Finland's Strategy for the Arctic Region

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Abstract

Finland's Strategy for the Arctic Region defines the goals of Finland's Arctic policy and means for their promotion. It discusses the region's security, environment, economy, infrastructure, indigenous peoples, international institutions and the European Union's Arctic policy. The fundamental observations of the Strategy deal with the utilisation of Finland's Arctic know-how, research, strengthening of the Arctic Council and development of the EU's Arctic policy.

The Strategy was prepared by a working group appointed by the Prime Minister's Office, for which all ministries were able to name their representatives. The Strategy emphasises external relations and was submitted to the Finnish Parliament as a report. The Advisory Board on Arctic Affairs, appointed by the Government, will play a central role in future work on the report.

Keywords
Report, Arctic Region, Finland's Strategy for the Arctic Region

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1 INTRODUCTION

– *As an Arctic country, Finland is a natural actor in the Arctic Region*

Finland's Strategy for the Arctic Region defines objectives for Finland's Arctic policy and means for advancing these objectives nationally and in various international and regional forums, within the European Union, in Nordic cooperation and in bilateral relations.

The strategy was prepared by a working group appointed by the Prime Minister's Office (12 February 2010), for which all ministries were able to name their representatives.[1] In addition, the Government made a separate decision (8 April 2010) to appoint an Advisory Board on Arctic Affairs, which supports, monitors and harmonises Finland's activities in the Arctic. The Advisory Board was consulted when this report was prepared. Finland's Strategy for the Arctic Region will be submitted as a report to the Parliament. It takes note of the Arctic Report issued by the Foreign Affairs Committee of the Parliament in November 2009. The strategy also has links with various reports drawn up by the Government.[2] It has been discussed by the Cabinet Committee on European Union Affairs.

In line with the working group's task, the strategy emphasises external relations. It focuses on international organisations and agreement mechanisms dealing with Arctic issues in which Finland is a member, and on the forms of international or regional cooperation that, either directly or indirectly, apply to Finland's northern regions and population, as well as their environment, climate, business, culture, social relations, security and stability .

The strategy also promotes Finland's interests within the EU at a time when the EU is formulating its own Arctic policy, and specifies Finland's views in relation to the Arctic policies of other countries.

The introduction to the strategy explains why Arctic issues have gained a central role in world politics. Chapters 2–5 define Finland's objectives in some important sectors (the environment, economy, transport and infrastructure,

1 See Appendix 1: The decision to appoint the Arctic Working Group.

2 Especially the Government Reports on Finnish security and defence policy, on climate and energy strategy, and on human rights policy. The strategy has also taken note of the report on international transport corridors in Northern Finland, the industrially oriented Barents strategy for Northern Finland, the preliminary study on the Arctic Ocean connection (Arctic Ocean railway–Rovaniemi–Kirkenes) prepared by the Intermunicipal Authority for Regional Cooperation in Northern Lapland, and the Barents Regional Council's work programme for 2009–2013. The strategy also has links with the work conducted by the working group on Russia's northern regions, appointed by the Ministry of Employment and the Economy (16 April 2010).

indigenous peoples), and Chapters 6–7 seek means for reaching these objectives through various international institutions, funding and the European Union's Arctic policy. Chapter 8 presents the principal conclusions and proposes further measures.

1.1 The Arctic Region and Finland

Changes occurring in the Arctic Region[3] require that Finland make an overall assessment of the prevailing conditions and how they are changing. The principal objectives need to be reassessed occasionally from the following perspectives:

- As an Arctic country, Finland has a natural interest in Arctic affairs. In particular, Arctic issues concern Finland's northern regions and population. Much of Finland's surface is included in the subarctic climate zone; seen as a whole, Finland is one of the northernmost countries in the world.
- Finland has played an important role in presenting initiatives on Arctic issues and is a party to most organisations and treaties concerning Arctic and northern regions. Finland's Arctic expertise, know-how and research are internationally recognised.
- The Sámi in Finland are an Arctic indigenous people, whose status has been secured in the Constitution. Finland underlines that indigenous peoples need to be consulted and they must be able to participate in decision-making in matters affecting them, as stipulated by international law.
- The environment is fragile in the Arctic, including Northern Finland. The principal problems with respect to the environment include climate change with its consequences, the environmental impacts caused by increased shipping and exploitation of natural resources, reduced biodiversity, long-range transportation of pollution and issues pertaining to nuclear safety.
- The Arctic Region has considerable economic potential that can be of benefit to Finland. The increase in maritime traffic in the Arctic Ocean and exploitation of natural resources in the region are an opportunity for Finnish expertise.
- The improvement of transport, communications and logistics links and simpler border formalities are key factors for the development

[3] The Arctic Region can be defined using various criteria, e.g. the Arctic Circle, the native territories of Arctic indigenous peoples, the tree line, permafrost, temperature or sea ice. According to the definition used in natural sciences, much of Finland's surface area belongs to the subarctic climate zone.

of Northern Finland. Maintenance and further development of Arctic know-how, research and special expertise require strategic choices and decisions on the part of Finland.

- For Finland's Arctic policy, the foremost cooperation structure encompassing the entire Arctic Region is the Arctic Council, which is the only circumpolar cooperation forum consisting of the eight Arctic nations. Indigenous peoples are also involved in the Arctic Council's work.
- Other cooperation structures important for Finland's northern areas are the Barents Euro-Arctic Council and the Barents Regional Council.
- The Nordic Council of Ministers is a useful channel for Finland for supporting the Arctic Council's work. In addition, Finland participates in the activities of other international organisations that discuss Arctic issues.
- As a northern EU Member State, and also from the perspective of EU foreign policy, Finland welcomes the fact that the Union pays increasing attention to Arctic issues. This also promotes the Northern Dimension policy, which is of importance for Finland.

1.2 Global significance of the Arctic

Interest in the Arctic has risen during the past twenty years. In the Cold War years, the region was considered important as borderland between NATO and Russia. Now the economic potential of the region and the new transport routes that may open underline the strategic importance of the region in a new way.

The potential of the Arctic Region is associated with natural resources and new transport routes; in the future, the Arctic may become a major energy reserve and transport channel for Europe. This has heightened the security policy importance of the region. Increased shipping and human activity increase the risk of serious environmental accidents in the Arctic Ocean; this requires among other things that the situation picture of Arctic maritime traffic be developed. The positive experiences of cooperation among coastal States gained in the surveillance of shipping in the Baltic Sea can be utilised for developing the situation picture.

For sustainable development, it is essential that the natural resources of the Arctic are exploited in a controlled manner, taking into account economic, social, cultural and environmental impacts. Risk management requires that environmental problems in the region are identified and tackled in close

cooperation among all actors[4] in the region. Technologies, infrastructure, maritime safety and navigation systems also need to be developed over a broad spectrum.

The United Nations (UN) and various UN bodies promote international cooperation, for instance, in the following sectors important for the Arctic Region: maritime law; human rights and the rights of indigenous peoples; sustainable development; environmental issues; and climate change.

International cooperation and international treaties also lay the foundation for Finland's activities in the Arctic. It is in Finland's interest to maintain stability and continue cooperation in the region and to keep the security situation predictable. Raising awareness of the Arctic Region and its potential and making provision for changes promote safety in the wide sense.

The impacts of climate change in the Arctic Region

- **Temperatures in the Arctic continue to rise more rapidly than in more southern areas.** Owing to climate change, the rise in temperatures in the Arctic Region is 1.5–2 times greater than the global average. The surface area of Arctic sea ice reached its minimum in 2007; permanent ice is becoming thinner and is replaced by ice that melts every year; the annual snow cover is reduced by 1–2%; permafrost is melting in places.
- **The receding sea ice enables increased shipping and utilisation of the region's natural resources.** Opening of the Northeast Passage shortens the transport distance from Asia to Europe by as much as one third. An estimated 20–30% of the world's unexploited gas reserves and 5–13% of oil reserves are located in the Arctic.
- **Warming of the Arctic and its consequences will have global repercussions.** The Arctic vegetation zones will shift; the diversity and spreading of animal species will change; sea ice, glaciers and snow-covered areas are cooling the global climate through movements of sea currents and air masses.

Literature: Arctic Climate Impact Assessment 2004, Update on Selected Climate Issues of Concern 2009. See also Appendix 3: Melting of sea ice, and Appendix 4: A review of climate change in the Arctic Region by 2050.

Interest in northern areas and in issues pertaining to the Arctic Ocean has increased internationally. At the same time, the countries bordering on the Arctic Ocean – *the United States, Russia, Norway, Denmark (Greenland)* and *Canada* – have presented claims concerning the seabed and natural resources.[5]

[4] The Arctic Region has about four million inhabitants, of whom indigenous peoples account for about 10 per cent. See Appendix 2: Population concentrations in the Arctic Region.

[5] See Appendix 5: Regional issues.

The coastal states have also stepped up their operating potential in the region. However, it is very unlikely that the situation would come to a head. On the basis of recent developments, closer cooperation is a more likely alternative, since the challenging circumstances in the Arctic require cooperation.

Finland is not situated on the coast of the Arctic Ocean and has no territorial claims in the Arctic. However, unresolved territorial issues have an indirect effect on Finland as well, insofar as the claims concern the border between the deep seabed and a continental shelf belonging to a coastal state. **For Finland, it is essential that effort is made to find solutions to all claims concerning continental shelves in accordance with the international law of the sea** (see Chapter 6).

The European Union is closely linked with the Arctic Region owing to political, geographical, economic and scientific factors. Three EU Member States – *Denmark, Sweden* and *Finland* – are Arctic states. The impact of the European Union's policies and decisions also extends to the Arctic Region; an example of this is the Northern Dimension policy, which is important to Finland. Norway and Iceland belong to the European Economic Area and Iceland submitted its membership application to the EU in summer 2009, thereby emphasising the EU's importance as an Arctic player.

Since the end of the Cold War, *NATO* has reduced its activities in the region and has concentrated mainly on guaranteeing the inviolability of the Icelandic air space. The strategic importance of the region as a border area between NATO and Russia has diminished even though the coastal states in the region – except Russia – are NATO members. NATO emphasises its willingness to cooperate with Russia and to avoid measures that might give rise to confrontation. Especially Norway has actively striven to arouse and maintain NATO countries' interest in the Arctic Region. In fact, debate concerning the Arctic Region has become more lively within NATO as well. Some NATO member countries would like to include a reference to the Arctic Region in the new strategic concept that guides NATO's activities. However, it is not expected that the new strategic concept would change the region's security situation in any essential way. NATO is deemed to bring added value to the Arctic Region, for instance, in search and rescue operations, in the containment of environmental and natural disasters, and in raising situational awareness.

The Nordic countries are in the process of intensifying their cooperation in foreign, security and defence policy. They are also exploring how to consolidate and adapt regional cooperation treaties in the Barents and Baltic Sea regions.

The independent Stoltenberg report[6] on closer cooperation in Nordic foreign and security policy made some recommendations concerning the Arctic Region. The proposals partly cover activities that are already in existence. For the Arctic Region, probably the most significant aspects include air and maritime surveillance and closer cooperation for the utilisation of satellite services and for improving the efficiency of rescue service cooperation.

The Arctic policies of other Arctic nations

Out of the Arctic Council's eight Member States, six (*Canada, Denmark, Iceland, Norway, Russia, the United States*) have published their Arctic policies.

Russia's increased wealth and more prominent role in international politics are also reflected as greater activity in the Arctic Region. Russia has indicated that its long-term development and competitiveness on the global market are tied to natural resources in the Arctic. According to Russia's national security strategy, the country is also prepared to defend its national interests with military means, if necessary (including the Arctic). The Arctic Region is important for Russia's military strategy, also in terms of the country's nuclear weapon capacity. The main naval base of the Russian Northern Fleet is located in Severomorsk in the Kola Peninsula. However, in its policies concerning the strategy for northern areas, the Government of the Russian Federation stresses that the Arctic is a region of peace and cooperation that is not threatened by potential conflicts.

The United States has also shown greater interest in the Arctic. The Arctic policy published in January 2009 (Presidential Directive to Establish U.S. Policy in Arctic Region) emphasises the national interests of the United States in the Arctic Region, including prevention of terrorism, but also brings out the importance of multilateral cooperation. In particular, the United States stresses freedom of navigation. The policy also recommends that the Senate should act favourably on U.S. accession to the UN Convention on the Law of the Sea.

For many years now, *Norway* has invested heavily in the northern regions and the country strives to be on the front line in all issues concerning the Arctic Region. Economic cooperation with Russia plays an important role in Norway's Arctic policy. Norway also strives actively to commit its partners – both NATO and the Nordic countries – to the issues of northern areas.

Canada has a large Arctic land and sea area where it emphasises its sovereignty. Canada has played an important role in the Arctic Council and is a leading country in Arctic research. *Denmark* is an Arctic country through Greenland, whose autonomy Denmark has been reinforcing. In addition to Finland and Sweden, Denmark has an important position in the European debate concerning Arctic issues.

In its Arctic policy, *Iceland* emphasises regional and multilateral cooperation. Iceland considers that it will benefit from its geographical location once the preconditions for Arctic sea transports improve. So far, *Sweden* has not issued an Arctic policy outline at Government level.

6 Thorvald Stoltenberg: Nordic Cooperation on Foreign and Security Policy, 9 November 2009.

2 FRAGILE ARCTIC NATURE

– *The environmental perspective must be taken into account in all activities in the region*

Finland's objectives are:

- To draw attention to the special features of the Arctic Region and to Arctic environmental issues and risks in international cooperation (including international climate negotiations and formulation of the EU's positions), while utilising the assessments and recommendations of the Arctic Council and other national and international research data as the basis for decision-making.
- To give stronger support for Arctic research, the development of regional climate models and the long-term monitoring of the state of the environment as the basis for decision-making and to reinforce the national coordination of research and monitoring.
- To promote nuclear safety, especially in the Kola Peninsula, by taking an active part in nuclear safety projects and by maintaining radiation control of the environment and preparedness for exceptional radiation situations.

Most of the Arctic Region is still in a more pure, natural state than many other regions in the world. However, the region is subject to major pressures owing to factors such as climate change, increased human activity and long-range transportation of pollution. These pressures make it necessary to pay increasing attention to environmental protection and thereby also to the preservation of healthy living conditions for indigenous peoples and other inhabitants in the region. Community and regional planning, as well as land use planning provide important mechanisms for combating climate change, and for solving environmental problems caused by economic development and land use in the region.

The Arctic interacts with the world's other regions in multiple ways, and measures taken in the region for environmental protection and nature conservation also benefit more southern areas indirectly.[7] The protection of Arctic land and sea areas and ecologically sustainable economic and social development are in Finland's interests. In its policy for the Arctic Region, Finland abides by the principles of sustainable development. Environmental issues are not just a

[7] For instance, some migratory birds and whales are dependent on Arctic nature even though their habitats extend beyond that region.

separate sector of their own; instead, they are an important element of a wider whole.

Because climate change and other environmental hazards are not contained by national borders, international cooperation for prevention is vitally important. Russia's active participation in measures contributing to common goals is of special importance for Finland.

2.1 Climate change

Climate change is one of the most serious challenges to the Arctic Region. It poses a threat to Arctic species, since the sparse and austere ecosystems in the region have poor adaptability. Even though climate change is a long-term trend, the impacts of warming are already visible in the region. Higher temperatures and changes in precipitation have resulted in alterations in snow cover and vegetation and species, thus affecting the environment and livelihoods (e.g. reindeer husbandry and tourism) in Finland's Arctic areas in a number of ways. The impacts of climate change are particularly marked for indigenous peoples and local communities.

The principal greenhouse gases affecting climate change are carbon dioxide, methane and nitrogen oxides. In the Arctic Region, attention is also paid to short-lived factors affecting climate change (black carbon, low-level ozone and methane), which are deemed to have a greater heating effect in the Arctic Region than elsewhere on the globe. Measures to curb these pollutants benefit the Arctic Region quickly; in addition, reducing fine particle emissions has direct effects on human health.

The climate in the Arctic Region is also important for the global climate. It has been calculated that the consequences of climate change in the Arctic Region, such as the melting of glaciers, will have direct impacts on global warming and cause adverse effects the world over. According to the worst case scenario, the melting of permafrost could lead to the release of solid methane hydrates into the atmosphere, which would raise global temperatures considerably. Measures to prevent the warming of the Arctic Region also work as direct measures to stop global climate change. The estimates of the progress and impacts of climate change are based on climate models; their regional accuracy needs to be developed so that they would be better suited for identifying Arctic changes as well.

The Copenhagen Accord reached at the United Nations Climate Change Conference in 2009 emphasises the importance of reducing greenhouse gas emissions; this would help keep the increase in global temperature below two degrees Celsius. At the same time, provision needs to be made for the negative effects of climate change. **The Finnish policy for adapting to climate change must pay special attention to measures that would support the adaptation of livelihoods dependent on the Arctic environment.**[8] Another priority is the use and management of water resources, including the risks arising from more frequent floods.

2.2 Pollution of the environment

Increased human activity in the region also raises the risk of environmental pollution. Owing to the circumstances, Arctic ecosystems are sensitive. Recovery from any damage is slow, if there is recovery at all. The Arctic environment suffers from the long-range transportation of heavy metals and organic hazardous substances that are not produced or used in the region but are transported by sea and air currents and rivers and that accumulate in northern food chains and end up in people. In certain areas, such as parts of Greenland and Northern Canada, the long-range transportation of hazardous substances causes a clear health risk to people, especially among indigenous peoples who follow a traditional diet. Extensive international measures are needed to prevent the transportation of these and to reduce their concentrations in Arctic ecosystems.

In addition to long-range transportation, the Arctic Region is affected by emissions from sources located in the Arctic Region or in its immediate vicinity. Utilisation of natural resources and the associated industrial activities and transport account for some of the total burden. From the Finnish perspective, the main emission sources are mining and metal industry facilities in the north. For instance, the increasing utilisation of natural resources in Northern Russia affects the culture and livelihoods of indigenous peoples, including the preservation of the native languages that are dependent on the peoples' own forms of culture.

The risk of environmental pollution must be minimised by making use of technologies and procedures best suited to the circumstances. Risks can be anticipated by assessing socioeconomic and environmental impacts, by launching multidisciplinary research projects and by making the implementation

[8] E.g. reindeer husbandry, tourism, agriculture and forestry.

of international treaties more efficient. The findings and reports published by the Arctic Council's working groups have produced pertinent regional information that has also been utilised globally. Reporting requires reliable, regionally representative and comparable measurement results.

Wastes originating from military activities also pose a risk of an environmental accident. The Kola Peninsula has the world's greatest concentration of nuclear reactors; the world's only nuclear power plant operating above the Arctic Circle is also located in the Kola Peninsula. Finland supports the development of the safety of nuclear power plants located in Finland's neighbouring areas through bilateral cooperation.[9]

Global Partnership cooperation in the nuclear sector in Russia

The G8 Global Partnership is a programme launched by the G8 countries in 2002. Its goal is to prevent the spread of weapons of mass destruction and to promote disarmament, counterterrorism and nuclear safety in the area of the former Soviet Union. Finland joined the Global Partnership programme in 2003.

