017). Vulnerability is the result of the range of economic, political, institutional, social, and psychological factors and processes that shape communities.

The underlying idea behind disaster risk reduction is to proactively manage disaster risk to minimise and ideally prevent its adverse impacts, as opposed to reacting to the disaster crisis (UNISDR 2017). The benefits of a more proactive disaster management approach are especially evident in high latitudes, where disaster response is challenged by the region's geographical and climatological features. Brutal weather, vast distances, limited physical and communication infrastructure, and seasonal lack of daylight pose significant obstacles to emergency response in the Arctic (Kontar et al. 2018b).

Inadequate risk assessment and emergency training further complicate disaster response in many parts of the North (Kontar et al. 2018b). Disaster practitioners' reports from Alaska (USA), for instance, have repeatedly indicated many complications and delays during disaster relief operations. In most cases, federal assistance is crucial, but rarely timely. Major emergency responses (i.e., national disaster responses) are launched from the southern hubs in lower latitudes, which are relatively long distances away from the impacted communities. Responders from the south are often unfamiliar with the geographic area, as well as the unique logistical

and cultural features of the North. Moreover, processes used to trigger federal assistance vary between jurisdictions, creating additional complications and delays in disaster relief (McCarthy 2010).

Furthermore, future climate projection reports suggest there will be rapid changes in the frequency and intensity of some climatological and hydrological disasters (IPCC 2014; NAS 2016). Considering everything mentioned above, not investing in risk reduction in the Arctic and continuing to rely predominantly on disaster response and crisis management will ultimately put many northern peoples and communities in the United States and Russia at risk.

As stated above, disaster risk results from the complex interactions between a series of physical processes and human activities that generate conditions of hazard and vulnerability. Thus, reducing disaster risk requires accurate identification and assessment of hazard and vulnerability, which is possible only through interdisciplinary research. Interagency collaboration also needs to be established and fostered to ensure the allocation of the necessary resources and appointment of the appropriate institutions to develop, implement, and analyse disaster risk reduction policies. Drivers and impacts of disasters often cross geopolitical borders, requiring international cooperation in prevention, monitoring, and response (Kontar et al. 2018a). Disaster risk reduction efforts in the US and Russian Arctic benefit critically from drawing on experiences and identifying best practices among bilateral experts.

Through bilateral expert cooperation, disaster diplomacy provides opportunities to improve disaster risk reduction in the region, while simultaneously fostering peace between Russia and the United States.

11.3 Disaster Diplomacy: Key Concepts, Opportunities, and Challenges

Disaster diplomacy (as used here) entails collaborations among disaster experts from various relevant disciplines and practices to address mutual challenges in disaster risk reduction and crisis management, while simultaneously building and fostering cooperation and peace between states where relations could otherwise be strained (i.e., Russia and the United States) (Kelman 2012; Kontar et al. 2018a).

Disaster diplomacy takes many forms as it can originate on inter-national, intra-national, and sub-national levels. It can also arise during any of disaster-related activities including prevention, preparedness, disaster risk reduction, response, recovery, and reconstruction (Kontar et al. 2018a). Examples of disaster diplomacy in academic literature, practitioners' reports, and media are plentiful, with the prominent case studies featured on www.disasterdiplomacy.org.

The case studies reveal a series of potential benefits disaster diplomacy could bring to American and Russian disaster experts and diplomats alike. For example, bilateral disaster-related expert collaborations can help to reduce research costs, and provide access to valuable additional expertise, thus helping to avoid duplication of

efforts. Peer-to-peer efforts also have a potential to result in more thorough and coherent risk assessments that would lead to better-informed decision-making relevant to the sustainable development in the region. Other objectives of disaster diplomacy include generating new knowledge through both short-term and long-term collaborative research, gaining access to knowledge, materials, and techniques not otherwise available, and making progress in fields in which the other state has superior standing. Disaster diplomacy endeavours are also beneficial to diplomacy, as they provide a positive rationale for maintaining cooperation even in the face of disagreements on other issues. The increased peer-to-peer dialogue could also help foster greater contacts and improve understanding and trust between US and Russian populations.

Despite its potential benefits, disaster diplomacy faces significant barriers. Case studies reveal politics as key barrier to effective disaster diplomacy (Kelman 2012). Leadership change, long-existing prejudices and distrust, and belief that historical conflicts trump advances in disaster risk reduction are few of the examples of political incentives to disregard and scuttle disaster diplomacy opportunities. A nation's foreign policies, such as travel or visa restrictions, the ability to freely meet in third-party countries, can significantly hinder disaster diplomacy efforts.

