University of Calgary Press

www.uofcpress.com

THE FAST-CHANGING ARCTIC: RETHINKING ARCTIC SECURITY FOR A WARMER WORLD
Edited by Barry Scott Zellen

ISBN 978-1-55238-647-7

Making a difference.
Making you think.

3. "Politicization" of the Environment: Environmental Politics and Security in the Circumpolar North

Lassi Kalevi Heininen

The environmental "awakening" started in the 1960s in many parts of the globe as a moral protest against belief in progress based on economic growth and modernization. One of the outcomes was that the term "the environment" was born; another that the environment became a target of political disagreements and conflicts, and thus "politicized."

This "politicization" is very much a process with cumulative effects which needs actors who are conscious and concerned and will act by themselves and convince others. Further, on the one hand, environmental politics became a field of activity for public authorities through, for example, environmental laws as well as a new field of foreign policy. On the other hand, the very meaning of security was extended beyond traditional concerns with "military" threats and national security to focus on environmental and human security problems, as indicated by the concept of "environmental security."

The Arctic is one of the purest regions of the world, rich in its biodiversity. But the region is also a sink of long-range air and water pollution, and thus both a victim and also a source of environmental degradation. In the early twenty-first century, climate change with its impacts is the most relevant and challenging factor for northern environmental politics, as well as a factor for

changing northern security. Consequently, in the circumpolar North, there has been public concern on local, national, regional, international, and global levels about the state of the environment and increased demands for enhanced environmental protection. This environmental "awakening" started among northern indigenous peoples and environmental movements in response to concerns about long-range pollution and radioactivity.

This caused, indeed pushed, the Arctic states to become aware of, and concerned about, the degradation of the Arctic environment, particularly as a result of the Cold War's nuclear legacy. This soon led to joint international activity for environmental protection, particularly nuclear safety. Consequently, environmental politics came onto the political agenda of the Arctic states and became a part of their foreign policy. Current institutionalized northern cooperation, either inter-governmental or between non-state actors, is very much based upon the environment and on environmental protection. During the last decade in the High North, there has been a true "awakening" in terms of the recognition of challenge of climate change, particularly the issue of global warming, and this awakening is reminiscent of the great "environmental awakening" of the 1960s and 1970s.

This chapter is about the "politicization" of the environment, and it examines environmental politics and environmental security in the Arctic. First, it discusses the environmental "awakening," the "politicization" of the environment and environmental politics, and environmental security in general. Second, it describes and discusses environmental problems and politics, and environmental security in the Arctic. Third, it briefly describes the environmental "awakening" in the Arctic and how environmental protection as well as environmental security came onto the political agenda of the Arctic states and discusses interrelations between the environment and security in the Arctic context. Finally, this chapter ends with some brief conclusions.

From "Politicization" of the Environment to Environmental Politics

There have always been, and will be, changes in a nature. Change has happened and will happen in any case, and, moreover, change is the precondition for the very function of a nature. For example, Darwin did not only emphasize hard laws of competition in nature, but also said that there is broad

cooperation based upon mutual interests, i.e., symbiosis either without harm to others or with benefit to both. Though a human being cannot destroy nature, he is able to change it, such as, for example, through mass-scale utilization, industrialization, and pollution, and with the assistance of technology, and thus destroy the very preconditions of human life.

Following from this, how to measure nature – is it subject or object? Is a man part of a nature, or apart from it? According to the Sprouts, "the earth and its inhabitants are tightly depending on each other … they are together one global comprehensive, ecological entity, the ecosystem" – this is called interdependence. Further, Passmore has said that physically a human being is able to live without a nature, if only it will not be totally destroyed. Nature has, however, very important immaterial values, such as "beauty."[1] What is relevant here is that a "nature" is different; what is the "environment?" The environment, as we now understand it, was born about forty to forty-five years ago – the process that we call the "environmental awakening." Since that time, it is possible to define the term "the environment" to mean the material basis for human existence, which is in a danger of being destroyed as a result of human activities.[2]

Correspondingly, the environmental "awakening" started in the 1960s, particularly at the turn of the 1960s/70s, in the West, but soon it became a more global movement. It was a moral protest against new kind of modernized socio-economic development, and the belief in progress based on economic growth and modernization.[3] A recent example of the same would be 'climatic awakening,' which finally became a global phenomenon at the early twenty-first century much due to (physical) impacts and possible risks of rapid climate change, particularly global warming.[4] It is likely to have an equal, if not greater, influence on societal norms and legislation, industrial economies, and human security.[5]

Environmental 'awakening' did not come alone, but together with thinking that there is a comprehensive, almost total, crisis between a society and the environment. And further, that there are limits for the humankind in the globe, and the globe is a closed system as one of the alternative discourses emphasized, as "The Limits of Growth" by the Club of Rome indicated in 1973. Ecological ideas came from the educated Western classes, thinkers, and intelligentsia, which emphasized ecological ethics, such as animal rights. For example, as Anna Bramwell put it: "Ecologism is a political box. It is a new box, into which many distinguished and important thinkers fit."[6] (Ecology,

which actually means "the study of households," has a longer history; it is widely used in the normative sense, and "is now a political category" – and political categories have "a dual meaning" to be described as parties or policies, and as an ideology.[7]) Correspondingly, 'Environmental Science' became a field of research, and since then it has been "a science on everything!", which is, of course, impossible even as a thought.[8]