Preventing the spread of nuclear weapons and taking the environment into consideration requires not only the dismantlement of vessels but also the safe disposal and handling of radioactive waste and spent nuclear fuel. So far Russia has decommissioned about 200 nuclear submarines. Only eight submarines are waiting for dismantlement in Northwest Russia. In addition to the G8 countries, nuclear safety projects in Northwest Russia receive funding from other sources, such as the Nuclear Safety Window of the Northern Dimension Environmental Partnership Support Fund, which is managed by the European Bank for Reconstruction and Development (EBRD).

2.3 Biodiversity

Biodiversity, which means the diversity of organisms at the levels of genes, species and ecosystems, maintains the basic prerequisites for life and human activity and supplies immaterial and material benefits, known as ecosystem services. **The ecosystem approach must be applied in the planning of the utilisation of northern areas and their natural resources.** The importance of the benefits offered by nature – such as water, food and energy – is highlighted in Arctic circumstances.

The vulnerability of Arctic nature is associated with the region's specific circumstances where species need to survive. Very low temperatures,

9 See Appendix 6: Nuclear safety in the Barents Region.

droughts, sharp variations in the quantity and quality of light and the short growing season already restrict the number of species that can survive in the region. In the Arctic Region, only marine ecosystems have abundant species and complex food chains. However, the Arctic is important for biodiversity. For instance, it offers a nesting place for the bulk of the world's geese and for more than half of the world's waders and it contains unique species, such as the polar bear. For many indigenous peoples, the caribou, reindeer, seals and whales constitute an important basis for their livelihoods, well-being, language and culture.

Another aspect of biodiversity is the preservation and maintenance of the knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity. Article 8 (j) of the UN Convention on Biological Diversity obligates the contracting parties to respect the traditional knowledge of indigenous peoples. A working group appointed by the Ministry of the Environment is preparing the implementation of Article 8 (j) in Finland. The working group's term will end on 31 December 2010.

Apart from climate change, the economic utilisation of natural environments diminishes biodiversity in the Arctic Region. Owing to the combined effect of these two factors, natural habitats have shrunk and become fragmented, thereby bringing about a reduction in species dependent on these habitats. The use of living natural resources entails risks endangering biological diversity, such as overly intensive fishing. Besides the fish species being caught, this may also have an effect on the functioning of the entire marine ecosystem. The diversity of forest and bog ecosystems is also important because they absorb carbon dioxide, thereby mitigating global warming.

3 ECONOMIC ACTIVITIES AND KNOW-HOW

– *Finnish know-how must be utilised and supported*

Finland's objectives are:

- To strengthen Finland's role as an international expert in Arctic know-how by investing in education, research, testing, technology and product development.
- To make better use of Finnish experience of winter shipping and Arctic technology in Arctic sea transport and shipbuilding.
- To improve the opportunities of Finnish companies to benefit from their Arctic know-how in the large projects undertaken in the Barents Region by supporting the networking, export promotion and internationalisation of small and medium-sized enterprises, in particular.

Natural resources and logistic connections offer opportunities in which Finland wants to invest. From the perspective of Finnish – especially Northern Finnish – industry and employment, it is important that all types of economic activity increase both in large seaports and in the land-based support areas of oil and gas fields in Norway and Russia. As economic activity increases, it is vital to ensure that operations in the entire Arctic Region are anchored in best practices and sustainable development, where also the status and rights of indigenous peoples are respected.

Investments in the Barents Region are sizable[10], and developments in the area affect not only Northern Finland but the entire country. The development of the Barents Region in the next 10–15 years will be important for Russia, its neighbours and the EU.

Both Norway's and Russia's oil and gas reserves in the Barents Region offer opportunities for Finnish companies as well. The expertise of Finnish companies can be utilised in many sectors, such as offshore industries and shipbuilding, building of infrastructure, machinery and equipment, logistics, knowledge of Arctic conditions and environmental know-how. The companies that implement projects in the Shtokman gas field – Gazprom, Statoil and Total – are ready to approve a limited number of subcontractors, provided that these are big enough. Participation in large projects requires that Finnish companies network internationally and form domestic clusters.

[10] According to some estimates, investments in the Barents Region in the coming years will total as much as 100 billion euros, most of which will focus on the Murmansk region of Russia.

However, it must be noted that certain bottlenecks weaken business opportunities in the Barents Region. Russia classifies the coastal areas as frontier zones, which means that visitors to the areas must adhere to stricter permit procedures than conventional visa practices. This may in turn slow down the development of economic and other cooperation between Russian and foreign operators.

Besides these major projects, tourism is also expected to increase in the Barents Region. Most Finnish tourist centres are located in Northern Finland, where they play an important industrial policy role, as concerns both the creation of jobs and the regional economy. Tourist centres have become hubs for diverse activities; besides providing services for tourists, they offer a wide range of private and public services for both permanent residents and holiday home owners in their areas. The rise of the economy in the Murmansk region is already visible in consumption behaviour. Lapland and Oulu also get their share of tourists coming to shop in Finland.

3.1 Natural resources

The oil and gas reserves in the Arctic Region play a key role for European energy supply. According to various estimates, 5–13% of the world's untapped oil reserves and 20–30% of gas reserves are located in the Arctic. As the old reserves in Russia gradually run dry, maintenance of the same level of gas and oil production requires considerable investments and the adoption of new technology. In fact, the emphasis in gas production is shifting from Western Siberia to deposits located in the continental shelf, in particular.[11]

The largest known deposits that will probably be exploited first are those in the northern parts of the Yamal Peninsula and the Shtokman and Fedinski (in Norwegian: Hjalmar Johansen-høyden) fields in the Barents Sea. It is expected that shrinking and thinning of the ice cover in the Arctic Ocean will facilitate the utilisation of hydrocarbon reserves at sea. However, it should be noted that much of the hydrocarbon reserves in the Arctic are difficult to take into use, both economically and technically.[12] In the future, the increased production of shale gas may weaken the competitiveness of Arctic gas.

In addition to hydrocarbons, the mining industry offers much development potential both in Finland and in neighbouring countries. The Finnish mining

[11] At present, 90% of Russian gas comes from fields in Western Siberia. Most of them were taken into use in the 1970s and have clearly passed their production peak.

[12] See Appendix 7: Potential and known Arctic oil and gas deposits and mines.

industry has the opportunity to increase technology exports by networking, for instance, with foreign mining companies operating in Finland. In the future, the mining industry will need new technology for mining projects and a wide range of logistics investments in railways, roads, ports and handling equipment. One of Europe's biggest gold mines was opened in Kittilä, Finland in 2009, and other mines are being planned. Finnish mining technology is of a high standard in terms of environmental protection and technical aspects.

The Arctic region has living natural resources that are diverse and abundant. A considerable percentage of the world's fish catch comes from the northern sea areas. It is difficult to assess the overall effects of climate change on the fish stocks of the Arctic Region. For Finland, it is important to guarantee the preservation and viability of natural fish stocks and other Arctic species in the northern sea areas and in Finland's northern rivers that empty into the Arctic Ocean. Preserving the viability of fish stocks requires efficient management of fishing and measures to prevent overfishing. Apart from fishing, the commercial utilisation of plant and animal species (bioprospecting), for instance for making medicines, is on the increase. In Finland, reindeer husbandry is also a locally important rural trade, which is the source of livelihood for about a thousand families.

3.2 Know-how and research

Finland possesses top-level Arctic know-how in many sectors.[13] However, maintenance of this know-how requires relevant university-level education, correctly targeted investments, and national and international cooperation. Research and development not only bring economic benefits but also support environmental protection and the discovery and spread of best practices.

From the industrial policy perspective, the Arctic offers extensive business opportunities especially in the sectors of shipbuilding and offshore industries, such as oil and gas rigs and vessels needed for Arctic circumstances, sectors associated with the building of infrastructure, such as the construction of roads, railways, ports, shipyards, channels and services, and in the sectors of the environment, security, energy and telecommunications. The transport and

[13] E.g. offshore industries, shipping industries, forest expertise, mining industry, metals industry, tourism, knowledge of traditional trades, low-temperature expertise, winter testing, measurement technology, power and heat generation and distribution, energy conservation and energy efficiency, Arctic wind power technology, Arctic building and infrastructure, environmental engineering and management of environmental impacts, sustainable social concepts, northern environmental expertise, northern health and well-being, waste management technology, information technology and public e-services, innovation-oriented development, cold climate research, bio and nanosciences, risk analyses, oil spill prevention and response, materials engineering.

logistics sectors have particularly great growth potential when the Northeast Passage opens. Major investments in the Barents Region also create demand for small Finnish enterprises that can serve as subcontractors to bigger companies.

Finland's location as Russia's neighbour and knowledge of Russia give Finland an edge in competition. For instance, Russia has a need for about 1,800 new vessels to be built for various purposes. Russian shipyards are not themselves able to build all the necessary vessels or their components. Finnish companies can participate in projects either within company consortia or as subcontractors through a Russian partner. Finnish expertise in the telecommunications sector can also be utilised when physical traffic in the northern sea routes increases.

As new industrial opportunities open up, it must be ensured that Finnish Arctic know-how has the prerequisites for entering the market. A key factor is to support the internationalisation of small and medium-sized enterprises. Finnish companies must keep in mind the market-oriented approach and must focus their export efforts on the areas of competence they have selected. Innovation-based development and renewal of industries is also important. Owing to climate change and international emissions trading, environmental technology has the potential of serving as an engine in the export sector.

Finland's capacity for participating in the commercial-economic utilisation of the Arctic Region can be improved, for instance, by intensifying Finpro's activities in the region, by increasing high-profile export promotion trips and other targeted company visits, and by encouraging the formation of Arctic clusters. **Attention should also be paid to export promotion in the Arctic Region (including Finnvera's and Finpro's activities) when the new National Strategy for Promoting Exports and Internationalisation is prepared.**

Promotion of Arctic exports

- Finland's Arctic offshore competence and forest and mining industries have been presented during export promotion trips in Murmansk, Arkhangelsk and Northern Norway.
- In connection with the visits of industrial delegations, presentations of Finnish enterprises specialising in Arctic know-how have been organised for the companies implementing the Shtokman project (Gazprom, Statoil and Total).
- In addition to the mining industry, the sectors of Arctic trading that interest Finnish enterprises include the shipbuilding and offshore industries, the building of infrastructure, housing construction and the utilisation of forest reserves.
- Permanent representation for Finpro in Murmansk and the return of Finpro to Norway are being prepared.
- Finnish enterprises' participation in the utilisation of the Norwegian Snöhvit gas field was restricted to a limited number of subcontracts.

The development of know-how and technologies applicable to Arctic circumstances in the global operating environment highlights the importance of institutes of higher education. In addition to market shares and capitals, competition is increasingly often based on skilled labour and research resources. The supply of new information and skills, and their diverse utilisation, will lay the foundation for success in the future as well. The changes that have taken place in the operating environment require that universities accelerate their internationalisation efforts and that resources are increased and focused on strengths that are of primary importance for the development and profiling of universities.

International cooperation is a means of improving quality, eliminating overlapping activities, and gathering domestic and foreign resources for joint projects. Top-level competence is necessary when seeking interaction with leading global centres and actors.

The research carried out in Finland, especially in the monitoring of the state of the environment and in collecting long-term research material, has world-class relevance. Finland has an extensive research infrastructure and a wide network of research stations. Research plays a key role in adaptation to Arctic climate change and in the utilisation of opportunities offered by the Arctic Region. Research also has a social dimension; for instance, a study on the living conditions, values and attitudes of young people helps outline the future of Northern Finland.

It is important that the national input into multidisciplinary scientific research continues. Guaranteeing broad-based Arctic research competence requires that universities and research institutes emphasise their expertise in their strategies and activities and make use of the funding opportunities offered by the Academy of Finland and the EU Framework Programmes for research. **The Academy of Finland should start an Arctic research programme that emphasises multidisciplinary and interdisciplinary research and international cooperation.**

Arctic research in Finland

Finland has solid competence in several sectors of Arctic research and education. Arctic research is carried out and education is provided in many universities and polytechnics. Similarly, several research institutes conduct research pertaining to Arctic expertise.

The University of Lapland and the University of Oulu, in particular, have been profiled as experts in Arctic and northern research and education. They have a joint research programme and four international Master's programmes together with universities in Northwest Russia (Barents Cross-Border University, BCBU). The Thule Institute at the University of Oulu develops and coordinates research and teaching associated with the University's area of focus 'Northern and Environmental Issues'. The Arctic Centre of the University of Lapland conducts international multidisciplinary research and communications, maintains a science centre exhibition and provides further training. Together the Universities of Lapland and Oulu are responsible for coordination of the Arctic network of universities (University of the Arctic).

Saamelaisalueen koulutuskeskus (Training Centre for the Sámi Region), located in Inari, provides vocational basic and further training for the needs of enterprise in the Sámi region. The Centre also offers lessons in the Sámi language and culture.

The National Committee of Arctic and Antarctic Research serves as a cooperation body for the scientific community engaged in polar research. Among other things, the Committee is responsible for participation in the activities of the International Arctic Science Committee (IASC).

4 TRANSPORT AND INFRASTRUCTURE

– *The increasing traffic in the Arctic Region requires common rules, technical aids facilitating traffic, and new infrastructure*

Finland's objectives are:

- To improve business opportunities in the Arctic by developing transport, communications and logistics networks and border crossings.
- To develop transport routes in the Barents Region by striving towards a joint strategic view with the neighbouring countries.
- To harmonise international regulations concerning the safety of shipping and environmental protection in the Arctic.

Finland's heavy dependence on foreign trade conducted mainly by means of sea transports sets challenges for the development of transport infrastructure and the logistic system. As the political and economic importance of the Barents Region increases, the need to develop the transport system, border crossings and telecommunications links will persist for a long time. The development of transport and logistics networks in Northern Finland also requires shared views with neighbouring countries.

The melting of the ice in the northern sea routes may transform the world's logistics flows in the future. However, according to even the most optimistic assessment, safe year-round traffic in the Northeast and Northwest Passages will not be possible until some decades from now. In consequence, the Baltic Sea will remain the main channel for Finland's sea transports in the coming years. However, Finland must take note of the opening of the northern sea routes when strategic decisions about transports are made.

4.1 Transport, communications and logistics networks in Northern Finland

The transport, communications and logistics networks in Northern Finland need to be developed if Finland wishes to benefit from the expanding mining operations and large oil and gas projects in the Barents Region. At the same time, the needs of business and industry partly determine the progress of these projects. At present, Finland lacks good connections to the Barents Sea and its hubs (e.g. Murmansk and Troms). Similarly, there are no links for

passenger or goods traffic from the curve of the Bay of Bothnia eastwards to Russia or northwards to Norway.

A common strategic view on the goals of developing the transport system in Northern Finland and on the measures to be taken is needed at national level. Land and airline traffic infrastructure should be developed especially in the east-west direction. However, investments in cross-border infrastructure require that Russia, too, is prepared to develop its east-west transport networks. Russia's transport strategy extending up to 2030 has no plans for opening new international links in the Barents Region. When implemented, the Northern Dimension Partnership on Transport and Logistics (see 7.3) will create possibilities for extensive infrastructure projects between the EU, Northwest Russia and Norway.

Mobile communications networks and broadband links improve the operating environment for business and industry and promote the well-being of local residents. In 2008, the Government of Finland launched the project 'Making Broadband Available to Everyone', which will make a high-speed optical fibre network available to every Finnish municipality when the trunk connection to Utsjoki is completed. In the long term, communications networks must be reinforced both on Finnish territory and, in particular, in Russia along the Northeast Passage. The reliability of networks in northern areas must be improved by interlinking the networks of neighbouring countries at suitable locations.

Transport networks of Northern Finland under discussion

The Bothnian Corridor consists of a railway and road link between Southern Sweden–Haparanda–Southern Finland. The project is included in the European Union's Trans-European Transport Network (TEN).

The Barents Link is a transport corridor from Northern Sweden and Norway through the border crossing stations of Oulu and Vartius to Northwest Russia, and further through Arkhangelsk to the Trans-Siberian railway.

The Murmansk Link consists of a road and railway link between Murmansk–Kandalaksha–Salla–Kemi/Tornio, from where the route continues towards the west and south. The corridor links the Nordic countries with the Murmansk region. The Salla–Kandalaksha railway is part of this development project.

The Northern Lights Route forms a road and railway connection between Tornio and Kolari and road connections between Kaaresuvanto–Kilpisjärvi–Tromssa and in Sweden between Haparanda–Karesuando–Kaaresuvanto. The corridor connects the Bay of Bothnia to the Arctic Ocean and has links to the main transport corridors of Northern Finland.

The Arctic Ocean Corridor is a development corridor for international transports, energy supply and industries from Finland to Norway and Russia. It connects Finland and the Baltic Sea Region with the deep-water harbours of the Arctic Ocean, with large oil and gas production areas and with the western end of the Northern Sea Route. The project also includes Ivalo Airport and the Rovaniemi-Kirkenes railway line.

See also Appendix 8: Transport networks under discussion in Northern Finland.

4.2 Increasing traffic volumes in northern sea routes

Alongside the anticipated change in climatic conditions, commercial utilisation of the northern sea routes is becoming more attractive. In addition to the Northeast Passage, great expectations are attached to the Northwest Passage and the option of sailing straight through the North Pole, at least during the summer season. According to estimates, thinning of the ice cover may enable sailing across the North Pole in a few decades, or perhaps already in the next decade by means of icebreaker-assisted convoys and double-acting ships.[14]

[14] See Appendix 9: Northern sea routes.

Northeast Passage

- Extending from Europe to Asia, the Northeast Passage is about 6,500 kilometres long.
- The opening of the Northeast Passage (the Northern Sea Route) could shorten the time needed by cargo vessels to travel between the Pacific and the Atlantic by about one third. For instance, on the Yokohama–Hamburg route, cargo handling time could be cut by 10 to 15 days.
- At present, the Northeast Passage is open for navigation for 49 ± 18 days per year. Owing to climate change, the navigation season is estimated to extend to 134 ± 38 days by the end of this century.
- Development of the Northeast Passage's highly inadequate infrastructure is a major opportunity for Finnish companies as well.

The northern sea routes are unlikely to become important channels for international maritime traffic very soon, because the ice conditions will probably remain difficult in the coming decades as well. Year-round traffic in these sea routes is not profitable because of icebreaking costs. Problems also arise from perennial ice floes, icebergs and occasional shallow waters.

The opening of sea routes for year-round shipping will increase the coastal states' interest in monitoring the traffic and benefiting from it financially, but also in protecting the sensitive Arctic marine environment. Russia considers that, because of the ice situation, the UN Convention on the Law of the Sea entitles the country to monitor traffic in the Northeast Passage and to collect fees for fairway and icebreaker services. As concerns the Northwest Passage, Canada considers that the water areas in its Arctic archipelago are part of the country's internal territorial waters. The vessels of foreign states could enter these waters only if permitted by the coastal state.