Barriers to effective disaster diplomacy also arise from the lack of clarity of the partners' goals and motivations (Kontar et al. 2018a). In the midst of cooperation, scientists in less powerful partner-countries can find themselves placed in the role of field assistants or technicians rather than peers and, in extreme cases, do not even share in authorship of professional publications resulting from those scientific endeavours (Mäki 2013). Such lack of reciprocity frequently originates due to an economic imbalance when scientists in the richer state may be enthusiastic about examining a problem in their counterpart state, whose scientists have no means of their own to reciprocate (Kontar et al. 2018a). In this scenario, the scientific and diplomatic value of the peer-to-peer collaboration is diminished and can even lead to tension.

The case studies also reveal that for disaster diplomacy efforts to be effective, they should be incorporated into the nation's foreign policy agenda (Kontar et al. 2018a). Individual peer-to-peer collaborative efforts might advance scientific discovery and practical knowledge relevant to risk reduction and crisis management and foster rapport between individuals and small groups from the opposing states, but have insignificant impacts on détente.

11.4 US-Russia Disaster Diplomacy Efforts in the Arctic

Due to climate change, Russia and the United States face rapid changes in the frequency and severity of hazards in the Arctic (IPCC 2014; NAS 2016). Decreasing Arctic sea ice is assumed to provide both states with more opportunities to enable the exploitation of hydrocarbons and minerals (Arctic Council 2009). The United States Geological Survey (USGS) estimates that the Arctic holds as much as 13% of

the world's undiscovered oil, and 30% of the word's undiscovered natural gas (Gautier et al. 2009). Most of these reserves are located in increasingly accessible offshore waters. Increased resource extraction poses an amplified risk of oil spills and other environmental contamination. Currently, neither Russia nor US is adequately equipped to deal with a large oil spill or another significant ecological disaster in the Arctic region (Sharp 2011).

The depletion of Arctic sea ice also assumed to facilitate increases in cruise-ship tourism and greater access to maritime shipping. As the ice-bound Arctic waters open up more and remain ice-free for longer periods each year, the Northwest Passage and Northern Sea Route are seen to become viable alternatives to the existing shipping routes (Sharp 2011). Although the increase in maritime tourism and shipping provides great financial opportunities, they might also raise a concern about the ability of both states to coordinate mass search-and-rescue operations in timely and efficient manner if a large ship had an emergency.

As the potential for technological and environmental risks in the Arctic has begun to increase, risk reduction is a strong incentive for Russia and the United States to cooperate. Opportunities for joint disaster-related research cooperation are especially plentiful. As mentioned above, disasters result from the complex interactions between a series of physical processes that generate conditions of hazard and human activities that generate conditions of vulnerability. Transdisciplinary research, which combines scientific analysis with non-academic expertise from disaster practitioners as well as local and Indigenous knowledge holders, is vital in accurately assessing the physical, social, economic, and political drivers of disasters. Through the bilateral cooperation, US and Russian (non)academic experts in the fields ranging from geophysics to economics, could advance their knowledge of the existing and potential disaster risk drivers and impacts – and how to address those risks.

Foreseeing the numerous benefits of disaster-related collaboration, the two states have initiated a series of bilateral collaborations, that have been stalled in the last four years, as well as joined pan-Arctic partnerships aimed at reducing disaster risks and improving crisis management. Via their active involvement with the Arctic Council – an intergovernmental forum for promoting cooperation, coordination, and interaction among the eight Arctic countries, Russia and the United States are cooperating on enhancing joint research efforts and improving search-and-rescue and oil spill response coordination (Arctic Council n.d.; Arctic Council 2011; Arctic Council 2013).

Understanding the myriad of benefits of the joint research efforts, the Agreement on Enhancing International Arctic Scientific Cooperation was concluded under the auspices of the Arctic Council, and signed by the foreign ministers of all Arctic states including Russian Foreign Minister Sergei Lavrov and the then-US Secretary of State Rex Tillerson (Arctic Council 2017). The Agreement aims to help facilitate inclusive disaster-related research through the following objectives: (1) facilitation of entry and exit of experts and their equipment, (2) facilitation of access to research areas, infrastructure, and facilities, (3) encouragement of the Indigenous and traditional knowledge in disaster risk assessment, and (4) advancement of education, career development, and training opportunities for students and early-career

scientists (Arctic Council 2017; see also Shibata forthcoming). Although encouraging scientific cooperation in the Arctic between Russia, the United States and other Western states, the Agreement does not identify specific avenues necessary to facilitate such efforts. As a result, US-Russia joint scientific efforts continue to face political barriers, such as travel and funding restrictions (e.g., Kintisch 2015; Rahbek-Clemmensen 2017).