Actually, the environmental "awakening" of the 1960s is a paradox because almost all the information about environmental degradation was known before the Second World War, except radioactivity due to nuclear energy and tests, and distribution of man-made chemical compounds, which were made known and public by several pamphlets of the 1960s, such as *Silent Spring* by Rachel Carson in 1962. There are several examples of economic and political lessons learned of the dangers of environmental degradation by industry, such as a copper company at Copperhill which destroyed the landscape in Tennessee in the 1930s (the factory was not closed until 1988).[9] On the other hand, environmental "awakening" is understandable due to several environmental accidents in the 1960s and 1970s, such as the accident of the tanker *Torey Canyon* in 1967; "broken arrow," the crash of a nuclear-armed USAF SAC B-52 in Thule in 1968; dioxin leak in Seveso in 1976; nuclear accidents at Three Mile Island in 1979; methyl isocyanate release in Bhopal in 1984; and finally, the accident of the Chernobyl nuclear power plant in 1986. These accidents indicate, even emphasize, one of the well-known environmental discourses, the theory of a risk society by Ulrich Beck, saying that our modern and heavily industrialized societies are risk societies due to several environmental accidents and catastrophes with severe environmental and socio-economic impacts and damages.[10]

One of the outcomes was that the very meaning of security was extended (in discourses) beyond traditional concerns with "military" threats and national security to focus on environmental and human problems. Consequently, different discourses and concepts of security were started, and they had different premises and paradigms. This was also the case with northern security.

"Politicization" of the Environment

As a result of the birth of "the environment" and environmental "awakening," the environment and environmental issues became politicized. The main idea behind "politicization" of the environment is that the very different

factors that include the human environment and determine its quality have become targets of political disagreements and conflicts. "Politicization" is a process: It can be started by a minor event, which is enough to catalyze people to do something that they have not done earlier. Correspondingly, this will cause others elsewhere to react in the same way, etc. Thus, it is like a chain reaction with cumulative effects, although it is not so common to agree on everything.[11]

Here "politics" means political activity, such as discussion, debate, implementation of political decisions, and political systems including environmental issues and conflicts, decisions concerning the environment, laws on the environment, and governance. Furthermore, "politics" is interpreted as relations and activities related to power, government, or authority among people and groups of people with distinct interests. Thus it means making decisions and implementing them, handling problems, and promoting and implementing interests using different forms of power. It also means making things political and making politics. Consequently, there is the precondition that "politicization" needs actors, i.e., individuals or communities who are conscious and concerned, and who will convince others to act. Behind is a constructivist research approach that emphasizes actors and their roles, and if there are several actors, there are also different and contradictory interests and conflicts of interest.[12]

Environmental conflicts or problems very much represent the "politicization" of the environment and are an important part of environmental politics. They are usually asymmetric, meaning that they are conflicts between different kinds of actors, mostly non-state actors. Environmental conflicts are often multifunctional and happen at many levels, and further, one of the main dimensions from the very beginning has dealt with the future of modern industrialized society.[13] Furthermore, environmental conflicts can be analyzed as discursive conflicts, where discourses consist of discussion plus social practices.

A relevant factor in international environmental politics, when trying to evaluate the state of, and relative importance of, environmental catastrophes and conflicts affecting people and societies, is a change in the perception of ecological problems as well as in threat or risk pictures in the public consciousness. This is especially so when dealing with global problems – such as climate change – and is a growing concern with regard to environmental protection from these problems.. Consequently, the importance of a single

environmental problem or conflict is not possible to define based only on natural sciences, as it is always based on cultural and political points of view, which emphasize a problem-orientation.[14] Maybe the most important question for environmental politics is "problem definition," i.e., to define a problem which is *per se* a research problem.[15] For example, the basis of my research on interrelations between the military and the environment was to start to ask what kind of environmental degradation the military causes, and my research has continued to ask what kind of change in problem definition on security discourse(s), premise(s), and paradigm(s) might be needed, or possible, as a result.[16]

Another relevant point of view is to be cognizant of the interplay between politics and science. A good example, and maybe the most hegemonic environmental discourse, is the political strategy of "sustainable development." Although it is much discussed both theoretically and in the context of the Arctic region, it has not (yet) materialized, and we do not even agree what it really means, but we nonetheless discuss it.[17] Even more, the discourse is still very much based on the original definition by the report of the United Nations' World Commission on Environment and Development: "Development that meets present needs without compromising the ability of future generations to meet their own needs."[18]

This definition represents the thinking of the turn of the 1980s/90s that environmental problems can, and should, be "in control." This has raised criticism saying that the definition is based too much on faith in economic growth and technology and accepts industrialization as a global solution. There are also examples of other alternative discourses of environmental politics like the above-mentioned theory of a risk society; a discourse to emphasize the cultural point of view, i.e., that ecological modernization means competing interpretations, such as institutional learning, technological progress, and cultural politics as socially relevant;[19] and a discourse that environmental governance includes the danger that ecology has, or will, become a new discipline for "disciplining."[20]

From 'Politicization' to Environmental Politics and Environmental Security

All this has meant some sort of "environmental revolution" from 1973 to 1986 can be described as a process with several main steps, such as consciousness

of the environment among citizens, establishment of new movements and organization, international agreements on the environment, and environmental governance and environmental laws. Consciousness of the environment, even "environmentalism," started to rise among the intelligentsia and other citizens. Consequently, new citizens' movements with one mission and spontaneous protests were born.

Also international organizations with strong and partly scientific expertise, such as the International Union for Conservation of Nature (IUCN), Greenpeace International, and the World Wildlife Fund for Nature, were established. Furthermore, official environmental agencies and governmental authorities on the environment, such as ministries of the environment, were established in the industrialized countries. Environmental protection also became a new field of legislation for environmental laws and more comprehensive collections of laws dealing with the environment.