However, the distance of the voyage alone does not determine the route selections of freight traffic; they also depend on other market mechanisms (suitable fleet, safety of shipping, fairway dues). In the end, the predictability of developments in the area and the pricing policy (including fairway dues) determine the most favourable transport route. For instance, any increase in the use of the Northeast Passage also depends on the policy pursued by Russia. **It is in Finnish interests that the opening northern sea routes enable international sea transports. Any transport fees that might be collected must not become obstacles to traffic; instead, they should be used to support the safety of shipping.**

4.3 Safety of shipping

The increase in sea transports is currently the biggest threat to Arctic marine ecosystems. The regulations concerning the safety of shipping, Arctic navigation services, and the readiness to prevent various accidents and to act in accident situations are badly inadequate.

Combating oil spills in icy water is almost impossible with the current technology. As the volume of ice decreases, its mobility increases; this is an added risk to sea traffic. Surveillance systems in the Arctic sea areas, cooperation among the authorities, and best practices can be seen as development targets where Finland has special expertise to offer. For Finland, it is particularly important to ensure the compatibility of regulations followed in Arctic sea areas and in the Baltic Sea Region, as this would make it possible for Finnish vessels to operate in the Arctic Region.

Owing to the international nature of shipping, the safety of shipping can be promoted efficiently only through international treaties. The UN Convention on the Law of the Sea lays the foundation for the regulation of shipping. Cooperation among states takes place primarily through the International Maritime Organization (IMO) and the agreements, recommendations and standards drawn up under its auspices. Within IMO, Finland contributes actively to the preparation of regulations concerning the Arctic Region and raises issues of national importance. In particular, these issues concern the technical and structural properties of vessels operating in the Arctic, as well as the training and competence of the crew serving on these vessels. Finland also has solid expertise in the charting of seas.

Surveillance arrangements in the Arctic sea area and cooperation between the authorities can be seen as an area of development where Finland can serve as a contributing partner.[15] The best practices of the Baltic Sea can also be utilised in the Arctic Ocean.[16]

The Arctic Marine Shipping Assessment (AMSA), published by the Arctic Council in 2009, discusses the safety of Arctic shipping from a wide perspective.[17] The assessment includes a number of important recommendations for improving

[15] For instance, the MARSUNO project, financed by the European Commission and implemented in 2010 and 2011, explores a surveillance system for international sea areas that would combine several sectoral authorities in various countries. The Russian authorities (at least the Border Guard Service) are about to join the project.

[16] For instance, the surveillance and reporting system "Gulf of Finland Reporting System", designed together by Finland, Russia and Estonia, can serve as a model for Arctic sea areas.

[17] Finland served as one of the lead countries for the assessment.

logistics in the Arctic Ocean, such as the launching of measures to negotiate an Arctic search and rescue instrument.[18] The Finnish Border Guard already has equipment suited for Arctic conditions that can also be used for oil spill prevention and rescue operations in the Arctic Ocean.

Finland also participates in the European Space Agency's Galileo satellite navigation system that provides opportunities for improving traffic safety and for controlling crises and emergencies. Cooperation with the Russian GLONASS system is also important since it can serve as a back-up system for positioning in Polar Regions. In addition, Finland is involved in cooperation with the Canadian Polar Communications and Weather (PCW) and Radarsat-C satellite projects. As well as national use, Finland's goal is to gain a role in the satellite monitoring of northern and Arctic regions in Europe.

[18] Negotiations aimed at a search and rescue instrument started within the Arctic Council in December 2009. The goal is to sign the instrument at the Ministerial Meeting of the Arctic Council on 12 May 2011.

5 INDIGENOUS PEOPLES

– *Finland continues to work for the rights of indigenous peoples*

Finland's objectives are:

- To ensure the participation of indigenous peoples in the handling of affairs affecting their status as indigenous people.
- To safeguard the funding needed for the efficient participation of indigenous peoples.
- To raise the subject of improving the status of indigenous peoples in the Barents Region within the work done by the Arctic Council and the Barents Euro-Arctic Council.

Long-range transportation of hazardous materials, climate change, and pollution of the environment have a strong impact on the health and well-being of particularly those indigenous peoples practising their natural sources of livelihood and on the preservation of their culture.

The rights of indigenous peoples are one of the priorities of Finnish human rights policy. Finland continues the work to ensure the rights of the Sámi and other indigenous peoples, while taking into account the challenges brought by climate change. In the work concerning indigenous peoples carried out by the Arctic Council and the Barents Euro-Arctic Council, Finland will also raise the issue of improving the status of indigenous peoples in the Barents Region.

5.1 General about indigenous peoples

Out of the roughly four million people living in the Arctic, indigenous peoples account for over ten per cent. The Sámi are the only indigenous people living in the European Union. The Sámi live in the northern areas of Finland, Sweden and Norway and in the Kola Peninsula in Northwest Russia. The estimates of the number of Sámi vary between 70,000 and 100,000. The Sámi in Finland number about 9,500, of whom less than 40 per cent live in the Sámi homeland. The Nordic countries recognise the right of indigenous peoples to participate in decision-making in matters pertaining to them.

The participation of indigenous peoples in the Arctic Council's work is important from the perspective of developing the rights of these peoples. Finland's goal in conjunction with the establishment of the Arctic Council in 1996 was to

promote the participation of the representatives of indigenous peoples in discussions within the Council to the maximum extent possible. Participation by indigenous peoples is also a characteristic feature of the Barents Euro-Arctic Council's activities.

At global level, Finland takes part in cooperation concerning indigenous peoples especially within the United Nations Permanent Forum on Indigenous Issues. Finland participated actively in the drafting process of the Declaration on the Rights of Indigenous Peoples, adopted by the UN General Assembly in September 2007. The Declaration is a political document that is proclaimed as a standard of achievement concerning the rights of indigenous peoples. The Declaration encourages the states to comply with and effectively implement all their obligations as they apply to indigenous peoples under international instruments in consultation and cooperation with peoples concerned. Among the Arctic states, the Nordic countries voted for the adoption of the Declaration.

For 16 years, Finland's Kindred Peoples Programme has supported the languages and cultures of Finno-Ugric peoples living in Russia by means of grassroots-level cooperation projects in the target areas. In particular, exchange programmes between universities and diverse cultural cooperation have resulted in good international networks among actors; these are seen as productive forms of activity in the future as well.

5.2 The Sámi in Finland

In Finland, the status of the Sámi as an indigenous people is secured by the Constitution.[19] In addition, they have linguistic and cultural self-government in the Sámi homeland.[20] In its programme (19 April 2007), Prime Minister Matti Vanhanen's second Government is committed to ensuring the right of the Sámi to maintain and develop their own language on the basis of the cultural self-government prescribed by the Constitution.

According to the human rights obligations binding on Finland, people belonging to a minority must be provided with the necessary conditions that enable them to participate in public affairs concerning them.[21] The Act on the

19 By virtue of §17(3) of the Constitution, the Sámi, as an indigenous people, have the right to maintain and develop their own language and culture.

20 As provided by Act §121(4) of the Constitution. The Sámi homeland means the areas of the municipalities of Enontekiö, Inari and Utsjoki and the area covered by the Reindeer Owners' Association of Lapland in Sodankylä.

21 The Sámi in Finland are both an indigenous people and a minority referred to in the Council of Europe Framework Convention for the Protection of National Minorities.

Sámi Parliament stipulates that the authorities shall negotiate with the Sámi Parliament in all far-reaching and important measures that may, directly and in a specific way, affect the status of the Sámi as indigenous people and which concern matters in the Sámi homeland specified in more detail by the Act.

In Finland, too, the status of the Sámi involves several open questions. For a long time, a legislative instrument has been sought for arranging the rights pertaining to land, water and traditional means of livelihood in the Sámi homeland. The aim has been to reach a balanced solution in accordance with the international obligations binding on Finland. Through the legislative instrument, not only Sámi people but also other members of the local population could influence the ways in which their residential areas are used. The Government has continued to prepare the matter in order to determine whether a solution in line with the current legislation could be found among the proposals made at different times or elsewhere. This solution would have to answer the questions how State-owned lands in the Sámi homeland are managed and what support is provided for means of livelihood included in traditional Sámi culture. The objective is to reach a solution that meets the minimum requirements for removing the barriers preventing ratification of the International Labour Organisation's Indigenous and Tribal Peoples Convention 169 (1989). A draft for a Nordic Sámi Convention prepared by a Nordic group of experts was completed in October 2005. The purpose of the Convention is to strengthen the rights of the Sámi so that, irrespective of national borders, they can develop their languages, cultures, means of livelihood and social life. In spite of some problem points, the draft constitutes a good starting point for official negotiations for the Convention.

Effort has been made in Finland to strengthen education and culture in the Sámi languages. Despite this, the Sámi languages – especially Inari Sámi and Skolt Sámi – are particularly endangered languages. The Government Report to Parliament on the Human Rights Policy of Finland (2009) recommends that a revival programme is drawn up for the Sámi languages. The actions and projects to be implemented will be mapped during the programme work that is about to start. The programme aims at more comprehensive and more sustained activities to ensure the preservation and development of the Sámi languages.

The Treaty on the accession[22] of Finland to the European Union includes Protocol 3 on the Sámi, which recognises the obligations and commitments of Finland and Sweden with regard to the Sámi under national and international

[22] The Accession Treaties are now part of the Lisbon Treaty.

law and considers that traditional Sámi culture and livelihood are dependent on natural sources of livelihood, such as reindeer husbandry in the traditional areas of Sámi settlement. For the Sámi, reindeer husbandry is not just a means of livelihood but also the foundation of their language and culture.

6 ARCTIC POLICY TOOLS

Finland's objectives are:

- To emphasise the Arctic Council as the primary cooperation forum on Arctic matters. While recognising the interests of the coastal states to discuss certain questions, such as territorial issues, amongst themselves, it is important for Finland to preserve the central role of the Arctic Council.
- To strengthen the Barents Euro-Arctic Council also towards the European Union as the voice of regional actors and further enhance the link between the Barents cooperation, the Northern Dimension partnerships and the EU's cross-border cooperation programmes.
- To strengthen Finland's representation in Russia's northern regions.
- To use the neighbouring area cooperation funds increasingly for the financing of Finland's participation in regional cooperation, including Arctic cooperation.

Finland actively participates in multilateral cooperation at global and regional levels to achieve its own Arctic goals and to stave off global threats.

At global level, the United Nations (UN) and its agencies work on the major Arctic questions (maritime law, human rights, sustainable development, research, education, climate change and the status of indigenous peoples).

The most important body of Arctic cooperation is the Arctic Council (AC). It is the only circumpolar cooperation forum consisting of the eight Arctic governments, as well as indigenous peoples' organisations (A8+).

At regional level, an important cooperation forum for Finland's northern regions is the intergovernmental Barents Euro-Arctic Council (BEAC), whose goal is to enhance stability, comprehensive security and sustainable development in the most densely populated Subarctic Barents Region. The sub-regional cooperation forum of BEAC is the Barents Regional Council (BRC).

Arctic questions are also handled by the Nordic Council of Ministers.

The European Union is in the process of formulating its own Arctic policy. This will be discussed in Chapter 7.

6.1 Global level

Several international treaties and regulatory mechanisms also cover the Arctic Region, in full or in part. However, only a few of them are specifically directed at Arctic issues or the Arctic Region. Parties to the treaties monitor how efficiently and comprehensively these treaties are implemented both territorially and thematically.

Finland regards the current international treaty basis, especially the United Nations Convention on the Law of the Sea (UNCLOS) as a sufficient regulatory basis to deal with Arctic issues. The execution of UNCLOS can, if necessary, be supplemented by sector-based regulation that takes into consideration the specifics of the Arctic Ocean, as regards, for instance, the use of living natural resources, environmental protection or maritime safety.[23]

The implementation and scope of other current treaties should also be monitored. With respect to certain special questions, it may be necessary to consider stricter and more detailed arrangements than those currently used. Coordinating these arrangements could take place through the Arctic Council. In addition to Arctic sea regions, good control of land development should be kept in the foreground in international discussion.

The central contractual arrangements for the Arctic Region are:

The United Nations Convention on the Law of the Sea comprehensively regulates the use of the sea and creates the framework for settling territorial issues. The principles of UNCLOS form the basis of sector-specific regulation as well. In terms of the Arctic Ocean, the most visibly debated question on the application of UNCLOS deals with defining the areas under a coastal state's sovereignty or jurisdiction in relation to other states' zones, the high seas and the deep seabed. UNCLOS is also central to navigation rights, including the status of the Northeast and Northwest Passages. Organisations formed under UNCLOS that are particularly relevant to the Arctic Region are the Commission on the Limits of the Continental Shelf and the International Seabed Authority.

[23] Academic discussions have called for a comprehensive Arctic Management Regime to regulate the use of natural resources, environmental protection and navigation in the Arctic Region. It has also been expressed that it would be beneficial to the resolution of continental shelf disputes and to the entire planet, if a separate, binding Arctic regime were formed.

Five Arctic coastal states

The Arctic Council consists of eight Member States, five of which have a continental shelf that reaches the Arctic Ocean. These five states (Canada, Norway, Denmark, the United States and Russia) are called Arctic coastal states. The coastal states work together with the Commission on the Limits of the Continental Shelf established by UNCLOS to determine where the border between a coastal state's continental shelf and the deep seabed outside it lies.

Canada organised the second Arctic Ocean Foreign Ministers' Meeting in Quebec on 29 March 2010 (the first one was in Ilulissat on 28 May 2008). In the meeting, the coastal states renewed their commitment to solve their continental shelf demands peacefully and according to international law.

It is possible that, in the name of economic cooperation, the coastal states would find it appropriate to solve or at least partially put on hold their mutual disputes or even file joint submissions on the so-called extended coastal shelf. The agreement reached by Norway and Russia on 27 April 2010 on their mutual border in the Barents Sea and the Arctic Ocean highlights the importance of cooperation and international law of the sea.

Territorial questions are discussed in Appendix 5.

The International Maritime Organization (IMO) handles maritime regulation, including the maritime security, environmental concerns, technical cooperation and legal matters. Through the International Maritime Organization, it is possible to introduce the best practices of the Baltic Sea to the Arctic Ocean; for example, a regional cooperation model implemented according to the Baltic Marine Environment Protection Commission (HELCOM) and monitoring and control system.

Maritime standards should be harmonised and their monitoring enhanced. In the Arctic Region, this could mean, for instance, the harmonisation of vessel ice classes. Finland actively participates in the IMO's Polar Code programme, which is preparing Arctic maritime regulations.

The agreements, programmes and organisations central to Arctic environmental issues include **the United Nations Framework Convention on Climate Change** (UNFCCC), **the Intergovernmental Panel on Climate Change** (IPCC), **the Vienna Convention for the Protection of the Ozone Layer, the United Nations Environment Programme** (UNEP), **the United Nations Economic Commission for Europe Convention on Long-Range Transboundary Air Pollution** (UNECE CLRTAP), **the Convention on Environmental Impact Assessment in a Transboundary Context**

(Espoo Convention), **the UN Convention on Biological Diversity** (CBD) **and the International Union for Conservation of Nature** (IUCN).[24]

The United Nations Permanent Forum on Indigenous Issues (PFII) promotes the status of indigenous peoples in cooperation with governments. The Permanent Forum is an advisory body to the UN Economic and Social Council. It discusses and gives recommendations on issues pertaining to the economic and social development, culture, the environment, education, health and human rights of indigenous peoples. The indigenous peoples of the Arctic Region actively participate in the work of the forum. The status of indigenous peoples is also promoted in the UN through other types of cooperation between indigenous peoples and governments (the United Nations Human Rights Council, the General Assembly and other UN mechanisms).

6.2 Regional level

Arctic Council (AC)

The Arctic Council[25] strives to respond to the environmental challenges and issues of sustainable development facing the Arctic Region. The concrete work of the Council takes place in six expert working groups[26] that collate data from scientific research and prepare recommendations to support the Council's decision-making. The work of the groups focuses on the conservation of the environment and nature, monitoring and control, promoting sustainable development and joint rescue work as well as on improving the living conditions of the inhabitants of the Arctic Region. The consensus decisions made by the Council Member States are not legally binding, but the Council's recommendations are considered to have major political weight. The Council has no permanent secretariat or budget.

Finland regards the Arctic Council as the primary cooperation forum on Arctic matters. While recognising the interests of the coastal states to discuss certain questions, such as territorial issues, amongst themselves, it is important for Finland to preserve the central role of the Arctic Council.

24 See Appendix 10: Conventions on the environment.

25 See Appendix 11: Arctic Council.

26 Arctic Contaminants Action Program (ACAP), Arctic Monitoring and Assessment Programme (AMAP), Conservation of Arctic Flora and Fauna (CAFF), Emergency Prevention, Preparedness and Response (EPPR), Protection of the Arctic Marine Environment (PAME), Sustainable Development Working Group (SDWG).

The most significant added value of the Arctic Council is its role as the only circumpolar cooperation forum formed by the eight Arctic states. Indigenous peoples contribute to the Council's work as Permanent Participants (A8+). The Council's most significant strengths are the reports and recommendations on the protection of the environment and nature and on navigation.[27]

A potential weakness in the Council's work is the lack of joint funding, which is reflected in limited expert resources and the scarcity of funds available for the working groups. In some cases, this prevents long-term, comprehensive planning.

Finland strives to develop the Arctic Council's operations in the following manner:

1. Strengthening the Arctic Council as the only cooperation structure in the Arctic region formed by the eight Arctic states, and admitting new observers.

   Environmental changes in the Arctic and the opening of shipping routes have global impacts on non-Arctic states as well. In principle, Finland supports admitting new observers, including the European Union, into the Council, provided that they are committed to acting towards achieving the Council's goals. New observers would bring the Council additional resources it desires and new, good practices for multilateral cooperation. Amending the Declaration on the Establishment of The Arctic Council must be possible if the acceptance of new members requires it.

2. Broadening the agenda of the Arctic Council

   Finland believes that the Arctic Council should broaden its work as a forum for strategic Arctic discussion (e.g. vice-ministerial level meetings). The Arctic Council's current recommendations (e.g. AMSA, ACIA) form a good basis for furthering joint goals. In addition, the Council could look at international treaties central to the Arctic Region and identify potential regulatory gaps and overlaps. Finland is open to expanding the Council's activities to new sectors that would bring genuine added value. The weight of the Council can be increased by holding **Arctic Summits** from time to time to discuss the guidelines of Arctic policy more broadly. If necessary, observers could be invited to these Summits.

[27] For example, the Arctic Climate Impact Assessment (ACIA) published in 2005, which forms the basis for evaluating the impact of climate change in the Arctic Region. Likewise, the Arctic Marine Shipping Assessment (AMSA) published in 2009 contains several recommendations on developing Arctic marine shipping.