In 2011, also under the auspices of the Arctic Council, the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue (SAR Agreement) in the Arctic was adopted (Arctic Council 2011). Russia and the United States signed the agreement along with the other Arctic states, compelling the two countries to pursue increased cooperation in establishing search-and-rescue interoperability in Arctic waters. The cooperation has been taking place predominantly in the form of joint tabletop and live full-scale exercises to build contacts between both states' maritime forces (e.g., the US and Russian coastguard) and reduce risk in future emergency situations (Sydnes et al. 2017). Tabletop search-and-rescue exercises (e.g., SAREX Greenland Sea 2012 and 2013, Arctic Zephyr 2015 and Arctic Chinook 2016) are perfect examples of disaster diplomacy, as they help build trust and reciprocal relationships between US and Russian disaster experts, identify challenges in the existing national, bi- and multi-lateral risk reduction strategies, and advance disaster preparedness and response.

For example, the SAREX Greenland Sea 2012 – the first full-scale live search-and-rescue exercise conducted under the Arctic Council SAR Agreement — revealed that the Arctic SAR regime as an emergency response system needed to improve its procedures for cooperation and communication and establish a common understanding on how to apply them (Arctic Council 2016). The exercise also revealed other challenges, such as the lack of adequate planning and trained personnel for evacuation operations, coordination problems among emergency medical units, and malfunctions of crisis communication at various levels. The joint exercise report provided a series of detailed recommendations for the different phases of the search-and-rescue operations (Arctic Council 2016).

The SAREX Greenland Sea 2013 was conducted only a year later to address the challenges identified by its predecessor. The exercise resulted in a series of joint recommendations on search-and-rescue operations, including enhancement of communication, use of common log system, and strengthening the manning of the Joint Arctic Command (SAREX Greenland Sea Report 2013).

The Arctic Zephyr 2015 was a tabletop exercise conducted to test command and control, and coordination among the Arctic nations' relevant stakeholders at various levels during a mass rescue operation (Coast Gard News 2015). The exercise revealed challenges with communication channels, targeted messages, and media, as well as situational awareness, resources, logistical support, and coordination and planning (Sydnes et al. 2017).

Although the exercises mentioned above have been conducted with participants from all Arctic states, rather than solely among US and Russian counterparts, currently they provide the only opportunity to foster US-Russian cooperation in the Arctic waters. Bilateral search-and-rescue exercises and other disaster-related

cooperation have been stalled in the last four years as a result of US sanctions and restrictions on bilateral contacts after the Russian involvement in the 2014 Ukrainian Revolution.

Another disaster diplomacy example in the Arctic is states' cooperation on oil spill prevention and response. In 2013, Russia and the United States signed the Arctic Council's Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (OSR Agreement), which binds the two states to "promote cooperation and coordination by endeavoring to carry out joint exercises and training, including alerting or call-out exercises, table-top exercises, equipment deployment exercises, and other relevant activities" (Arctic Council 2013). The agreement encourages also US and Russian disaster response groups to build trust by exchanging best practices and technologies in oil spill prevention and response.

Unlike the SAR Agreement, the OSR Agreement was built on the existing bilateral and multilateral agreements between Arctic states (Arctic Council 2013). For example, the Agreement between the Government of the Union of Soviet Socialist Republics (USSR) and the Government of the United States of America concerning Cooperation in Combating Pollution in the Bering and Chukchi Seas in Emergency Situations was signed at the very end of the Cold War in May 1989, eight years before the establishment of the Arctic Council. According to the Agreement, both states agree to provide assistance to each other in combatting pollution incidents that may affect the areas of responsibility of the parties, regardless of where such incidents may occur (USCG n.d.).

The Joint Contingency Plan against Pollution in the Bering and Chukchi Seas (1997) was originally created with the agreement and was updated in 1997 to change USSR to the Russian Federation and include the proper competent national authorities after the fall of the Soviet Union. The contingency plan is based on three elements – planning, coordination of joint response, and communication — and calls for tabletop exercises to be conducted every two years and meetings of the joint response team to be held at least every 18 months (USCG n.d.). No bilateral exercises have been conducted since 2014 due to the restrictions of bilateral contacts (Sydnes et al. 2017).

Yet, US-Russia cooperation on pollution preparedness and response in the Bering Strait is becoming more crucial as it turns into an area of amplified risk. The database on *Locations of sub-Arctic and Arctic shipping accidents and incident causes, 1995–2004* by the Arctic Council demonstrates that almost a third of the Arctic marine accidents, such as fuel spills, occur in the Bering Sea (Arctic Council 2009). These incidents are more likely to result in fatalities and severe environmental damage. As warming temperatures continue to accelerate sea ice decrease and levels of human activities in the region, these risks are also more likely to increase and spread north into the Bering Strait (McKenzie et al. 2016).