As a part of this, traditional security was challenged by new discourses and premises of security-building linkages between peace, development, and the environment, such as common or comprehensive security, and environmental or ecological security, based on a few reports by the United Nations[21] and books by social scientists.[22] Consequently, the notion of security was exposed to new content, and the definition was widened toward a more human-oriented approach, which emphasized environmental and/or human aspects of security as alternative points of view to a narrow approach of military security. When defining environmental security, relevant hazardous environments and resource-based environmental conflicts are important,[23] and further, this new notion of security is based on salient interrelations between security and the environment.[24]

All this meant that the public sector took responsibility for the state of the environment, particularly environmental protection, and, consequently, "environmental politics" became a new area of socio-political activity and public politics of the state and society. Its goal and mission was "to take care of the relationship both a society and a human toward nature and their own living environment with a purpose to protect the biodiversity of a nature, to restore natural resources and to decrease and erase environmental damages and risks."[25] Further, environmental politics can be defined in a functional way, i.e., much influenced by activities of the public authority, or in an institutional way, i.e., activities implemented by the political and administrative regime, or through its goals, i.e., what are the goals and how they have been gained.

For example, although the 1st Community Law on the Environment of the European Communities is from 1959, the first Community Environmental Action Programme was adopted in 1973. Further, in 1987 environmental protection was recognized as a part of the legal competence of the EC through the signing of the Single European Act, and based on the 5th Environmental Action Program and its article 174 the major objectives of the European Union are defined, such as preserving, protecting, and improving the quality of the environment; the maintenance of continued access to natural resources; and increased environmental efficiency on energy.[26] According to John McCormick, environmental policy is one of the most rapidly expanding areas of the EU policy activity, and, consequently, the EU has a series of policies relating to specific environmental issues and key areas, such as water and air quality, fisheries conservation, radiation, chemicals, energy conservation, biodiversity, forestry, and organic agriculture.[27] Recently, the EU has subsequently begun to play a central role in international negotiations on climate change and has recognized the keen inter-relationship between climate change and (international) security.[28]

Correspondingly, "environmental politics" became a new field of foreign policy of the state, and international environmental politics a new field of international politics of the entire unified state system. This was implemented on the one hand by international conferences and other meetings on the environment: for example, the United Nations organized the Stockholm Conference on the Human Environment (UNCHE) in 1972, the first time representatives of a substantial number of national governments – 113 in total – met to discuss the environment, and consequently "the environment became a truly international issue."[29] As a result, the United Nations Environmental Program (UNEP) was established the next year, and later in the 1980s the Intergovernmental Panel on Climate Change (IPCC), which has played an important role in the High North.[30] Twenty years later, there was another UN conference on the environment, the Rio Summit in 1992, and then the 2009 climate summit in Copenhagen, the United Nations Framework Convention on Climate Change (UNFCCC), which was one of the most recent ones. On the other hand, this was implemented by international agreements and treaties dealing with the environment, particularly trans-boundary pollution. Among the first negotiated and signed agreements on the environment are the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft in 1972, the London Dumping Convention of 1972 to

restrict dumping high-level radioactive material into the sea (this was mostly caused by the military), the 1973 MARPOL Convention for the prevention of marine pollution by dumping from ships, and the Convention on Long-Range Trans-boundary Air Pollution in 1979. If all these are universal and global, they must deal with the northernmost regions of the globe. The Agreement on the Conservation of Polar Bears in 1973 is particularly relevant in the High North as well as the Treaty for the Preservation and Protection of Fur Seals, which was already signed back in 1911. One of the best-known recent international agreements is the Kyoto Protocol on Climate Change as a part of the UNFCCC, which came into force, although the United States, China, and India did not ratify it.[31]

All in all, the environment became a common factor to describe problems of different relationships between humans and nature, such as air pollution influences on allergies in cities; oil leakages from oil tankers that kill birds; and forest clearcutting, which destroys reindeer herding. Also, the "politicization" of the environment happened, and that meant that there are many different environmental "voices" and that no one owns the environment. Further, the environmental "awakening" and the "politicization" of the environment turned into an "environmental revolution," and as a result there emerged international environmental politics and environmental security. Finally, environmental politics/policy has become a new public sector of society as well as a field of politics in addition to a new field of foreign policy of the state, and environmental, or comprehensive, security is now seriously taken into consideration.

Environmental Problems and Politics, and Environmental Security in the Arctic

There are several main reasons for environmental concerns and conflicts in the Arctic: one of them has to do with fisheries, meaning either competition for fish stocks or conflicts dealing with fisheries in northern waters, particularly in the Barents Sea, such as the "Cod War" between Iceland and the UK in the 1970s. These conflicts might probably be decreasing, simply because there are fewer fish, which could, however, be a reason for the opposite as well. Another typical "new" environmental problem with aspects of conflict is the nuclear problem, due to radioactive pollution and nuclear accidents, mostly

in the seas – which I will discuss below. Correspondingly, a typical asymmetric environmental conflict, or a potential reason for conflict, is disagreement on how to use land. For example, the so-called Inari case in the northernmost part of Finland was this kind of multifunctional environmental conflict between forestry and reindeer herding.[32] It was also a classic conflict of interest between the *interests* of the actors, not necessarily between the actors themselves, which illustrates the complexity of asymmetric environmental conflicts in the post-Cold War North.[33]

The issue was, and is, not only local or regional but very much international, even global: long-range air and water pollution from southern latitudes to the northernmost latitudes, such as persistent organic pollutants from agriculture and air pollution from industry in Europe and North America, radioactivity from nuclear power plants and Arctic haze from big cities became known by the 1980s. A well-known example of these kinds of environmental problems is illustrated DDT, which was found in polar bears in the northernmost part of Greenland in the 1970s. Another is PCBs, as persistent organic pollutants were transported as long-range contaminants from the agricultural and industrialized areas in mid-latitudes of Europe and North America to the High Arctic by sea currents and air masses, and this was much hidden even to scientists until the 1970s.[34]