3. Institutional questions

   Finland supports strengthening the institutions of the Arctic Council. For the time being, the Arctic Council does not have a permanent secretariat, even though the question has arisen frequently. In practice, establishing a secretariat requires a binding, intergovernmental agreement and consensus between the Member States. If consensus cannot be reached, an alternative solution could be to continue and develop the ad hoc secretariat model enabled by the current chairmanship troika, allowing the working groups to continue their work with a lead state principle. Regardless of the secretariat arrangements, creating a permanent funding system to finance the Arctic Council's expert work and independent research seems inevitable in the future.

4. Increasing the visibility of the Arctic Council's work

   One of the most important tasks of the Arctic Council is to monitor and assess the state of the environment in the Arctic Region and to inform of any changes in it. The Arctic Council working groups do extremely important work, but reports and other material produced often go unnoticed by the general public. This is why the Council's work needs to be made more visible and its recommendations and regional climate change assessments must be utilised more efficiently in regional decision-making and preparation for the challenges posed by climate change.

Barents Euro-Arctic Council (BEAC)

The Barents cooperation takes place in constant interaction with local inhabitants, indigenous peoples and regional partners. It channels cross-border action and cooperation between authorities into the framework of the Barents Euro-Arctic Council and the Barents Regional Council. The Barents cooperation covers the land areas and territorial waters of Norway, Sweden, Finland and Russia.

A special feature and added value of the Barents Euro-Arctic Council[28] and the Barents Regional Council cooperation is that it uniquely brings together government and regional-level actors. Like the Arctic Council, the Barents cooperation highlights the indigenous peoples' right to participate in practice in the forums where issues related to them are discussed.

Potential weaknesses in the Barents Euro-Arctic Council's work are the fairly limited financial and human resources, especially in working group activities.

[28] See Appendix 12: Barents Euro-Arctic Council.

Finland strives to develop the Barents Euro-Arctic Council's operations in the following manner:

1. Efficient handling of territorial questions related to the Barents Region

   The Barents Euro-Arctic Council enables functional cross-border cooperation in the Barents Region and is also important for cooperation with Russia. Cross-border programmes are implemented in various sectors within the framework of the Council's working groups. For example, the Barents Emergency Prevention, Preparedness and Response Agreement[29] facilitates rapid aid in major accidents and also in situations in which the closest rescue units are in another party's territory. In the environment sector, the Barents Hot Spot Facility administered by the Nordic Environment Finance Corporation (NEFCO) is used to stave off shared environmental threats in the region. The development of civil society and youth organisations are supported through the Council's Working Group on Youth Policy and other structures.

2. Increasing awareness about the region's potential, capacity and development projects

   The Barents Euro-Arctic Council gathers together all the central actors in the Barents Region. The Barents cooperation produces regional, national and international information for the use of different target groups and to support their decision-making. The Barents cooperation can also function as the region's voice towards the European Union as it develops its own Arctic policy.

3. Coordinating the actions of the Barents Euro-Arctic Council with the Northern Dimension partnerships and the EU's cross-border cooperation programmes

   The EU's cross-border cooperation programmes (ENPI CBC) started in 2010, offer new financing possibilities in the Barents Region. Through the Kolarctic and Karelia programmes, political decisions can be turned into practical projects. The Northern Dimension partnerships also have great potential significance in implementing the Barents Region cooperation (See 7.3).

[29] Agreement between the Governments in the Barents Euro-Arctic Region on Cooperation within the Field of Emergency Prevention, Preparedness and Response, 11 December 2008.

Nordic Council of Ministers (NCM)

The Nordic Council of Ministers[30] finances Arctic Council and Barents Euro-Arctic Council projects that conform to the goals and targets defined in the Nordic Council of Ministers' Arctic Cooperation Programme. On the annual level, the value of the funding is approximately 1.2 million euros. It has a significant impact on the Arctic Council's work in particular. It is important to ensure that the work of Nordic Council of Ministers in the Arctic Region supports and supplements the Arctic Council and the Barents Euro-Arctic Council also in the future.

In addition to the Nordic Council of Ministers, an important cooperation organisation in the region is the **North Calotte Council**[31], funded by the Nordic Council of Ministers and comprising Finland, Sweden and Norway. The North Calotte Council operates by initiating and funding various regional cooperation projects. Its members are representatives of the development authorities responsible for regional policies, and representatives of commerce and industry. As such, the Council can be characterised as a cross-border partnership between the authorities and the economy.

6.3 Bilateral cooperation

In the Barents Region, cooperation with Norway and Russia is important to Finland. The agreement between Norway and Russia regarding the Barents Sea border is going to increase the search for and production of oil and gas, creating far-reaching economic and financial effects for the entire region.

Finland plans on strengthening its representation especially in Russia's northern regions. The aim is to promote the Murmansk Office of Finland's Consulate General in St. Petersburg to the level of an independent Consulate General.

Northern Finland's regions, central cities, universities and sub-regions for cooperation with the East, founded Barents Centre Finland Company to promote the communication of information to companies that are interested in business opportunities in the Barents Region. The company serves the commerce and industry of the whole of Finland and functions as a link between the economy, research, education and government.

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30 See Appendix 13: Nordic Council of Ministers. The Nordic Council of Ministers is an observer in the Arctic Council.

31 Geographically, the North Calotte consists of the counties of Nordland, Troms and Finnmark in Norway, the Region of Lapland in Finland and the province of Norrbotten in Sweden.

6.4 Funding

The funding for cooperation in the Arctic and Barents Regions is based on joint funding by various actors (national, both public and private, and international).[32] EU instruments which fund regional and cross-border multilateral project cooperation include Northern Dimension partnerships and the EU's cross-border cooperation programmes (ENPI CBC) that are discussed in Chapter 7.

Finland's Arctic cooperation is based on the budget funds allotted to the Ministry for Foreign Affairs and other ministries.

Participating in and organising the meetings of various sectors of the Arctic Council and the Barents Euro-Arctic Council are mostly covered by the ministries' common operating budgets. Other activities, such as various assessments and reports, seminars, lead state activities and other projects, need financial support from different parties. For example, the Arctic Marine Shipping Assessment (AMSA 2009), significant to commerce and industry, would not have been possible without financial support from the Ministry of the Environment and the Ministry for Foreign Affairs.

Finland's Arctic operations focus particularly on promoting of project cooperation of various sectors. At project level, Finland's neighbouring area cooperation funds primarily finance development projects in Northwest Russia including projects by the regional councils (e.g. the Arctic Council and the Barents Euro-Arctic Council). The use of neighbouring area funding for the operations of the Arctic Council and the Barents Euro-Arctic Council is limited by the current criteria of neighbouring area funding, which limit the use to development projects in Russia. An example of a Barents cooperation project financed with neighbouring area funds is the project *Controlling the spread of HIV/AIDS in the Barents and Northern Dimension Partnership Programme Regions*, which Finland has supported between 2005 and 2010 with approximately 1.9 million euros. In Arctic cooperation, neighbouring area funds have been used to finance, for example, the Arctic Contaminants Action Program (ACAP) project *Environmentally-Sound Management of Stocks of Obsolete and Prohibited Pesticides in Russia* with 0.2 million euros. Furthermore, Finland has assigned 0.2 million euros of neighbouring area funds to the Project Support Instrument fund managed by the Nordic Environment Finance Corporation (NEFCO), which supports ACAP projects in Russia.

[32] Actions are implemented within the boundaries of the national economy based on separate decisions made according to the appropriate procedures in each concrete case.

Finland's Arctic operations can also be enhanced by creating a more well-defined national financing approach. **It should be pondered whether the neighbouring area cooperation funds can increasingly be used to finance Finland's participation in regional cooperation, including Arctic cooperation.** Up until now, the scale of operations has been slightly under 800,000 euros per year, most of which is provided by the Ministry for Foreign Affairs. The rest of the funding comes from the Ministry of the Environment and the Ministry of Education and Culture.

7 THE EU AND THE ARCTIC REGION

Finland's objective is that:

- The EU considers the special features of the Arctic Region in the Union's various policy sectors and increases its input in the area.
- The EU is approved as an observer member of the Arctic Council, and the EU establishes an Arctic Information Centre in conjunction with the Arctic Centre of the University of Lapland.
- The Northern Dimension becomes a central tool for the EU's Arctic policy in terms of external relations.

The EU is an Arctic player. Out of the eight Arctic countries, Finland, Sweden and Denmark are EU Member States. Norway and Iceland (which submitted its membership application to the EU in July 2009) are members of the European Economic Area.[33]

Developments in the Arctic Region have important consequences for the lives of future generations in the whole of Europe. The region plays a key role especially in terms of energy generation, fishery, other livelihoods based on natural resources, and tourism. Similarly, the EU's activities and policies have an impact on the Arctic Region. Among other things, the EU participates widely in the development of Arctic research and regional infrastructure.

The Communication issued by the Commission to the Council and Parliament in 2008 and the subsequent Council Conclusions in 2008 and 2009 are the first steps in outlining the EU's Arctic policy.[34] While the Arctic Communication was being prepared, Finland delivered its own views to the Commission and participated actively in the drafting of the Council Conclusions. The next milestone will be the summer of 2011, by which time the Commission has been requested to issue a follow-up report on the development of Arctic policy.

The European Union's Arctic policy is part of both the Union's internal policies and its external relations.

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[33] Greenland is not a member of the European Union. Svalbard of Norway is not included in the European Economic Area.

[34] This chapter makes frequent reference to the Arctic Communication given by the EU on 20 November 2008 "The European Union and the Arctic Region; COM (2008) 763 final", the Arctic conclusions of the EU General Affairs and External Relations Council (8 December 2008) and the Arctic Conclusions of the EU Foreign Affairs Council (8 December 2009).

7.1 The EU as a global Arctic player

The general principles of the European Union's Arctic policy have been outlined in the Commission Communication and in the Council Conclusions. The Commission Communication defines the following three main objectives for the EU's policy in the Arctic Region: 1) Protecting and preserving the Arctic in unison with its population; 2) Promoting sustainable use of resources; and 3) Contributing to enhanced Arctic multilateral governance based on the UN Convention on the Law of the Sea. In addition, the Communication presents views on issues such as climate change, indigenous peoples and research. As concrete measures, the Communication proposes the creation of a European Arctic Information Centre and observer status for the EU in the Arctic Council.

The EU advocates extensive dialogue and close cooperation in Arctic issues. All relevant actors should be involved in building a common Arctic policy. The EU's Arctic policy is anchored in various treaties and other cooperation arrangements (see Chapter 6.1). It is important that all actors comply with the international regulations applied to the Arctic Region. Creation of a comprehensive Arctic treaty regime is not necessary, but implementation of the existing individual treaties and the need to supplement them must be assessed.

The EU stresses that a balance between environmental protection and the sustainable use of resources must be maintained in all industrial activities. Increasing attention needs to be paid to safety and rescue issues so that the potential offered by the Arctic Region can be put to use safely and sustainably. At present, the region's monitoring, surveillance and rescue systems and research infrastructure are still underdeveloped.

For Finland, it is important that the EU has recognised the importance of the Arctic Region. As the EU's Arctic policy is developing, attention needs to be paid, for instance, to the following:

1. Within its jurisdiction, the EU can look after and support the Member States' interests as efficiently as possible when Arctic issues arise in various international organisations (e.g. securing the realisation of freedom of navigation, especially in the Northeast Passage, avoidance of discriminatory practices, utilisation of resources).[35]

[35] In its Communication, the Commission stresses that the opening of Arctic sea areas for traffic and utilisation of previously non-accessible natural resources must not lead to discriminatory practices towards third countries. For instance, rights pertaining to shipping in accordance with the international law of the sea must be respected in the new routes and areas opened for maritime transports. UNCLOS is a convention of shared jurisdiction to which the Community is one party.

2. The importance of Arctic energy reserves for the security of energy supply in Europe must be considered. It is in the EU's interest that energy reserves in the Arctic Region are linked with European energy networks and serve the security of Europe's energy supply.

3. The EU framework programmes for research play a major role with regard to the funding of Arctic research. It is important to emphasise Arctic research as a priority in research activities. Funding should continue to be available from the EU framework programme so that important research projects implemented in cooperation by several countries can be financed in various sectors of research.

4. In the EU's own activities, the environmental and socioeconomic impacts of the Union's strategies, programmes and projects on the Arctic Region must be assessed and considered before any decisions on them are made. Recognition of special Arctic features and responding to environmental challenges must be included in the measures taken by the EU to mitigate and adapt to climate change.

5. The Union's strength in chemical policy must be utilised to reinforce the control and monitoring of chemicals in the Arctic Region and to support international cooperation aiming at diminished long-range transportation and use of hazardous substances.

6. The point of departure in the Union's policy on fisheries is to see that fishing takes place in a sustainable manner. For this purpose, the EU is a party to agreements with fishery organisations in the Arctic Region and cooperates with coastal states engaged in fishing in the region.[36] Finland has direct interests in the North Atlantic Salmon Conservation Organization, because Europe's largest salmon river, the Tenojoki, and the important Näätämöjoki river are within Finland's contractual sphere.

7. One of the main objectives of the EU's Arctic policy is to protect and preserve the Arctic in unison with its population. The EU's regional policy and programmes also benefit indigenous peoples. The EU has proposed commitment to regular dialogue with Arctic indigenous peoples. In particular, the organisations and activities of the Sámi and of other peoples of the European Arctic should be supported, *inter alia* under regional and cross-border programmes.

[36] The EU is a party to agreements signed with the North East Atlantic Fisheries Commission (NEAFC), the Northwest Atlantic Fisheries Organization (NAFO) and the North Atlantic Salmon Conservation Organization (NASCO). The EU has bilateral agreements on fishing partnership with Norway, Iceland and Greenland. The agreement with the largest scope is that signed between the EU and Norway, which has a considerable impact on a great number of Member States. The EU and Russia have conducted long-term negotiations on fishing partnership with respect to Arctic fishery resources, but a joint stand is yet to be reached. In its Communication, the Commission emphasises that a regulatory framework on fishing needs to be extended to areas not yet covered by such a regime.

8 With respect to the EU's external relations, Arctic themes are likely to assume a central role both in transatlantic relations and in the Union's relations with Russia, Canada, China, Japan and South Korea.

9. The EU recognises the Arctic Council's pivotal role and applies for permanent observer status in the Arctic Council.

European Arctic Information Centre

The Arctic Communication issued by the Commission in November 2008 and the Conclusions of the EU Foreign Affairs Council from December 2009 encourage the Commission together with Member States to explore the possibilities of creating a European Arctic Information Centre. Finland proposes that the Arctic Information Centre be established in conjunction with the Arctic Centre of the University of Lapland located on the Arctic Circle. The Arctic Centre of the University of Lapland is an Arctic research centre operating in the EU's Arctic Region that already has a well-functioning infrastructure and a circumpolar cooperation network.

7.2 The importance of the Barents Region to the EU

As an Arctic Member State of the EU, Finland considers it important that Arctic cooperation has a strong Barents dimension. The European Arctic Region should be treated comprehensively and Arctic viewpoints must be taken into account in the EU's internal policies, including:

1. For regional policy, it is essential that the Arctic Region is treated as a whole and that the EU will continue its structural policy in sparsely populated regions in the north.

2. In the transport sector, Finland's objectives are to create links to peripheral, hard-to-reach areas and to improve social and regional unity. With respect to Trans-European Networks, the priority network should supplement the existing networks and also ensure the extension of transport routes to the EU's northern regions, as well as links to third countries.

3. Environmental cooperation in the Barents Region provides the EU with the opportunity to utilise the existing cooperation networks and thereby to discuss and solve regional and local environmental problems. Through regional cooperation across borders in the Barents Region, attention has been paid to concrete polluted sites, or 'hot spots', to wastewater and drinking water issues, to water bodies in frontier zones, and to the protection of biodiversity.

Norway and Russia are the most important exporters of energy to the EU. Together they account for about 70% of the gas and about 50% of the oil imported into the EU. Russia supplies about one quarter of the coal imported into the EU. The EU's own gas and oil production is decreasing, and imports from Russia and Norway are expected to rise. The Arctic Region accounts for the bulk of new production in both Norway and Russia.[37]

With respect to the EU's external relations, development of cooperation in the Barents Region, especially with Russia and Norway, should be one of the Union's priorities. The EU's cooperation with Norway is already close, and should Norway decide to apply for EU membership, the Union's Arctic profile would be further strengthened.

The EU and Russia are strategic partners and neighbours. They are highly dependent on each other, for instance, in the fields of trade, economy and energy, and they are important global players. Many practical issues in various sectors are also of importance for the Arctic Region. Arctic issues must be considered in relations between the EU and Russia, whether in activities within so-called Common Spaces, in the process of Russia's joining the World Trade Organization, in increasing mobility or in modernisation partnership.

7.3 The Northern Dimension as a tool in the European Union's Arctic policy

The Northern Dimension (ND)[38] is a common policy shared by four equal partners, the EU, Russia, Norway and Iceland. The United States and Canada participate in this cooperation as observers. The Northern Dimension serves as an umbrella for regional cooperation carried out in Northern Europe; the Arctic Council, the Barents Euro-Arctic Council and the Nordic Council of Ministers are participants in the Northern Dimension policy.

The Northern Dimension provides the EU with a tool for implementing its Arctic policy in cooperation with other partners engaged in the Northern Dimension. In the Barents Region – as in the Baltic Sea Region – the Northern Dimension links together the internal and external aspects of EU policy. It adds content to the EU's Arctic policy and provides a joint mechanism for implementing this

[37] Norway and Russia signed an agreement on their maritime border in the Barents Sea on 27 April 2010. The agreement covers an area of about 175,000 square kilometres, which is expected to contain large gas and oil fields located closer to the coast than the Shtokman field (e.g. the Fedinski field, which is assumed to contain three times more gas than Shtokman).

[38] See Appendix 14: Northern Dimension.

policy together with other Northern Dimension partners. Indigenous peoples are also involved in the Northern Dimension.

It should also be noted that, owing to the observer status of the United States and Canada, the Northern Dimension brings together all Arctic states. As all Arctic countries participate in, or are linked to, the Northern Dimension it will be possible in the future to increasingly channel concrete projects in the Arctic Region through the Northern Dimension.

The content of the 'Arctic Window' of the Northern Dimension is pivotal for the EU's Arctic policy.[39] The Arctic Window should include at least the following elements:

1. The special features of the Arctic Region – the fragile natural environment, long distances, indigenous peoples – and its economic potential must be taken into account more clearly in the operations of Northern Dimension partnerships.

   Cooperation within the Northern Dimension is of a practical nature. The Northern Dimension partnerships – especially the Environmental Partnership – have brought together in different sectors the principal financial institutions (EBRD, EIB, NIB, NEFCO etc.). In this way they have promoted the availability of international financing for cross-border projects within the Northern Dimension.