The Bering Strait is a critical marine habitat, which supports Indigenous peoples with subsistence lifestyles along the US and Russian northern shores. This ecosystem is forced to co-exist with increasing maritime activity in a region that is largely devoid of the infrastructure needed to support the rapidly increasing development (McKenzie et al. 2016). A large oil spill would be devastating to both Russia and the

United States, as it could destroy this fragile habitat thus impacting numerous communities on the both sides of the strait. Moreover, oil spill response and clean-up operations are immensely expensive, as proven by the 1989 *Exxon Valdez* disaster, which amounted to $6.8 billion (Cohen, 2010). An oil spill response would also be further complicated in an environment that is either completely or partially covered by ice. Thus, it is critical for the wellbeing of the populations on the both sides of the strait that US-Russia cooperation on oil pollution preparedness and response and other environmental disaster in the Bering Strait is reinstated despite the sanctions.

The examples above demonstrate that existing international agreements, such as the Arctic Council binding agreements, are necessary but not sufficient to foster US-Russia cooperation in the Arctic. Additional bilateral agreements are necessary to foster resilience and peace in the region. To be effective, the agreements must address specific disaster cooperation efforts, list all key stakeholder groups from each state along with their responsibilities, and relevant operational measures. A key goal of the bilateral agreements is to foster continuous communication between disaster experts in the United States and Russia along with data and information sharing as these elements are critical to research and operational cost effectiveness.

Overall, there are numerous opportunities for disaster diplomacy between the United States and Russia in the Arctic. Additional opportunities arise from joint education ventures, facilitated through individual universities and through the University of the Arctic – an international cooperative network based in the Circumpolar Arctic region, consisting of over 170 higher education and research institutions with an interest in promoting education and research in the Arctic region (UArctic n.d.). The Fulbright Arctic Initiative also provides opportunities for bilateral and interdisciplinary disaster-related research, as the program encourages unique science, policy and diplomacy collaboration (Fulbright n.d.).

Despite the restrictions on bilateral contacts, multiple entry points for US and Russian disaster researchers and practitioners still exist to engage in disaster diplomacy through established international and Pan-Arctic consortiums and collaborations. To advance disaster diplomacy in the Arctic, it is vital for US and Russian scientists to make active efforts to develop policy-relevant research programs in their Arctic studies, with research questions informed by pressing disaster-related questions, with interdisciplinary teams. Scientists should also not develop the research program in isolation but consult with a diversity of Arctic stakeholders beyond academia, potentially including Indigenous leaders and knowledge holders, government leaders, NGOs, industry, and international relations interests.

11.5 Conclusion and Recommendations

Disaster diplomacy provides a myriad of opportunities for the United States and Russia to advance their disaster-related research and management, and foster peace in the Arctic.

With the possibility of ice-free summers in the near future, Russia and the United States face new development and financial opportunities associated with increased access to resources, and maritime shipping and tourism. These opportunities, however, also pose a great potential for significant disasters. Proactive strategies to reduce or ideally eliminate risks are vital in facilitating sustainable development in the US and Russian Arctic.

The two states are already engaged in disaster diplomacy efforts through the Arctic Council agreements. Although these efforts are valuable, additional bilateral disaster-related cooperation is necessary to ensure that both Russia and the United States are well prepared to face emerging risks. The paper illustrates that the mere signing of the Arctic Council binding agreements cannot ensure effective cooperation and coordination among Russia and the United States, especially in the times of intense bilateral tensions. These agreements must be strengthened by institutionalising processes through the Arctic Council working groups. To be effective, the agreements should also include cooperation measures that involve all relevant participants, including scientists, disaster practitioners, Indigenous and local knowledge holders, policymakers, NGOs, and industry.

The key recommendation is to decouple the Arctic from other aspects of the US and Russian bilateral relationship. Bilateral tensions in the lower latitudes have posed barriers, such as sanctions and travel restrictions, to effective risk reduction efforts in the Arctic region. Neither state has the ability to affectively respond to a major disaster in the Bering Strait Region. At the same time, the possibility of amplified disaster risk in the region is alarming.

Another recommendation is to increase bilateral collaboration on non-maritime disasters. The two states share numerous risk of inland disasters, ranging from springtime floods and avalanches to wildfires and earthquakes. Both states would benefit from disaster diplomacy efforts in the Arctic by expanding their scientific expertise on diverse disasters, reducing disaster risks, and demonstrating international leadership through diplomacy.

The United States and Russia have a shared interest in safe economic development, environmental protection, and increased security in the Arctic Region. The most effective way to accomplish these goals is through disaster diplomacy – a cooperative, bilateral approach, which leverages the strengths and resources of both nations.

Acknowledgements This is a contribution from the Science Diplomacy Center with support from the National Science Foundation (NSF/PLR 1660449).

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