Perhaps the most challenging global environmental problem that people and societies face is rapid climate change. Its obvious and already existing physical impacts in the Arctic are all the more reason for increasing environmental concern. Already in 1997, the IPCC emphasized that in the Arctic, climate change is already occurring rapidly and clearly with several impacts. Further, according to the IPCC's Arctic Climate Impact Assessment Report, the Arctic has become an "indicator of climate change."[35] These kinds of phenomena are expected to continue, even to accelerate faster than earlier expected since the multi-year sea ice of the Arctic Ocean has become smaller – and, for example, the Northwest Passage was, for the first time, without sea ice in 2007.[36] Climate change always comes with physical impacts which are multifunctional and complex, such as evident rapid and global warming; thinning and melting of sea ice and glaciers; and thawing of permafrost. In addition, there is the "uncertainty" associated with climate change. For example, there is the collapse of man-made infrastructure and cities built on permafrost, with many societal consequences, and the rising sea levels in the world's oceans.[37]

Consequently, climate change creates major challenges and poses major risks to northern communities, forcing them either to adapt or for their residents to become environmental refugees.[38] For example, there is concern with food security since there is no longer "the continued and predictable availability and access to food, derived from northern environments through Indigenous cultural practices," resulting in a less traditional diet.[39] Furthermore, the scarcity of food, resulting in hunger and thirst among peoples of the North, might create new competition strategic resources, such as fresh water. These kinds of potential environmental conflicts are possible and might be accelerated by the fact that climate change opens new and improved possibilities for the utilization of natural resources and their transportation by the opening of new global sea routes for big oil tankers and container ships, and other activities – even smuggling of drugs and human trafficking.[40] All this indicates that climate change has a relevant security dimension and becomes a new factor for environmental and human security in addition to state sovereignty.[41]

Correspondingly, there are also several ways to list environmental problems and threats and causes of environmental conflicts in the High North. A basic and logical way is to categorize them functionally, according to the source of pollution, such as persistent organic pollutants, heavy metals, radioactivity, acidification and Arctic haze, petroleum hydrocarbons, and climate change.[42] Another basic and simple way is to divide them into global and regional environmental threats.[43] On the one hand, there are regional sources of pollution due to mass-scale utilization of natural resources, such as fishing, forestry, and oil and natural gas drilling; industrialization, such as smelters; and military activity, such as nuclear accidents. On the other hand, pollution also comes from outside the region, i.e., long-range and trans-boundary air and water pollution, and climate change is a global environmental challenge.[44]

Nuclear problems posed a special kind of international environmental and security problem. Radioactivity in the Arctic, particularly in the Barents Sea region, has also crossed national borders and either came from dumped nuclear waste and nuclear tests in the region or from Sellafield, the leaking UK nuclear power station on the coast of the Irish Sea. Consequently, nuclear safety – meaning problems and risks dealing with nuclear waste, spent fuel, and nuclear weapons and plants – became a concrete example of environmental "awakening" and environmental security, and consequently, came onto the political agenda of the Arctic states in the early 1990s. It also

became a special issue for, even a symbol of, international cooperation on the environment between the Arctic states and other international actors in the region. Furthermore, it caused a change in problem definition in the northern security discourse.[45] Although the nuclear problem is no more acute, and indeed partly under control, it is still a relevant issue because it is so complex and multifunctional, and there is slowness in its progress.[46]

Another main reason for environmental concern is to find out what kind of plans and decisions are made, and by whom, or even before that, who is active in debate. Following from this, another way to list environmental problems and threats in the North is to have solution-orientation, and divide the reasons into three categories: "Ignorance," or insufficient scientific knowledge regarding physical and biological processes; "Technological poverty," i.e., knowledge, procedures, and equipment required to achieve certain goals; and "Political inability" to regulate the industrialization in the region.[47] This point of view is very much present in a hypothetical case study of the Siberian big rivers and socialism, which is so far hypothetical simply because it has not (yet) been implemented. However, *New Scientist* published an article in 2004 with the headline: "Russian scientists are reviving an old Russian plan to divert some of Siberia's mightiest rivers to the parched former Soviet republics of Central Asia."[48] This is the same old plan that was stopped as a concrete project by a decision of the Party Congress of the Communist party of the Soviet Union in the 1980s. As a research project, however, it managed to live on through the time of Glasnost and Perestroika, and the collapse of the Soviet Union itself, until the early twenty-first century. Even still the question remains: will the plan be implemented or not?

Environmental "Awakening" and Environmental Protection in the Arctic

The environmental "awakening" in northern regions very much started among indigenous peoples and by their organizations together with environmental movements. This was due to the fact that long-range air and water pollution, and radioactivity, as well as regional environmental wastes from industrial and military activities, have in the last decades been concentrated in northern regions. Thus, they became, and remain, a threat to indigenous peoples and their traditional livelihoods and cultures. This growing concern

with the environment and increasing environmental "consciousness" has very much been targeting against modernized socio-economic development, such as uncontrolled industrialization and urbanization, and the consequent degradation of the environment, and the increased vulnerability to natural and technological hazards, unsustainable natural resource extraction, as well as related political instability and social unrest.