   The nuclear safety projects of the Environmental Partnership (NDEP) are one concrete example of cooperation conducted in the Arctic Region. In total, about 160 million euros has been allocated to projects associated with radioactive waste management and the storage of spent nuclear fuel in the Kola Peninsula and the Arkhangelsk region. Conventional water and wastewater projects are also carried out within the partnership in Arkhangelsk, Murmansk and elsewhere in Northwest Russia. Cooperation is also conducted in projects undertaken to improve energy efficiency. The current mandate of the Environmental Partnership Support Fund will extend until 2017. When future activities are planned, the objectives set for the Arctic Window of the Northern Dimension must be taken into account more diligently.

   The Northern Dimension Partnership in Public Health and Social Well-being (NDPHS) has been supplemented with an expert group promoting the health and well-being of indigenous peoples. Indigenous peoples and representatives from Canada, Greenland and the Barents Region (Russia, Finland, Sweden, Norway) have participated in the expert group's activities. Another important feature for the Arctic

[39] The Northern Dimension covers an extensive geographical area ranging from Europe's Arctic and Subarctic regions to the southern coast of the Baltic Sea, including the adjacent countries, and from Northwest Russia in the east to Iceland and Greenland in the west.

Region is that, at Russia's initiative, the possibilities of cooperation in telemedicine are being explored.

Through the Northern Dimension Partnership on Culture (NDPC), artists and other representatives of the cultural sector, especially those representing indigenous peoples, can find a channel to forge contacts with other artists, distributors and financiers.

The purpose of the Northern Dimension Partnership on Transport and Logistics (NDPTL)[40], currently under preparation, is to improve the major transport connections and logistics in the Northern Dimension area and to stimulate economic growth by focusing on both regionally and nationally prioritised projects. The content of the partnership is divided between infrastructure projects and horizontal issues, which include themes, for instance, on border crossings and the safety of transport. The Partnership on Transport and Logistics will play a central role in the development of transport connections in the Barents Region. It offers Northern European countries a forum where they can connect the European TEN-T network and international transport links at the regional level and coordinate and evaluate regionally important infrastructure projects. The impacts that the Northeast Passage and major economic projects in the region will have on the transport network in the Barents Region are likely to come up in the course of the partnership activities.

2. Cooperation with observer countries, especially with the United States and Canada, should be increased in Arctic issues.

   So far cooperation with observer countries has taken place on an ad hoc basis. In the future, more established cooperation forms need to be developed. By strengthening the status of observer countries, all Arctic countries can be brought more closely into the sphere of the Northern Dimension.

3. Cooperation with the Arctic Council and the Barents Euro-Arctic Council should be intensified.

   Coordination meetings with regional councils have been arranged within the framework of the Northern Dimension. In the future, this cooperation should be made closer and more regular. The partnerships of the Northern Dimension must be utilised more efficiently in the operations of the Arctic Council and the Barents Euro-Arctic Council.

4. The EU's northern cross-border and regional cooperation programmes should be used effectively in order to achieve the objectives of the Arctic Window of the Northern Dimension.

[40] The agreement on the Partnership on Transport and Logistics was signed in Naples, Italy on 21 October 2009. The agreement establishing the Secretariat was signed in Zaragoza, Spain on 8 June 2010.

The use of the EU's regional and cross-border cooperation programmes[41] for promoting the objectives of the Commission Arctic Communication and the wider objectives of EU's Arctic policy can be made considerably more efficient both in terms of the content of the programmes and, especially, their implementing rules.

From the viewpoint of the Barents Region, the cross-border cooperation programmes (ENPI CBC), which started in 2010, play a pivotal role in regional cooperation between the EU and Russia in the Arctic Region. These programmes combine for the first time the Union's funding for external relations and cohesion funding within the same instrument, in order for them to be used according to uniform rules. In addition, this is the first time when the Russian Federation has allocated notable national financing (105 million euros) for the cross-border cooperation programmes.

For Finland, it is positive that cross-border cooperation has gained new political weight in the EU. Creation of security, stability and well-being on the EU's external borders is considered to be a common interest for the Union. Cooperation across external borders has been one of Finland's priorities in the Northern Dimension policy. Finland has been a forerunner in cross-border cooperation and has made efforts to share its experiences and know-how with other EU Member States.

The European Union's regional cooperation programmes

The interregional cooperation programmes (INTERREG IV) and cross-border cooperation programmes (ENPI CBC) co-financed by the EU cover much of the Arctic Region from Greenland to Novaya Zemlya. In addition to the cross-border programmes proper, the INTERREG IV B Northern periphery programme covers large areas outside the EU. By working together, regions strive to develop and identify solutions that could be applied in various parts of the programme area to improve communities' possibilities to survive and develop in these climatically challenging and sparsely populated areas.

41 See Appendix 15: The EU's cross-border and regional cooperation programmes.

8 CONCLUSIONS: OBJECTIVES AND PROPOSALS FOR ACTION

- Cooperation based on international treaties lays the foundation for Finland's activities in the Arctic Region.
- Finland strives to increase international cooperation in Arctic issues at global and regional levels and in bilateral relations.
- Finland considers it important that the EU develop its Arctic policy.

Finland's strategy for the Arctic Region lays down sector-specific objectives and concrete proposals for action. The principal objectives are:

Environmental protection in the Arctic Region

To draw attention to the special features of the Arctic Region and to Arctic environmental issues and risks in international cooperation (including international climate negotiations and formulation of the EU's positions), while utilising the assessments and recommendations of the Arctic Council and other national and international research data as the basis for decision-making.

To give stronger support for Arctic research, the development of regional climate models and the long-term monitoring of the state of the environment as the basis for decision-making and to reinforce the national coordination of research and monitoring.

To promote nuclear safety, especially in the Kola Peninsula, by taking an active part in nuclear safety projects and by maintaining radiation control of the environment and preparedness for exceptional radiation situations.

Economic activities in Arctic areas

To strengthen Finland's role as an international expert in Arctic know-how by investing in education, research, testing, technology and product development.

> Proposal for action: To guarantee extensive Arctic research competence, the Academy of Finland should start an Arctic research programme focusing on multidisciplinary and interdisciplinary research and international cooperation. Ministries in charge: Ministry of Education and Culture, Ministry of Employment and the Economy, Ministry of the Environment, Ministry of Agriculture and Forestry

To make better use of Finnish experience of winter shipping and Arctic technology in Arctic sea transport and shipbuilding.

To improve the opportunities of Finnish companies to benefit from their Arctic know-how in the large projects undertaken in the Barents Region by supporting the networking, export promotion and internationalisation of small and medium-sized enterprises, in particular.

> Proposal for action: Export promotion in the Arctic Region should be included as an element in the new National Strategy for Promoting Exports and Internationalisation. Finpro should reinforce its presence in the Barents Region by establishing a permanent representation office in Murmansk and by reopening the export centre in Norway. Ministry in charge: Ministry of Employment and the Economy

Transport networks

To improve business opportunities in the Arctic by developing transport, communications and logistics networks and border crossings.

> Proposal for action: A stance should be formulated at national level on the goals and measures for developing the transport system in Northern Finland. Ministry in charge: Ministry of Transport and Communications

To develop transport routes in the Barents Region by striving towards a joint strategic view with the neighbouring countries.

> Proposal for action: The Northern Dimension Partnership on Transport and Logistics, which is under preparation, should be utilised as a principal regional forum for negotiations. Ministry in charge: Ministry of Transport and Communications

To harmonise international regulations concerning the safety of shipping and environmental protection in the Arctic.

> Proposal for action: The best practices used in the Baltic Sea should be also utilised in the Arctic Ocean (e.g. the Gulf of Finland Reporting System). Ministry in charge: Ministry of the Interior

Indigenous peoples

To ensure the participation of indigenous peoples in the handling of affairs affecting their status as indigenous people.

To safeguard the funding needed for the efficient participation of indigenous peoples.

To raise the subject of improving the status of indigenous peoples in the Barents Region within the work done by the Arctic Council and the Barents Euro-Arctic Council.

International organisations

To emphasise the Arctic Council as the primary cooperation forum on Arctic matters.

> Proposal for action: New observer members should be admitted to the Arctic Council and the Council's agenda should be broadened. The Arctic Council should hold summit meetings from time to time. Ministry in charge: Ministry for Foreign Affairs

To strengthen the Barents Euro-Arctic Council also towards the European Union as the voice of regional actors and further enhance the link between the Barents cooperation, the Northern Dimension partnerships and the EU's cross-border cooperation programmes.

> Proposal for action: Awareness of the potential, competence and development projects planned in the region should be raised by means of the Barents Euro-Arctic Council. Activities of the Barents Euro-Arctic Council should be aligned with the Northern Dimension partnerships and the EU's cross-border cooperation programmes. Ministry in charge: Ministry for Foreign Affairs

To strengthen Finland's representation in Russia's northern regions.

> Proposal for action: The Murmansk office should be strengthened. Ministry in charge: Ministry for Foreign Affairs

Funding

Funding for Finland's Arctic activities should be simplified.

> Proposal for action: Neighbouring area funds should be allocated in part for regional cooperation, with Arctic cooperation as an item of its own. Ministry in charge: Ministry for Foreign Affairs

The European Union

Finland works, for instance, to achieve the following goals:

The EU considers the special features of the Arctic Region in the Union's various policy sectors and increases its input in the area.

The EU is approved as an observer member of the Arctic Council, and the EU establishes an Arctic Information Centre in conjunction with the Arctic Centre of the University of Lapland.

The Northern Dimension becomes a central tool for the EU's Arctic policy in terms of external relations.

9 APPENDICES

Appendix 1a: Decision to appoint the Arctic Working Group

PRIME MINISTER'S OFFICE
Finland

VNK002:00/2010

APPOINTMENT DECISION

12 February 2010

Subject **PREPARATION OF A REPORT CONCERNING FINLAND'S POLICY FOR THE ARCTIC REGION**

Appointment

The Prime Minister's Office has today appointed a working group to prepare a report on Finland's policy in the Arctic Region. The report will be submitted to the Finnish Parliament.

Term

The working group's term begins on 12 February 2010 and ends on 30 June 2010.

Background

The Finnish Parliament has requested a policy document concerning Finland's policy for the Arctic Region (Foreign Affairs Committee Report 12/2009). The goal is to draw up a report on Finland's policy for the Arctic Region before Parliament's summer break in 2010.

The purpose of the policy concerning the Arctic Region is to focus mainly on the aspect of external relations in Arctic policy. Compilation of the report is topical since the general political and economic importance of the region is increasing, owing to factors such as the area's natural resources and the opening of new shipping routes due to climate change. In addition, Finland should make a strong contribution to the EU's Arctic policy, which is under preparation.

At the request of the Ministry for Foreign Affairs, compilation of the report is coordinated by the Prime Minister's Office, which will set up a working group for the purpose. The report concerning Finland's policy for the Arctic Region will be discussed by the Cabinet Committee on European Union Affairs and possibly also by the entire Government before its submission to Parliament.

In addition, the intention is to appoint a separate Advisory Board on Arctic Affairs representing various parties. The Advisory Board will be heard during the preparation of the report.

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Purpose

The working group's task is to draw up a proposal for a report on Finland's policy in the Arctic Region, for submission to the Foreign Affairs Committee of Parliament.

Organisation

Chair

Jukka Salovaara, State Under-Secretary for EU Affairs, Prime Minister's Office

Vice Chair

Hanna Lehtinen, Deputy Director General, Ministry for Foreign Affairs

Members

Mirja Kurkinen, Senior Adviser, Legal Affairs, Ministry of Justice

Jukka Savolainen, Commodore, Ministry of the Interior

Arto Merimaa, Senior Adviser for the Budget, Ministry of Finance

Maija Lummepuro, Counsellor for Cultural Affairs, Ministry of Education

Markku Aro, Head of Unit for Fisheries Industry, Ministry of Agriculture and Forestry

Tuija Maanoja, Senior Officer, International Affairs, Ministry of Transport and Communications

Pertti Laine, Senior Adviser, Ministry of Employment and the Economy

Outi Mähönen, Biologist, Arctic Affairs, Centre for Economic Development, Transport and the Environment for Lapland/Ministry of Environment

Permanent expert

Hannu Halinen, Ambassador, Arctic Affairs, Ministry for Foreign Affairs

Secretariat

Kim Kuivalainen, First Secretary, Ministry for Foreign Affairs

Antti Kaihovaara, Project Assistant, Ministry for Foreign Affairs

In addition, the working group can consult specialists.

Costs and other provisions

The working group members will discharge their tasks as part of their official duties. No fees will be paid for attending meetings.

Each background organisation is responsible for its representatives' travel costs. The travel costs of experts heard by the working group are paid by the Prime Minister's Office in accordance with the relevant State guidelines.

The working group cannot place orders or make agreements that would be binding on the Prime Minister's Office unless specifically approved by the Prime Minister's Office. Separate decisions by the Prime Minister's Office are also needed for any recruitment, experts' fees or other commitments involving costs. Within the Prime Minister's Office, responsibility for matters pertaining to the working group is vested in the Government Secretariat for EU Affairs.

The printing, distribution, layout and translation of any reports and other publications must be agreed on in advance with the Prime Minister's Office.

Matti Vanhanen
Prime Minister

Valtteri Nieminen
Senior Specialist

Distribution

Working group chairs, members, permanent expert and Secretariat
Ministries

For information

Ministry for Foreign Affairs/Ministers Stubb and Väyrynen
Prime Minister's Office/State Secretary Volanen
Prime Minister's Office/Permanent State Under-Secretary Aaltonen
Prime Minister's Office, Department for Administration and Specialist Services/ Administration Unit
Prime Minister's Office, Department for Administration and Specialist Services/ Information Service
Prime Minister's Office, Government Communications Unit
Prime Minister's Office, Government Registry

Appendix 1b: Replacing a member in the Working Group

PRIME MINISTER'S OFFICE
Finland

VNK002:00/2010

27 May 2010

Subject — Replacing a member in the working group preparing a report on Finland's policy for the Arctic Region

By a decision made today, the Prime Minister's Office has relieved Senior Adviser Pentti Laine of his membership in the working group appointed for the preparation of a report on Finland's policy for the Arctic Region. He is replaced by Janne Antikainen, Director for Regional Development at the Ministry of Employment and the Economy.

At the same time, the Prime Minister's Office has appointed Counsellor Janne Kuusela of the Ministry of Defence to serve as a member of the working group.

Matti Vanhanen
Prime Minister

Valtteri Nieminen
Senior Specialist

Distribution — Working group

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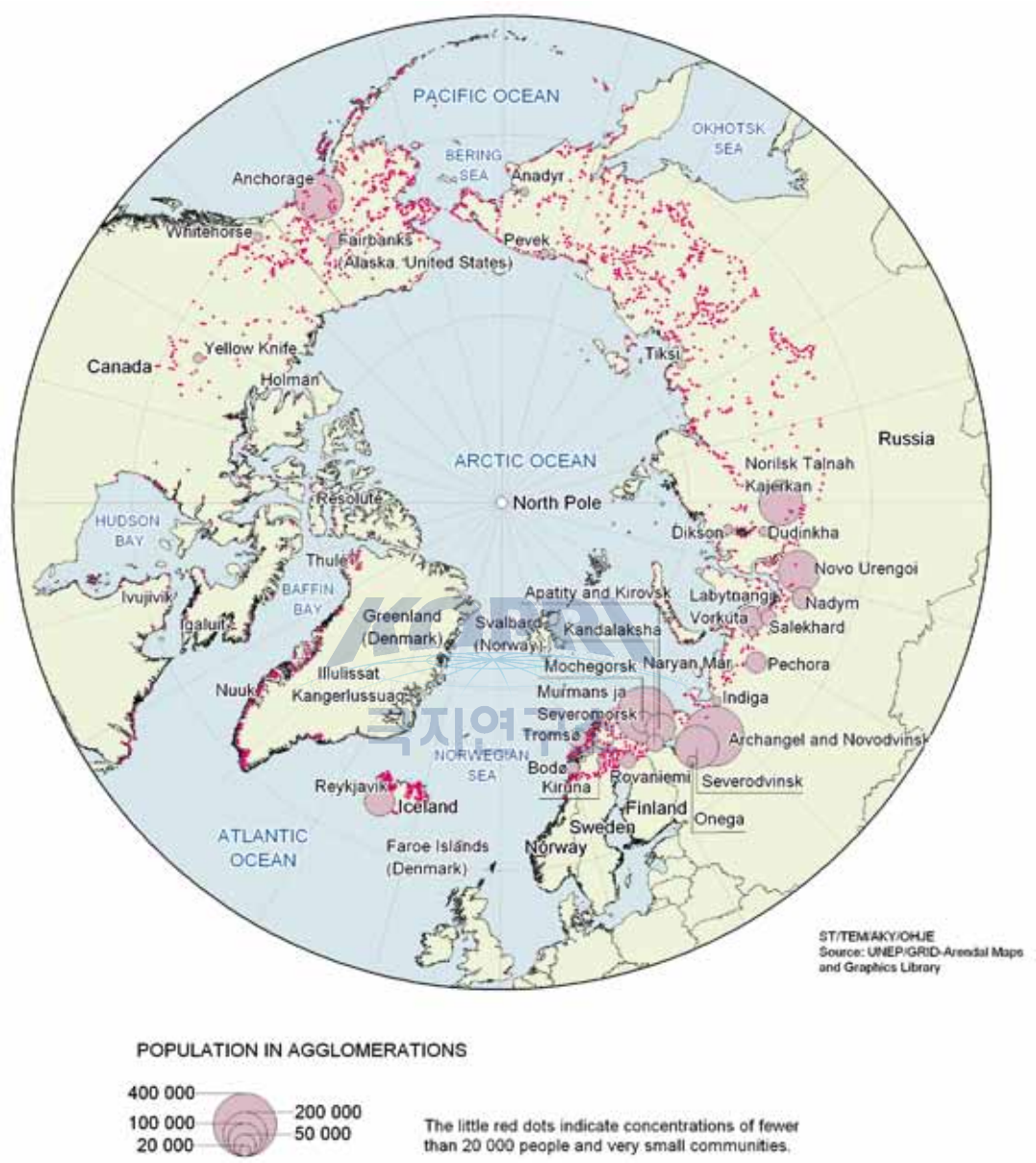
Appendix 2: Population concentrations in the Arctic Region



POPULATION IN AGGLOMERATIONS

400 000
100 000
20 000
200 000
50 000

The little red dots indicate concentrations of fewer than 20 000 people and very small communities.

Appendix 3: Melting of sea ice and forecasts


ST/TEM/AKY/OHJE
Source: UNEP/GRID-Arendal Maps and Graphics Library/ ACIA
EXTENT OF SEA ICE
2070-2090
2040-2060
2010-2030

Appendix 4: Climate change in the Arctic Region by 2050

Finnish Meteorological Institute

A review of climate change in the Arctic Region by 2050

The rise in temperatures caused by climate change is about 1.5–2 times greater in the Arctic Region than on average in the world. Warming is accelerated by the decrease in the area covered by sea ice and snow that reflect the sun's radiation back into space: in summer, surfaces absorb more solar energy than before. According to a recent study, between 1989 and 2008 the mean temperature north of the latitude 70°N rose by 1.6 degrees Celsius in autumn and winter, by 0.9 degrees in spring and by 0.5 degrees in summer within one decade. According to a study based on satellite data, conducted by the Finnish Meteorological Institute, snow in Siberia now melts about one week earlier than it did 30 years ago. Sea ice has shrunk and become thinner. Before 2000, the annual minimum extent of Arctic sea ice varied between 6.2 and 8 million square kilometres, but in 2007–2009 the sea areas covered by ice measured only 4.3–5.4 million square kilometres. The extent of ice has diminished by 12% in one decade. Ice conditions in the Baltic Sea have also become clearly milder; very severe ice conditions have not been experienced since the winter of 1987. According to model simulations, extremely severe or severe ice conditions will become very rare after 2030.

The mean temperature of the Arctic Region is estimated to rise by 2.5–6 degrees Celsius by the year 2050, when compared against the average during the period 1901–1950. It is predicted that in Finland the annual mean temperature will be about 3 degrees higher in 2050 than during the reference period 1971–2000. In winter, temperatures will rise twice as much as in summer. In addition, warming may be slightly faster in the north of Finland than in the south, especially in winter. Precipitation will change fairly slowly in Finland. It is estimated that by 2050, precipitation during winter will increase by 5–25% when compared against the period 1971–2000; in summer, the figure will be about half of this. Windiness is not expected to increase much in Finland: about a couple of per cent in winter, and even less in summer.

The recent major changes in ice cover are mainly attributable to a reduction in the volume of thick, permanent ice. The underlying factors include climate change and changes in the circulation of sea ice, such as acceleration of ice movements and stronger drifting from the Arctic Ocean into the North Atlantic. At present, a conservative estimate is that the Arctic Ocean will be free of ice permanently during summertime at the earliest in 2030–2050. The first route

to open would be the Northeast Passage, then the sea route passing through the North Pole, and finally the Northwest Passage. In winter, the area covered by ice will be nearly as large as now, but the sea ice will be considerably thinner than at present.

At present, the Northeast Passage is open for navigation for 49 ± 18 days per year. According to all climate model simulations, the navigation season will become considerably longer during this century. It is estimated that the navigation season will lengthen on average by a little over one week in ten years. Using the Northeast Passage as a regular sea route between Europe and Asia is not likely to become a topical issue yet within the next ten years.

Future changes in snow cover reflect changes taking place in both temperature and precipitation. According to model results, the water content of snow will decrease when temperatures rise in areas where the mean temperature in November–March is already higher than –20° C, for instance in Northern Europe. In the coldest regions in Siberia and Canada, the increasing winter rains will still fall as snow, and the water content of snow will probably rise somewhat (at most by about 15% in the first half of this century).

In Finland, the snow cover will shrink and the number of days when the ground is covered by snow will decrease. In relative terms, the change will be more marked in the south than in the north. It will also be more visible in late autumn and early spring than in mid-winter. On average, the water content of snow will probably decrease by about one third, or even more, in Southern and Central Finland by 2050. The snow cover will also begin to get thinner in large areas of Northern Finland. According to calculations, in Finland around the year 2050, only two or three out of ten Februaries will be as snowy as every second February was during the reference period 1971–2000. By contrast, the share of months with very little snow (according to current criteria) on the southern coast will exceed 50%. Then, too, there will be individual winters with fairly thick or even very thick snow cover.

According to research findings, temperatures in the surface layers of permafrost in almost all northern regions have risen during the past 20 to 30 years; in some places, temperatures have risen by as much as three degrees. The surface area of ground that is frozen for part of the year in the Northern Hemisphere has decreased by 7% since the start of the 20th century; in spring, the area of frozen ground can be as much as 15% less. The melting of permafrost will accelerate the decomposition of organic matter that permafrost has kept frozen and will release great volumes of greenhouse gases into the atmosphere; this, in turn, will intensify the greenhouse effect even further.

It has been estimated that about 50% of the permafrost extending close to the earth's surface (excluding continental glaziers) will remain by mid-century, depending on the volume of greenhouse gas emissions.

In permafrost areas, towns, bridges, roads, ports, pipelines and the entire infrastructure are literally supported by permafrost. Global warming reduces the area that is kept permanently frozen and makes the unfrozen surface zone (active layer) extend deeper. The melting of permafrost will damage the foundations of many buildings, roads, oil and gas pipes, airports and industrial buildings. Transports and industry (oil and gas industry, forestry) will suffer. Previous structures will need to be replaced and new, alternative solutions sought.

One of the vegetation zones of the Arctic is the *polar desert*. Besides areas under permanent snow and ice cover, it includes areas where lichen, algae, moss and grass typically grow. Vegetation in the *tundra* zone is low and dwarfed and little photosynthesis takes place although, for example, bogs can be formed. In the south, tundra usually borders on *Boreal coniferous forests*, which is the prevalent vegetation zone in Finland. It has been estimated that the area covered by tundra in the late 20th century has diminished by about 460,000 km^2 in North America and by 250,000 km^2 in Asia during a period of 15 years. This means that, in total, an average of 130 km^2 of tundra has disappeared each day.

A longer growing season and diminished soil frost enable greater biological production than before. Vegetation zones will move towards the north wherever the soil makes this possible. In the main, the change will reduce the habitats of animal and plant species in the polar desert and tundra zones. According to some research findings, the area of the two most barren vegetation zones may shrink by even tens of per cent from the current figure. The Boreal zone of more plentiful production and more varied species will spread. On the other hand, owing to the small number of species, it is estimated that all Arctic ecosystems are more sensitive to extensive, possibly rapid changes in species. These changes may also be triggered by other factors, such as pollution (e.g. oil spills) or the mass appearance of pests (e.g. certain bark beetles).

So far, forest damage caused by insect pests and diseases has had the greatest economic impact in North America. Very large forest fires will continue to be concentrated on the inland areas of the North American and Eurasian continents. Forest growth will increase in Finland as well, but risks arise from pests and plant diseases that are difficult to anticipate.

Significant changes have also taken place in the conditions of the Arctic Ocean. Because of changes in the extent of sea ice within the past few years, the surface temperature of the sea on the Eurasian side in autumn has been several degrees warmer than average. Some clear changes have also been discovered in sea currents. It has been noted that warm and salty water masses from the North Atlantic and the Pacific Ocean have travelled further up to the north year by year. Owing to changes in sea currents, many marine species (fishes, whales) have also spread further to the north.

Appendix 5: Regional issues

According to the international law of the sea, coastal States hold sovereign rights to natural resources in the sea areas adjacent to their land area. Countries bordering the Arctic Ocean have set down requirements concerning, in particular, seabed and its natural resources. Issues relating to fishing have also been discussed.

These requirements have caused disputes among neighbouring countries in situations where no joint view has been found concerning the continuation of a mutual border in a sea area. According to the UN Convention on the Law of the Sea (UNCLOS), such disputes must primarily be solved through negotiations between the States in question and, if necessary, through binding procedures for the settlement of disputes, for instance, in the International Tribunal for the Law of the Sea or in the International Court of Justice.

The United States and *Russia* have not agreed on a border between them in the Bering Strait. The dispute concerns, in particular, fishing rights. *The United States* (Alaska) and *Canada* (Yukon) disagree on the setting of boundaries in the Beaufort Sea. It is believed that the area has considerable hydrocarbon reserves. *Canada* and *Denmark* (Greenland) have an unresolved dispute over the ownership of Hans Island and over delimitation in the strait between Greenland and Ellesmere Island. The dispute concerns fishing rights and control over the Northwest Passage; however, the strait is free of ice for only a few weeks in late summer. The parties have stated that they will refrain from provocative action for the time being.

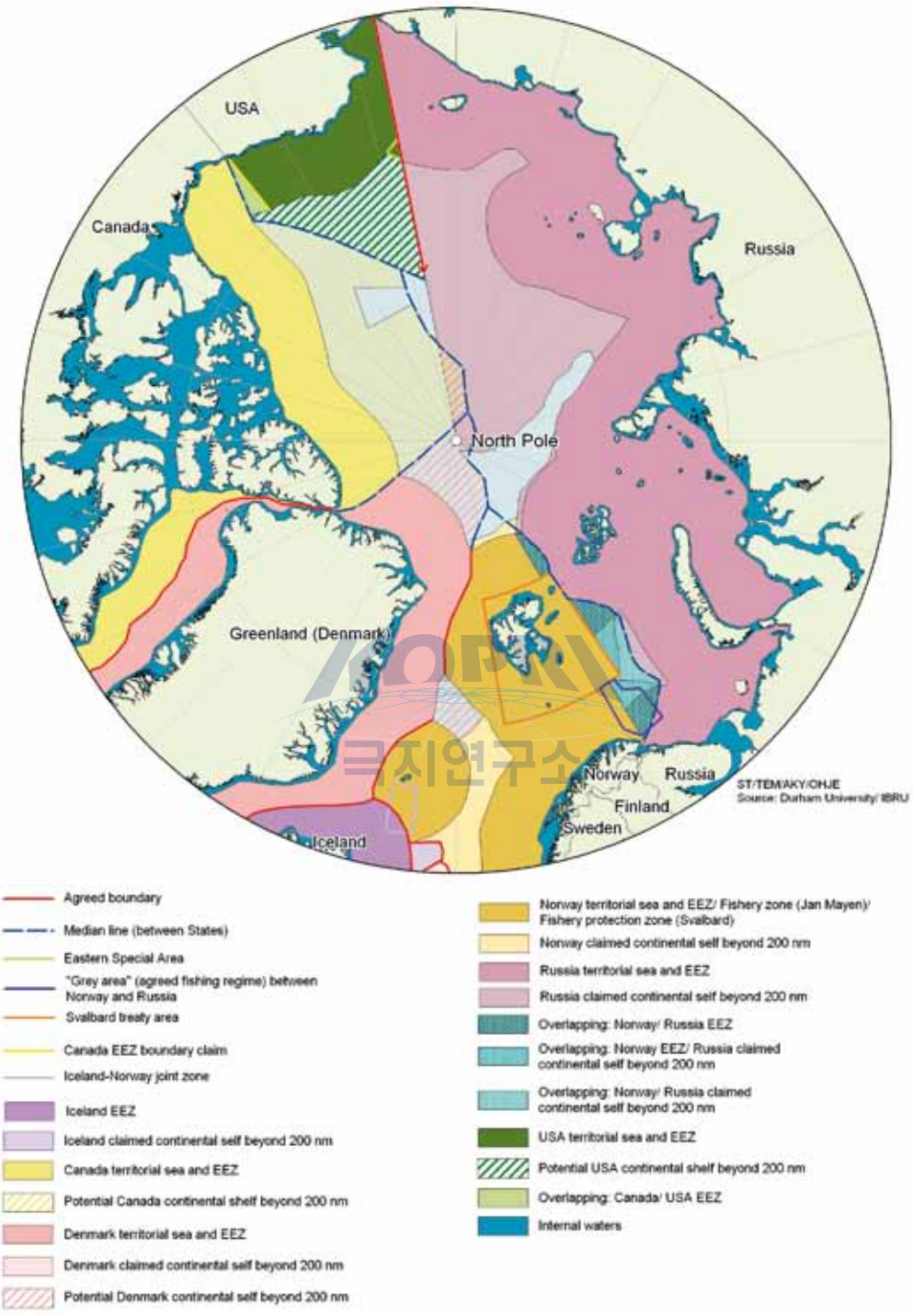
On 27 April 2010, after decades of negotiations, Norway and Russia reached agreement on their mutual border in the Barents Sea and the Arctic Ocean. In addition to the continental shelf border between the countries, the dispute has also been about the economic zone border. At the appeal of Norway, both parties have refrained from exploration of seabed in the disputed area, although there is no doubt that the area has gas and oil fields.

As allowed by the Convention on the Law of the Sea, some coastal States by the Arctic Ocean have presented claims – also in official contexts – for a continental shelf that would extend beyond the outer limit of 200 nautical miles set for economic zones (the so-called extended continental shelf). These claims, in addition to disputes between neighbouring countries, have aroused international attention. According to the international law of the sea, coastal States hold sovereign rights to natural resources in their continental shelf whereas, by virtue of the Convention on the Law of the Sea, natural resources

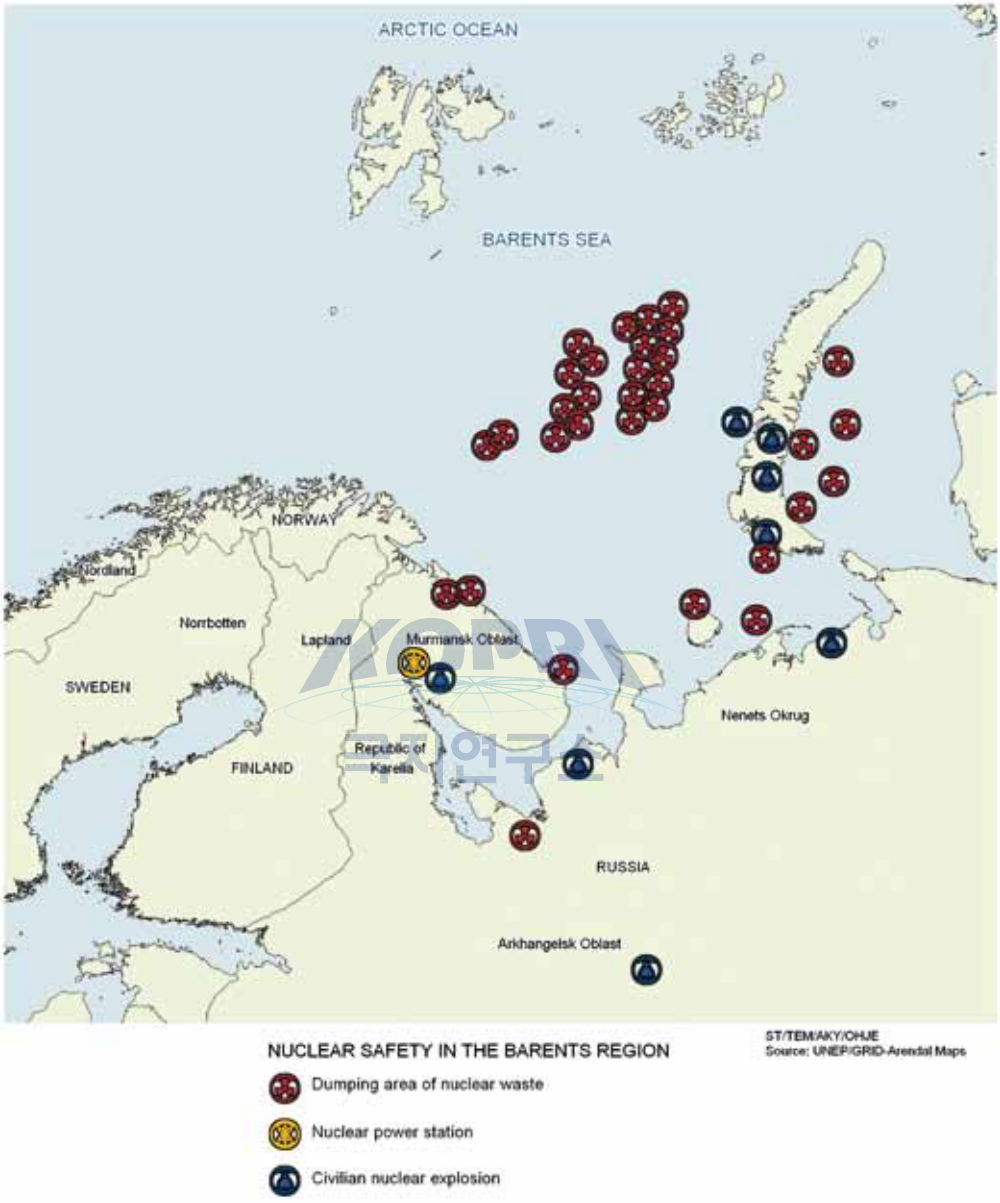
located in the seabed beyond the continental shelf, in the deep seabed, are common heritage of mankind, administered by the International Seabed Authority. Any claims for an extended continental shelf must be supported by facts pertaining to the geological conditions of the seabed. The Commission on the Limits of the Continental Shelf, established by virtue of UNCLOS, gives its recommendations on the basis of these facts. The Commission's recommendation is not binding but States cannot act in this matter totally without the Commission's contribution: the outer limits for a State's continental shelf become final and binding if they are determined in accordance with the Commission's recommendations.

Signatories to the Convention on the Law of the Sea must submit their proposals to the Commission on the Limits of the Continental Shelf within a certain time limit. *Russia* submitted its claims to the Commission on the Limits of the Continental Shelf in 2001, being the first coastal State to do so. However, the Commission considered that the material presented by Russia to support its claims was insufficient. Russia will probably submit its revised claims at the latest in 2011. With respect to northern sea areas, the Commission has so far given its final recommendation only on the outer limits of Norway's continental shelf. For Canada and Denmark, the time limits for submitting claims will expire in 2013 and 2014, respectively. For the United States, the period for submitting claims will continue for ten years once it has acceded to the Convention.

Svalbard constitutes its own separate case. The international Svalbard Treaty of 1920 guarantees the nationals of all contracting parties certain rights, e.g. as concerns the exploitation of natural resources in the area defined by the treaty. The application of the treaty to sea areas and seabed outside the territorial waters of the archipelago and islands, the status of which has changed as a result of development in the international law of the sea, is under dispute. Many countries have considered that Norway's efforts to administer the fishing waters and continental shelf around Svalbard are counter to the Svalbard Treaty. Discovery of oil and gas in the area could lead to disputes with countries who consider Svalbard to have its own continental shelf.