As a consequence, it is no wonder that that there was an environmental "awakening" among indigenous peoples like, for example, the Alta movement in 1980–81 against the harnessing of the Alta River in northern Norway. Although, the radical and trans-national Alta movement lost its fight over the dam, it spawned both an environmental and a national "awakening," particularly among young Saami and Saami artists.[49] Behind this was the fact that the indigenous peoples as well as other Northerners lived close to nature with their local or traditional ecological knowledge. Thus, to be concerned with the state of the environment is very natural, even a way of life to them, and a necessity for survival. During the last decade, there has been an "awakening" in terms of the recognition of problems of climate change, particularly the issue of global warming in the High North.

Furthermore, Indigenous peoples' organizations, such as the Inuit Circumpolar Council (earlier called the Inuit Circumpolar Conference) and the (Nordic) Saami Council, as well as environmental organizations such as Greenpeace International, became active in environmental protection and also in international environmental politics.[50] Indigenous peoples' organizations had their own agendas and were in close collaboration with other indigenous peoples and the scientific community, perhaps less with environmental movements. On the one hand, they have been acknowledged, for example, in the work of the Arctic Monitoring Assessment Programme (AMAP) for identifying the impacts of pollution in the Arctic,[51] which is partly due to the fact that six indigenous peoples' organizations are permanent participants of the Arctic Council.

On the other hand, they are an important actor and party in the epistemological cooperation of the Arctic.[52] For example, they actively pushed governments, and used the findings of this program to push governments into signing the global Stockholm Convention on Persistent Organic Pollutants (POPs), which can be seen as a success story of fruitful cooperation between northern indigenous peoples and the Arctic scientific community.[53] The Arctic Climate Impact Assessment[54] and the effects of climate change on northern

traditional livelihoods are also examples of this collaboration. Indeed, there has been some influence, as the impacts of climate change have recently been taken seriously by governments and intergovernmental organizations, largely based on the concerns coming from the northern indigenous peoples and scientific information coming from the global scientific community.

All in all, indigenous peoples' organizations supported by both environmental organizations and movements, and groups of active researchers, have pushed governments to become active and to become involved in environmental protection, and they have been in close collaboration with the newly-born international northern institutions. This close relationship was not however clear, though obvious, at the very beginning of this new cooperation. Further, in general environmental advocacy by international environmental organizations (focusing on curbing nuclear dumping and marine mammal consumption) and protests and claims by indigenous peoples for their traditional livelihoods (against mining and forestry) have also created asymmetric environmental conflicts between indigenous peoples' organizations, national and regional authorities, local entrepreneurs, and industry.[55]

From Environmental Protection to International Northern Cooperation

Indeed, at the turn of 1980s/1990s, there was a boom in initiatives for international northern and Arctic cooperation in several fields by the Arctic states, such as the 1987 Murmansk Speech by former Soviet Premier Mikhail Gorbachev, and particularly for environmental protection, such as the Finnish initiative for Arctic environmental protection, based on the Murmansk Speech. This was followed first by the Arctic Environmental Protection Strategy (AEPS), signed by the eight Arctic states in 1991,[56] and second by new institutionalized intergovernmental forums, such as the Barents Euro-Arctic Region (BEAR) in 1993 and the Arctic Council (AC) and the Arctic Military Environmental Cooperation (AMEC), both in 1996. The common factor connecting all these initiatives and organizations is environmental protection, which became a part of the international agenda of northern cooperation between the Arctic states and other (international) northern actors. As a conclusion, environmental degradation was so seriously taken that it was put onto the foreign policy agenda of the Arctic states.

For example, the BEAR deals with functional cooperation across national borders in certain priority fields and sectors, such as environmental protection, particularly for nuclear safety, and social welfare, health, and well-being. Furthermore, the Arctic Council consists of environmental protection as its first pillar with several working groups, such as AMAP, and sustainable development as its second one, which is still rather weak. One critical question dealing with the Arctic Council is the balance between promoting environmental protection and sustainable development, including other interests surrounding the mass-scale utilization of natural resources, particularly offshore oil and natural gas drilling in the shelves of the Arctic Ocean. There were also new international agreements, such as the Stockholm Convention on POPs (in 2003). As new international forums, all these are examples of some sort of environmental regimes and assets for knowledge production.[57]

In this context, despite the contributions of the ICC and the Saami Council, and environmental organizations, the establishment of the AEPS as well that of the Arctic Council can be interpreted as a sophisticated mechanism whereby central governments could regain control over the fast-growing international cooperation by new international actors and reassert the primacy of their interests as sovereign states.[58] From the perspective of northern indigenous peoples, the Arctic Council can also be seen as an international mechanism through which to connect circumpolar environments, and thus better understand them.[59] Behind this is the fact that national interests often differ greatly from those of the indigenous peoples, which partly explains why northern indigenous peoples started to act and use their voice for environmental protection in the 1980s. For example, many of the northern indigenous peoples' homelands have strategic importance, both in military terms and in terms of energy security as a result of their natural resource endowments.

Environmental degradation *per se*, and the fact that it was taken onto the foreign policy agenda of the states, also made environmental protection in northern regions a sensitive issue.[60] This has led to disagreement, even conflicts, between indigenous peoples and state authorities when discussing the utilization of natural resources, particularly fisheries and the catching of marine mammals, and trying to define how to use land and waters. This might be continuing, when at the start of the twenty-first century, northern energy resources and their offshore utilization began to increasingly attract both the

littoral states of the Arctic Ocean, as their ministerial meetings illustrate, and also actors with varying interests from outside the region.

Interrelations between the Environment and Security

This brings me to rethink whether, despite the current international cooperation on environmental protection, the environment is actually one of the fields of high politics, though it has traditionally been interpreted to be a field of low politics. An example of this is nuclear safety, which is said to represent "soft" security, though most radioactive wastes and nuclear accidents in the Arctic region are caused by the military.