USA
Canada
Russia
North Pole
Greenland (Denmark)
Norway
Russia
Finland
Sweden
Iceland
ST/TEM/AKY/OHJE
Source: Durham University/ IBRU
Agreed boundary
Median line (between States)
Eastern Special Area
"Grey area" (agreed fishing regime) between Norway and Russia
Svalbard treaty area
Canada EEZ boundary claim
Iceland-Norway joint zone
Iceland EEZ
Iceland claimed continental self beyond 200 nm
Canada territorial sea and EEZ
Potential Canada continental shelf beyond 200 nm
Denmark territorial sea and EEZ
Denmark claimed continental self beyond 200 nm
Potential Denmark continental self beyond 200 nm
Norway territorial sea and EEZ/ Fishery zone (Jan Mayen)/ Fishery protection zone (Svalbard)
Norway claimed continental self beyond 200 nm
Russia territorial sea and EEZ
Russia claimed continental self beyond 200 nm
Overlapping: Norway/ Russia EEZ
Overlapping: Norway EEZ/ Russia claimed continental self beyond 200 nm
Overlapping: Norway/ Russia claimed continental self beyond 200 nm
USA territorial sea and EEZ
Potential USA continental shelf beyond 200 nm
Overlapping: Canada/ USA EEZ
Internal waters

Appendix 6: Nuclear safety in the Barents Region



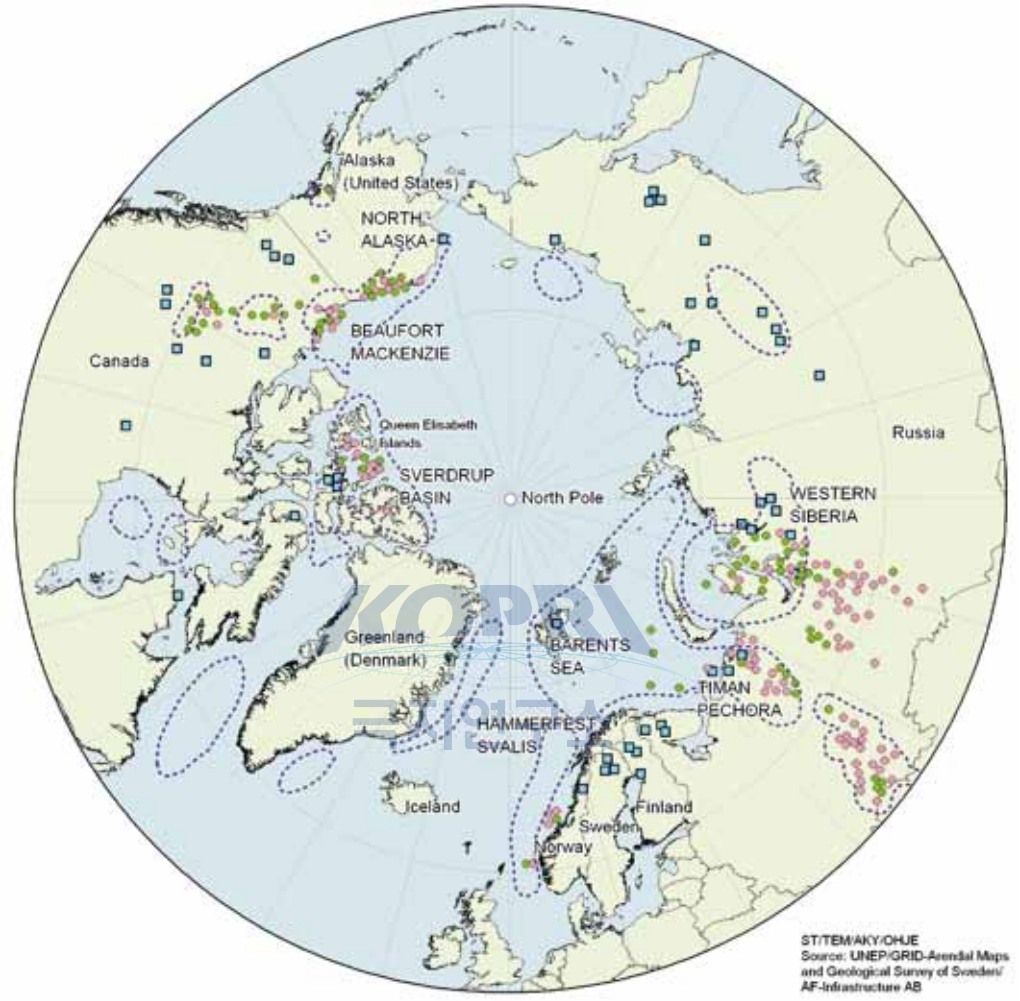
The nuclear power plant in the figure is the Kola facility that has four reactors of the same type as the Loviisa plant (VVER-440) in Finland, and the necessary storage space for spent nuclear fuel and radioactive waste.

Four of the nuclear waste disposal sites in the Kola Peninsula and Arkhangelsk region are naval bases for nuclear-powered vessels (Andreyev Bay, Severomorsk, Gremikha and Severodvinsk). They include stores for radioactive waste from nuclear submarines and other vessels: spent fuel, liquid and solid waste and scrapped nuclear reactors.

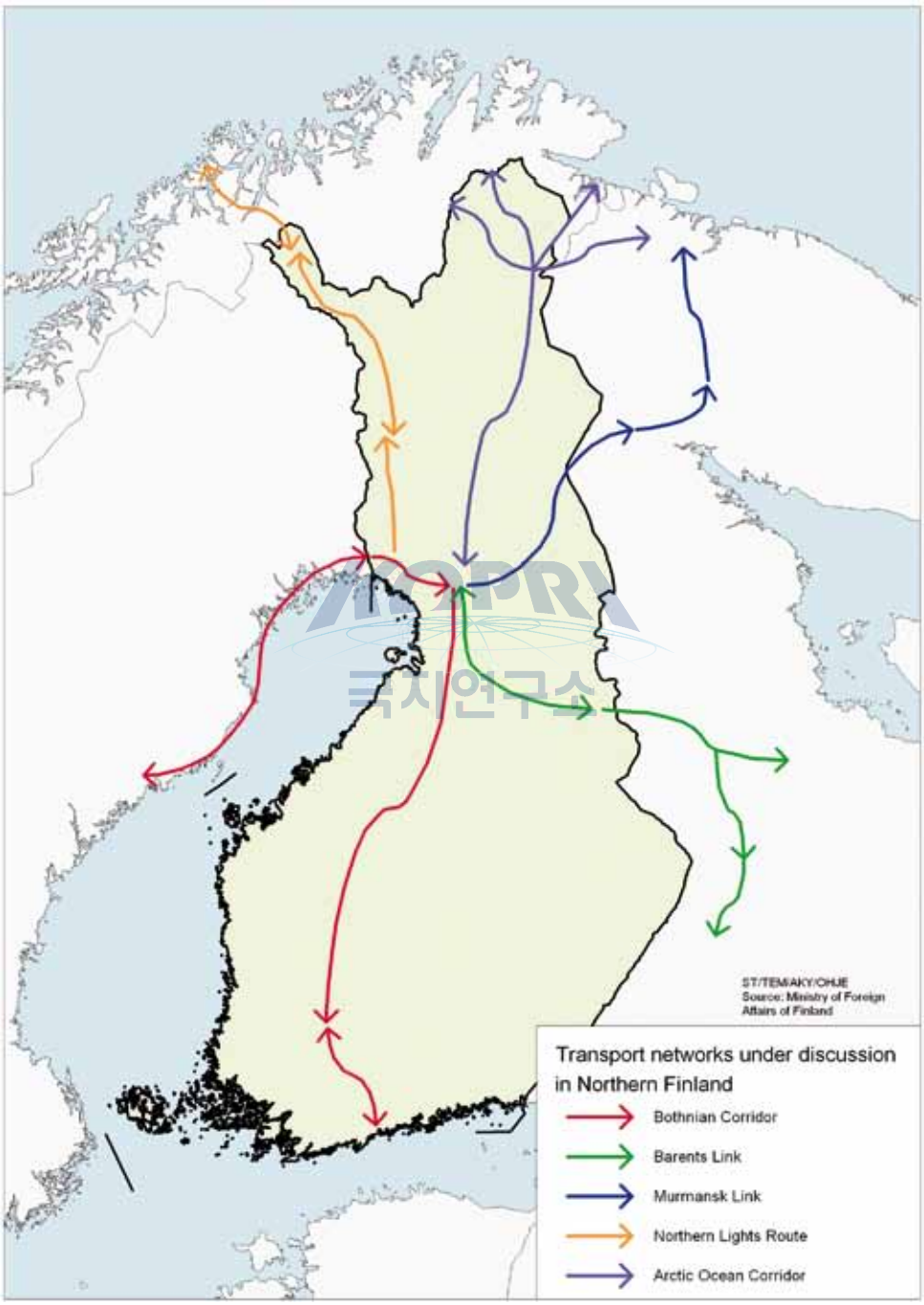
The nuclear waste disposal sites in the Barents Sea are sites where radioactive wastes have been dumped. Dumping of this type continued until the early 1990s. The disposal sites around Novaya Zemlya are sites where nuclear reactors were dumped after they had been decommissioned. Some reactors were dumped with their fuel, some without fuel. Measurements conducted in the area have not revealed any increase in the radioactivity of sea water.

The nuclear explosion sites on Novaya Zemlya mean military test explosions. After 1963, only underground nuclear tests were conducted in the area; they continued until the 1990s. The map also shows other sites for nuclear explosions. Some of them were done for a scientific or industrial purpose; for instance, nuclear explosives were used to crush ore in the vicinity of the Kola power plant.

Appendix 7: Potential and known Arctic oil and gas deposits and mines



Appendix 8: Transport networks under discussion in Northern Finland



Appendix 9: Northern sea routes

Appendix 10: Conventions on the environment

The objective of **the United Nations Framework Convention on Climate Change** is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. **The Kyoto Protocol** requires that industrialised countries reduce the emissions of six greenhouse gases by a total of 5.2% from the 1990 level by the year 2012. The principal task of **the Intergovernmental Panel on Climate Change** is to prepare scientific reports concerning climate change. For this purpose, teams of scientists collate and evaluate scientific data that have been published on climate change, its impacts and on the possibilities of mitigating changes.

Besides exploring measures to stop and restrict the use of substances that deplete the ozone layer, **the Vienna Convention for the Protection of the Ozone Layer** and **the Montreal Protocol** on substances that deplete the ozone layer discuss the protection of and research into the ozone layer while being conscious of the potential climatic effects of these substances.

The UNECE Convention on Long Range Transboundary Air Pollution with its protocols is one of the principal international conventions on the environment that protect the environment and human health against impurities transported by the atmosphere across national boundaries. **The Stockholm Convention on Persistent Organic Pollutants** eliminates or severely restricts the production, trade in, use and emissions of compounds encompassed by the Convention. **The UNECE Convention on Environmental Impact Assessment in a Transboundary Context**, also known as the Espoo Convention, defines the assessment procedure for important transboundary impacts before project decisions are made. **The Rotterdam Convention** regulates trade in hazardous chemicals.

The United National Environment Programme (UNEP) is a leading environmental actor at UN level. UNEP promotes the development of international environmental legislation and monitors the state of the global environment and starts measures for preventing environmental threats and for mitigating or eliminating adverse effects. Negotiations on a UN Convention to prohibit the use of mercury are about to start in summer 2010. Finland has shown initiative in this issue and strives, for instance, together with other Nordic countries to keep the Convention open for new substances as well.

The Convention on Biological Diversity has three main objectives: protection of the diversity of the world's ecosystems, animal and plant species and the genes contained in them; sustainable use of the components of biological diversity; and fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Under the convention, it has been discussed whether it would be necessary to establish a separate **International Biodiversity and Eco-system Panel** (IPBES) after the model of the climate panel IPCC. **The International Union for Conservation of Nature** (IUCN) is a union formed by NGOs and State members that promotes nature conservation and the ecologically sustainable use of natural resources. The IUCN has drawn up classification criteria for the world's nature conservation areas and has conducted studies on endangered species (Red Data Books) in various parts of the world.

Appendix 11: Arctic Council

Members: Denmark (Faroe Islands, Greenland), Finland, Iceland, Norway, Sweden, Canada, the United States and Russia.

Permanent Participants: Aleut International Association, Arctic Athabaskan Council, Gwich'in Council International, Inuit Circumpolar Council, The Russian Association of Indigenous Peoples of the North (RAIPON), The Saami Council.

Observers: France, Germany, Poland, Spain, The Netherlands and United Kingdom (EU, Italy, China, Japan and South Korea with ad hoc status) and 18 intergovernmental organisations or NGOs.

Chair: Denmark 2009–2011 (Finland's next chairmanship: 2017–2019)

Ministerial meetings: Every second year. Between meetings, the Council's work is coordinated by the Senior Arctic Officials (SAO)

The Arctic Council is not an international organisation based on a treaty, and the decisions made by consensus of the Council Member States are not binding by international law. The Council has no permanent secretariat or budget.

The Arctic Council's work was launched at the initiative of Finland, which had invited representatives of the Governments of eight Arctic countries to Rovaniemi in June 1991. At the initiative of Canada, this environmental cooperation, known as the Rovaniemi Process, led to the Ottawa Declaration and the establishment of the Arctic Council in 1996.

The Chairmanship of the Arctic Council rotates every second year. The basic pillars of the Council's activities – the environment and sustainable development – are emphasised in each Member State's chairmanship programme.

The Arctic Council has six expert working groups that meet regularly to collate scientific research data and to prepare recommendations that support the Council's decision-making.

The **AMAP** (Arctic Monitoring and Assessment Programme) working group assesses the state of the Arctic environment and monitors it from the perspective of interaction between the quality of the environment and human health. Among other things, the working group focuses on the assessment of the consequences of climate change and on the environmental impacts of toxic substances, heavy metals, radioactivity, and oil and gas production.

The **ACAP** (Arctic Contaminants Action Program) works to prevent and reduce pollution in the Arctic Region. Projects are based on the results and proposals

of environmental reports. The principal topics selected are persistent organic pollutants, mercury, radioactivity and depletion of the ozone layer in the upper atmosphere.

The **CAFF** (Conservation of Arctic Fauna and Flora) working group is responsible for the monitoring of biodiversity in the Arctic Region and for the assessment of the situation. The working group promotes the protection of Arctic species and habitats and strives to incorporate the conservation of Arctic nature into global nature conservation work.

The goal of the **EPPR** (Emergency Prevention, Preparedness and Response) working group is to assess the risks of environmental emergencies, to present prevention arrangements and to improve prerequisites for cooperation in connection with natural disasters. The working group has produced a manual for oil spill response, an annually updated Arctic guide, and risk management guidelines for the Arctic.

The **SDWG** (Sustainable Development Working Group) bases its project work on the principles of sustainable development and environmental protection. The working group cooperates closely with indigenous peoples in order to improve their living conditions and to eliminate adverse health effects caused by climate change.

The **PAME** (Protection of the Arctic Marine Environment) working group concentrates on the protection of the marine environment from the perspectives of both land and sea-based activities. The working group's activities are grounded in the Arctic Marine Strategic Plan and it works in close cooperation with other working groups, especially when assessing the impacts of sea transports or oil and gas production.

Appendix 12: Barents Euro-Arctic Council

Members: Finland, Norway, Sweden, Denmark, Iceland, Russia and the EU Commission

Observers: France, Germany, Italy, Japan, Poland, The Netherlands, United Kingdom, Canada and the United States

Chair: Sweden 2009–2011(Finland's next chairmanship: 2013–2015)

Ministerial meetings: Every second year. Between meetings, the Council's work is coordinated by the Committee of Senior Officials (CSO)

Members of the Barents Regional Council (BRC): From Finland: Lapland, the Oulu Region and Kainuu; from Norway: Finnmark, Troms and Nordland; from Sweden: Norrbotten and Västerbotten; from Russia: the Murmansk and Arkhangelsk Oblasts, the Republics of Karelia and Komi and the Nenets Autonomous Okrug. Finnish Northern Karelia has observer status.

Chair Region: Troms. Between meetings of the Regional Council, work is coordinated by the Regional Committee.

Secretariat: The International Barents Secretariat (IBS) was established during Finland's chairmanship in 2007. It began operations in Kirkenes, Norway at the start of the next year.

The Barents Regional Council (BRC) was established at the same time as the Barents Euro-Arctic Council (1993). Its purpose is to utilise local competence, traditions and knowledge for anchoring cooperation in the region. The Regional Council's work is coordinated by the Regional Committee.

Both the Barents Euro-Arctic Council and the Barents Regional Council have rotating chairmanship with a two-year term. Chairmanship on the BEAC rotates only among Finland, Norway, Russia and Sweden.

Practical cooperation takes place in **working groups**, of which there are 12. As well as intergovernmental working groups, joint working groups have been established for closer cooperation between the Barents Euro-Arctic Council and the Barents Regional Council. These joint working groups have both an intergovernmental chair and a regional chair.

The most active working groups in Barents cooperation are those focusing on the environment, health and social issues, culture, youth policy, transport and logistic, and economic cooperation. The newest of the working groups concentrates on the promotion of tourism in the region. Other working groups engage in energy, forestry, education and research, and customs cooperation.

Indigenous peoples in the Barents Region participate in BEAC cooperation in the Working Group of Indigenous Peoples. This working group has an independent position in relation to the two Councils. The working group has its own action plan and it selects its members so that all indigenous peoples in the Barents Region – the Sámi, the Nenets and the Vepsian peoples – are represented.

Finland, Norway, Russia and Sweden have actively developed rescue service cooperation in the provinces encompassed by Barents activities. The goal is to develop procedures for multilateral rescue cooperation. In order to take rescue services to the practical level, the countries have organised rescue exercises in Sweden, Norway, Finland and Russia with the aim of ensuring smooth collaboration among rescue units across borders.

Appendix 13: Nordic Council of Ministers

Members: Finland, Sweden, Norway, Denmark, Iceland and the autonomous territories of Greenland, Faroe Islands and Åland

Presidency: 2010 Denmark, 2011 Finland, 2012 Norway

Location of the Secretariat: Copenhagen

Structure: 10 sectoral councils of ministers and the Council of Ministers for Cooperation; the Prime Ministers meet twice a year

Cooperation concerning foreign, security and defence policy takes place outside the structures of the Council of Ministers.

The Nordic Council of Ministers was established in 1971 as an intergovernmental cooperation body to supplement the Nordic Council that had been responsible for cooperation between parliaments since 1952. The activities of the Council of Ministers and its relationship to the Nordic Council are regulated by the intergovernmental Helsinki Treaty, which was last revised in 1995. Decisions are made by consensus and they are binding on the Member States.

The Nordic Council of Ministers is also an observer in the Arctic Council and finances projects undertaken by the Arctic Council when these correspond to the targets and goals set in the Arctic Cooperation Programme of the Nordic Council of Ministers. The Barents Euro-Arctic Council and, in particular, the Arctic Council receive considerable financing from the Nordic Council of Ministers, which allocates about EUR 1.2 million annually for Arctic projects.

The priorities of the current Arctic Cooperation Programme of the Nordic Council of Ministers, covering the years 2009–2011, are closely linked to sustainable development in the Arctic. The leading political idea in the Arctic cooperation pursued by the Council of Ministers is to influence the development of the quality of life among inhabitants in the region and to keep the Arctic inhabited. This is reflected in the priorities of activities, such as concentration on the impacts that climate change and other environmental hazards have on the living conditions in the region. Sustainable use of natural resources and preservation of biodiversity in the region constitute one important goal. Programmes are also undertaken to support the population's social and cultural development, e.g. by contributing to the University of the Arctic, and to protect the sensitive and unique Arctic nature.

Appendix 14: Northern Dimension

The Northern Dimension policy was revised during Finland's EU Presidency in 2006. The new Northern Dimension is a common policy shared by four equal partners, the EU, Russia, Norway and Iceland. Canada and the United States participate in this cooperation as observers; Belarus submitted an application for observer status in November 2009.

Finland sees the Northern Dimension as a useful umbrella policy that provides jointly approved principles for regional activities in Northern Europe, as well as links with the objectives of the EU–Russia cooperation. The regional councils of the North, i.e. the Arctic Council, the Barents Euro-Arctic Council, the Council of the Baltic Sea States, and the Nordic Council of Ministers, are participants in the Northern Dimension. They all have expertise in their own regional circumstances and needs, which they bring to the joint activities.

Practical cooperation within the Northern Dimension is carried out through partnerships. The partnerships differ in nature and modes of operation, but they all strive to combine policy-making, the work of experts and practical-level project activities. The partnerships offer cooperation networks and a broad resource base for work at expert level. The engagement of international financial institutions guarantees that even large infrastructure projects can be implemented in cooperation. Large projects have been carried out, in particular, within the Environmental Partnership.

The goal of the Northern Dimension Environmental Partnership (NDEP), launched in 2001, is to strengthen and coordinate financing for important cross-border environmental projects in the Northern Dimension area. The central idea of the partnership is to combine the resources of the EU, its Member States, other countries and international financial institutions (EBRD, EIB, NIB, NEFCO) for jointly agreed projects.

To support project implementation within the Northern Dimension Environmental Partnership, a special fund was established at the European Bank for Reconstruction and Development in 2002. The NDEP Support Fund finances environmental and energy efficiency projects in Northwest Russia and Kaliningrad as well as nuclear safety projects especially in the Kola Peninsula. Agreement on the expansion of environmental cooperation to Belarus was reached in November 2009. A total of 287.6 million euros has been allocated to the NDEP Support Fund; of this sum, 127.6 million euros is available for environmental projects and 160 million euros for nuclear safety projects. Finland has allocated 18 million euros to the NDEP Support Fund; 16 million euros of

this amount is reserved for environmental projects and 2 million euros for nuclear safety projects. In addition, Finland has supported the implementation of NDEP projects through bilateral financing.

The Northern Dimension Partnership in Public Health and Social Well-being (NDPHS) was established in 2003 at the initiative of Norway and Finland to reduce the spread of communicable diseases, prevent lifestyle-related diseases and enhance the well-being and quality of life of the region's inhabitants. The partnership serves to strengthen coordination in the social welfare and public health sector, to reinforce the exchange of information (e.g. on best practices) and to promote project activities. The core of the NDPHS is made up of Expert Groups on HIV/AIDS, healthy lifestyles, primary health care, indigenous peoples, and prison health. The partnership has no project fund; instead, interested countries and other interested bodies finance projects on a case by case basis. Finland supports both NDPHS project activities and the work of Expert Groups from appropriations for neighbouring area cooperation.

The agreement to establish the Northern Dimension Partnership on Transport and Logistics was signed in October 2009, and activities are expected to start during 2010. The goals of the partnership are to accelerate transport and logistics infrastructure projects in the North and to serve as a discussion platform for issues pertaining to transport in the Baltic Sea Region and in Northern Europe. The Partnership Secretariat will be set up within the Nordic Investment Bank (NIB) in Helsinki. It is hoped that the partnership will speed up the implementation of major projects. With regard to expert work, the intention is for the partnership to serve as a regional forum for transport and logistics issues, and to complement the work of cooperation structures already in existence. A project fund is not envisaged for the partnership; instead, plans are for financing to come from national budgets, the EU and financial institutions. Finland is prepared to support the establishment of the Secretariat for the partnership.

The agreement to establish the Northern Dimension Partnership on Culture was signed in St. Petersburg on 20 May 2010. The partnership strives to improve networking among actors in the sector, to provide information on sources of financing, and to make it easier for cultural products to reach the market. The Nordic Council of Ministers has given strong support for the establishment of the partnership and serves as the Secretariat for the partnership during its first year. Finland has allocated funds for a Finnish–Russian cooperation project in creative industries; its goal is to prepare projects within the partnership on culture.

Besides intergovernmental cooperation, the Northern Dimension also encompasses cooperation among various stakeholders, such as universities, research institutes and business. The Northern Dimension Institute, established in November 2009, is a university network that produces and coordinates research in issues pertaining to the priority sectors of the Northern Dimension (energy and the environment, transport and logistics, social well-being and health care, and culture and education). Preparations have been led by the Lappeenranta University of Technology and the St. Petersburg State University. Fifteen universities and research institutes from the Nordic countries, the Baltic States, Russia and Belarus have registered for the cooperation. Finland has supported the preparation of the concept for the institute and the development and coordination of its operations from its neighbouring area funds.

The Northern Dimension Business Council was founded at the initiative of the corporate world. The Council strives to increase networking both among enterprises and between enterprises and municipal and regional authorities, thereby advancing business opportunities especially with Northwest Russia.

Northern Dimension cooperation is based on the principle of co-financing. Funding is provided by several different sources: national budgets, EU instruments, loans from international financial institutions, and the private sector. The State of Finland provides funds for Northern Dimension projects from appropriations for neighbouring area cooperation. The European Commission is currently preparing financing for the Northern Dimension.

Appendix 15: The European Union's cross-border and regional cooperation programmes

Two of the European Union's territorial cooperation programmes are implemented in the Arctic: the transnational Northern Periphery Programme and the INTERREG IV A North programme between the northern areas of Finland, Sweden and Norway. A characteristic feature of both programmes is that they also have participants outside the EU, which is exceptional. Besides the northern areas of Finland, Sweden and Scotland, Northern Ireland and the western areas of Ireland, the Northern Periphery Programme encompasses the non-EU Member States of Norway (northern areas and Iceland and the Faroe Islands and Greenland.

The INTERREG IV B Northern Periphery Programme aims to help peripheral and remote communities on the northern margins of Europe to develop their economic, social and environmental potential. This will be achieved through transnational collaboration in the fields of innovation, business competitiveness, accessibility, the sustainable development of community and natural resources and cultural heritage. A special objective is to develop and identify solutions that can be applied in various parts of the programme area to improve communities' potential to survive and develop in these climatically challenging and sparsely populated areas. Among transnational programmes, the Northern Periphery Programme is best suited for promoting the objectives of the Commission's Arctic Communication; this should be noted when preparing for the next programme period starting in 2014.

The overall objective of **the INTERREG IV A North programme** is to strengthen the competitiveness and cohesion of the programme area (the areas of the Barents Region belonging to Finland, Sweden and Norway). The programme priorities are: development of the economy; research, development and education; and regional functionality and identity. The programme has close links with Barents cooperation in various sectors and it promotes networking among Finnish, Swedish and Norwegian actors when participating in this cooperation. The programme also has a Sápmi sub-programme, which covers all Sámi-populated regions of Finland, Sweden and Norway, also those outside the actual programme area. The overall objective of the Sápmi sub-programme is to develop Sámi culture and industry by using all resources of Sámi society. The point of departure is ecological and long-term utilisation of resources.

The area of **the Baltic Sea Region INTERREG IV B Programme** also covers the Northern Russian areas of Murmansk, Arkhangelsk and Nenetsia.

When the programme was being drawn up, it was thought that the programme area would be divided between the Baltic Sea Region and the Barents Region; this had an impact on the formulation of the programme priorities. As the Russian Federation has in practice remained outside the programme during this period, the programme's Arctic dimension has been weak.

Implementation of **the EU external cooperation programmes (ENPI CBC)** began in 2010. These programmes offer a new, increasingly effective tool for promoting cross-border cooperation in the Barents Region as well. The participating States and the EU use these programmes to finance regional cooperation projects on both sides of the EU's external borders. The ENPI CBC and the neighbourhood programmes preceding it are the first programmes to combine the Union's external and internal funding. Important for the Barents Region are the Kolarctic programme established by four countries (Norway, Sweden, Finland, Russia) (EUR 70.6 million) and the Karelia programme between Finland and Russia (EUR 46.4 million). During this programme period, Russia, for the first time, has allocated considerable public funds for cross-border cooperation (in total EUR 105 million for five programmes).

Northern Periphery Programme
Programme area 2007-2013

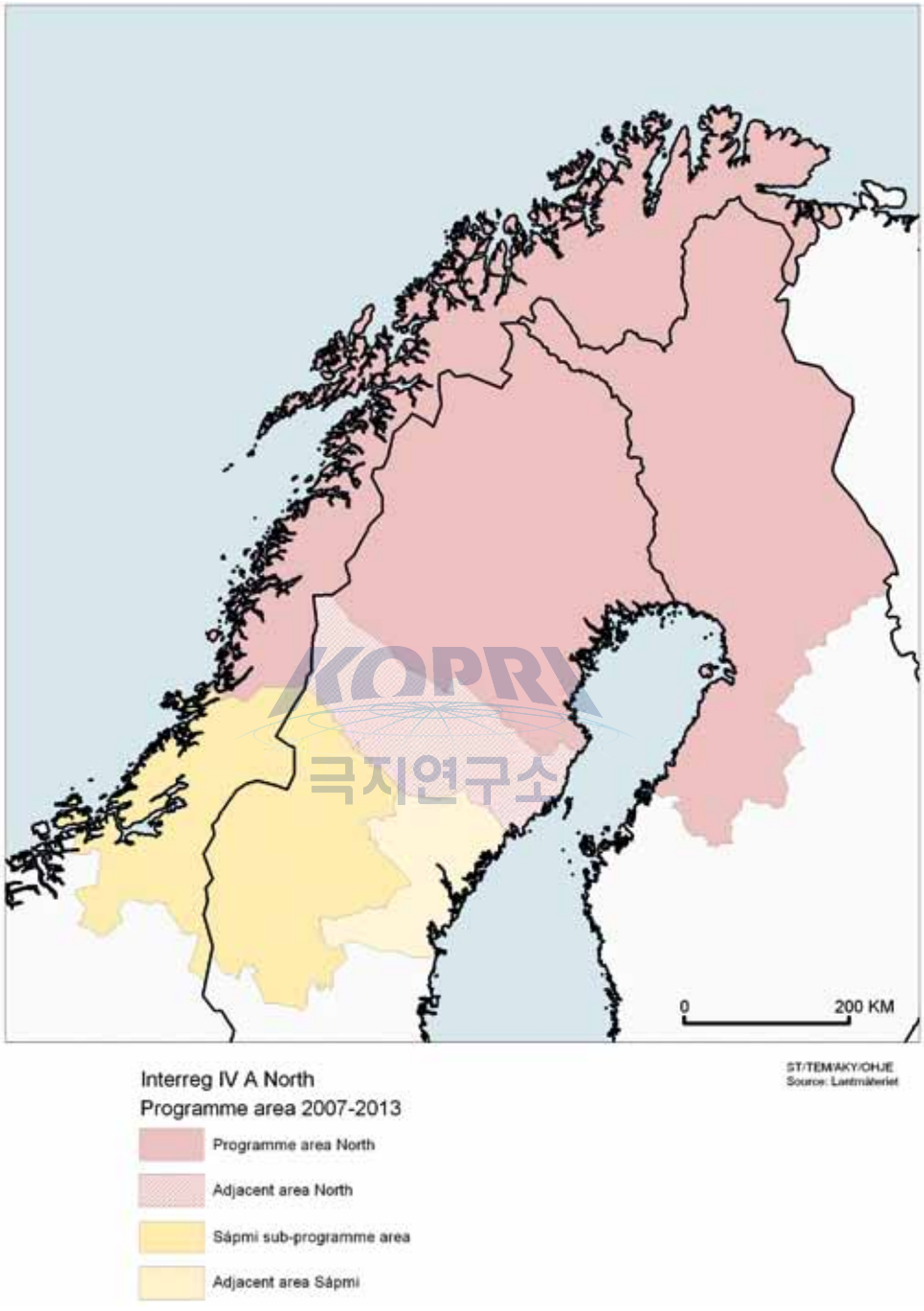
Northern Periphery area

NUTS 3 regions belonging entirely or partially to the Northern Periphery Programme

in EU Member States

Outside the EU

ST/TEM/AKY/OHJE
Source: Nordregio

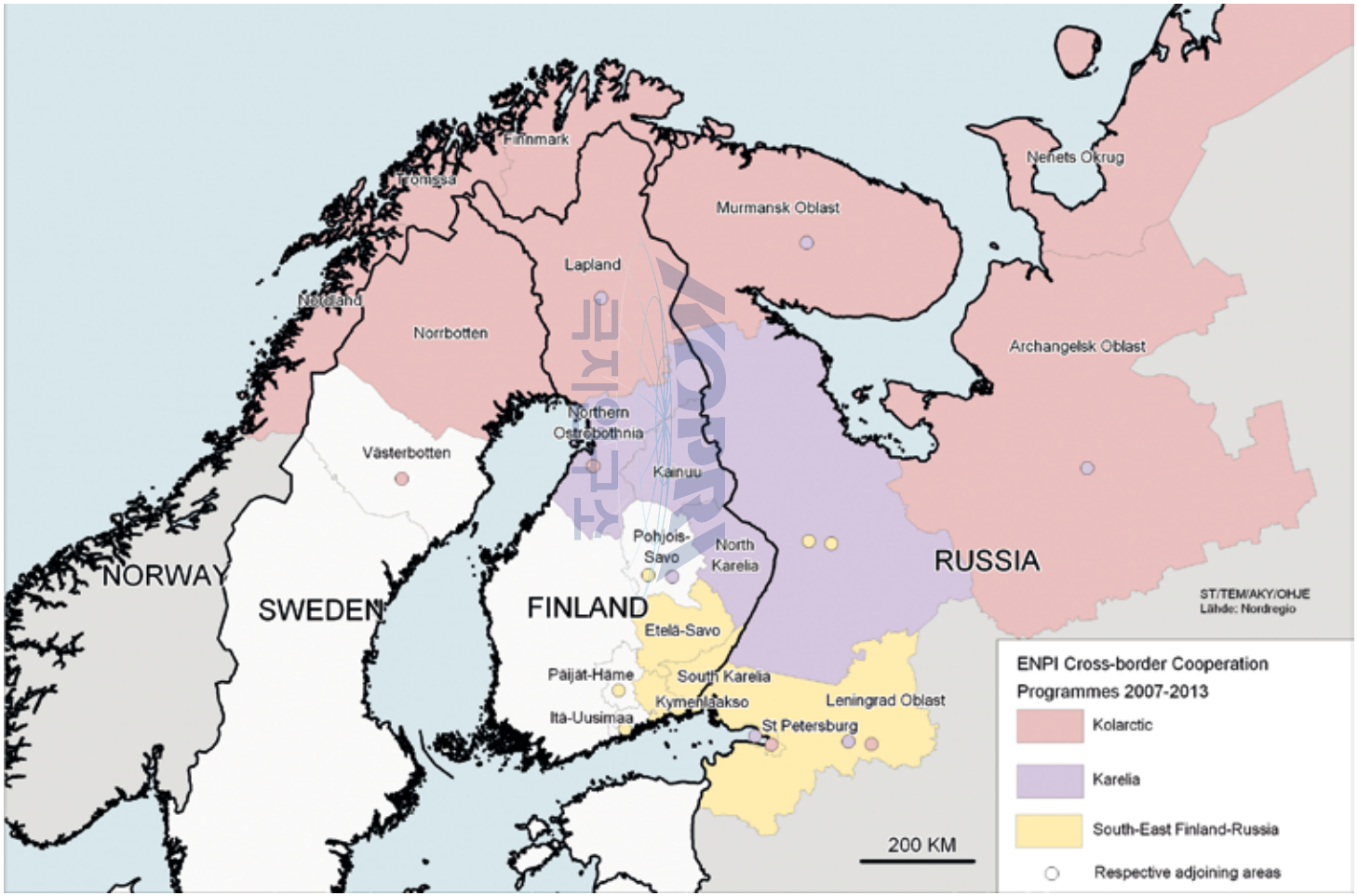

0
200 KM
Interreg IV A North
Programme area 2007-2013
Programme area North
Adjacent area North
Sápmi sub-programme area
Adjacent area Sápmi
ST/TEMAKY/OHJE
Source: Lantmäteriet

Baltic Sea Region
Programme area 2007-2013

EU regions/ member states

Non-EU member states

ST/TEM/AKY/OHJE
Source: BBR Bonn


Finnmark
Troms
Murmansk Oblast
Nenets Okrug
Lapland
Nordland
Norrbotten
Archangelsk Oblast
Northern
Ostrobothnia
Västerbotten
Kainuu
Pohjois-
Savo
North
Karelia
NORWAY
SWEDEN
FINLAND
RUSSIA
Etelä-Savo
Päijät-Häme
South Karelia
Kymenlaakso
Leningrad Oblast
Itä-Uusimaa
St Petersburg
200 KM
ST/TEM/AKY/OHJE
Lähde: Nordregio
ENPI Cross-border Cooperation
Programmes 2007-2013
Kolarctic
Karelia
South-East Finland-Russia
Respective adjoining areas

Appendix 16: Acronyms

AC	Arctic Council
ACAP	Arctic Contaminants Action Programme
ACIA	Arctic Climate Impact Assessment; a report published in 2004 by the Arctic Council on regional impacts of climate change.
AMAP	Arctic Monitoring and Assessment Programme
AMSA	Arctic Marine Shipping Assessment; a report published in 2009 by the Arctic Council on maritime traffic in the Arctic, its impact on the environment and environmental safety issues.
A8+	Eight Member States of the Arctic Council and six organisations of indigenous peoples
BCBU	Barents Cross Border University
BEAC	Barents Euro-Arctic Council
BRC	Barents Regional Council
CAFF	Conservation of Arctic Flora and Fauna
CBD	Convention on Biological Diversity
EBRD	European Bank for Reconstruction and Development
EEA	European Economic Area
EEZ	Exclusive economic zone
EIB	European Investment Bank
ENPI CBC	European Neighbourhood and Partnership Instrument, Cross Border Cooperation
EPPR	Emergency Prevention, Preparedness and Response; a programme of the Arctic Council
EU	European Union

G8	Group of Eight Japan, Canada, Italy, France, Germany, Russia, the United Kingdom, the United States
HELCOM	Helsinki Commission, Baltic Marine Environment Protection Commission
IASC	International Arctic Science Committee
ILO	International Labour Organization
IMO	International Maritime Organisation
INTERREG	Community initiative concerning interregio- nal cooperation in the European Union
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
NAFO	Northwest Atlantic Fisheries Organisation
NASCO	North Atlantic Salmon Conservation Organisation
NATO	North Atlantic Treaty Organisation
ND	Northern Dimension
NDEP	Northern Dimension Environmental Partnership
NDPHS	Northern Dimension Partnership in Public Health and Social Well-being
NDPTL	Northern Dimension Partnership on Transport and Logistics
NDPC	Northern Dimension Partnership on Culture
NEAFC	North East Atlantic Fisheries Commission
NEFCO	Nordic Environment Finance Corporation
NIB	Nordic Investment Bank

NSPA	Northern Sparsely Populated Areas
PAME	Protection of the Arctic Marine Environment
PCW	Polar Communications and Weather; a Canadian satellite project
PFII	United Nations Permanent Forum on Indigenous Peoples
POP	Persistent Organic Pollutants
SDWG	Sustainable Development Working Group
SFIC	Strategic Forum for International S&T Cooperation
TEN-T	Trans-European Transport Network
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNECE	United Nations Economic Commission for Europe; Convention on Long-Range LRTAP Transboundary Air Pollution
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organisation