Behind this is the fact that most of the special features of northern security and security policy[61] deal with the environment and environmental degradation, and interrelations between the environment and the military; for example, nuclear safety has already caused a change in problem definition in security discourses and premises.[62] Climate change has also been taken as a challenge to state sovereignty and the national security of the littoral states of the Arctic Ocean; for example, Canada has been asked to adopt "hard power" to defend its sovereignty over the Arctic Archipelago and the Northwest Passage. Consequently, climate change is not only an environmental issue and challenge but also has the potential for introducing new points of view into the theoretical discourse on and premises of security.

Following from this, environmental protection is one of the main fields of international cooperation in, and geopolitics of, the post-Cold War Arctic, and is influenced by three main themes: increased circumpolar cooperation by Indigenous peoples' organizations and sub-national governments; region-building with nations as major actors; and relationship between the circumpolar North and the outside world including global environmental problems. If this much deals with the first significant geopolitical change in the Arctic region, another significant and multifunctional geopolitical change has started in the early twenty-first century when the region has been taken into the globalized world system.[63] Furthermore, the entire Arctic region is playing a more critical role in environmental issues and is described as an environmental linchpin.[64] This is because the Arctic has traditionally been a "laboratory" for science and is now a "workshop" for multidisciplinary research on the environment as well as climate change and

its impacts. Furthermore, current international Arctic cooperation started with environmental protection and has already achieved new technical innovations, for example, in nuclear safety and new attempts to build up the interplay between science and politics. Finally, the global relevance of this knowledge and the know-how in region-wide decision-making is sufficient to merit sustained efforts to communicate it to the outside world.

Conclusions

Traditional security policy and issues surrounding natural resource exploitation dominated the relationship between the circumpolar North and the outside world during the Cold War period. With its end, new and more global geopolitics entered into a new phase with implications for the North, such as the rise of new international non-state actors, and the importance of environmental protection in new northern cooperation based on the environmental awakening of northern non-state actors, such as indigenous peoples. Many kinds of global problems and flows of globalization, such as long-range air and water pollution, and radioactivity, influence the northern environment, and northern peoples and their communities. Therefore, the Arctic, one of the purest regions of the world, has turned into "a sink of pollutants." And recently, climate change very much illustrates the Arctic's vulnerability to global environmental problems.

The "politicization" of the environment in the High North has very much happened according to the global environmental "awakening," with many different environmental "voices." And environmental politics has become a new public sector and a new field of foreign policy of the Arctic states. Recently, the High North has become an environmental linchpin due to growing concerns with the state of the environment and the environmental "awakening." Nuclear safety became a special issue of environmental security and has caused a change in problem definition in the northern security discourse. Finally, climate change with its physical impacts and the related uncertainty has become the newest environmental challenge, even a threat, for many northern residents and communities. All this indicates that climate change has a relevant security dimension.

Notes

1 Robert Elliot and Arran E. Gare, *Environmental Philosophy: A Collection of Readings* (Melbourne: University of Queensland Press, 1983), 58–86.

2 Yrjö Haila, "Johdanto: Mikä ympäristö?" in Yrjö Haila and Pekka Jokinen, ed., *Ympäristöpolitiikka. Mikä ympäristö, kenen politiikka* (Jyväskylä: Osuuskunta Vastapaino, 2001), 9.

3 Ibid.

4 For example, see Sharon Begley, "The Truth about Denial," *Newsweek*, August 13, 2007, 36–43.

5 For example, see Lassi Heininen and Heather Nicol, "Climate change and Human Security – From a Northern Point of View," in Lassi Heininen and Heather Nicol, eds., *Climate Change and Human Security – From a Northern Viewpoint* (forthcoming).

6 Anna Bramwell, *Ecology in the 20th Century: A History* (New Haven, CT: Yale University Press, 1989), 13.

7 Ibid., 39–45.

8 Peter M. Haas, *Saving the Mediterranean: The Politics of International Environmental Cooperation* (New York: Columbia University Press, 1990), xviii. Haas has said that it is possible to claim that "Social Sciences have done relatively well at developing theories to explain periods of order and stability, but have done much less well at explaining the dynamics of periods of change … and have not been very good at analyzing complex, nonlinear systems such as international environmental issues seem to involve."

9 Eugene P. Odum, *Ecology and Our Endangered Life-Support Systems* (Sunderland, MA: Sinauer Associates), 63.

10 For example, see Ulrich Beck, "From Industrial Society to Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment," in Mike Featherstone, ed., *Cultural Theory and Cultural Change* (London: Sage, 1992), 97–123.

11 Yrjö Haila, "Johdanto: Mikä ympäristö?" 11–14.

12 For example, see Lassi Heininen, "Euroopan pohjoinen 1990–luvulla. Moniulotteisten ja ristiriitaisten *intressien alue*." *Acta Universitatis Lapponiensis* 21 – Arktisen keskuksen tiedotteita/Arctic Centre Reports 30 (Lapin yliopisto, Rovaniemi), 1999.

13 For example, see: Ulrich Beck, "From Industrial Society to Risk Society: Questions of Survival, Social Structure and Ecological Enlightenment," in Mike Featherstone, ed. *Cultural Theory and Cultural Change* (London: Sage, 1992); and Yrjö Haila and R. Levins, *Ekologian ulottuvuudet* (Tampere: Vastapaino, 1992).

14 Further, in research on environmental conflicts, the reasons behind the conflicts are often specified and analyzed into differing facts, interests, and value. See: Markus Laine and Pekka Jokinen, "Politiikan ulottuvuudet," in *Ympäristöpolitiikka. Mikä ympäristö, kenen politiikka* (Jyväskylä: Osuuskunta Vastapaino, 2001), 47–65.

15 Yrjö Haila, "Johdanto: Mikä ympäristö?", 17–20.

16 For example, see: Lassi Heininen, *Sotilaallisen läsnäolon ympäristöriskit Arktiksessa – Kohti Arktiksen säätelyjärjestelmää* (*The Environmental Risks of Military Presence in the Arctic – Toward the Arctic Regime*) (Tampere: Tampere Peace Research Institute: Research Report No. 43, 1991); and Lassi Heininen, "Globalization and Security in the Circumpolar North," in Lassi Heininen and Chris Southcott, ed., *Globalization*

and the Circumpolar North (Fairbanks: University of Alaska Press, 2010), 221–63.

17 For example, see: Lassi Heininen, Jyrki Käkönen, and O-P Jalonen, *Expanding the Northern Dimension: The Final Report of the International Arctic Project of TAPRI* (Tampere: University of Tampere Peace Research Institute Research Report No. 61, 1995).

18 United Nations, *Our Common Future* (Oxford: World Commission on Environment and Development. Oxford University Press, 1987). 8.

19 M. A. Hajer, *The Politics of Environmental Discourse. Ecological Modernization and the Policy Process* (Guildford: Oxford University Press, 1995).

20 Yrjö Haila and Lassi Heininen, "Ecology: A New Discipline for Disciplining?" *Social Text* 42 (1995): 153–71.

21 For example, see Independent Commission on Disarmament and Security, *Common Security. A Blueprint for Survival*, UN/A/CN.10/38, January 1982.

22 For example, see Johan Galtung, *Environment, Development and Military Activity: Towards Alternative Security Doctrines* (Oslo-Bergen-Trondheim, 1982).

23 For example, see Jyrki Käkönen, *Konfliktit, turvallisuus ja ympäristö. Modernisaation kriisi* (Saarijärvi: Atena, 1995).

24 Johan Galtung, *Environment, Development and Military Activity: Towards Alternative Security Doctrines* (Oslo-Bergen-Trondheim, 1982); Arthur Westing, "The Environmental Component of Comprehensive Security," *Bulletin of Peace Proposals* 20, no. 2 (1989): 129–34; and Lassi Heininen, *Sotilaallisen läsnäolon ympäristöriskit Arktiksessa – Kohti Arktiksen säätelyjärjestelmää* (*The Environmental Risks of Military Presence in the Arctic – Toward the Arctic Regime*) (Tampere: Tampere Peace Research Institute. Research Report No. 43, 1991).

25 Translation by Lassi Heininen; Rauno Sairinen, Tytti Viinikainen, Vesa Kanninen, and Arto Lindholm, *Suomen ympäristöpolitiikan tulevaisuudenkuvat* (Tampere: Gaudeamus Oy, 1999), 18.

26 See John McCormick, *Environmental Policy in the European Union* (New York: Palgrave, 2001).

27 Ibid., 17–40.

28 For example, see: European Commission, *Climate Change and International Security. Paper from the High Representative and the European Commission to the European Council*. S113/08, March 14, 2008. The Union has become a pioneer, or even a pathfinder, in international climate policy as the "20-20-20" decision by the European Council shows.

29 Annika E. Nilsson, *A Changing Arctic Climate: Science and Policy in the Arctic Climate Impact Assessment* (Linköping: Linköping University, Department of Water and Environmental Studies, Linköping Studies in Arts and Science No. 386, 2007), 14.

30 Ibid., 70–80.

31 These countries were parties to the Asia-Pacific Partnership of Clean Development and Climate in 2005, together with Australia, Japan, and South Korea, to decrease greenhouse gases, which Australian prime minister John Howard claimed would be more effective and fair.

32 See: Mari Riipinen, "Local community as a stage for land use discourse – before and after a global actor." A Presentation in the Calotte Academy, Inari, Finland, May 26–28, 2005 (mimeo). The key actors were the Saami on one side, and newcomers, including the Finns, on the other side, and the focus was how to use northern forests, for cutting, as most the Finns would like, or for reindeer herding, as most of the Saami would like, and both dealt with livelihoods and thus economy, but reindeer herding is also a part of the Saami culture.

33 See Lassi Heininen, "Euroopan pohjoinen 1990–luvulla."

34 *Arctic Pollution 2002*. Arctic Monitoring and Assessment Program, Oslo, Norway, 2002.

35 *Arctic Climate Impact Assessment. Policy Document*. Issued by the Fourth Arctic Council Ministerial Meeting, Reykjavik, November 24, 2004.

36 Lawson W. Brigham, "Marine Access and Transportation." Presented at the Conference on Emerging from the Frost, Security in the 21st Century Arctic, Tromsö, Norway, 2007.

37 *Arctic Climate Impact Assessment. Policy Document*. Issued by the Fourth Arctic Council Ministerial Meeting, Reykjavik, November 24, 2004.

38 For example, see: "Report and Recommendations," *Report and Recommendations from a workshop "The Arctic and Canada's Foreign Policy*," sponsored by The Walter and Duncan Gordon Foundation, October 4–5, 2006, 12–13; and M. Nuttall, "Epistemological Conflicts and Cooperation in the Circumpolar North," in Lassi Heininen and C. Southcott, ed., *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press, 2010), 149–78.

39 C. D. James Paci, Cindy Dickson, Scott Nikels, Laurie Chan, and Christopher Furgal, *Food Security of Northern Indigenous Peoples in a Time of Uncertainty: Position Paper for the 3rd NRF Open Meeting*, Yellowknife, NWT, September 15–18, 2004.

40 For example, see: Rob Huebert, "Climate Change and Canadian Sovereignty in the Northwest Passage," *Isuma* 2, no. 4 (Winter 2001), 86–94.

41 Lassi Heininen, "Globalization and Security in the Circumpolar North,"; also Lassi Heininen and Heather Nicol, "Climate Change and Human Security – From a Northern Point of View," in Lassi Heininen and Heather Nicol, eds., *Climate Change and Human Security – From a Northern Viewpoint* (forthcoming).

42 For example, see *Arctic Pollution Issues* (Oslo: Arctic Monitoring and Assessment Program, 1997).

43 For example, see Lassi Heininen, "An Introduction," in Lassi Heininen, ed., *Arctic Environmental Problems*. TAPRI. Occasional Papers No. 41 (Tampere: Tampereen Pikakopio Oy, 1990), 7–20.

44 Other categories of global problems, many of them playing relevant role in the Arctic, are the proliferation of nuclear weapons and other security problems, economics and problems with development, scarcity of natural resources, refugees and other human rights problems, diseases and pan-epidemics. H. Hakovirta, *Globaaliongelmat ja globaalipolitiikka: koeporauksia* (Turku: Turun yliopisto, Valtio-opin laitos, 1996).

45 Lassi Heininen, "Globalization and Security in the Circumpolar North."

46 Lassi Heininen and Boris Segerståhl, "International Negotiations Aiming at a Reduction of Nuclear Risks in the Barents Sea Region," in Rudolph Avenhaus, Victor Kremenyuk, and Gunnar Sjöstedt, eds., *Containing the Atom: International Negotiations on Nuclear Security and Safety* (New York: Lexington Books; International Institute for Applied Systems Analysis, 2002), 243–70.

47 O. S. Stokke, "Environmental Threats in the Arctic," in Lassi Heininen, ed., *Arctic Environmental Problems*. TAPRI. Occasional Papers No. 41 (Tampere: Tampereen Pikakopio Oy, 1990), 22–41.

48 *New Scientist*, "Russia Revives Epic River Plan," February 7, 2004.

49 For example, see: Declaration of Murmansk, 16th Annual Sami Conference in Murmansk, Russia, October 15–18, 1996; and Lassi Heininen, "Circumpolar International Relations and Cooperation," in Lassi Heininen and C. Southcott, eds., *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press, 2010), 265–304.

50 For example, see: Greenpeace, *Nuclear Free Seas: The Greenpeace Campaign for Nuclear Free Seas*, 1987 (pamphlet).

51 C. D. James Paci, "Connecting Circumpolar Environments: Arctic Athabaskan Council and Arctic Council Programmes," in *Circumpolar Connections: Supplementary Proceedings of the 8th Circumpolar Cooperation Conference* (Whitehorse: Circumpolar Universities Association and Yukon College, 2003), 18–26.

52 For example, see: M. Nuttall, "Epistemological Conflicts."

53 AMAP, *Arctic Pollution 2002.* Arctic Monitoring and Assessment Program, Oslo, 2002, 36; S. Meakin and T. Fenge, "Indigenous Peoples and the Stockholm Convention on Persistent Organic Pollutants," in *Arctic Human Development Report* (Reykjavik: Stefansson Arctic Institute, 2004).

54 *Arctic Climate Impact Assessment. Policy Document.* Issued by the Fourth Arctic Council Ministerial Meeting, Reykjavik, November 24, 2004.

55 For example, see: Lassi Heininen, "Euroopan pohjoinen 1990–luvulla": 242–55.

56 Rovaniemi Declaration, Signed by the Eight Arctic Nations, June 14, 1991, Rovaniemi, Finland.

57 Annika E. Nilsson, *A Changing Arctic Climate*.

58 "Jyrki Käkönen, Kestävä kehitys ja demokratia Arktiksessa," in Jyrki Käkönen, ed., *Kestävä kehitys arktisilla alueilla*. Rauhan- ja konfliktintutkimuslaitos, Tutkimustiedotteita No. 49, 1992, 16–34.

59 C. D. James Paci, "Connecting Circumpolar Environments: Arctic Athabaskan Council and Arctic Council Programmes," in *Circumpolar Connections: Supplementary Proceedings of the 8th Circumpolar Cooperation Conference* (Whitehorse: Circumpolar Universities Association and Yukon College, 2003), 18–26.

60 For example, see Jens Brösted and Mads Fægteborg, "Expulsion of the Great People When U.S. Air Force Came to Thule: An Analysis of Colonial Myth and Actual Incidents," in *Native Power: The Quest for Autonomy and Nationhood of Indigenous People* (Bergen: Universitetsforlaget, 1985), 213–38; Frances D. Abele, and Thierry Rodon, "Inuit Diplomacy in the Global Era: The Strengths of Multilateral Internationalism," *Canadian Foreign Policy* 13, no. 3 (2007): 56.

61 These include, first, implementation of the technology models of geopolitics; second, nuclear safety; third, relations between the environment and the military; fourth, relations between indigenous peoples and traditional security; and finally, climate change as global problem.

62 Lassi Heininen, "Globalization and Security in the Circumpolar North," in Lassi Heininen and C. Southcott, eds., *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press, 2010), 221–63.

63 Lassi Heininen, "Post-Cold War Arctic Geopolitics: Where are the Peoples and the Environment?" in M. Bravo and N. Triscott, eds., *Arctic Geopolitics and Autonomy.* Arctic Perspective Cahier No. 2 (2010), 89–103.

64 For example, see: Arctic Human Development Report, Akureyri: Stefansson Arctic Institute, Iceland, 2004, 24–25; M. Nuttall, "Epistemological Conflicts."